

International Journal of Innovative Technology and Exploring Engineering

ISSN : 2278 - 3075

Website: www.ijitee.org

Volume-8 Issue-7, MAY 2019

Published by:

Blue Eyes Intelligence Engineering and Sciences Publication



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S. No	Authors:	Study on Mechanical Properties of Geopolymer Concrete	
	Paper Title:	R. Saravanan, M. Pavan Kumar, S. Elavenil	
	Abstract:	Geopolymer Concrete (GPC) is the most promising and novel concreting technology which primarily focuses on the eco-friendly aspects. In this work, the mechanical properties of fly-ash based GPC which includes compressive strength, split tensile strength and non-destructive testing methods like UPV and rebound hammer tests results will be examined and analyzed based on the different mix parameters for 8 mixes. The main varying parameters of the mix are alkaline solution ratio and concentration and binder proportions. Based on the optimum mix from 8 normal GPC mixes, one mix will be studied under the granite powder replacement. The granite powder is utilized for the partial replacement of binder for the 5%, 10%, 15%, and 20% of the binder volume. The concrete cube specimens are casted according to Indian standards and the 7th and 28th days strength are used for the analysis.	
	Keywords:	Compressive strength, Geopolymer concrete, Granite powder.	
	References:	<p>1. K. Nagaraj V. and D. L. V. Babu, "Assessing the performance of molarity and alkaline activator ratio on engineering properties of self-compacting alkaline activated concrete at ambient temperature," Journal of Building Engineering, vol. 20, pp. 137-155, 11 2018.</p> <p>2. E. Mohseni, "Assessment of Na₂SiO₃ to NaOH ratio impact on the performance of polypropylene fiber-reinforced geopolymer composites," Construction and Building Materials, vol. 186, pp. 904-911, 10 2018.</p> <p>3. G. F. Huseien, J. Mirza, M. Ismail and M. W. Hussin, "Influence of different curing temperatures and alkali activators on properties of GBFS geopolymer mortars containing fly ash and palm-oil fuel ash," Construction and Building Materials, vol. 125, pp. 1229-1240, 10 2016.</p> <p>4. U. Rattanasak and P. Chindaprasirt, "Influence of NaOH solution on the synthesis of fly ash geopolymer," Minerals Engineering, vol. 22, pp. 1073-1078, 10 2009.</p> <p>5. K. Somna, C. Jaturapitakkul, P. Kajitvichyanukul and P. Chindaprasirt, "NaOH-activated ground fly ash geopolymer cured at ambient temperature," Fuel, vol. 90, pp. 2118-2124, 6 2011.</p> <p>6. P. Nath and P. K. Sarker, "Effect of GGBFS on setting, workability and early strength properties of fly ash geopolymer concrete cured in ambient condition," Construction and Building Materials, vol. 66, pp. 163-171, 9 2014.</p> <p>7. S. Kumar, R. Kumar and S. P. Mehrotra, "Influence of granulated blast furnace slag on the reaction, structure and properties of fly ash based geopolymer," Journal of Materials Science, vol. 45, pp. 607-615, 2 2010.</p> <p>8. P. S. Deb, P. Nath and P. K. Sarker, "The effects of ground granulated blast-furnace slag blending with fly ash and activator content on the workability and strength properties of geopolymer concrete cured at ambient temperature," Materials & Design (1980-2015), vol. 62, pp. 32-39, 10 2014.</p> <p>9. A. Rajarajeswari and G. Dhinakaran, "Compressive strength of GGBFS based GPC under thermal curing," Construction and Building Materials, vol. 126, pp. 552-559, 11 2016.</p> <p>10. J. B. Bansal, R. Sankhla and A. Sharma, "Analysis of mechanical and durability characteristics of concrete using granite slurry waste and metakaolin as a partial replacement of cement," International Journal of Advance Engineering and Research Development, vol. 4, pp. 1116-1122, 11 2017.</p> <p>11. E. Allam M., S. Bakhoum E., H. Ezz and L. Garas G., "Influence of using granite waste on the mechanical properties of green concrete," ARPN Journal of Engineering and Applied Sciences, vol. 11, pp. 2805-2811, 3 2016.</p> <p>12. N. A. Farhan, M. N. Sheikh and M. N. S. Hadi, "Investigation of engineering properties of normal and high strength fly ash based geopolymer and alkali-activated slag concrete compared to ordinary Portland cement concrete," Construction and Building Materials, vol. 196, pp. 26-42, 1 2019.</p> <p>13. J. Temuujin, R. P. Williams and A. Riessen, "Effect of mechanical activation of fly ash on the properties of geopolymer cured at ambient temperature," Journal of Materials Processing Technology, vol. 209, pp. 5276-5280, 7 2009.</p> <p>14. R. Ghosh, S. P. Sagar, A. Kumar, S. K. Gupta and S. Kumar, "Estimation of geopolymer concrete strength from ultrasonic pulse velocity (UPV) using high power pulser," Journal of Building Engineering, vol. 16, pp. 39-44, 3 2018.</p> <p>15. P. Archana and V. Malagavelli, "Destructive and non-destructive evaluation of geopolymer concrete," International Journal of Civil Engineering & Technology, vol. 9, pp. 271-279, 9 2018.</p> <p>16. R. Saravanan, S. Yuvaraj, S. Nagajothi and S. Elavenil, "Parametric investigation on properties of geopolymer concrete using taguchi's statistical approach," Journal of Advanced Research in Dynamical and Control Systems, vol. 08, pp. 601-606, 5 2018.</p> <p>17. P. R. Vora and U. V. Dave, "Parametric Studies on Compressive Strength of Geopolymer Concrete," Procedia Engineering, vol. 51, pp. 210-219, 2013.</p> <p>18. M. Soutsos, A. P. Boyle, R. Vinai, A. Hadjierakleous and S. J. Barnett, "Factors influencing the compressive strength of fly ash based geopolymers," Construction and Building Materials, vol. 110, pp. 355-368, 5 2016.</p>	1-6
	Authors:	M.Muthuvel, G.Udhayakumar	
	Paper Title:	Optimal Location of Doubly-Fed Induction Generator and Unified Power Flow Controller with Pso Algorithm	
	Abstract:	Power system operation can sometime operate under heavily loaded conditions which may lead to real power and reactive power loss, voltage deviation or even system collapse. This can occur mainly due to booming demand of electricity. This paper proposed a new methodology of integrating both Double Fed Induction Generator (DFIG) and Unified Power Flow Controller (UPFC) in a modified 30 bus system to overcome those problems. Particle Swarm Optimization technique (PSO) is used to find out the optimal location of DFIG and UPFC thereby reducing these losses and stabilizing the voltage levels (0.9 per unit-1.1 per unit). PSAT tool box is used in MATLAB platform to perform the power flow analysis. Final results show that the	

	<p>optimal location is achieved with sufficient reduction in power loss, better control over voltage profile and with better convergence from PSO algorithm.</p> <p>Keywords: Particle Swarm Optimisation, Unified Power Flow Controller, Doubly Fed Induction Generator, Real Power loss, Reactive Power loss.</p>	
2.	<p>References:</p> <ol style="list-style-type: none"> Pepermans G, Deereisen J, Belmans R.D'haeseleer Wind Energy Distribution generation: Energy Policy: 33,pp:787–798. Mokhtari M, Khazaie J (2013) “Interaction analysis of multifunction FACTS and DFACTS controllers” Turk Journal of Electrical Engineering Computer Science Vol.21,pp:1685–702. Study of system operating impacts of FACTS technologies (1993) GE, ECC Inc., Carson Taylor Seminars, Final Report on EPRI RP 3022-25. Labiba ADJOUDJ, Fatiha LAKDJJA and Fatima Zohra GHERBI (2015)“Impact of wind turbine based on double feed induction generator and FACTS devices on power systems” Leonardo Journal of Sciences Issue 26, pp:97-112. Alabduljabbar A, Milanovic J (2006) “Genetic algorithm based optimization for allocation of static VAr compensators” Proceeding of the 8th IEE international conference on AC and DC power transmission, pp:115–20. Venkatesh , Gnanadas , Padhy (2003) “Comparison and application of evolutionary programming techniques to combined economic emission dispatch with line flow constrained” IEEE Trans Power System,Vol.18,pp: 688–97. Fogel DB. Evolutionary computation: toward a new philosophy of machine intelligence. Piscataway, NJ: IEEE Press; 1995. ISBN: 0471669512. D.E. Goldberg, Genetic Algorithms in Search, Optimization, and Machine Learning, Addison-Wesley, 1989. Sidhartha Panda , Narayana Prasad Padhy (2008) “Comparison of particle swarm optimization and genetic algorithm for FACTS-based controller design”. Elsevier, Applied Soft Computing,Vol.8,pp: 1418–1427. 	7-11
	<p>Authors: Deepamala.N, Tushar Kanakagiri, Shreyas Raghunath, Sugosh Kaushik, Dr.Shobha G, Ankit Singh, Deepak jha</p> <p>Paper Title: Automated Test Script Generation from Natural Language Query</p>	
3.	<p>Abstract: Development and Testing is a very important part of any product development cycle. There exist numerous modules that need to be tested in a product or software after each build. Addition, modification or deletion of new procedures requires thorough testing of the complete product. Test scripts are generated for the ease of testing. It is observed that most of the procedures in test scripts are repeated. Converting natural language query into test scripts reduces the effort of the test engineer by finding relevant procedures in already existing database. The proposed system accepts a natural language query and converts the query into an executable test code using various NLP techniques. This paper explain two methods that are used to generate test script from Natural language query.</p> <p>Keywords: Natural Language query; Test Script generation; Intent Recognition.</p> <p>References:</p> <ol style="list-style-type: none"> Mark Nederhof, Giorgio Satta. “Probabilistic Parsing”, International Journal on Advanced Research in Computer Science and Software Engineering, Volume 3, Issue 8, August 2012, pp 45-49. Barr Hirrel. “Probabilistic Parsing with Random Variables and Probability Spaces”, International Journal of Computer Sciences and Statistics, Vol 11, Issue 2, March 2014, pp 16-20. William Chen, Sebastian Chu. “Dependency Parser using Neural Networks”, Journal of Machine Learning Research, Vol 25, January 2015, pp 7-13. McCulloch, Rosenblatt. “Deep Learning Techniques for Syntactic Parsing”, International Conference on Machine Learning, Vol 13. Issue 3. April 2013, pp 25-31. Alexander Grothendieck. “Attention for Neural Parsing”, Neural Computation Society, Vol 8, Issue 2, July 2009, pp 53–60. Christopher Manning. “A Maximum Entropy Model for Part of Speech Tagging”, Journal of the ACM, Vol 16, Issue 4, December 2011, pp 267-283. Hugo Larochelle, Pedro Domingos. “Part of Speech Tagging using Lexicons and Feed Forward Neural Networks”, Engineering Applications of Artificial Intelligence, Vol 32, Issue 3, August 2012, pp 541-553. Yoshua Bengio, Michael Forcada, “Improving Part of Speech Tagging using Recurrent Neural Networks”, Neural Information Proceeding Systems, Vol 14, December- 2016, pp 78-97. Oshita, M. (2010). Generating animation from natural language texts and semantic analysis for motion search and scheduling. The Visual Computer, 26(5),pp 339-352. Harding, James A., and Jonathan I. McCormack. "Method and apparatus for the modeling and query of database structures using natural language-like constructs." U.S. Patent No. 5, 27 Feb. 1996, pp 495-604. Zhang, Fan, et al. "Real-time implementation of an intent recognition system for artificial legs." Engineering in Medicine and Biology Society, EMBC, 2011 Annual International Conference of the IEEE. IEEE, 2011. Nehaniv, Chrystopher L., et al. "A methodological approach relating the classification of gesture to identification of human intent in the context of human-robot interaction." Robot and Human Interactive Communication, 2005. ROMAN 2005. IEEE International Workshop on. IEEE, 2005. Patil, Amit, K. Marimuthu, and R. Niranchana. "Comparative study of cloud platforms to develop a Chatbot." International Journal of Engineering & Technology, 6,3, 2017, pp 57-61. Croft, D. K. E. A. "Estimating intent for human-robot interaction." IEEE International Conference on Advanced Robotics. 2003. Jason Williams, Eslam Kamal. “Fast and easy language understanding for dialog systems with Microsoft Language Understanding Intelligent Service (LUIS)”, Microsoft Research, February 2016, pp 70-98. 	12-16
	<p>Authors: Venkata Ramana N, Ravi Kumar T, Harikalakshmi Sikhakolli, Shaik Aslam</p> <p>Paper Title: A Smart Way Of Reduce Power Usage Using Iot Gadget</p>	
	<p>Abstract: The Internet of Things is interconnection of vivid systems of different domains which describes the network of home appliances, vehicles, physical devices and all electronic items like sensors, actuators which enables these things to connect, exchange data and communicate through internet. It results in efficiency</p>	

improvements, reduced human exertions and economic benefits. This paper represents an analysis on smart iot gadget which is built on renowned IOT frameworks. The moto is to save energy using automation which is one of the best solutions proposed for saving the electric current. For smart cities manual operations for street light system is very difficult to operate as there might be human negligence and cost of maintenance is very high. In this project, a sensor is being used to measure intensity of light based on which the light will be turning. If intensity is high, then street-light will be in off mode and if low then it'll be in on mode. There are huge advantages associated through the implementation like optimal power consumption, limiting flow of green-house gases, cost reduction

Keywords: AT89S52Microcontroller, GSM module, capacitor, Relays.

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Authors: Unife O. Cagas, Allemar Jhone P. Delima, Teresita L. Toledo

Paper Title: PreFIC: Predictability of Faculty Instructional Performance through Hybrid Prediction Model

Abstract: The Higher Education Institutions have amplified the practice of incorporating datamining in extracting information from the data in relation to educational context. As one of the regarded quest of HEIs, predicting faculty instructional performance has made easy; and the accuracy of the result has become more reliable through the application of data mining algorithms and techniques. This study proposed a hybrid model in predicting the instructional performance of faculty in the four State Universities and Colleges (SUC) in Caraga Region, Philippines by integrating k-means segmentation on the C4.5 algorithm prior to prediction. A total of 597 records of student-respondents was used for simulation using the 10-folds cross validation scheme. Simulation result showed that with integration of k-means algorithm, the identified prediction accuracy of 86.09% using C4.5 algorithm alone has increased to 87.93%. Future researchers may utilize other hybrid algorithms in the quest on improving the literature of educational data mining.

Keywords: accuracy enhancement, hybrid model, instructional performance, prediction.

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Authors:	Urvi R Bhagat, Nikhil S Gujar, Sunil M Patel
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Paper Title:	Iot Based Wi-Fi Enabled Streetlight Using Esp32
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Abstract: Established street lighting systems have certain drawbacks as they are operated manually. If this system is not monitored properly, this may lead to more energy consumption. This system requires proper monitoring and energy management techniques to reduce energy wastage. To diminish this energy wastage, we propose a system which operates automatically and also can be remotely supervised and controlled with virtual switches using GUI. This Wi-Fi enabled system uses ESP32 as both a controller and Wi-Fi module. Here we use low bandwidth, a lightweight protocol like MQ Telemetry Transport protocol for IOT implementation. To reduce cost of the system, all streetlight (Wi-Fi) nodes are connected with a single router using Wi-Fi mesh network. Each node is having ESP32 and various sensors for power measurement & object detection. This system can be controlled automatically based on seasonal data stored in central base station. In streetlight failure condition ESP32 will send a fail signal to base station and base station will intimate maintenance operator through mail. Here base station and each node communicate through cloud. For remotely control and supervision a GUI is developed using HTML and JavaScript.

6. Keywords: Wi-Fi, Mesh network, sensors, IOT, cloud, MQTT, SMTP, NTP protocol.

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	<p>Authors: Sadhana Kodali, Madhavi Dabbiru, B Thirumala Rao</p> <p>Paper Title: A Cuisine Based Recommender System Using k-NN And Mapreduce Approach</p>	
	<p>Abstract: In the present days, life can be made smarter, including the food we eat by taking an option from the restaurant recommender systems. In this paper the authors proposed a restaurant recommender system based on the search of user cuisine. The top-k restaurants are identified along with the ratings of the restaurants recommended. The recommendations are retrieved based on the preference of the user cuisines which is an important category which inherently defines the other features and these features are considered to provide a good service which is the novelty of this paper. Providing recommendations based on user cuisines is the complexity of the problem. The well known k-Nearest Neighbor algorithm is implemented with the MapReduce paradigm which can quickly process huge amounts of data. Its performance is tested on benchmarked data set and the results are found to be successful.</p>	
	<p>Keywords: Restaurant Recommender System, Nearest Neighbor approach, MapReduce, Cuisine based search.</p>	
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	<p>Authors: Prakash Venugopal, Vigneswaran T</p> <p>Paper Title: State-of-Charge Estimation Methods for Li-ion Batteries in Electric Vehicles</p>	
	<p>Abstract: In recent years, due to zero carbon emission Electric Vehicles (EVs) are considered as a best alternative choice for gasoline and diesel based vehicles in automotive industries. Despite the fact that, Li-ion batteries are preferred choice for EVs they have few drawbacks such as temperature dependent, slow charging and battery aging which degrade performance and operational efficiency of EVs. In real-cars, estimation of accurate battery State of Charge (SOC) is considered as most essential task to be performed by Battery Management System (BMS) because of the nonlinear battery characteristics and unpredictable operating conditions. The main objective of this paper is to comprehensively present common methods currently adapted by researchers in estimating battery SOC by analyzing their pros and cons. This investigation also highlights various issues and challenges associated to SOC estimation with possible recommendations to overcome them. All recommended insights can be amended into advanced BMS with accurate SOC estimation in next-generation EVs.</p>	
	<p>Keywords: Electric Vehicle, State of Charge, Battery Management System, SOC Estimation, Li-ion battery.</p> <p>References:</p> <ol style="list-style-type: none"> Yong, Jia Ying et al. "A Review on the State-Of-The-Art Technologies of Electric Vehicle, Its Impacts and Prospects". Renewable And Sustainable Energy Reviews, vol 49, 2015, pp. 365-385. Liu, K., Li, K., Peng, Q. and Zhang, C. (2018). A brief review on key technologies in the battery management system of electric vehicles. Frontiers of Mechanical Engineering, 14(1), pp.47-64. 	

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Paper Title: High Performance Reversible Vedic Multiplier Using Cadence 45nm Technology

Abstract: Vedic science is an antiquated strategy of Indian arithmetic as it contains 16 Sutras. A fast 16 *16 multiplier configuration is designed utilizing Urdhva Tiryakbhyam sutra is introduced in this work. By utilizing this sutra the fractional items and entireties are created in single stage which decreases the structure of design in processors. By utilizing this method we can diminish the delay to the maximum extent when contrast with cluster or corner multiplier. By utilizing this strategy we lessen the inciting delay in connection with bunch based plan and parallel carry based use which are most normally used models. The essential significance of this paper is the delay and dynamic power usage is found to be diminished.

Keywords: Wallace tree multiplier, Vedic multiplier (VM), Reversible logic.

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Paper Title: Long-Term Material Performance Prediction Of Rockfill Dams Exposed To Aggressive Solution

Abstract: The rockfill dams, usually use in huge hydraulic geotechnical, exposures to water and aggressive solutions such as: seawater, acid mining drainage. In particular, the mechanical properties of rockfill dams is depended on volumetric deformation. However, the volumetric deformation of rockfill dams depends on as well as the contact solutions inducing different chemical reaction. The chemical reaction leads to the modifications of rockfill dams mechanical behaviour such as irreversible settlements. The modifications evolve over the time. To relatively predict the chemical degradation rockfill dams, the geochemical modelling is used to simulate chemical reactions between heterogeneous particles or different mineral of rockfill dams. The model can predict relatively the long-term material performance of rockfill dams exposure to different environment such as acid mining drainage and seawater.

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Keywords: Rockfill dams, Volumetric deformation, seawater, acid mining drainage, Geochemical model.

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Paper Title: Significant Node Tracking Effective Reception Networks using Influential Checkpoints

Abstract: Greedyalgorithm is utilized in favor of taking out top-K powerful hubs. It has two segments separating the versatile interpersonal organization hooked on a few networks by considering data dispersion and choosing networks to discover powerful hubs through an active programming. Area supported people group Greedy calculation is utilized toward discover the impact hub dependent on area and consider the impact engendering inside specific territory. Impact Maximization (IM), which chooses a lot of k clients to boost the impact increase in excess of an interpersonal organization is a major issue in a wide scope of utilizations, for example, viral showcasing and system checking. We characterize a narrative I-M question named Stream-Influence-Maximization (SIM) on community brook. Actually, SIM embraces the descending casement show as well as keeps up a lot of k-seeds among the biggest impact an incentive over the latest social activities. We suggest the Influential Checkpoints (IC) system to encourage ceaseless SIM inquiry handling. We recommend a replica of energetic report power reduction by way of consumer expertise (DRIMUX). Our objective is to curtail the impact of the gossip by square a definite arrangement of hubs. A dynamic spread model considering each the overall quality and individual fascination of the talk is given upheld sensible situation. To boot out and out totally unique in relation to existing issues with impact decrease, we will probably reduce the impact of the gossip hinder an accurate arrangement of hubs. The earlier works have demonstrated that the talk blocking issue is approximated inside a factor of $(1 - 1/e)$ by a great eager calculation joined with Monte Carlo reenactment. Shockingly, the Monte Carlo reproduction-based strategies are tedious and the current calculations either exchange execution ensures for down to earth efficiency. We present a randomized estimate calculation which is probably better than the best in class techniques as for running time.

11.

Keywords: approximation algorithm, rumor influence, rumor blocking, social network, societygreedyalgorithm.

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	<p>Authors: B. Balaji, M. Aditya, G. Adithya, M. Sai Priyanka, V. V. S. S. K. Ayyappa Vijay, K. Chandu</p> <p>Paper Title: Implementation of Low-Power 1-Bit Hybrid Full adder with Reduced Area</p>	
	<p>Abstract: In this investigation a low power 1-bit hybrid full adder (FA) and 4-bit full adder circuits were designed with the proposed 1-bit full adder. By utilizing CMOS and Pass transistor logics a new XNOR logic is implemented. The voltage degradation problem can be overcome by employing the CMOS weak inverters. By using this power consumption can be improved. By utilizing two transistors, carry logic module is designed. The circuit is operated at 1.8v. The circuit is designed using 125nm technology and tanner EDA tool is employed to perform the simulations. For the proposed design of full adder the power consumed is of 763.5 nW and the delay is 41.03 ps.</p>	
	<p>Keywords: Area, Full adder, Power, Tanner EDA software, XNOR.</p>	
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12.	<p>Authors: Saji. M. Antony, S. Indu, Rajeshwari Pandey</p> <p>Paper Title: Design Improvements in Power Amplifier for Making Energy Efficient Transceiver Blocks of Sensor Nodes</p>	
	<p>Abstract: A wireless sensor network is an accumulation of sensor nodes in large quantities with limited energy resources. Thus, use of energy efficient power amplifiers is an essential requirement for sensor nodes as power amplifiers are responsible for the main power consumption in the transceivers of sensor nodes. The transceivers should operate at high data rate for better efficiency which allows many nodes to share same channel through time division multiplexing. Thus, wider band width is another important requirement for power amplifiers used in sensor transceivers. Reliability of a power amplifier can be increased by designing at smaller supply voltage. This paper suggests improvements in design of power amplifier in class E configuration, for transceivers in wireless sensor nodes. In order to achieve wider band width, cascade of common drain followed by common source in class E configuration has been designed; and for more reliable operation with higher efficiency, class E in double cascoded has been implemented. The proposed designs are simulated in SPICE and higher efficiencies and band widths are achieved.</p>	
	<p>Keywords: Class E power amplifier, Double cascoding; Low power transceivers, Power MOSFET, Switch mode power amplifier.</p>	
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Authors: Shaista bin-ti Nazir, Mohammad Shabaz

Paper Title: SSGBSAT- a Novel Approach to perform Sentimental Analysis using Graphology

Abstract: Handwriting is one of the means to foretell the actions of a person by analyzing the shapes, sizes, altitude, convention and stress of the letters. In a rapid world where people are growing with the new technologies every day, sentimental analysis has also become a key tool to analyze the handwritten data, expressing the behavior or the etiquette of a people. We also have tried to perform analysis on the data of 100 people collected randomly from the college "universal group of institutes". The challenge was to perform the analysis on handwritten sample of the students and teachers having different thoughts with varying moods. The seven sentiments that needs to be checked are categorized under (Contempt, Anger, Disguise, Joy, Sad, Surprise, and Fear). SSGBSAT is an active or decisive algorithm that takes input images and performs analysis on it by comparing the given input with the stored images of sentiments in the repository to get the authentic results against the above sentiments. The results obtained are stored in table that shows the percentage of each sentiment in given input. Also, total percentage of each sentiment is compared with the total percentage of other sentiments to get the highest sentiment present in the data.

Keywords: Sentimental Analysis, Personality Traits, Handwriting, Graphology.

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Authors: N. Ait Said, S.Sadek, k. EL Bouqdaoui, A.Tajjiou, Abd. Hamdan, Abd. Elmniai

	<p>Paper Title: Typological Bacteriological Quality of the Gharb Water Table-Morocco</p> <p>Abstract: Waterborne diseases are generally caused by enteric pathogens belonging to the group of organisms that are mainly transmitted by the fecal-oral route. In other words, they are mainly excreted in feces by infected individuals and ingested by others in the form of water or faecally contaminated food. Some pathogens may be of animal origin. Water can also play a role in the transmission of pathogens that are not excreted by feces. This study was carried out on 60 wells in the Gharb region in order to know the quality of the water table; samples were collected in three cities: Sidi Kacem, Macheraa Belksiri and Sidi Alal Tazi were analyzed for pollution indicator organisms (faecal coliforms and faecal streptococci, as well as anaerobic spores-sulphite-reducing agents. enumeration of the bacteria was done by the filtration technique and by incorporation in supercooled solid medium. The results showed that well water was substandard because of the presence of faecal coliform pollution indicators, faecal streptococci. In contrast, pathogenic germs, however, the concentrations of microbial indicators monitored differ according to the location of wells compared to different sources of contamination. Pollution of these wells has generally been linked to non-compliance with hygienic drawdown conditions. The bacteriological quality of the waters of these wells can be improved by adequate protection.</p> <p>Keywords: Bacteriological quality, well water, food industry, gharb slick.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Madsen el., Ghiorse WC .Groundwater microbiology: subsurface ecosystem processes. In : Aquatic microbiology: an ecological approach. fordt.e. (Publisher), Blackwell Scientific Publications, 1993. Oxford, 167-213. 2. Balkwill, D. L. 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	<p>Authors: Dipesh Kumar Sharma, S. P. Shukla</p> <p>Paper Title: Stability Analysis of DFIG Wind Power System Using PI Controller with static feedback</p> <p>Abstract: When the wind electricity is associated with an electric grid affects power quality. Power quality issues like active power, reactive power, change in voltage, flicker, harmonics, and electric behavior of switching operations has to measure. Most of the wing power era system used the doubly fed induction generator, due to its benefit of making sure a variable rotation and it can run above the synchronous value. DFIG prevent damage of the wind turbine mechanism whet it is used more than the rated speed. In the present work, with the help of PI controller scheme will get the enhancement behavior of a DFIG.</p> <p>Keywords: Power quality, wind generator, double fed induction generator, PI controller.</p> <p>References:</p>	

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	Authors: K.Umapavan Kumar, S. V. N Srinivasu, A. Ramaswamy Reddy	
	Paper Title: Improved Fingerprint Image Segmentation Approaches	
17.	<p>Abstract: The huge amount of data population in the current scenario incurring two major issues one is storage and other is processing of the data. The big data scenarios like social media, search engines and other applications generating humongous data which need be separately handled when compared with existing storage and processing techniques. The important point is the way of storing the data and processing the data. The current discussion addressing the Hadoop framework internals and the capability of the Hadoop cluster along with the processing of map reduce and pig Latin scripts. The main goal is to analyze the environment of map reduce and pig scripts with a method of estimating the factors like time and space requirements along with the input splits and output splits in a detailed manner. The existing works in Hadoop internals not focused much on these aspects and sure the discussion creates a road map to study the architectural aspects which can be helpful to the researchers to enhance the existing architectures in a better possible way. On the other hand adopt the new techniques like analytics and Machine Learning libraries based on the requirements of the industry. The reason behind this work is to pin point the usage of map reduce and the complementary aspects like pig and summary of the various parameters to suggest usage path to the developers. The work also provides some analytics to conclude the suitability of the application running in the context of Map Reduce and Pig Latin.</p>	
	<p>Keywords: Big Data, MapReduce, Hadoop Pig, unstructured.</p> <p>References:</p> <ol style="list-style-type: none"> Uma Pavan Kumar K, Various Is- sues in Hadoop Distributed File System, Map Reduce and Future Research Directions, International Journal of Pure and Applied Mathematics, Volume 120 No. 6 2018, 4441-4451, June 24, 2018. www.dezyre.com www.apache.org Harish Balaji, Ujjwal Pal and Uma Pavan Kumar K., Big data Techniques and Analytics in Distributed E-commerce business, International Journal of Control theory and applications, Volume: No.9 (2016) Issue No. :3 (2016), Pages : 1719-1726 www.analyticsvidya.com www.udemy.com. www.kaggle.com www.github.com www.quora.com www.forbes.com https://machinelearningmastery.com/best-machine-learning-resources-for-getting-started/. www.courseera.org https://www.kdnuggets.com S. Lohr, “The age of big data,” N. Y. Times, vol. 11, 2012. S. Madden, “From Databases to Big Data,” IEEE Internet Computing., vol. 16, no. 3, 2012. P. Zikopoulos, C. Eaton, and others, Understanding big data: Analytics for enterprise class hadoop and streaming data. McGraw-Hill Osborne Media, 2011. A. McAfee, E. Brynjolfsson, T. H. Davenport, D. J. Patil, and D. Barton, “Big data,” Manag. Rev. Harv. Bus Rev, vol. 90, no. 10, pp. 61–67, 2012. R. Appuswamy, C. Gkantsidis, D. Narayanan, O. Hodson, and A. Rowstron, “Scale-up vs Scale-out for Hadoop: Time to rethink?,” in Proceedings of the 4th annual Symposium on Cloud Computing, 2013, p. 20. A. S. Tanenbaum and M. Van Steen, Distributed systems. Prentice-Hall, 2007. C. P. Chen and C.-Y. Zhang, “Data intensive applications, challenges, techniques and technologies: A survey on Big Data,” Inf. Sci., vol. 275, pp. 314–347, 2014. T. B. Murdoch and A. S. Detsky, “The inevitable application of big data to health care,” Jama, vol. 309, no. 13, pp. 1351– 1352, 2013. I. Mashal, O. Alsaryrah, and T.-Y. Chung, “Performance evaluation of recommendation algorithms on Internet of Things services,” Phys. Stat. Mech. ItsAppl., vol. 451, pp. 646–656, 2016. K. Shvachko, H. Kuang, S. Radia, and R. Chansler, “The hadoop distributed file system,” in 2010 IEEE 26th symposium on mass storage systems and technologies. 	83-86

	<p>Authors: Hemakumar .V. S, Suresh. P</p> <p>Paper Title: Performance of Zinc Oxide Coated On Copper Substrate in Generating Piezoelectric Energy</p>	
18.	<p>Abstract: The energy harvesting is one of the progressive multidimensional research themes over the world for variety of needs. The harvesting of energy increases demand from low power electronic devices to high power industrial needs for variety of applications. In this paper, the Zinc oxide Nanowires are grown on the surfaces of the metal substrate (copper substrate) using a solution based technique. The stress is applied on the substrate and the power generation capability of the Zinc oxide nano wires synthesized on the copper substrate were estimated. A low cost design and manufacturing is proposed to prepare the Zinc oxide based piezoelectric energy harvesting. The maximum output voltage obtained is about 153mv and current of 75nA is obtained for the copper substrate. The voltage obtained may be used for nano devices which require minimal voltage. The same setup is been simulated using by M/s.COMSOL Multiphysics software for various substrate sizes. Therefore the estimated design is able to study the capability of the zinc oxide in piezoelectric energy harvesting.</p> <p>Keywords: Zinc Oxide, piezoelectric, copper substrate, energy harvesting.</p> <p>References:</p> <ol style="list-style-type: none"> Lee, Felix Y, Navid, Ashcon, Pilon, Laurent, "Pyroelectric waste heat energy harvesting using heat conduction", Applied Thermal Engineering, Vol. 37, pp. 30–37, 2012. Minary-Jolandan, M. & Yu, Min-Feng, "Nanoscale characterization of isolated individual type I collagen fibrils: Polarization and piezoelectricity", Nanotechnology, Vol. 20, Issue 8, Article ID: 085706, 2009. Tressler JF, Alkoy S, Newham RE, "Piezoelectric sensors and sensormaterials", Journal of Electroceramics, Vol. 2, Issue. 4, pp. 277-272, 1998. Olsen, R. B.; Bruno, D. A.; Briscoe, J. M.; Dullea, J., "Cascaded pyroelectric energy converter", Ferroelectrics, Vol. 59, pp. 205–219, 1984. Smith WF, "Principles of materials science engineering", McGraw-Hill publishing; 1996. Moreno, R.C., James, B.A., Navid, A., Pilon, L., "International Journal of Heat and Mass Transfer", Vol. 55, pp. 4301–4311, 2012. Ilyas AM, Swingler J, "Piezoelectric energy harvesting raindrop impacts", Energy, Vol. 90, pp. 796-806, 2015. Priya, S, "Advances in energy harvesting using low profile piezoelectric transducers", Journal of Electro ceramics, Vol. 19, Issue. 1, pp. 167-184, 2007. K. Zhang, S. Wang, Y. Yang, "A One-Structure-Based Piezo-Tribo-Pyro-Photoelectric Effects Coupled Nanogenerator for Simultaneously Scavenging Mechanical, Thermal, and Solar Energies", Adv. Energy Mater, Vol. 7, Article ID: 1601852. Y. Ji, K. Zhang, Y. Yang, "A One-Structure-Based Multieffects Coupled Nanogenerator for Simultaneously Scavenging Thermal, Solar, and Mechanical Energies", Adv. Sci. Vol. 5, Article ID: 1700622, 2018. Abramovich H. "Deflection control of laminated composite beams with piezoceramic layers-closed form solutions", Composite Structure, Vol. 43, pp. 217–31, 1998. Chopra I, Sirohi J. "Fundamental behavior of piezoceramic sheet actuators", Journal of Intell Mater Syst Struct, Vol. 11, pp. 47–61, 1998. Shah DK, Joshu SP, Chan WS. "Static structural response of plates with piezoceramic layers", Smart Mater Struct, Vol. 2, pp. 172–180, 1993. 	87-90
19.	<p>Authors: AbinSaji John, Nishant Mani Xaxa, Anson Antony, A. Diana Andrushia</p> <p>Paper Title: Image Geometry Based Concrete crack Quantification</p> <p>Abstract: Cracks in the concrete are the common defects in buildings and structures. Many computer vision-based methods are used to identify the concrete structures. This paper is developed to analyze and measure different parameters of crack in concrete structures. Three different types of cracks are available in structures such as longitudinal, transverse and diagonal. The main reasons of crack depend on the crack appeared in a beam, column or any structural wall. Crack in a beam is usually due to tension, crack in a column occur due to eccentric loading, structural cracks are formed due to moisture change or thermal movement. The proposed method initially deals with crack segmentation and secondly the image geometry-based parameters are employed for crack quantification.</p> <p>Keywords: Cracks, Structural Cracks.</p> <p>References:</p> <ol style="list-style-type: none"> Oliveira H, Correia PL "Automatic road crack detection and characterization" IEEE Trans IntellTranspSyst 14 (1). 2013, pp 155-186 Tang J, Gu Y "Automatic crack detection and segmentation using a hybrid algorithm for road distress analysis" In: 2013 IEEE international conference on systems, man, and cybernetics, 2013 Tsai Y, Kaul V, Yezzi A "Automating the crack map detection process for machine operated crack sealer" Automation in Construction. 31, 2013, pp 10-18. Jahanshahi MR, Masri SF "A new methodology for non-contact accurate crack width measurement through photogrammetry for automated structural safety evaluation" Smart Materials and structures, 22(3), 2013 	91-94

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20. MahsaPayab, Reza Abbasina, Mostafa Khanzadi "A Brief Review and a New GraphBased Image Analysis for Concrete Crack Quantification", Archives of Computational Methods in Engineering, 2018.

Authors: Jawahar S, Magesh M, Jagen.V. Vasugi

Paper Title: Performance Evaluation of Concrete Using Bottom Ash as Fine Aggregate

Abstract: The engineering and construction industry has faced many challenge for consuming, “Sustainable green and recycled products” in manufacture of concrete. Coal Bottom Ash (CBA) has the potential to be used as concrete materials in place of fine aggregate. Bottom ash is the dominant solid residue generated in power stations. In this study, experimental investigation has been conducted to assess the performance of bottom ash as fine aggregate with various percentages (20 %, 40 %, 60 % & 100 %) in cement concrete subjected to chemical curing. The concrete specimens were casted and tested for compressive strength and tensile strength at 7, 28 and 90 days. The functional properties like Sorptivity, Water Permeability, Rapid Chloride Penetration, Sulphate and Acid Resistance were tested on 28, 56 and 90 days old specimens. It is observed that bottom ash replacement up to 40 % as fine aggregate in cement concrete is durable.

Keywords: Coal Bottom Ash, Cement Concrete, engineering properties, durability studies.

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21.	Authors: N.L.Vineetha, Ali Hussian, K. Sravan Kumar, Ravi Kumar Tenali	
	Paper Title: Smart Vehicle Accident Collision Detection System	
	<p>Abstract: Due to the large increase in the technology, the life is becoming easier to live. The Higher advancements in the population had also increased the traffic hazards. The smart vehicle collision accident detection system is designed to monitor the vehicle at real time in any location. If there is any occurrence of the accident, this system will provide immediate notification of location through messages by the emergency contacts. The embedded proposed system uses the arduino microcontroller and with the sensor of ultrasonic. This ultrasonic sensor is used to detect the distance of the obstacles from the vehicle to vehicle. By any chance of occurrence of the accident, the Global system for mobile communication (GSM) and Global positioning system (GPS) will be incorporated with the arduino for location tracing and sending the messages to the emergency contacts. To alert the driver the buzzer is incorporated in the vehicle and the display also give the alert information in the vehicle as the safety precaution.</p> <p>Keywords: Embedded, GSM, GPS, Ultrasonic, Arduino.</p> <p>References:</p> <ol style="list-style-type: none"> 1. J.S Bhatia, et al.,“Design and Development of GPS-GSM based tracking system with Google map based monitoring”, International Journal of Computer Science,Vol3, 33-40, 2013 2. IshanKarande, et. al “Intelligent Anti-Theft Tracking and Accident Detection System for Automobiles Based on Internet of Things” , International Journal of Innovative Research in Computer and Communication Engineering, Vol 4, Issue 3, 2016 3. PoorneshVarma, et al., “Automatic Vehicle Accident Detection and Messaging System Using GPS and GSM Modems”,2013. 4. SpuritiShinde, et al.,“Accident Detection and Alert Systems for Immediate Emergency Services,Volume” ,Vol 4,10, 2015 5. SeokJu , et al., “Design and Implementation Vehicle Tracking System using GPS-GPRS Technology and Smartphone Application”, IEEE on Internet of Things, 353-358, 2014. 	101-103
22.	Authors: Nagendra Singh, Anjali Nighoskar, Shiva Ram Krishna	
	Paper Title: Economic Load Dispatch With Valve Loading Effects Optimize By Bbmo	
	<p>Abstract: The Bumble Bees Mating Optimization algorithm is presented in this work for economic load dispatch optimization. Economic dispatch is a method to evaluate the performance of the generating units to fulfill the load demand on minimum fuel cost. The proposed method bumble bees mating optimization work on different three modes namely the queen, the workers and the drones (males). For the evaluation of performance this study consider case study of thirteen and forty generating unit data. The performance of planned methodology is compared with alternative improvement techniques and it's found that minimum operating cost of the thirteen and forty generating unit system with valve loading effect is evaluated by BBMO.</p> <p>Keywords: Economic load dispatch, Natural inspired optimization techniques, Bumble Bees Mating Optimization, Valve loading effect.</p> <p>References:</p> <ol style="list-style-type: none"> 1. http://www.bumblebee.org 2. http://www.everythingabout.net/articles/biology/animals/arthropods/insects/bees/bumble_bee 3. http://bumbleboosters.unl.edu/biology.shtml 4. http://www.colostate.edu/Depts/Entomology/courses/en570/papers_1998/walter.htm 5. N. Sinha, “Evolutionary programming techniques for economic load dispatch”, IEEE Trans. Evolut. Comput. 7, 2003, pp.83–94. 6. Selvakumar, “A new particle swarm optimization solution to nonconvex economic dispatch problems”, IEEE Transaction Power System, 2007, 22, 42–51. 7. Alsumait, “A hybrid GA-PS-SQP method to solve power system valve point economic dispatch problems”, Applied Energy, 2010, pp.1773-1781. 8. Lixiang Li, “A hybrid CPSO–SQP method for economic dispatch considering the valve-point effects”, Energy Conversion and Management 53, 2012, pp.175–181. 9. Park J.B., “A particle swarm optimization for economic dispatch with non-smooth cost functions”, IEEE Transaction Power systems,Vol. 20, 2005, pp. 34-49. 10. Leandro dos Santos Coelho, “Combining of Chaotic Differential Evolution and Quadratic Programming for Economic Dispatch Optimization With Valve-Point Effect,” IEEE Transactions on Power Systems, Vol. 21, No. 2, 2006, pp. 989-995. 11. Aniruddha Bhattacharya, “Hybrid Differential Evolution With Biogeography Based Optimization for Solution of Economic Load 	104-107

	<p>Dispatch,” IEEE Transactions on Power systems, Vol. 25, No. 4, 2010, pp. 1955-1964.</p> <p>12. S. Muthu Vijaya Pandian, “An Evolutionary Programming Based Efficient Particle Swarm Optimization for Economic Dispatch Problem with Valve-Point Loading”, European Journal of Scientific Research, Vol.52 No.3, 2011, pp.385-397.</p>	
	<p>Authors: Himanshu Purohit, Pawan K Ajmera</p> <p>Paper Title: Multimodal Biometric Systems : A Brief Study</p>	
23.	<p>Abstract: Multimodal Biometrics is a combination of different biometric modalities for individual's identification. In contemporary commercial unimodal biometric systems, most uses a single trait for authentication. So it is called unimodal system. Some of the drawbacks of unimodal biometrics such as intra-class variations, restricted degrees of freedom, spoof attacks and non-universality are eliminated by fusion based biometrics systems for unique personal identification. Various methods of fusion and data integration strategies can be utilized to combine information in multimodal systems. This paper presents a brief study on past research and development in the field of multimodal biometric technology in terms of fusion level, techniques for dimensionality reduction and normalization methods.</p> <p>Keywords: Unimodal; multimodal; biometric; fusion.</p> <p>References:</p> <ol style="list-style-type: none"> 1. H. Purohit, Pawan K. Ajmera, “Fusion of Palm print with palm- phalanges Print and Palm Geometry”, AISC book series, Chapter 59, Volume 870, Springer Nature, 2019 2. A.K. Jain et al “An introduction to biometric recognition” IEEE Transactions on Circuit and Systems for Video Technology, vol.14, pp. 4-20, 2004. 3. A.K. Jain et al “Information fusion in biometrics” Pattern Recognition letters, vol.24, pp. 2115-2125, 2003 4. A. A. Ross et al , “Handbook of Multibiometrics”, (Springer Publisher) International series on Biometrics, Vol. 6, XXI, 198 p. 2006. 5. Monwar et al. , “Multimodal biometric system using rank level fusion approach” 2009. 6. F. Besbes et al, “ Multimodal biometric systems based on fingerprint identification and Iris recognitions,” in Proc., 3rd Intl. IEEE Conf. Inf. Comm. Technology: from theroy to application ICTTA pp.1-5 ,2008. 7. Islam et al, “Score level fusion of ear and face local 3D feature for Fast and expression- invariant Human recognition,” ICIAR 2009, LNCS 5627, pp. 387-396, 2009. Springer-Verlag Berlin Heidelberg 2009. 8. M. Hghighat et al, “ Discriminant Correlation analysis: real time feature level fusion for multimodal biometric recognition,” IEEE Transaction on Information Forensic and Security, vol.4, pp. 1-11, Jun 2016. 9. U. Gawande, “A Novel algorithm for feature level fusion using SVM classifier for Multibiometrics- based person authentication”, Applied Computing Intelligence and Soft Computing, vol 2013 10. Ren-He Jenget al, “Two feature level fusion methods with Feaature scaling and Hasing for Multimodal biometrics,” IETE Technical review, DOI:10.1080/02564602.2016.1149039 11. Celik N, “ A short review of multimodal biometric recognition systems,” Journal of Biometrics and Biostatistics, vol. 8, issue 3. 2017 12. Rathgeb C et al, “ A survey on biometric cryptographies and cancelable biometrics,” EURASIP Journal on information Security, vol.8, issue 3, June 20, 2017 13. Xiaona Xuet al, “The study of feature level fusion algorithm for multimodal recognition,” IEEE Tranciton on Information Forensics and Security, vol.7, no.1, pp.255-268, 2012 14. Bharathi Subramaniam et al, “ Multiple features and classifiers for vein based biometrics recognition” Biomedical Research vol. special issue, 2017, www. Biomedres.info 15. M. O. Oloyede et al, “ Unimodal and Multimodal Biometric Sensing Systems : A review,” IEEE Access vol 4, pp. 7532-7558, September 2016 16. N. Sivasankari et al, “ A Review on Recent Techniques in Multimodal Biometrics”, International Conference on Computer and Informatics (IC3I) Coimbatore, India, 2016. 	108-111
24.	<p>Authors: Damarla Paradhasaradhi, G.L.V.Sai Kumar Reddy, G.Manideep, Y.L.N.D.V.Amar Kumar</p> <p>Paper Title: High efficient CMOS rectifier with reduced leakage for low powered bio-implantable devices</p> <p>Abstract: To support the operation of supplying power to biomedical devices is a challenging task. Rectifiers guarantee the efficient voltage conversion and power conversion chains. This paper presents the comparison among different architectures of CMOS rectifiers to have a hold on the power supply problem of low-voltage biomedical implantable devices. The presented rectifier utilizes bootstrapped capacitors to decrease the effective threshold voltage and a CMOS inverter to reduce the reverse leakage. The designed architecture gives high Power Conversion Efficiency (PCE) at the expense of low dropout voltage. Accordingly, this proposed design is a decent option for low-voltage power supplies and large load current applications. The proposed rectifier is implemented in generic 0.25 μm CMOS technology. Simulated results show that the proposed rectifier has improved voltage and power conversion efficiency compared with the other CMOS rectifiers provided.</p> <p>Keywords: Bio-implantable devices, Bootstrapping capacitor, Differential drive, Reverse leakage, Threshold cancellation.</p> <p>References:</p> <ol style="list-style-type: none"> 1. P. Si, A.P. Hu, J.W. Hsu, M. Chiang, Y. Wang, S. Malpas and D. Budgett, “Wireless power supply for implantable biomedical device based on primary input voltage regulation”, in proceedings of the 2nd IEEE conference on industrial electronics and applications (ICIEA), (2007), pp. 235-239. 2. H. Liu, “A novel battery-assisted class-1 generation-2 RF identification tag Design”, IEEE transaction Microwave Theory Technology 	112-116

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Authors: NitinBansal, Brijendra Mishra, Pankaj Kumar Mishra, Vivek Singh Kushwah, Sanjay Jain, Rishi Sharma

Paper Title: Analysis of Inverter using Single Electron Transistor

Abstract: This paper presents an analytical model Inverter based on the theory of single electron transistor(SET).The proposed design is very flexible such that it can be used for single gate, multi-gate, symmetric, asymmetric devices and most importantly it can also consider the effect of background charge. It can also be used for large voltage range of drain-source voltage irrespective of the bias conditions. The proposed design has been simulated with SPICE and the characteristics produced by the proposed design have been verified against Monte Carlo simulator SIMON.

Keywords: Coulomb Blockade,Monte Carlo Simulator SIMON, Single-Electron Transistor.

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Authors: M Purna Kishore, B T P Madhav, M Venkateswara Rao

Paper Title: A CPW-Fed Elliptically Curved Antenna Design for Multiband Operation with Metamaterial Loading

Abstract: In this article, a multi elliptical structured antenna is designed in which its ground plane is etched with different radius of elliptical SRR. The antenna size is 44×40×1.6mm³, the substrate used is FR-4 substrate which is having a dielectric constant of 4.4. The proposed antenna approach is determined using four iterations achieve the maximum radiation performance. The antenna is working under 1.96GHz -3.74GHz, 3.95GHz – 7.48GHz, 8.42GHz – 11.47GHz and 13.41GHz – 18.93GHz bands, the antenna can work for the WLAN, Wi-Fi & Wi-MAX applications. The design and analysis of the proposed radiating structure is carried out using ANSYS EM desktop and metamaterial unitcell setup validation is carried out is an added advantage to the proposed antenna.

Keywords: CPW, metamaterial loading, elliptical split ring, unit cell.

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Paper Title: An Efficient Classification Model for Plant Disease Detection

Abstract: India is an Agriculture based country. Most of our exports and countries income is because of farming. so measures to be taken, which makes farming more easy and secure for the farmers. Plant diseases are emerging all the time. In olden days, experts used to monitor the farm continuously but now technology is changing, plant diseases are recognized automatically. we know that farming is a difficult task. In order to reduce this difficulty many young minds have come up with many techniques. one of those is image processing. Identification of disease involves steps like Image acquisition, pre-processing, segmentation, Feature extraction.

Keywords: feature extraction, Image acquisition, Image processing, Image pre-processing, Image Segmentation, Plant Diseases.

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	<p>Computer and electronics in agriculture, Vol. 72, ,Issue 1, 1-13, Jun 2010.</p> <p>11. "Detection of unhealthy region of plant leaves and classification of plant leaf diseases using texture feature", Arivazhagan.S et.al,CIGR e-journal, Vol. 15,Issue 1, 211 -217, 2013.</p> <p>12. "Automatic Detection and Classification of Plant Disease through Image Processing", Mr. P. S. landge et.al , International Journal of Advanced Research in Computer Science and Software Engineering, Vol. 3, Issue 7, July 2013.</p> <p>13. "Agricultural plant Leaf Disease Detection Using Image Processing", Prof. S. B. Dhaygude and Mr.N.P. Kumbhar, International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering , Vol. 2, Issue 1, Jan 2013.0</p>	
	<p>Authors: Yatendra Saraswat, Sangam Yadav, Hemant Singh Parihar</p> <p>Paper Title: The Effect of Shape Memory Alloy in Composite Beam</p>	
28.	<p>Abstract: This study deals with the static analysis of the effect of shape memory alloy using finite element analysis on ansys software.In this paper, a simply supported carbon/epoxy beam is considered.A point load of 10 KN is applied at the top layer of the carbon/epoxy carbon/epoxy beam. The boundary condition is same for with and without SMA wire. this research work involves analysis of the 1000mm length carbon/epoxy carbon/epoxy beam. the shape memory alloy wire is used at the top surface above the neutral axis of the carbon/epoxy beam. The shape memory alloy wire which is 10% by volume fraction of the whole carbon/epoxy beam. After performing analysis we compare both the result with SMA and without SMA wire. In this analysis we compare the maximum deformation, Equivalent (von-misses) stress and strain. From the above result, we have seen the effect of shape memory alloy wire on the carbon/epoxy beam. All the method which is used to analysis the carbon/epoxy beam is controlled by ansys software.</p> <p>Keywords: Carbon/Epoxy, Shape Memory Alloy, ANSYS Workbench, Finite Element Analysis, Fiber Volume Fraction.</p> <p>References:</p> <ol style="list-style-type: none"> 1. H., F. (1987). SHAPE MEMORY ALLOY. GORDON AND BREACH SCIENCE PUBLISHERS . 2. S.M.R. KHALIL, M. D. (2013). MODELING AND TRANSIENT DYNAMIC ANALYSIS OF PSUDOELASTIC SMA HYBRID COMPOSIITE BEAM. APPLIED MATHEMATICS AND COMPUTATION . 3. YAHYA BAYAT, H. E. (2019). A NON LINEAR STUDY ON STRUCTURAL DAMPING OF SMA HYBRID COMPOSITE BEAM. THIN WALLED STRUCTURE , 18-28. 4. ANSYS Mechanical APDL Structural Analysis guide & ANSYS Reference Guide. 5. Brinson LC, Lammering R.Finite elemant analysis of the behavior of Shape memory alloy and their applications,Int J Solid Struct 1993;4:229-242 6. Bathe K-J. Finite Element Procedures, Cambridge University Press: 2007. 7. Zhu S,Zhang Y.A Thermomechanical Constitutive Model For Superelasticity SMA Wire With Strain- Rate Dependence. Smart Materialstructure 2007;16:1696-707 8. B.T. Lester, T. Baxevanis, Y. Chemisky, D.C. Lagoudas, Review and perspectives: shape memory alloy composite systems, Acta Mechanica 226 (2015) 3907–3960. 9. Y. Bayat, H. EkhteraeiToussi, Exact solution of thermal buckling and post buckling of composite and SMA hybrid composite beam by layerwise theory, Aerosp. Sci. Technol. 67 (2017) 484–494. 10. S. Hassani, B. Samali, Buckling analysis of laminated composite curved panels reinforced with linear and non-linear distribution of shape memory alloys, ThinWalled Struct. 106 (2016) 9–17. 11. S.M.T. Hashemi, S.E. Khadem, Modeling and analysis of the vibration behavior of a shape memory alloy beam, Int. J. Mech. Sci. 48 (2006) 44–52. 12. FINITE LEMEMT ANALYSIS THEORY AND APPLICATION WITH 13. Ansys,Third Edition ,Pearson Education,Inc,2008. 	130-134
29.	<p>Authors: GBSR Naidu, V. Malleswara Rao</p> <p>Paper Title: A Papr Reduction of Companded Sc-Fdma for 5g Uplink Communications</p> <p>Abstract: In cellular communication standards Long-Term Evolution (LTE), LTE-Advanced espoused single carrier- frequency division multiple access (SC-FDMA) which has been employed for uplink communication. Because of minor signal envelope oscillations in SC-FDMA has slight peak to average power ratio (PAPR) as well as bit error rate (BER) that is variety from OFDMA but there is scope to curtail the PAPR in SC-FDMA. The several techniques to curtail PAPR in single carrier FDMA sophisticated systems which are complex, or they essential side information to be communicated. The SC-FDMA receiver needs equalization which are zero forcing (ZF), minimum mean square equalizer (MMSE) to trade-off the complexity and performance. A projected nonlinear companding function (NCF) based on Exponential function performs better than Trapezoidal function, to reduce the PAPR and also BER under Q-PSK and 16-QAM of the Single Carrier- FDMA system. Computer simulations gives that the expected method decides better than the other functions like μ -law companding function.</p> <p>Keywords: BER, MMSE, NCF, OFDMA, PAPR, SC-FDMA, ZF.</p> <p>References:</p> <ol style="list-style-type: none"> 1. H.G. Myung, J. Lim, D.J. Goodman, "Single carrier FDMA for uplink wireless transmission", IEEE Veh. Technol. Mag. 1 (2006) 30–38. 2. Shri Ramtej Kondamuri , Anuradha Sundru, "Performance analysis of hybrid PAPR reduction technique for LTE uplink communications", physical communication 29(2018), pp.103-111. 3. G. Wunder, R.F.H. Fischer, H. Boche, S. Litsyn and No J.-S, "The PAPR problem in OFDM transmission: New directions for a long-lasting problem", IEEE Signal Process. Mag. 30 (2013) 130–144. 4. GBSR Naidu, V. Malleswara Rao, "Comparative Analysis of OFDM with reduced PAPR based on companding techniques", international Journal of pure and applied mathematics, Vol. 114, No. 10, 2017, 363-371. 	135-139

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Paper Title: **Handwritten Digits Classification through Multi-Classifier Bag Of Visual Words**

Abstract: Today our world moving towards the smart technology in many ways. In this smart world we are making everything easy. Instead of typing with hand we can convert our hand-written letters to text format. There are many technology's available to recognize handwriting and convert into text format, but still many cases are getting flaw in accurate prediction. Many machine learning classifiers available for recognize and classifies hand written digit. Bag of visual words is one of the simple classification method. Bag of features is detecting the surface and finding features of image and creating a vocabulary with visual words. This paper propose a multi-classifier bag of features methodology to identify hand-written digits.

Keywords: Bag of visual words ,Bag of features ,HDR, multi classifiers.

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Authors: **Elakya R, K.Hanuman, M.Gopi Chand, HemanthV, Varjith A**

Paper Title: **A unified Process of Big Surveillance Video Data by Smart Monitoring Cameras using Big Data Management**

Abstract: Cities which use data for making the places faster, secure and intelligent are called modern cities. The data-driven activities can be anything like terrorist attacks, controlling traffic garbage utilisation, dynamic speed limiter etc. Smart cameras replacing with the normal Closed-circuit television (CCTV) can make a huge impact on the city. smart cameras with the intelligent processing system integrated to it can recognise any activities which are not normal. In this paper, we will be proposing an approach which can be used for monitoring important places in a city like Hospitals, hotels, public places, secluded places etc. Since in order to achieve this

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we need a huge amount of data for which we need a structure or an architecture to store data. Since Hadoop distributed file system can store huge amount of data and at the same time can process it in a very intelligent way.we choose Hadoop architecture to process and get insights into our data.

Keywords: Modern cities, Smart cameras, Intelligent processing,Hadoop distributed filesystem.

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Authors: **R Lokesh kumar, Tharunya S**

Paper Title: **Semi-Supervised Automation for Video Action Recognition**

Abstract: Human activity acknowledgment has been all around investigated in uses of PC vision. Numerous fruitful activity acknowledgment strategies have demonstrated that activity information can be adequately gained from movement recordings or still pictures. For a similar activity, the proper activity information are found out from various sorts of media, e.g., recordings or pictures, might be connected. Be that as it may, less exertion has been made to improve the execution of activity acknowledgment in recordings by adjusting the activity information passed on from pictures to recordings. The greater part of the current video activity acknowledgment strategies experience the ill effects of the issue of lacking adequate marked preparing recordings. Over-fitting may cause impending issues at sometimes also implementing activity acknowledgment more restricted. The work here augments, adjustment strategy resulting in progress activity acknowledgment recordings via adjusting information commencing pictures is proposed. The adjusted information is used to get familiar with the associated activity semantics by investigating the regular parts of both named recordings and pictures. In the interim, we stretch out the adjustment technique to a semi-directed structure which can use both marked and unlabeled recordings. In this way, the secured information could ease accomplishment of activity acknowledgment that results in a great performance. Experiments using standard datasets demonstrate the technique beats a few other cutting edge activity acknowledgment strategies

Keywords: Action Recognition, Adapting knowledge, Semi-Supervised Framework, Neural network.

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Authors: **Anbarasi M, Karthikeyan T, Ramanathan L, Ramani S, Nalini N**

Paper Title: **Smart Multi-Crop Irrigation System Using IOT**

Abstract: Agriculture falls under the primary sector category which indicates that the majority of the country's economy is depending on that. China is the top in the list of agricultural countries and India is recorded as the second top agricultural country in the world. The yield of a crop depends upon several factors like water, external temperature, the fertility of the soil etc. Among these, irrigation is one of such factors where human attention has to be provided more. Traditional plant watering method has two important things to consider, that is when to water the plants and how much water will be sufficient for the plant. Not all types of crops require the same amount of water. Crops like rice need more amount of water than other weed plants. This paper proposes an idea of a smart irrigation system based on IoT applications to increase the crop yield. If the available land is less then

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33.	<p>multi-crop is one of the good ideas to improve the profits or the crop yield in less time. This paper proposes an idea of a smart irrigation system with smart control of decision in which decision is made by taking the real-time data from the land. In this automated irrigation system, the pumping motor turns ON and OFF based upon the moisture content of the soil. The pump will be operated by an operation-amplifier which takes the input from a soil moisture sensor. The soil moisture sensor is a sensor that detects the exact amount of moisture in the soil. Now here comes the role of IOT to give the information to the farmers about the status of the water moisture. Farmers can see the status of moisture content in a web page using a modem or in a mobile application. They can check whether the water sprinklers are turned ON or not at any time. The farmer will be proved with saved data of the amount of moisture required for a specific type of crop. With this, the human presence can be decreased and an accurate amount of water supply can be provided to the field.</p> <p>Keywords: Agriculture, IOT, Soil moisture sensor, Smart irrigation system.</p> <p>References:</p> <ol style="list-style-type: none"> Suma, N., Samson, S. R., Saranya, S., Shanmugapriya, G., & Subhashri, R. (2017). IOT based smart agriculture monitoring system. International Journal on Recent and Innovation Trends in computing and communication, 5(2), 177-181. Nandurkar, S. R., Thool, V. R., & Thool, R. C. (2014, February). Design and development of precision agriculture system using wireless sensor network. In 2014 First International Conference on Automation, Control, Energy and Systems (ACES) (pp. 1-6). IEEE. Lakshmisudha, K., Hegde, S., Kale, N., & Iyer, S. (2011). Smart Precision Based Agriculture Using Sensors. International Journal of Computer Applications, 975887. Gutiérrez, J., Villa-Medina, J. F., Nieto-Garibay, A., & Porta-Gándara, M. Á. (2014). Automated irrigation system using a wireless sensor and GPRS module. IEEE transactions on instrumentation and measurement, 63(1), 166-176. Lee, M., Hwang, J., & Yoe, H. (2013, December). Agricultural production system based on IoT. In 2013 IEEE 16th International Conference on Computational Science and Engineering (pp. 833-837). IEEE. Managave, A., Savale, O., Ambekar, D., & Sathe, S. (2016). Precision Agriculture using Internet of Things and Wireless sensor Networks. International Journal of Advanced Research in Computer Engineering & Technology (IJARCET) Volume, 5 Xu, J., Solmaz, G., Rahmatizadeh, R., Turgut, D., & Boloni, L. (2016). Internet of things applications: animal monitoring with unmanned aerial vehicle. arXiv preprint arXiv:1610.05287. Ting, Y., & Xiaochan, W. (2010). Design on Automatic Drip Irrigation System Based on ZigBee Wireless Sensor Network [J]. Computer Measurement & Control, 6. Vermesan, Ovidiu and peter Friess,eds,Internet of things :converging technologies for smart environments and integrated ecosystems. River Publishers 2013. Suma ,Dr N.et al. "IOT Based Smart Agriculture Monitoring system."International Journal on Recent and Innovation Trends in computing and communications 5.2 (2017):177-181. 	153-156
34.	<p>Authors: Gaiffy Singla, Surya Prakash</p> <p>Paper Title: Modelling and Simulation for Single Phase Low Voltage On-Board Charger for Plug-In Electric Vehicle (Pev) Charging Applications</p> <p>Abstract: This paper mainly emphasis on modelling and simulation of charging of electric batteries through Single Phase On-board Bidirectional Charger for Electric Vehicles. The charger resides of: i) two AC-DC full bridge bidirectional boost converter (120V AC to 400V DC); and ii) a half bridge DC-DC buck converter. The AC to DC full bridge boost converter and DC-DC buck converter has been developed for charging purpose. The controller for both converters has been designed. The motive of AC-DC converter controller is to supervene the Active and Reactive Power (P-Q) commands provided by grid or utility. With the change in controllable commands the parameters of DC side can be adjusted. For each converter a separate controller is provided that maintains the balance between input power and output power. The controller for AC-DC converter helps to boost up the input grid voltage up to 400V DC. The charger must have to supervene the instructions/commands provided by grid or utility. The DC-DC converter is used to proselyte fixed voltage into variable voltage so that current required for charging the battery can be restrained. Work in this manuscript mainly focuses on Level-1 and Level-2 On Board charging system. The proposed single phase PEV charger is used to charge the Plug-in hybrid Electric Vehicles (PHEV) and Battery Electric Vehicles (BEV) in charging only operation. The charging system for EVs has been simulated and State of Charge (SOC) obtained are compared with the existing three developed charging systems.</p> <p>Keywords: AC-DC Boost converter, Battery Charger, DC-DC buck converter, Plug-in Electric Vehicle, Unified Controller.</p> <p>References:</p> <ol style="list-style-type: none"> M. C. Kisacikoglu, A. Bedir, B. Ozpineci, and L. M. Tolbert, "PHEV-EV charger technology assessment with an emphasis on V2G operation," Oak Ridge Nat. Lab., Oak Ridge, TN, USA, Tech. Rep. ORNL/TM-2010/221, Mar.2012. Z. Luo, Z. Hu, Y. Song, Z. Xu, and H. Lu, "Optimal coordination of plug-in electric vehicles in power grids with cost-benefit analysis part I: Enabling techniques," IEEE Trans. Power Systems, vol. 28, no. 4, pp. 3546–3555, Nov. 2013. D. Manzeti et al., "The grid of the future: Ten trends that will shape the grid over the next decade," IEEE Power Energy Mag., vol. 12, no. 3, pp. 26–36, May 2014. M. C. Kisacikoglu, B. Ozpineci, and L. M. Tolbert, "EV/PHEV bidirectional charger assessment for V2G reactive power operation," IEEE Trans. Power Electron., vol. 28, no. 12, pp. 5717–5727, Dec. 2013. M. Kuss, T. Markel, and W. Kramer, "Application of distribution transformer thermal life models to electrified vehicle charging loads using monte-carlo method," in Elect. Vehicle Symp, Shenzhen, China, Nov. 5 – 9 2010. R. Moghe, F. Kreikebaum, J. E. Hernandez, R. P. Kandula, and D. Divan, "Mitigating distribution transformer lifetime degradation caused by grid-enabled vehicle (GEV) charging," IEEE Energy Conversion Congr. Expo. (ECCE), Phoenix, AZ, 2011, pp. 835–842. T. S. Bryden, A. J. Cruden, G. Hilton, B. H. Dimitrov, C. P. de Le' on, and A. Mortimer, "Off-vehicle energy store selection for high rate 	157-165

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Authors: J.Loveline Zeema, D.Francis Xavier Christopher

Paper Title: Hybrid Intuitionistic Fuzzy Fused Quantum Particle Swarm Intelligence for the Prediction of Dyslexia

Abstract: Discovering the presence of dyslexia among the children needs proper analysis in earlier childhood days. The method used for diagnosing such disability is often done by making children to solve non-writing based graphical test. Depending on their performance specialist score these test, and identify whether the children suffer from dyslexia or not. Controversy in an assignment of scoring by experts exploits uncertainty in the dyslexic dataset, which has been recently accredited as a new challenge in the field of cognitive computing. The uncertainty in the diagnosis of dyslexia is intensified due to certain symptoms that are well-matched with multiple disorders. In this paper to overwhelm the vagueness, uncertainty, imprecision in datasets, an intelligent intuitionistic fuzzy with quantum particle swarm optimization is fused in the artificial neural network is developed. This model tackles the issue of uncertainty by introducing the degree of hesitation which well defines the instances with multiple class labels. The quantum mechanism of particle swarm optimization makes the ANN in an intelligent manner by inferring the knowledge about the weight assigned among hidden nodes in a parallel manner. The simulation results prove the performance of this proposed QPSO-IFANN model which greatly assists the parents to discover the symptoms of dyslexia and recommend them to take their children to a psychologist for an individual checkup.

Keywords: Dyslexia, uncertainty, vagueness, artificial neural network, intuitionistic fuzzy, quantum particle swarm optimization and indeterminacy.

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Authors:	Jyoti Singh, Manjari Gupta
Paper Title:	Design Pattern Detection Using Dpdetect Algorithm

Abstract: Design Patterns help to solve several recurring design issues in object oriented software. Expert software designers give design in terms of already proven design patterns to make their design more standard and less error-prone. Having the knowledge of design patterns used in the design helps to get insight into design. Thus detection of Design Patterns is very important for software designer to get significant information during re-engineering process. Detecting Design Patterns from source code or design of software system will help in the software understanding and its maintenance. It is also useful for novice developers who can get the idea about how to give solution (design) of any particular application using design patterns proposed by expert designers. Many design patterns detection approaches have been proposed by different researchers working in this field for more than two decades. These approaches consider structural, behavioural and/or semantic analysis of software system. Many sub graph isomorphism techniques were used to detect design patterns in case of structural analysis. In this paper we are using a branch and bound with backtracking algorithm for sub graph isomorphism, proposed by Asiler and Yazici [19]. We use this algorithm to show how this recover all the instances of design patterns from system design(renamed as DPdetect). Our main aim is to detect whether a particular design instance of design pattern is found in system design or not. It uses structural aspects of design patterns so it is based on only static analysis.

Keywords: Design patterns, sub graph isomorphism, detection, structural analysis, UML.

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Authors: Sangam Yadav, Yatendra Saraswat, Hemant Singh Parihar

Paper Title: Finite Element Analysis of A Segment of Fiber Reinforced Polymer Guyed Tower

Abstract: The trending demand and necessity of telecommunication towers it is required to keep analysing the guyed towers with different materials and cross-section to get efficient sustainability. This research work involves the analysis of an 8.6m segment with guys as a bottom segment of telecommunication guyed tower made up of Fiber-reinforced polymer. In this research, the analysis is performed for FRP material with 40.6% and 65% fiber volume fraction to get the comparative results regarding deformation, stresses and strains. In this study, the guyed segment is analysed for Darbhanga location of India that has higher wind intensity according to IS code of wind loads 1987 part-3 by using Finite Element Analysis on ANSYS workbench. After performing analysis we conclude that the deformation occurred in guys, and stresses and strains can be seen in segment only after applying wind load on one face of a segment upto 8.6m height. The results obtained confirm that the segment made up of FRP with 65% fiber volume fraction is demonstrating viable results as compared to 40.6% fiber volume fraction.

Keywords: FRP, ANSYS Workbench, Finite Element Analysis, Fiber volume fraction, Telecommunication guyed tower.

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Authors: T. Shiva, T. Kavya, N. Abhinash Reddy, Shahana Bano

Paper Title: Calculating The Impact Of Event Using Emotion Detection

Abstract: Regardless of the extraordinary advancements in Artificial intelligence, we are still far from having the capacity to normally associate with machines. Feature analysis in emotion recognition is significantly less concentrated than the facial recognition, In events like lectures and meetings we access their effect on people with the help of reviews, There might be a case where people don't give their time in writing their opinion perfectly, with the help of this system we could find the behavior trends of the audience in the whole keynote and assess in which part of event the audience were feeling bad or good about the event.

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Keywords: Emotion Recognition, Face recognition, Neural networks, Machine-learning.

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	Authors: S.R.Rajeswari , Parth Khunteta, Subham Kumar,Amrit Raj Singh,Vaibhav Pandey Paper Title: Smart Farming Prediction Using Machine Learning	
	<p>Abstract: Agriculture is one of the major game changer and a major revenue producing sector in India. Different seasons, market and Biological Patterns influence the crop production ,but because of changes in these patterns result in an excellent loss to farmers .This factors can be minimized by using a suitable approach related to the knowledge of soil types ,pressure ,suitable weather, crop type. whereas, weather and crop types and be predicated using useful dataset that can aid to farmers by predicting the maximized profitable crops to grow. These paper mainly focus on the algorithms used to predict crop yield ,crop cost prediction. With the help of all these features smart farming can be achieved.</p> <p>Keywords: Smart Farming, Big data , Neural network ,Dataset, Clustering, Farmbots, Farm drones, Machine Learning in Agriculture.</p> <p>References:</p> <ol style="list-style-type: none"> Low Cost Weather Station For Climate-Smart Agriculture [IEEE-2017] Crop Prediction System Using Machine Learning [IJAERD-2017] An Appropriate Model Predicting Pest/Diseases of Crops Using Machine Algorithm[ICACCS-2017] Machine learning approach for forecasting crop yield based on climatic parameters [ICCCI-2014] Implement Smart Farm with IOT Technology[ICACT-2018] https://www.smartakis.com/index.php/network/what-is-smart-farming https://de.wikipedia.org/wiki/Smart_Farming https://medium.com/sponsor-a-farmer-farmguide/7-facts-you-need-to-know-about-indian-agriculture-farmguide-facts-e1f67bc5e53c Crop Selection Method to Maximize Crop Yield Rate using Machine Learning Technique „International Conference on Smart Technologies and Management for Computing, Communication, Controls, Energy and Materials , 2015 https://towardsdatascience.com/the-random-forest-algorithm-d457d499ffcd Soil N-P-K Prediction using location and crop specific random forest classification technique in precision agriculture”,International Journal of Advanced Research in Computer Science,2017 Implementation of Effective Crop Selection by Using the Random Forest Algorithm “ ,International Journal of Engineering & Technology,2018 	
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	Authors: Ms. C. Lekha, Ananya Tamuli Saikia. , P. Geeta, Priyanka Nath Paper Title: Automatic License Plate Detector	
	<p>Abstract: The increasing number of automobiles is gradually resulting in a high number of off-road accidents. Accidents are most likely to occur only when traffic regulations are violated. These kinds of activities generally require patrolling by police for speeding vehicles. We thus reduce human effort in this system by bringing in automated license plate detectors. These detectors can read the license plate of the vehicles and store it for future use. Given that a vehicle is found speeding, the plate number is noted by the detector and the culprits can be caught easily. It can also be used to check upon air pollution levels and fine vehicles causing pollution more than the level as specified by the pollution board. We can also use it to identify vehicle owners and check whether they have registered license plates or a fake number plate. It also can be used for collecting tolls on highways by automatic systems or for theft control. The license plate detector in this paper can also read license numbers written in foreign dialects or in other formats, such as Arabic, Hindi, Urdu etc. The tools used are Open source programming language of Python and its Open Computer Vision library (OpenCV).</p> <p>Keywords: Computer Vision, License Plate , Open Source, Python.</p> <p>References:</p> <ol style="list-style-type: none"> Hao Chen, Jisheng Ren, Huachun Tan, Jianqun Wang, “ A novel method for license plate localization”, 4th Proc. of ICIG 2007, pp. 604-609. Gisu Heo, Minwoo Kim, Insook Jung, Duk Ryong Lee, Il Seok Oh, “Extraction of car license plate regions using line grouping and edge density methods”, International Symposium on Information Technology Convergence, 2007, pp. 37-42. Serkhan Ozbay, Ergun Ercelebi, “Automatic vehicle identification by plate recognition”, Proc. of PWASET, vol. 9, no. 4, 2005, pp.222-225. Mei Yu and Yong Deak Kim, “An approach to Korean license plate recognition based on vertical edge matching”, IEEE International Conference on System, Man and Cybernetics, 2000, vol.4, pp. 2975-2980. Farhad Faradji, Amir Hossein Rezaie, Majid Ziaratban, “A Morphological based License Plate Location”, ICIP, 2007, pp. I 57-I 60. Xiangjian He et al, “Segmentation of characters on car license plates”, 10th Workshop on Multimedia Signal Processing, Oct. 2008,pp. 399-402. Yungang Zhang, Changshui Zhang, “A New algorithm for character segmentation of license plate”, Proc. Of IEEE Intelligent Vehicles 	
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	<p>Authors: Saiprasanna Kumar JV, Rahul B, Dharani J</p> <p>Paper Title: Sub-Surface Flaw Detection of GFRP Components Using Non-Destructive Methods</p>	
	<p>Abstract: Non-destructive testing enables a way to identify and evaluate the surface as well as sub-surface defects of materials, without altering the structural integrity. This paper concentrates the experimental demonstration on few of the non-destructive techniques. Based on the test results the nature & properties of the defects are discussed in comparison with base material. The glass/epoxy laminates are prepared in the form of pipes & laminates in which artificial defects are introduced by inserts & milled holes. By testing these defective specimens through various methods like ultrasonic testing, radiography testing, thermo graphy testing the defects are identified and hence the properties of the defects are discussed.</p>	
	<p>Keywords: Non-destructive testing, Glass-Epoxy laminates, Thermography, Radiography, Ultrasonic testing.</p>	
41.	<p>References:</p> <ol style="list-style-type: none"> C. D. Lockard, "Anomaly detection in radiographic images of composite materials via crosshatch regression", ProQuest Dissertations & Theses Global database, 2015. B. Xu B and H. Y. Li, "Advanced composite materials and manufacturing engineering", International Conference of Advance Composite Materials and Manufacturing Engineering, 2012. A. Katunin, M. Danczak and P. Kostka, "Automated identification and classification of internal defects in composite structures using computed tomography and 3D wavelet analysis", Archives of Civil and Mechanical Engineering", Vol. 5(2), 2015, pp. 436-448. G. Garney, "Defects found through non-destructive testing methods of fiber reinforced polymeric composites", ProQuest Dissertations & Theses Global database, 2006. K. Koyama, H. Hoshikawa and G. Kojima, "Eddy Current Nondestructive Testing for Carbon Fiber- Reinforced Composite", Journal of Pressure Vessel Technology, Vol. 135(4), 2013, pp. 1-5. A. A. Karabutov and N. B. Podymova, "Quantitative analysis of the influence of voids and delaminations on acoustic attenuation in CFRP composites by the laser-ultrasonic spectroscopy method", Composites Part B: Engineering, Vol. 56(0), 2014, pp. 238-244. K. T. Tan, N. Watanabe and Y. Iwahori, "X-ray radiography and micro-computed tomography examination of damage characteristics in stitched composites subjected to impact loading", Composites Part B: Engineering, Vol. 42(4), 2011, pp. 874-884. V. Arumugam, C. S. Kumar, C. Santulli, F. Sarasini and A. J. Stanley, "A Global Method for the Identification of Failure Modes in Fiberglass Using Acoustic Emission", Journal of Testing and Evaluation, Vol. 39(5), 2011, pp. 954-966. W. S. Burkle and L. P. Lemle, "The Effect of Order-of-Film Placement in Composite Film Radiography," Materials Evaluation, Vol. 51(3), 1993, pp. 327-329. R. Mulaveesalaa and S. Tuli, "Applications of Frequency Modulated Thermal Wave Imaging For Non-destructive Characterization," Materials Evaluation, Vol. 63(10), 2005, pp. 1046-1050. I. Oguma, R. Goto and T. Sugiura, "Ultrasonic inspection of an internal flaw in a ferromagnetic specimen using angle beam EMATs," Przeglad Elektrotechniczny, Vol.88(7B), 2012, pp. 78-81. 	199-205
42.	<p>Authors: Hepzbah Thomas, Thyla B</p> <p>Paper Title: Remote Fall Tracking using Multiple Extraction Methods and Supervised Learning</p> <p>Abstract: Owing to the psychological and physical aftermath post mishaps, healthy environment has become a general passion. Mishaps compose of falls which have become a grave distress for the elderly and diseased living alone. Researchers have involved in finding the optimal alternatives. This includes wearable sensors, artificial intelligence, etc. What is this paper about? It was to find the best approach to efficiently detect a fall with fewer false alarms and was implemented by finding the Histogram of Oriented Gradients along with statistical methods which extracts relevant features and compared it with the trained videos. A supervised learning technique is exploited, where the database is trained with videos that contain both fall and quotidian activities (QA). Support Vector Machine (SVM) is utilized in distinguishing fall and daily events. The doctor/caretaker is intimated via email on detection of fall.</p> <p>Keywords: GMM, HOG, Real-time processing, Supervised Learning, Statistical feature, SVM.</p> <p>References:</p> <ol style="list-style-type: none"> Yosra Ismail, Mariem Kallel, Loay Ismail," RAFDS: Remote Abnormality and Fall Detection System for Assisting Older Persons", International Journal of Advanced Research in Computer and Communication Engineering, Volume, Issue 7, July 2015 Cristian F. Pasluosta, Heiko Gassner, Juergen Winkler, Jochen Klucken, and Bjoern M. Eskofier, "An Emerging Era in the Management of Parkinson's disease: Wearable Technologies and the Internet of Things", IEEE Journal of Biomedical and Health Informatics, 2015 Subhash Chand Agrawal; Rajesh Kumar Tripathi; Anand Singh Jalal, "Human fall detection from an indoor video surveillance", 2017 8th International Conference on Computing, Communication and Networking Technologies (ICCCNT), Pages 1-5, 2017 Oluwatoyin P. Popoola; Kejun Wang, "Video-Based Abnormal Human Behavior Recognition—A Review"IEEE Transactions On Systems, Man, And Cybernetics—Part C: Applications And Reviews, Vol. 42, No. 6, November 2012 G M Basavaraj; Ashok Kusagur, "Vision based surveillance system for detection of human fall", 2nd IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT), Pages 1516-1520, 2017 Zhen-Peng Bian ; Junhui Hou ; Lap-Pui Chau ; Nadia Magnenat-Thalmann, "Fall Detection Based on Body Part Tracking Using a Depth Camera", IEEE Journal of Biomedical and Health Informatics, Volume 18, Issue 2, Pages 430 – 439, 2015 Xin Ma; Haibo Wang; Bingxia Xue; Mingang Zhou; Bing Ji, and Yibin Li, "Depth-Based Human Fall Detection via Shape Features and Improved Extreme Learning Machine, IEEE Journal Of Biomedical And Health Informatics, Vol. 18, No. 6, November 2014 Lesya Anishchenko, "Machine learning in video surveillance for fall detection", Ural Symposium on Biomedical Engineering, Radio electronics and Information Technology (USBEREIT), Pages 99-102, 2018 	206-211

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Authors: Selva Rani B, Ananda Kumar S

Paper Title: Mitigating Cold Start Problem In A Personalized Recommender System

Abstract: A cold-start problem faced by a recommender system leads to serious causes and ruins the functionality of the entire system, sometimes responsible for losing new users also due to poor accuracy in recommendations. Recommendation becomes very rigid in case of a new recommender system where the product details exist but no user started viewing or rating the products yet. Similarly, when a new product is added the corresponding ratings are missing or when a new user enters the system, there is lack of knowledge about the preferences of the new user. This work concentrates on the aforementioned cold-start problems by designing a hybrid recommender engine for academic choices. Users' preferences diverge time to time and domain to domain. Academia is one such field in which students' feel more challenging to pick up their course after completing their school, which determines the future of a student. This may be due to either less perception about the available choices or more information overload in the internet. There is no single point of contact which helps the students to explore and suggest the enormous choices in education. Recommender system is a tool which suggests the users to find out the best products based on their tastes and needs. Another bigger challenge in this system is missing ratings. Existing user profiles represents the preferences alone and not the rating about the courses or institutes. This work proposes such a personalized recommender system which recommends opt courses for a student based on his expected score as well as preference. The proposed methodology was evaluated on real data set available from previous year engineering counselling conducted by Anna University.

Keywords: Cold Start, Collaborative Filtering, Knowledge Base, Personalized Recommendations.

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Authors: Aditya M, I Veeraraghava Rao, B. Balaji, John Philip B, Ajay Nagendra N, S Vamsee Krishna

Paper Title: A Novel Low-Power 5th order Analog to Digital Converter for Biomedical Applications

Abstract: This paper implements sigma delta analog to digital converters that play a key role in ECG acquisition. In this paper we have implemented both fifth and sixth order sigma delta analog to digital converters and compared the parameters like SNR, Nodal spectrum analysis, Integrated power analysis with respect to same frequency given to both fifth and sixth order circuits. In this paper we observed the increase in power consumption as the order increases. For 5th order Sigma Delta ADC, we observed SNR of 74.8532 dB. Similarly

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43.

44.

for 6th order ADC the SNR observed was 75.5813 dB.

Keywords: Sigma-Delta, ADC, ECG, SNR, acquisition

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3. Design and implementation of sigma-delta digital to analog converter. SONIKA, D D NEEMA and R N PATELDepartment of Electronics and Communication Engineering, Chhatrapati Shivaji Institute of Technology, Durg, Chhattisgarh 491001, India.
4. Analysis and simulation of a cascaded delta-sigma modulator.Dileepan Joseph, Lionel Tarassenko, Steve CollinsEngineering Science, UniOversity of Oxford, Parks Road, Oxford OX1 3PJ, UK
5. A 70 MHz CMOS Band-pass Sigma-Delta Analog-toDigital Converter for Wireless Receivers.Hsu Kuan Chun IssacDepartment of Electrical and Electronic Engineering B.Eng. (Hons), HKUST
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Authors: Sandeep Gupta

Paper Title: Maximum Sunlight Tracking Using Single Axis Solar Panel Prototype with Simulation

Abstract: The sun is the most abundant source of renewable energy available on the earth. It provides enough energy in an hour to be used by the world for a whole year. Photovoltaic (PV) technology is one of the finest ways to capitalize the solar energy. Generally quiescent solar panels are used for harnessing the solar energy. Therefore, this paper includes the simulation, modeling procedures and results of a single axis solar tracking PV system prototype. The simulation of the tracking system has been provided using schematic modeling in proteus software. For compact size and reliability of the required circuits, PCB designing has been carried out in Eagle software. For controlling operations of the hardware, arduino is programmed and installed. For the prototype implementation, the design and construction of a microcontroller-based solar panel tracking system is also used. In this paper, the microcontroller named ‘Arduino UNO (Atmega 328)’ is utilized to give the signal to the motor that will move the solar panel along with the sun to gain maximum sunlight angle. A comparative report between the voltage output of the static solar panel and the single axis solar tracking system is also presented.

Keywords: Single axis tracking; Solar panel; Arduino Software; PCB; Micro controller; LDR Sensor.

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45.

Authors: Sujit Kumar Verma, Naveen Kumar Gupta

Paper Title: “Shape Memory Nano Alloy, Cu74zn22al4 (Wt %) Characterization and Synthesis Using Ball Milling”

Abstract: This experimental work is focused on preparation of shape-memory Nano alloy using high energy ball mill (HEBM). Precise ball to powder proportion, working medium, and ball mill speed are cardinal factors which determine effectively of milling operation. In present work select material is micro size powder Zn, Cu, and Al of determined proportion of size 326 mesh and purit~99.5%, ball / powder ratio= 3/1 and rpm of planetary ball mill kept 300. In first step powder was dry milled up to 24 hours and samples were taken for X- ray diffraction, scanning electron microscopy, differential scanning calorimetric analysis. In presence of liquid nitrogen milling time drastically reduced with fine particle size reduction and feature. To get required characteristics, control of particle size is the most crucial phase in operation. Alloying by HEBM is an innovative technique, this technique facilitate adequate and effective control over changes at grain boundary level and external morphology by precise control over milling variables.

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Keywords: SEM, DSC, HEBM, XRD.

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Authors:	D. Raja, G. Ravi
Paper Title:	Comparative Analysis of Fault-Tolerant on Three Phase and Five Phase VSI fed Induction Motor Drive

Abstract: Multi-phase Induction motor drives (MPIMD) with numerous advantages dominates three-phase drives and emerges as a potential contender and viable solution for the high power electric drive applications. When multi-phase AC drives fed from voltage source inverters (VSIs) requires a suitable PWM method of control. This paper investigates the performance of 3- ϕ and 5- ϕ induction motor drive with various PWM techniques. First, a 3- ϕ and 5- ϕ VSI model is compared with different open fault conditions to show the fault tolerant capability of 5- ϕ induction motor drive. Next, PWM switching techniques are designed for 5- ϕ VSI fed induction motor drive for an efficient control. The suitable switching technique is identified by setting the high fundamental voltage with reduced %THD in the output voltages. The proposed scheme uses the full DC bus voltage, and the output response superior with low lower order harmonics than the conventional sinusoidal pulse width modulation (SPWM) methods. The performances of the 5- ϕ VSI fed IM drive tested with various switching techniques, and the results observed in terms of harmonic contents present in the output voltage waveform. MATLAB/Simulink software results included in this paper to show and verify the theoretical concepts.

Keywords: SPWM, three phase VSI, five-phase VSI, five-phase induction motor, total harmonic distortion.

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3. K.S. kumar, Das. A, Ramchand. R, Patel.C & K. G.kumar, "A 5-level inv. scheme for a 4-pole IM drive by feeding the identical voltage-profile windgs from both sides," IEEE Tra. Indu. Electr., vol. 57, no. 8, pp. 2776–2784, Aug. 2010.
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Authors:	D. Raja, G. Ravi
Paper Title:	Analysis of Five Phase Inverter with different SVPWM Switching Techniques for Induction Motor Drive

Abstract: Multi-phase Induction motor drives (MPIMD) with numerous advantages dominates three-phase drives and emerges as a potential contender and viable solution for the high power electric drive applications. When multi-phase AC drives fed from voltage source inverters (VSIs) requires a suitable PWM method of control. This paper investigates the performance of 5-ϕ induction motor drive with various space vector PWM (SVPWM) techniques. First, a 5-ϕ VSI model is presented in terms of space vectors. Next, modified SVPWM switching techniques are introduced based on medium, large and the combination of medium and large vectors, which provide its working with reduced %THD in the output voltages. The proposed scheme uses the full DC bus voltage, and the output response superior with low lower order harmonics than the conventional SVPWM methods. The performances of the 5-ϕ VSI fed IM drive tested with various switching techniques, and the results observed in terms of harmonic contents present in the output voltage waveform. MATLAB/Simulink software results included in this paper to show and verify the theoretical concepts.

Keywords: SVPWM, five-phase VSI, five-phase induction motor, total harmonic distortion.

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Authors:	D.Muruganandam, V.Yokesh, R.Thandaiah Prabu, S.Suraj
Paper Title:	A Scan and Control Technique to Estimate the Arrival Time of Buses to Bus-Stops
Abstract:	People waiting at bus-stops often don't get any information about the arrival timings of the buses and this creates frustration among them. The proposed system deals with the introduction of a bus arrival time estimating system using RFID technology. This involves scanning a unique code stuck up on the side of the bus facing the bus-stop followed by manipulation and transmission of the data to the next bus-stop. The data is

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manipulated at the receiving bus-stop and is displayed on an LED display board. This system works by the integration of UHF reader, microcontrollers, wireless transceivers and a display board. This paper has its dominance in developing countries like India where the GPS network is not sufficing the needs of the transport linkage in the country.

Keywords: Arrival time, bus, display board, GPS, microcontrollers, UHF reader, wireless transceivers.

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Authors:	Lakshmi Naga Jayaprada.Gavarraju, K. Kartika Pavan, A. Deva Prema Swaroop, Hemanth Chowdary Narne
Paper Title:	Gpu Based Parallel Tlbo and Parallel Jaya For Multiple Sequence Alignment Using Mapreduce (Gpu-Ptlbo & Gpu-Pjaya)

Abstract: Multiple sequence alignment (MSA) is an important issue in the field of bioinformatics. It is posed as an optimization problem by tuning the gaps to proper places that yields maximum alignment. Nature inspired evolutionary optimization algorithms are proven to be very powerful in wide range of optimization problems including multiple sequence alignment. In large data cases such as MSA, significantly more time is required for a reasonable search. Usage of multiple cores can lead to cover more search space in less time. This paper proposes two, Graphical Processor Unit (GPU) based parallel algorithms for MSA using recent algorithmic parameter free evolutionary algorithms Teaching Learning Based Optimization and JAYA (GPU-PTLBO & GPU-PJAYA) using mapreduce. The performance of the algorithms is evaluated by running on 16 different cores using well-known bench mark datasets. The results are compared with two other evolutionary algorithms parallel Genetic Algorithm and parallel Differential Evolutionary Algorithm. The results are profound in terms of accuracy and time. GPU-PTLBO has shown significant improvement over other algorithms. It was also observed that, GPU-PJAYA is efficient in case of short sequences.

Keywords: Multiple Sequence Alignment, Graphical Processor Unit, Search space, GA, DE, TLBO, JAYA, Mapreduce, Parallel Computing Toolbox, Distributed Computing Server.

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Authors:	Bagam Srinivasarao, SVNL Lalitha, Yerra Sreenivasarao
Paper Title:	Performance of Two Loop Controlled Micro Gird Scheme with Fractional Order-PID and Hysteresis controllers

Abstract: This work researches 'Two loop micro-grid scheme with FOPID-FOPID and HC-HC controllers'. The target of the proposed smart grid system is to compare the dynamic reaction of 'Two loop HCMGS and two loop FOPID-MGS'. HC is proposed since it creates quicker reaction of MGS with lesser spikes in yield. Models were created for two loops FOPID (Fractional order proportional integral derivative) and two loops HC (Hysteresis controller) based micro grid systems (MGS). Simulation studies are performed and the outcomes demonstrate an enhanced unique execution by utilizing HC. The examinations demonstrate that HC-HC MGS has low settling time and low steady state error.

Keywords: Fractional order PID controller, Hysteresis controller, Micro grid System, Renewable energy sources.

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Authors:	Nooradilla Abu Hasan, Masa Goto, Kuniaki Miyamoto
Paper Title:	A Review of Weather Radar System for Rainfall Induced Disaster Preparedness

Abstract: Rainfall is one of the major causes of natural disasters such as flood, landslide, debris flow and flash flood. Monitoring of rainfall is one of the main issues to be addressed for avoidance or mitigation of such disasters. The rainfall monitoring has been typically done by rainfall gauges for many years, but since the mid-20th century, radar technologies have also been applied for rainfall monitoring. Recently X-Band Polarimetric

that uses the dual polarisation technique radar technology has been developed and investigated by several countries such as Japan and the USA for the disaster preparedness application. However, the application of this weather radar is still limited in developing countries such as Malaysia where the floods, flash floods and landslide keep happened during the heavy rainfall. Meteorological Department of Malaysia is effectively using C-Band and S-Band radars for weather forecast and warning. Meanwhile, the Department of Irrigation and Drainage of Malaysia uses the network of the rain gauges for monitoring the rainfall at the ground level and issues an alert or warning regarding the hazard. Under such circumstances, through the systematic reviewed approach, the current status of rainfall monitoring systems and weather forecast applications included the disaster caused by heavy rainfall in Malaysia was reviewed. Further, the characteristics of weather radars of different bands that focused on wavelengths and analysis methods are also been studied. Case studies on X-Band Polarimetric radar applications in the disaster area are included to identify the information needed for the utilisation of the X-Band Polarimetric radar in Malaysia.

Keywords: disaster, polarimetric radar, rainfall, weather radar, X-Band.

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Authors:	Gopu K.S
Paper Title:	Impact of Online Visual Merchandising of Fashion Industry on Generation Z Customers

Abstract: Online visual merchandising is the act of using visual elements in order to enhance the overall experience provided by online websites. Online visual merchandising is all about creating an exciting and engaging webpage and designing the customer experience with it. There has only been limited number of studies done on online visual merchandising. The purpose of this study is to look into the main factors of online visual merchandising in fashion industry affecting the Generation Z customers. Further, this paper tries to understand the influence of these factors on their consumer behaviour. The data collected through questioners is analysed using regression analysis in SPSS software to derive the main factors affecting the online visual merchandising. The revealed that online visual merchandising has a significant effect on impulse buying behaviour of generation Z customers also three main factors of online visual merchandising are found to be 3D visualisation of the products, the customer experience provided and the easiness of the user interface. If the online marketers focus on improving these aspects in their website, there is a higher probability to attract a customer and a sale to happen thereby increasing the profit of the website. The results of this study will also help the online marketers to identify the strengths and weakness of their e-commerce site.

Keywords: Online Visual Merchandising, Generation Z, Fashion industry.

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Authors: Sathyarajasekaran k, Ganesan R

Paper Title: An Approach on Software Readiness Workflow with Change Impact Analysis (SRW-CIA)

Abstract: Software readiness means to say that the software is to be up to date to the current technology. The readiness determines the application needs to handle issues such as getting recent updates and patches and at the same time determining the working conditions and looking into any vulnerability that affects the software. Change Impact Analysis (CIA) plays a vital role in enhancing the system to adapt to the latest updates without any issues when it's been deployed after accepting the change. Software readiness is well supported by Change Impact Analysis by predicting the changed behavior on the existing system through the impact analysis of the change so when the change is been accepted through the impact analysis study the software won't be having any vulnerability when it's updated by the change. This paper depicts the workflow and management of periodical change and impact of the software life cycle which includes deployment and compliance with the software patches used. This approach can integrate the impact analysis over the software readiness to provide a best possible way to provide change workflow.

Keywords: Impact analysis, software readiness, change workflow.

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Authors: Chandaka Babi, M.Venkateswara Rao, V.Venkateswara Rao, Bhanuja Arketla

Paper Title: Optimized Partitioning Based Genetic Algorithm For Generating Mining Frequent Patterns From Big Data Sets

Abstract: The Data Mining developments have been built-up and investigated in terms of technologies and

methodologies. Mining of Frequent patterns is unique precise data excavating tasks, mostly from merchandizing data. Our job aims to find out all chronological patterns through a customer préciséd minimum threshold support, and here the support of a pattern can be defines as the total of occurrences of data in the given pattern. This paper concentrates on problems associated with frequent data mining for knowledge based system. A thorough analysis has been done on these problems and answers have been made for the problems related to previous process and new techniques have been created for mining frequent patterns. Initially this research work focus on previous activities in the area of frequent pattern mining and then this research work initially proposed an algorithm Apriori with optimization using genetic Algorithm for finding the frequent patterns. Usually the running time of the procedure to discover or invent frequent items pattern based on total no of candidates produced at every level and the time consumed to read the data set. The proposed method reduces the scanning time and also reduces the number of candidate itemsets generated at each step. This is because the database can be read only for once, at that moment an intermediate dataset can be constructed at each step. Here also then the association rule generated by the Apriori algorithm is optimized using genetic algorithm. To produce strong association rules, the algorithm uses Genetic Algorithm operators like selection, crossover and mutation on association rule produced by Apriori algorithm. The parallel algorithm has been proposed to mine the frequent patterns with a user specified minimum support. The job is distributed among n number of processors to compute frequent item sets. So there will be communication between the processors. The time required to complete the job is very less when compared to other algorithms. The key disadvantage of this procedure is execution time, since number of processors used will be increased when the number of data items increased. To build it more competent, partition algorithm have been designed, in this a separate partitioning is created for each sets of data items. To get the count of a particular item sets, scanning the entire database is not required and only require the particular partition. Consequently the scan time has been decreased. Over all the algorithms, partition algorithm will have improved performance over the present algorithms.

Keywords: Big Data, Data Mining, Frequent Pattern Mining, Frequent Item Sets Hybrid Apriori, Association Rules, Portioning Algorithm, and parallel execution.

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Paper Title:

Trust Factor Organization for Trust Prediction in Online Social Network

Abstract: Web 2.0 has provided huge opportunities to human kind that leads the development of social web networks and enables users to communicate and cooperate among each other. Also exchanging their knowledge and experience in an online social environment. In order to identify the trustworthy information source on the social web/network, it is vital to build a trust mechanism. Trust predictions used for the possible trust among the users in an online community. Trust Prediction is used to find trust in future between two users. For a trust prediction mechanism measuring existing trust with the feature that impact on the calculation is crucial. The following study analyses the features of trust to calculate trust for online social network. This increases communication among users and creates a denser trusted network than previous. The study also illustrates how different trust factor can be organize to improve the accuracy and efficiency of trust prediction in online social network.

Keywords: Link Prediction algorithm, Trust Prediction, Online Social Networks.

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57.	Authors: Libin Rajan, ShobithNambiar, C. Ayyanar, Akash Verma,S. Subhash Raj	
	Paper Title: Design and Comparative Analysis of Non-Pneumatic Tires for a Tractor	
	Abstract: The purpose of this article is to design non-pneumatic tires with a large diameter for its application in a tractor and carry out a thorough comparative analysis of different spoke structures based upon various parameters. The three major types of tires which are studied in this article are Michelin Tweel, Honeycomb structure by Resilient Technology and Airless Tire concept introduced by Bridgestone. The designing was carried out in SolidWorks and the static analysis was conducted in Ansys Workbench. The corresponding graphs were plotted from the obtained values from simulations where total deflection, contact pressure, and maximum shear was determined by varying design parameters. This will help in defining the relationship between the three major parameters i.e. spoke thickness, reinforcement layer thickness and total deformation under similar loading conditions.	
	Keywords: Ansys, Michelin, Non-Pneumatic Tires, Static Analysis, Tractor, Tweel.	
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58.	Authors: V. Narasimha Nayak, Venkata Ratnam Kolluru, N.Hari Krishna , CH.Sai Abhiram , D.Tejaswini	
	Paper Title: Implementation of Supply and Temperature Insensitive Bandgap References for VCO Applications	
	Abstract: Bandgap reference is one of the major building element in analog and mixed signal circuits. A bandgap reference is a temperature and voltage independent circuit which is mostly used in the analog IC's. Analog circuits incorporate current and voltage references extensively. This paper mainly deals with two different bandgap reference circuits i.e. a conventional and a proposed bandgap circuits that are designed and simulated using LT spice directives. The obtained simulation results shows that proposed BGR is less sensitive to the supply and temperature compared to the conventional BGR circuit. A Voltage controlled oscillator, viz. 5 stage is designed which is driven with both BGRs' and is compared. The simulations are carried out using LT spice tool using 90 nm technology.	
	Keywords: Bandgap reference, Power supply sensitivity (PSS), voltage controlled oscillators.	
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Authors: **Abdel Wedoud Oumar, Peter Augustin D**

Paper Title: **Credit Card Fraud Detection Using ANN**

Abstract: Fraud on its own was and is devastating a lot of businesses, be them small or large. Particularly in the field of finance where we can see constant attacks on both individuals and enterprises alike. As such, credit cards are the most targeted as they are linked to both personal information and accounts. It is also evident to say that credit card fraud detection research is very much needed to deter and mitigate the impact of fraud on the financial field in general. It is important to identify frauds before it is too late so that the stolen credit card cannot be used for fraudulent transactions. To effectively detect these fraud transactions, we use a data consisting of fraudulent and non-fraudulent transactions to create a model that classifies these transactions with a high accuracy based on a machine learning technique. We used Artificial Neural Network with Logistic Regression to measure and in order to achieve high accuracy, we refined the parameters using the algorithms Back-propagation which has proved to have a high accuracy rate giving the model the ability to distinguish a fraudulent transaction from a normal one.

Keywords: Artificial Neural Networks, Logistic Regression, Backpropagation, Credit Card Fraud.

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Authors: **Ch. Priyanka, K. Ranjith Kumar, B. Sonia, Deepak Kumar Nayak**

Paper Title: **A Substantial Rectangular Shaped X-band Slot antenna for Satellite and Terrestrial Applications**

Abstract: A substantial rectangular shaped X-band slot antenna for Satellite and Terrestrial Applications is

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presented in this paper. The antenna has an ascertain dimensions of $18.5\text{mm} \times 8.95\text{mm} \times 0.72\text{mm}$ which indicates that the proposed antenna has low profile when compared with typical slot antennas. A resonating microstrip feeding line method is provided to excite the antenna. The proposed antenna covers the frequency range of 7.5GHz to 15.5GHz. The antenna has a peak return loss value of -24.77dB at 11.1GHz when operated at 8.5GHz frequency in the X band. The antenna is designed on FR4 epoxy substrate with a dielectric constant of 4.4 and has a loss tangent of 0.02. This antenna can be used in the fields of terrestrial, Radio Detection and Ranging(RADAR) and satellite Communication. The designed antenna works efficiently in the frequency range of X band(8GHz to 12GHz) and covers 41% of Ku band frequency range additionally. The proposed antenna is simpler to design.

Keywords: X-band, Satellite and Terrestrial Applications, Slot antenna, Radio Detection and Ranging(RADAR).

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Authors:	D.Krishna,M.Sasikala, V. Ganesh
Paper Title:	Fractional Order PI based UPQC for Improvement of Power Quality in Distribution Power System

Abstract: This paper presents design of FOPI based UPQC to address power quality issues of load voltage harmonics, current harmonics, voltage swell, sag and THD of nonlinear loads, a FOPI based UPQC proposed to tackle Power Quality issues. The UPQC was wide studied by several as associate ultimate methodology to boost power quality of electrical distribution system. It is the combination of Series APF and Shunt APF. In this proposed work to make the performance of UPQC more roust by introducing novel control strategy known as Fractional Order PI (FOPI) controller. Factional order control strategy called as order change controller. FOPI controller is realized using refined recursive filter. The performance of FOPI based UPQC demonstrated over PI based UPQC. The UPQC is used with static and switching nonlinear burdens. The proposed controller is implemented by using MATLAB/Simulink.

Keywords: UPQC, Power Quality (PQ), Fractional Order(FOPI), Voltage Source Inverter (VSI), Active Power filter (APF).

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322-327

Authors:	Madhavarapu .Chandan, Singarapu.Bharghavi, Sk.Salma
Paper Title:	Enhanced Water Management System using IOT

Abstract: Water is the most abundant natural resource on the planet. We have many sources of water and entire living beings are dependent on water for survival. Water estimation by watching a source is found often, assume a role which is dedicated to monitor and control the loss and power use of water. This role is very essential

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undertaking who has huge responsibility in managing and controlling water supply to different routes. Water level viewing is an important role as it is utilized to assure water to everyone and to distribute/save water. Specifications of required equipment, product design, theoretical explanation and execution plan of IoT based water board structure is briefly discussed in this paper. This enables us to control water usage with electricity and internet inorder to conserve water efficiently. With LDR system we can limit the power consumption to save electricity.

Keywords: Internet of Things, IoT, Water Level Monitoring, IoT Application, LDR, LDR [Light Dependent Resistor], Arduino, LCD, Motor, Light Sensor, Relay.

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Authors: **Kishore Kumar K, Brahmaji Godi, Manivannan D, Appala Srinivasu Muttipati**

Paper Title: **Role of IoT in Enhancing Agricultural Techniques**

Abstract: In modern era agricultural process faces more discomfort in practice. To overcome these problems modern tools and techniques are adopted and even then the development was not achieved to the expected level. A new trend is to be followed to make the agriculture process more ease. In this paper a new approach has been proposed to simplify the hurdles in the agriculture process. The proposed scheme namely the precision agriculture plays a vital key role in enhancing the process involved in agriculture. The précised agriculture set forth with the enhancement IoT based application, focusing on the sub works and environment of agriculture process. The precise agriculture is purely based on electronics cooperative schemes with the help of Global Positioning System (GPS) and Geographic Information Systems (GIS) along with these sensors monitor and control system is being used.

Keywords: Global Positioning System, Agriculture, Precision Agriculture and Smart Farming.

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Authors: **Makesh S, Mahalakshmi Mathivanan**

Paper Title: **Analysis on Causes of Delay in Building Construction**

Abstract: Majority of the building, projects face a serious issue of delay during the construction. Construction sector is said to be the leading part for the development of Indian economic condition. This research is based on the delay analysis in Tamil Nadu. In current situation the construction sector present itself to various delay factors in Tamil Nadu. This study is constructed with the help of questionnaire survey. 200 questionnaires were publicized out of which 187 responses were reciprocated. The questionnaire was embodied with 50 factors which are graded under seven groups such as owner, consultant, contractor, material, labour, equipment and external

related causes. About 37% of owners, 33% contractors and 30% of consultants were involved in the survey. The accepted response from various groups are analysed using Importance Index approach. It was followed by confirmation about reliability of response and consistency between various groups. It was found from overall importance index value that changes in government regulations and laws, late in approving documents and design by owner, delay in approving new material, delay in decision making process, Shortage of material, delay in payments, change in orders during construction, delay in finance and payments, are the crucial constraints that leads to hinder in construction in Tamil Nadu. At the minimum reason for delay goes to equipment related factors. On further analysis the result was found that owner's related factors are significant among other groups.

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Keywords: Construction projects, Delay sources, Tamil Nadu.

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Authors:

Abhilasha, K. M. Singh

Paper Title:

Performance Analysis of OLED by Variation of Doping in Hole Transport Layer

Abstract: Organic Light Emitting Diode is a firm condition lights tools. Where as, the charge carriers are given from the anode and cathode. In this paper, we proposed our cutting-edge method with different doping concentration of the substance in Organic Light Emitting Diode (OLED). Additionally, we increase the performance of OLED devices and deliberate their execution augmentation using exploiting dissimilar doping. The performance of OLED depends upon various factors like thickness of material, doping, band gap and many more. In this paper, one parameter i.e. doping concentration that affect the performance is studied and analyzed. For simulation purpose, 2D numerical simulations using finite element method by device simulation software silvaco ALTLAS by silvaco Inc. is used. And simulation result shows that on increasing doping in hole transport layer, it increases luminance power. At a doping concentration p-type impurity of 10¹⁸, maximum luminance power 9.99x10⁻⁵ W/ μ m² is obtained and maximum current is 4.99 μ A.

Keywords: Doping, Emissive layer, Hole transport layer, Organic materials.

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Authors: Gopal Krishna M, Durgaprasad N, Deepa Kanmani S, Sravan Reddy G, Revanth Reddy D

Paper Title: Comparative Analysis Of Different Imputation Techniques For Handling Missing Dataset

Abstract: In last two decades data became the wealth because of its importance in different fields. But it's very difficult to collect all the information and store it as data in real time which results in some missing data. Missing data cannot be omitted because even small piece of data plays a major role in the output. Imputation plays a major role in handling missing data before we predict the hidden patterns in it. In this paper our aim is to, discuss about different techniques to handle missing data, together with some relatively simple approaches that can often yield reasonable results. However our aim is to replace the missing values by the predicted values with the help of eight different imputation algorithms and we will conclude with the best algorithm

Keywords: Handling incomplete data, Imputation, Imputation techniques and Missing data.

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Authors: V.Sheshathri, S.Sukumaran

Paper Title: A Hybrid Clustering Based Color Image Segmentation using Ant Colony and Particle Swarm Optimization Methods

Abstract: Image segmentation is one of the most significant ways to simplify complex images into human or machine readable form. The main purpose of image segmentation ways is to extract or segment out particular area or region of image. It can also be used to separate foreground image from the background image. Image segmentation methods for depicting images have gained a great achievements but the color image segmentation method based on statistical theory have exposed some limitation. The color image segmentation main purpose is to reduce the undesired limitations of the conventional segmentation method. Ant Colony Optimization (ACO) and Particle Swarm Optimization (PSO) are the two main methods for swarm intelligence have great potential in color image segmentation method. This paper introduces color image segmentation using the Hybrid Clustering based Ant Colony Optimization and Particle Swarm Optimization methods. The experimental result of segmentation method has been evaluated by determining the PSNR and accuracy values of the input images. The proposed HCACOPSO method is compared with the existing methods of Otsu and CPSO-FCM methods which gives better result.

Keywords: Background Image, Particle Swarm Optimization, Ant Colony Optimization, Region, Segmentation.

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68.	Authors: Hema Rajini N	Paper Title: Efficient Image Compression Technique Based On Vector Quantization Using Social Spider Optimization Algorithm	
	<ol style="list-style-type: none"> 1. Abstract: In past few decades, Linde Buzo Gray (LBG) is considered as an important vector quantization (VQ) technique to construct local optimum codebook to compress images. Presently, swarm intelligence based optimization algorithms like firefly algorithm (FA), particle swarm optimization (PSO) and honey bee mating optimization (HBMO) are developed to generate a near global codebook. The FA suffers from the drawback of random movement in case of the absence of brighter fireflies whereas PSO becomes instable in case of high particle velocities. Keeping these limitations in mind, in this paper, we present a social spider (SS) algorithm which undergoes optimization of the LBG codebook. The presented SS-LBG approach ensures that the global codebook will be generated to effectively compress the images. The proposed SS-LBG method is experimented on benchmark images and the results are assessed in terms of compression performance as well as reconstructed image quality. The experimental outcome verified that the SS-LBG shows superior performance over the compared methods significantly. The presented method exhibits superior performance with a maximum compression performance with an average compression ratio (CR) of 0.44305, space saving (SS) of 55.696, bit rate of 3.60815 and peak signal to noise ratio (PSNR) of 52.86348. 2. 3. Keywords: Image compression, LBG, Social spider, Vector quantization. 4. 5. References: 6. 7. Rabbani, M., "JPEG2000: Image compression fundamentals, standards and practice. Journal of Electronic Imaging, 2002, 11(2), pp. 286. 8. Chang, C. C., Li, T. C., & Yeh, J. B. (2006). Fast codebook search algorithms based on the tree-structured vector quantization. Pattern Recognition Letters, 27, 1077–1086. 9. Chen, T. S., & Chang, C. C., "Diagonal axes method (DAM): A fast search algorithm for vector quantization", IEEE Transactions on 	359-366	

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Authors: Zahid Manzoor, Gurpreet Singh

Paper Title: Analytical Study on Outrigger and Hexagrid System in High-Rise Buildings

Abstract: The innovation of high strength structural materials as well as the introduction of predominant development methods gave a lift in the development of tall structures. As the height of the structure increases, they become progressively vulnerable to wind load and seismic load. The opposition of tall structures to lateral loads is the fundamental determinant in the formulation of new basic structural frameworks that develop by the constant endeavors of structural engineers to go on increasing the building height while keeping the deflection inside worthy points of confinement and limiting the measure of materials. In this paper, an analytical study was made on such systems like outrigger system with core shear wall and hexagrid systems, so as to determine their structural efficiency in transferring the lateral loads safely to the ground. A comparison of outrigger system with core shear wall and a hexagrid system was made on a 38-story building reinforced concrete building by using standard package ETABS 2016 by comparing different parameters such as Maximum Story Displacement, Maximum Story Drift and Story Shears.

Keywords: Outrigger system, Hexagrid System, Lateral Drift, Time Period, Response Spectrum Method.

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Authors: Vodenova, P., D. Angelova

Paper Title: Holistic and Integral Approach to Residential Renovation

Abstract: Dating back to the dawn of the human race, the man has always sought safety and comfort not simply as a shelter, but also to raise a family. This is why the prehistoric settlements were built in a form of groups of houses that people used to share with one another. These days, due to the social development, we need to create homes and different spaces with unique functional properties. The evolution of our society's has shaped the living environment in a way that it's always constantly changing not only its functions and, but its size as well. These are, precisely, the aspects of the modern dwellings introduced into this article.

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Keywords: residential design, renovation, dwelling process.

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Authors: Pushpender Sarao

Paper Title: Voice Transmission over Transport Layer

Abstract: Transport layer having the big responsibilities in network models. It plays a vital role during process-to-process delivery. To perform process-to-process delivery, several network protocols are used in transport layer. TCP (Transmission Control Protocol), UDP (User Datagram Protocol), SCTP (Stream Control Protocol) are the protocols that support for process-to-process delivery. In this paper, we have analyzed the transport layer protocols in various aspects. Because some network protocols are reliable while other is unreliable. Identifying best suitable protocol and service is required. For performance analysis, several parameters like throughput, jitter, latency, delay, end-to-end delay has been used. Here, we are trying out to find out the suitable protocol for different type of data transmission in several different network-scenarios. To ensure the congestion control and to reduce the end-to-end delay, this analysis work will be very useful. This evaluation work will help for identifying and enhancing the existing transport protocols and algorithms. All transport protocols have simulated and evaluated over network simulator and graphical presentation is performed with the help of JTarana, TraceGraph202, and Xgraph.

Keywords: Jitter, End2End delay, packet size, throughput, packet lost, multi-homing, multi-stream;

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Authors:	Rodzidah Mohd Rodzi, Zulkifli Mohd Nopiah, Noor Ezlin Ahmad Basri
Paper Title:	Environmental Awareness and Attitudes Towards Solid Waste Management Among TVET Students in Malaysia

Abstract: The issue of environmental protection has gained significant global importance in this era but practices in basic concepts of waste disposal are often neglected. People around the globe are aware of the impact of improper waste disposal practices, but the negative attitude towards implementation gives rise to disorganized situations. This paper presents an overview of the awareness and attitudes of the public towards environmental issues using a 20 question survey. The objective of this research was to measure the level of environmental awareness and attitudes towards solid waste management among 248 respondents from TVET Institute, Kuala Lumpur. The results show that the percentage of pro-environmental awareness was 92.1% and was 56.4% for attitudes towards solid waste commitment. The relationship between awareness and attitude was weak at Spearman's rho [rs = - 0.067, sig = 0.000, p > 0.05]. Students with high awareness of pro-environmental issues did not necessarily have a positive attitude. This research recommended that environmental education be considered as an independent subject in the Malaysia education system to inculcate a proper environmental culture in students. The syllabus should be more "hands-on" to promote a more consistent attitude towards protecting the environment.

Keywords: Solid Waste Management, Awareness, Attitude, TVET, Malaysia.

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Authors:	N.Siddaiah , D.Venkatesh , P.Sri Surendra , N.Vijitha
Paper Title:	Design and modelling of High Sensitivity Dual Gate MOSFET Integrated MEMS Microphone

Abstract: We proposed double gate (DG) design for microphone by using MEMS technology where diaphragm acts as the sliding gate of transistor and it is existed and used for some applications. The main purpose of using the dual gate (DG-MOSFET) is to integrated MEMS microphone. The analysis is to increase the electrical and mechanical sensitivity of MEMS microphone by using dual gate FET. In single gate we can improve the sensitivity's like electrical and mechanical but in designing they implemented only electrical sensitivity . We actualized a technique for expanding the general affectability of the receiver by expanding its

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electrical affectability. FET can be used to heighten the flag or to change over yield impedance .In subthreshold locale the channel current relies upon the distinction between entryway to source voltage and subthreshold voltage in the proposed mouthpiece.The design had made more reactive by including mechanical design to the main terminal .

Keywords: Microphone , FET field effective transistor, sensitivity, DG_MOSFET.

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Authors:	Jaganath. M, Vikram. R
Paper Title:	Performance Evaluation of MANET Routing Protocol under Black Hole Attack Using OPNET Simulator

Abstract: MANET is self-governing circulated Wi-Fi coordination. Itinerant knobs are permitted to circulating inside & outside the MANET(mobile ad hoc network) network. The knobs having the stuff to organize themselves based on their automatic composition capability. The network environment joining devices or nodes with each other efficiently and create communication that is mobile adhoc network. It has some vulnerability against unity of attacks. One of these attacks is the black hole attack. In this attack, malicious node advertises itself as having freshest or shortest path to specific node to absorb packet to itself. In this paper we be there working to see, how the information is passing with stable manner, and one node to another node via the method of ant colony optimization & Intrusion-tolerant routing protocol for WSNs. We proposed a protected algorithm to preclude the information from black hole attacks in the MANET routing protocols. Finally the simulation analysis and results calculate from the OPNET simulator with the result certain comparisons.

Keywords: MANET, AODV, Black hole attack, ACO, INSENS.

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Authors:

Kandula Kushal Sai, P Satyanarayana, Mohammed Ali Hussain , M Suman

Paper Title:

A Real Time Precision Monitoring and Detection of Rice Plant Diseases by Using Internet of Things (IoT) Based Robotics Approach

Abstract: Over the past few years, there has been significant interest in designing smart agricultural systems. The use of smart farming techniques can enhance the crop yield, while simultaneously generating more output from the same amount of input. But still, most of the farmers are unaware of the latest technologies and practices. In this paper a novel smart agricultural technology based on Robotics and Internet of Things (IoT) will be designed and implemented for performing various operations on the field. This smart agricultural pest's robot is equipped with various sensors like both data collecting sensors and data transferring sensors and a camera for identifying different environmental diseases and viruses in specific. As on identifying the infected parts in each plant and diseased area in field, we can spread chemicals, pesticides or fertilizers in a specific effected area and to infected parts of plants, in only required quantity. It also includes Micro-Controller and Wi-Fi hardware for executing the whole process. The main features of this novel intelligent smart agricultural pest's robot is that it can execute tasks such as detecting predators and weeds, disease detection, virus identification, predator's detection and scaring birds and animals, sprinkling pesticides & fertilizers, cutting weeds, etc. The entire model is fitted with sensors and a camera to monitor the activities in real time. The proposed model IOT based smart agricultural pest's robot will work in the rice fields, readings will be monitored and stored in cloud and satisfactory results would be observed in application, this system is very much useful for smart agricultural systems.

Keywords: Internet of Things (Iot), Image processing, Multispectral, Pest prediction, Zigbee etc.

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Authors:

Shanti.S , A.V.N. Murty

Paper Title:

Technological Impact of Gst On Consumer Behaviour

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76.

Abstract: Technology plays a vital role in India for estimating goods and service tax . This reformed tax is implemented in order to modernize the tax reforms that are existed within India. GST created the high inflation rate after its implementation but it is more beneficial in long run. The main objective of this research is to find out

the people's perception on GST and the impact of GST on the consumers purchasing and savings behaviour and the knowledge about the GST. Questionnaire is distributed to the people in Vijayawada in order to know what the reaction of the people about GST is and the data is analysed in Statistical Package called SPSS and the people of Vijayawada are favourable regarding the GST and the implementation of GST and it has changed the behaviour of the consumer regarding the purchasing of goods and their income savings.

Keywords: GST, inflation rate, purchasing behaviour, savings behaviour, SPSS.

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3. <http://www.ijirms.com/downloads/0202201801-02-2018.pdf> International Journal of Innovative Research in Management Studies (IJIRMS) Volume 3, Issue 1, February 2018. Pp.14-17. IMPACT OF GST ON BANKING SECTOR G.Meena Assistant Professor, PG and Research Department of Commerce, Salem Sowdeswari College, Salem Email: meenagvk2008@gmail.com
4. <http://www.icmis.net/icmis17/icmis17cd/pdf/S204.pdf> International Conference on Management and Information Systems September 25-26, 2017 ISBN 978-1-943295-07-4 100 Critical Implications of Goods and Service Tax on the Banking Sector Narinder Kumar Bhasin Anupama R nkbasin@amity.edu anupamar@amity.edu Amity University
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9. Volume: 04 Issue: 04 | Apr -2017 www.irjet.net p-ISSN: 2395-0072 GST: An economic overview: Challenges and Impact ahead Prof.Pooja.S.Kawle1, Prof.Yogesh.L.Aher2.

Authors: Deepa Yogish, Manjunath T N, Ravindra S Hegadi

Paper Title: Variants of Term Frequency and Inverse Document Frequency of Vector Space Model for Effective Document Ranking In Information Retrieval

Abstract: Advances in the world of internet has made information grow exponentially which make people tend to use information retrieval system more often like Google, Ask, Yahoo etc. to extract relevant and contextual information for their query. The task of information retrieval system is to retrieve relevant document from a huge volume of data sets underlying in the internet using appropriate model. Vector space model is an unconventional model in information retrieval for document ranking. VSM adopts similarity measure for matching between documents and user query, and assign scores from the biggest to smallest .The variants of vector space model are used for information retrieval to rank the documents based on similarity values. The proposed model pre-processes the documents and queries using natural language processing techniques like tokenization, stop word removal and stemming to increase the accuracy of the retrieval process and to reduce the search space. The documents and query are assigned with weights using term frequency and inverse document frequency method. To find relevant document to the query term the document ranking function cosine similarity score is applied for every document vector and the query term vector. The documents having high similarity scores will be considered as relevant documents to the query term and they are ranked based on these scores. This paper emphasizes on different approaches of vector space model using variants of term frequency and inverse document frequency to compute similarity values to rank set of documents for a given query. This paper provides comparison analysis of different variants of vector space model for document ranking.

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Keywords: Information Retrieval (IR), Inverse Document Frequent(idf), Natural Language Processing (NLP),Term Frequency(tf), Vector Space Model (VSM).

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	Authors: V. Prabhu, D. Jagannathan Paper Title: Geographic Based Detection and Prevention of Spoofing Attack		
78.	<p>Abstract: Spoofing attacks remains one of the most damaging attacks in which an attacker can replace the original source address in the header with a new one to conceal their identity and location. Major spoofing attacks now a day's users face is the email spoofing attack in which the spoofer gets details from the email user they target and attack through the fake email sender with fake messages and viruses to attack the users system, mail list, etc. which causes a greater damage to the email user who have opened and responded to that mail unknowingly. To overcome these types of attacks in this project we are analyzing the email with spammed contents to check whether it is from the right person or not and the location from where the mail has been sent by doing this we can secure the E-mail communication as maximum as possible.</p> <p>Keywords: Blind Spoofing, Email Spoofing, Geolocation, Header Analyzer, whois.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Alwar Rengarajan, Rajendran sugumar, and Chinnappan Jayakumar. (2016) "Secure Verification Technique for Defending IP Spoofing Attacks". 2. S.Swarna Latha, J.Bhavithra. (2016) "Detection and Prevention of IP Spoofing using BASE Mechanism". 3. Kevin Benton, L. Jean Camp, Tim Kelley, and Martin Swany. (2015) "Filtering IP Source Spoofing using Feasible Path Reverse Path Forwarding with SDN". 4. E-Mail Phishing - An open threat to everyone.(2014) "Gori Mohamed .J, M. Mohammed Mohideen, Mrs.Shahira Banu. N". 5. Ayman Mukaddam, Imad Elhajj, Ayman Kayssi, Ali Chehab. (2014) "IP Spoofing Detection Using Modified Hop Count". 6. Bingyang Liu, Jun Bi. (2014) "Toward Incentivizing Anti - Spoofing Deploying". 7. Abhishek Kumar Bharti, Manoj Chaudhary. (2013) "Detection of Session Hijacking and IP Spoofing Using Sensor Nodes and Cryptography". 8. Sharmin Rashid, Subhra Prosun Paul. (2013) "Proposed Methods of IP Spoofing Detection and Prevention". 9. Young -Hyun Chang, Kyung-Bae Yoon, Dea-Woo park. (2013) "A study on the IP Spoofing Attack through Proxy Server and Defence Thereof". 10. S.G. Bhirud, Vijay Kumar. (2011) "Light Weight Approach for IP- ARP Spoofing Detection and Prevention. 	422-425	
79.	Authors: Rania Moutchou, Ahmed Abbou Paper Title: MPPT and Pitch Angle Control of a Permanent Magnet Synchronous Generator based Wind Emulator	<p>Abstract: This work aims at studying the interconnection characteristics of a wind turbine based on a permanent magnet synchronous generator (PMSG) from a wind turbine emulator. The goal is to make a maximum power point tracking (MPPT) analysis and pitch angle control. In first place, wind turbine modeling is done using a DC machine. Then, a maximum power technique MPPT and a wedging angle control strategy will be developed in order to adapt turbine speed to wind speed to maximize and limit power output of the wind turbine (WT). Results of simulation are given to show the performance and the effectiveness of the proposed controls, regarding reference tracking, sensibility to high wind speed variations and unavailability of turbine parameters. The complete system model will be developed in the Matlab/Simulink environment.</p> <p>Keywords: MPPT, pitch angle, DC machine, wind turbine emulator, PMSG.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Colak, G. Fulli, S. Bayhan, S. Chondrogiannis and S. Demirbas, "Critical aspects of wind energy systems in smart grid applications," Renewable and Sustainable Energy Reviews, vol. 52, pp. 155–171, December 2015. 2. X. Zhao and D. Luo, "Driving force of rising renewable energy in China: Environment, regulation and employment," Renewable and Sustainable Energy Reviews, vol. 68, pp. 48-56, September 2016. 3. El Yaakoubi, A. Asselman, A. Djebli and E. H. Aroudam, "A MPPT strategy based on fuzzy control for a wind energy conversion system ,," 9th International Conference Interdisciplinarity in Engineering, INTER-ENG, vol. 22, pp. 697-704, Tigru-Mures Romania, 8-9 October 2015. 4. R. Tiwari and N. R. Babu, "Fuzzy logic based MPPT for permanent magnet synchronous generator in wind energy conversion system," IFAC, vol. 49, pp. 462-467, April 2016. 5. S. Chekkal, N. A. Lahaçani, D. Aouzellag and K. Ghedamsi, "Fuzzy logic control strategy of wind generator based on the dual-stator induction generator," Electrical Power and Energy Systems, vol. 59, pp. 166-175, March 2014. 6. S. El Aimani. Modélisation de Différentes Technologies d'Eoliennes Intégrées dans un Réseau de Moyenne Tension ,Thèse présentée pour l'obtention du diplôme de Doctorat en Génie Electrique, Université des Sciences et Technologies de Lille. 2004. 	426-431

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Authors: Tamilmani, K.V.Mahesh Reddy , U.Venu, M.Venkatesh

Paper Title: An Efficient and Secured Intelligent Cryptography for Cloud Computing

Abstract: Accomplishing disseminated computing engages different approaches for Web-based organization commitments will deliver differentiating issues. As that similarly it may, that majority of the data security and insurance need turned under an essential issue that breaking points a lot of people cloud requisitions. A standout among those noteworthy worries clinched alongside security and insurance will be achieved incidentally that cloud managers bring chances with attain the unstable data. This stress essentially assembles clients' apprehension and lessens that adaptability about conveyed registering in various fields, for example, those budgetary business and authoritative associations. It may be focuses around this issue Furthermore proposes a smart cryptography approach, by which those cloud organization managers can't authentically accomplish fragmentary majority of the data. Those suggested technique circularize those record and freely saves those majority of the data., in the wake of finding the touchy information that ought to encoded by the deletion encoding after encoded content ought to scramble by the MD5 hashing then staying ordinary content hashed by the sha256 then consolidated the information and put away into the cloud server . The proposed plan is entitled Distributed Data and Storage (D2S) demonstrate, which is primarily bolstered by our proposed calculations, including Distributed and Store Algorithm (DS).

Keywords: erasure encoding, MD5, sha.

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Authors: A. R. Quadri, T. Anudeep Krishna, P. Harsha, P. Pawan Kalyan

Paper Title: Key-Aggregate Cryptosystems with Broadcast Aggregate Keys for Data Sharing on the Cloud with Time-Bound Key Assignment

Abstract: Data sharing is an indispensable convenience in disseminated stockpiling. In this article, we advise the most ideal approach to strongly, gainfully, and adaptable distribute the records among others in disseminated stockpiling. We delineate new open key cryptosystems which produce predictable size figure messages with the true objective that compelling task of interpreting rights for any course of action of figure works are possible. The interest is that one can add up to any game plan of riddle keys and make them as limited as a single key, anyway consolidating the power of all the keys being amassed. In a manner of speaking, the riddle key holder can release an unfaltering size absolute key for versatile choices of figure content set in circulated stockpiling; anyway the other mixed archive outside the set remains private. This limited complete key will be profitably sent to the other individuals or be secured in an astute card with very confined secure limit. We give formal security examination of our arrangements in the standard model. We in like manner depict other usage of our schemes. In the explicit way of our arrangements would give the essential open key patient controlled encryptions for versatile chain of significances, which was yet to be known.

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Keywords: Cloud, Data sharing, Cryptosystem.

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Authors:	M. Bethu Dharani, D. Venkatesan
Paper Title:	Automatic Recognition of Skin Cancer using Fully Convolution Networks and Conditional Random Fields

Abstract: Skin cancer is one of the deadliest diseases that have been increasing all over the world. Automatic identification of lesion from low contrast dermoscopic images, over-segmentation of images and under-segmentation of images is a challenging task in the medical field. In order to overcome these challenges, we have proposed a Computerized Diagnosis system with deep fully convolution network (10*1 layer network) for segmenting the skin lesion which has been trained on end to end with 50% of dataset. Furthermore, Conditional Radom Field has been integrated with the existing framework for enhancing the segmentation performance and we added ensemble classifier technique called Bagging for accurate classification of lesion images into various categories. The proposed architecture is extensively evaluated on PH2 dataset. Experimental results showed that proposed method out performs well in comparison with the existing method. These results prove that the proposed system is more effective and suitable for any kind of medical images.

Keywords: Bagging, CAD, Conditional Random Field, Dermoscopy.

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	<p>Authors: Ch. Harsha vardhan, K. Raghavendra krishna sai, N. Mohan vamsi, P.Yellamma</p> <p>Paper Title: A Smart Industrial Pollution Monitoring System using IoT</p>	
83.	<p>Abstract: An amazingly development in industrial and infrastructural structures making ecological issues like atmospheric changes, breaking down and contamination. Contamination is getting to be not kidding issue so there is have to construct such a thriving framework which beats the issues and screen the parameters that influencing the ecological contamination. The arrangement incorporates the innovation Internet of Things (IOT) which is a connect of software engineering and gadgets. It can give intends to screen the nature of ecological parameters like Air, Noise, Temperature, Humidity and light. To screen contamination levels in mechanical condition or specific territory of intrigue, remote inserted registering framework is proposed. The framework is utilizing a model usage comprises of detecting gadgets, Arduino uno board, ESP8266 as wi-fi module. These detecting gadgets are interfacing with remote installed registering framework to screen the vacillations of parameters levels from their typical dimensions. The point is to manufacture incredible framework to screen ecological parameters.</p> <p>Keywords: Internet of Things (IOT), Arduino Uno board, wi-fi module ESP8266, MQ-7 gas sensor, M213 noise sensor, LM35 temperature sensor, SY-HS220 humidity sensor, LDR light sensor. and SY-HS220 as humidity sensor. To measure the intensity of light LDR sensor is used.</p> <p>References:</p> <ol style="list-style-type: none"> Chandana, P. Sai, K. Sreelekha, A. Muni Likith Reddy, M. Anil Kumar Reddy, and R. Senthamilselvan. "IOT Dr. A. Sumithra, PJ.Jane Ida, PK. Karthika, Dr. S. AIR AND SOUND POLLUTION MONITORING SYSTEM." International Journal on Applications in Engineering and Technology, Volume 3, Issue 1-March 2017. Gavaskar, "A brilliant ecological checking framework utilizing web of things", International Journal of Scientific Engineering and Applied Science, Volume 2, Issue 3-March 2016. Muhammad SaqibJamil, Muhammad AtifJamil, AnamMazhar, AhsanIkram, Abdullah Ahmed, and UsmanMunawar (2015). "Shrewd Environment Monitoring Framework by utilizing Wireless Sensor Networks on Vehicles for Pollution Free Smart Cities" - Humanitarian Technology: Science, Systems and Global Impact 2015, HumTech. SushmaMaithare, Dr. Vijaya Kumar B P, "Implanted System for Noise Pollution Monitoring utilizing IoT Platform to make Smart Environment", International Journal of Advanced Research (2015), Volume 3, Issue 8, 658-666. Mr. NerellaOme, Mr. G. SomeswaraRao. "Web of Things (IoT) based Sensors to Cloud framework utilizing ESP8266 and Arduino Due", Vol. 5, Issue 10, October 2016. 	446-450
	<p>Authors: NareshVurukonda , K V SaiTeja, Ch Naveen, K HemaMadhuri</p> <p>Paper Title: An Efficient Data Loss Prevention in Cloud Computing With Data Classification</p>	
84.	<p>Abstract: In this era, allotted computing is the finest buzz in IT world. Disbursed computing is an internet-based registering, in which shared property, programming and facts, are given to computers and gadgets on-request. Due to its apparent open nature, it raises solid safety, safety and considers worries. Shockingly, the reception of dispensed computing speeded before becoming innovations appeared to handle the going with problems of accepts as true with. At the same time as attending to shared property in cloud information ought to deal with protection and protection, specifically as regards to overseeing touchy statistics. In this paper we have pointed out statistics misfortune as a main threat in distributed computing .We've got likewise focused numerous statistics Loss Prevention approaches to cope with willpower this issue.</p> <p>Keywords: DLP, SaaS, Data loss.</p> <p>References:</p> <ol style="list-style-type: none"> Buyya, Rajkumar, James Broberg, and AndrzejGoscinski. "Cloud computing." standards and (2011). JoSEP, Anthony D., et al. "A view of cloud computing." Communications of the ACM fifty three.4 (2010). Sethuraman, Hariharan, and Mohammed AbdulHaseeb. "facts loss/leakage prevention." (2013). Krutz, Ronald L., and Russell Dean Vines. Cloud security: A complete manual to at ease cloud computing. Wiley Publishing, 2010. Antony, Laljith. Facts Leaks and obstacles of role-based totally get admission to manipulate Mechanisms: A Qualitative Exploratory unmarried Case have a look at. Northcentraluniversity, 2016. Subashini, Subashini, and VeerarunaKavitha. "A survey on security issues in provider shipping fashions of cloud computing." journal of network and computer applications 34.1 (2011): 1-eleven. Blount, Sumner, and Rob Zarella. Cloud security and Governance: who is on your Cloud?. It Governance Ltd, 2010. Chen, Deyan, and Hong Zhao. "facts security and privacy safety issues in cloud computing." 2012 global conference on pc technology and Electronics Engineering. Vol. 1. IEEE, 2012. Catak, F. Ozgur, and M. ErdalBalaban. "CloudSVM: schooling an SVM classifier in cloud computing systems." Joint global convention on Pervasive Computing and the Networked world. Springer, Berlin, Heidelberg, 2012. Readshaw, Neil Ian, JayashreeRamanathan, and Gavin George Bray. "approach and equipment for associating data loss safety (DLP) regulations with endpoints." U.S. Patent No. Nine,311,495. 12 Apr. 2016. 	451-458

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	Authors:	N Sai Mounica, S Joseph Rajinald, G. Syam Prasad	
	Paper Title:	An Efficient Application Aware Load Balancing and Preventing Clone Attacks	
	Abstract:	Load balancing at transport layer is a critical capacity in server farms, content conveyance systems, and versatile systems. This capacity has exceptional necessities and significantly impacts the end clients' involvement. Late investigations in the field have distinguished per-association consistency (PCC) as the primary necessity to deliver proficient L4 load adjusting and have proposed different answers for accomplishes that objective. This paper recognizes load unevenness among administration occurrences as the primary driver of extra preparing occasions. Moreover, existing burden balancers depend on one of two strategies: have level traffic redirection, which may include as much as 8.5% extra traffic to hidden systems, or association following, which expends a lot of memory in burden balancers and is inclined to forswearing of administration assaults. Both of these techniques result in wasteful use of systems administration assets. We propose the In-Network Congestion-Aware burden Balancer (INCAB) to accomplish even burden conveyance and streamline organize assets utilized for burden adjusting notwithstanding meeting the PCC prerequisite. We demonstrate that our blockage mindful arrangement equipped for distinguishing and checking each example's most utilized asset improves the heap conveyance among all administration occasions. Our answer uses a Bloom channel and ultracompact association table for in-arrange stream circulation and does not depend on end has for traffic redirection. Our stream level reproductions demonstrate that INCAB improves streams' normal finish time by 9.5%.	
85.	Keywords:	Software defined networks, transport layer load balancing, and network function virtualization.	
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86.	Authors:	G. Manoj reddy, D. pinakapani reddy, K.jagadeesh, M.eswar sai, Y.V.Hanumantha Rao	
	Paper Title:	Finite Element Stress Analysis of Drill Bit in Ansys	
	Abstract:	Drilling is a slicing procedure that utilizes a boring device to reduce or amplify a gap of roundabout move-location in strong substances. The boring equipment is a rotating cutting device, often multipoint. The bit is squeezed in opposition to the paintings piece and turned at prices from hundreds to heaps of cycles for each moment. This powers the front line in opposition to the paintings piece, reducing off chips from the gap as it's far bored. Here we are investigating the dull tool essentially with help of Finite factor exam. Right off the bat the dull device is displayed in Catia and the equal is added into the ANSYS for modular and auxiliary exam of present Tungsten carbide device and D2 metallic cloth tool. The result from the exam it is visible that with explicit condition the D2 metallic material is taken into consideration instead fabric for making drill it. The D2 steel drill modular exam the recurrence created is quite extremely near that of tungsten carbide comparably within the auxiliary research as the identical strain, complete misshapening and shear pressure are likewise visible to be focused.	463-467

Keywords: Drill Bit, Ansys.

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Authors:

Uppalapati. NithinSai Kumar, Velaga. Gopi Chand, K.Thirupathi Rao

Paper Title:

Preventing Insider Collusion Attacks Secure Data Sharing In Clouds

Abstract: Today information imparting & handling its security may be main challenge. The client in the information imparting framework uploads their document with the encryption utilizing private key. This property will be particularly significant to any huge scale information sharing framework, as whatever client spill the key majority of the data then it will turn into trouble for the owner of information to handle the data security. This manuscript gives a proficient& concrete instantiation of system, demonstrate its security & give an implementation to show its practicality. There are some challenges for owner of information to allotment their information oncloud or servers. There are diverse answers to resolve these issues. These methods are very dangerous to control shared key by owner of data. This manuscript is present the trusted power to validate client those who have access to the information on cloud. The SHA method will be utilized by the trusted power to produce the key &that key will get stake to owner and client.

87.

Keywords: Cloud Computing, SHA.

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	<p>Authors: Shashank Chaudhary, Upendra Kumar, Abhishek Pandey</p> <p>Paper Title: A Review: Crop Plant Disease Detection Using Image Processing</p>	
	<p>Abstract: This paper discusses various plant diseases and how to improve precision agriculture (PA) using Image processing. The aspects considered are the higher yielding and result in good quality of crop production. Precision agriculture (PA) is necessary to improve agricultural productivity of specific crop. Image processing is an important tool for identification of plant diseases, whereas manual detection of crop plant disease is a difficult task as it takes serious observation (need implementation expert of automated system) and consumes much time. Another outcome from the study is that automatic detection can be very good aspect for identification of crop disease.</p>	
	<p>Keywords: Plant pathology, nutrients, leaf sheath, image processing.</p>	
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	<p>Authors: Midhat Fatemah Shah, Manoj B. Chandak</p> <p>Paper Title: An Analysis on Different Techniques Used in Recommender System of E-commerce</p>	
	<p>Abstract: Electronic Trade is outstanding by web-based business, which is a sort of plan of action that empowers an association to move their items electronically utilizing the web. Internet shopping sites are expanded the mainstream online business locales are Amazon, Flipkart, eBay and so on., each webpage has its remarkable recommendation framework, which will discover likenesses between the items utilizing client shopping history. This paper gives a detailed explanation of techniques used for recommendation of products on e-commerce websites i.e.; Collaborative Filtering, Content-based Filtering, Hybrid, Graph- based approach, and a semantic recommender system based on Ant colony optimization which is named as AntSRec. An improved algorithm of Collaborative Filtering is discussed. An architecture of Content-Based Filtering is explored. Finally, Hybrid recommender system is discussed which uses Collaborative Filtering and Demographic analysis.</p>	
	<p>Keywords: AntSRec, Collaborative filtering, Content-Based filtering, E-commerce, Graph-Based approach, Hybrid filtering, Recommendation system.</p>	478-486

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	<p>Authors: M. S. N. G. K. Mounika, Arvind Yadav, S. Lokesh Anand, P. Satyannarayana</p> <p>Paper Title: Upgrade of GSM Security Using Elliptic Curve Cryptography Algorithm</p>	
	<p>Abstract: As of late, the versatile business has practiced an outrageous rise in the total of its users. The Global system for mobile organize with the best overall number of users capitulates to a large number of safety susceptibilities. Safekeeping is a consuming and clever problem. It will dependably stay constant for what it's worth imperative in an extremely wide range of uses. Global system for mobile Security defects have been distinguished quite a long while back. A portion of these blemishes have been fixed however others are left to discourse. The vast majority of the RSA- kind equipment and program writing items furthermore, models require enormous key size for higher safekeeping level. In this research work we will concentrate about the inspection of functioning practice on RSA's algorithm and ECC calculation in system of Global System for Mobile to how it's a higher promise for a quicker and progressively protected technique for encryption in correlation to the present benchmarks in the open key cryptographic calculations of RSA cryptographic technique.</p>	
	<p>Keywords: Cryptography, ECC, Public- Key, Global System for Mobile.</p>	
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90.	<p>Authors: Allen M. Paz</p> <p>Paper Title: Building Predictive Models For Data Mining Projects</p>	487-491
91.	<p>Abstract: This paper focused on building predictive models for data mining projects and knowledge discovery functionalities. The objectives are 1) data selection and transformation, 2) Generation of a prediction models using classification data mining techniques, 3) Identification of different attributes which affects retention and performance of students and 4) Comparison of accuracy on the classification techniques used in the prediction</p>	492-498

models. The study used dataset from the students enrolled in the BS Computer Engineering program. Decision tree classifiers such as ID3, J48 and CART were used to build models. Results of the study showed that when the attribute evaluation was conducted using WEKA (Waikato Environment for Knowledge Analysis), the College Entrance Test (CET) got the highest significant value among the identified attributes in predicting the retention and performance of students while J48 got the highest accuracy rating when classifying instances. However, further research on factors or attributes that influence retention and performance of students should be investigated and to include other programs in the University to improve the accuracy of the results of classification.

Keywords: Data Mining, ID3, J48, CART, CET, GWA, HSGPA, SCHLR.

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Paper Title: Baad: A Self-Optimizing Algorithm For Anomaly Detection

Abstract: Anomaly/Outlier detection is the process of finding abnormal data points in datasets or data streams. Anomaly detection finds its application in various fields like network intrusion detection, fraud detection, fault detection, etc. There are many anomaly detection algorithms available in the literature but most of these algorithms require setting of some parameters which significantly affect the performance of the algorithm. These parameters are generally set by hit-and-trial, hence performance is compromised with default or random values. In this paper, the authors propose a self-optimizing algorithm for anomaly detection based on bat meta-heuristic, and named as Bat Algorithm for Anomaly Detection (BAAD). The proposed solution is a non-clustering unsupervised learning approach for anomaly detection. The BAAD algorithm belongs to the category of density-based algorithms, and aims to find the optimal value of neighborhood radius as done in the LOCI (Local Correlation Integral) algorithm for anomaly detection, though the approach used in the proposed solution is different. The algorithm is implemented on Apache Spark for scalability and thus the solution can handle big data as well and provides fast results. Experiments were conducted on various datasets, and the results show that the proposed solution is much accurate than the standard algorithms of anomaly detection.

Keywords: Anomaly detection, bat algorithm, big data, parallel algorithms.

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Authors:	Burhan Ul Islam Khan, Rashidah Funke Olanrewaju, Farhat Anwar, Roohie Naaz Mir
Paper Title:	ECM-GT: Design of Efficient Computational Modelling based on Game Theoretical Approach Towards Enhancing the Security Solutions in MANET

Abstract: Game Theory is a useful tool for exploring the issues concerning Mobile Ad-Hoc Network (or MANET) security. In MANETs, coordination among the portable nodes is more significant, which encompasses their vulnerability challenges to several security assaults and the inability to run securely, when storing its resources and manage secure routing between the nodes. Hence, it is imperative to design an efficient routing protocol to secure all nodes from unknown behaviors. In the current research study, the game-theory approach is utilized for analytical purpose and addresses the security problems in MANETs. The game-theoretic approach is mainly adopted to find the malicious activities in the networks. In the proposed work, a Bayesian-Signaling game model is proposed which analyses the behavior of both regular/normal and malicious nodes. The game model proposed also provides the finest actions of autonomous tactics for every node. A Bayesian-Equilibrium (BE) offers the best solution for games to resolve the incomplete information by joining strategies and players payoff which form an equilibrium. By exploiting the BE mechanism, the system can detect the behavior of regular as well as malicious nodes. Therefore, Efficient ComputationalModelling based on Game Theory or ECM-GT methodology will reduce the utility of malicious nodes and increase the utility of regular nodes. Also, it stimulates the best co-operation among the nodes by exploiting the reputation system. On comparing our results with the existing systems, it was found that the proposed algorithm performed better in the detection of malicious nodes, throughput, false positive rate and detection of attacks.

Keywords: Bayesian-Equilibrium, Game-Theory, Bayesian signaling model, MANETs, Secure routing protocol.

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Authors: Sandeep P, M. Shoukath Ali

Paper Title: Video Transmission using Priority Scheduling for Improvement of QoS in Cognitive Radio Networks

Abstract: Need of spectrum resources have increased due to rapid growth of wireless multimedia applications, but as this spectrum is inefficiently used it has become scarce. Cognitive Radio network (CNR) solves current spectrum efficiency problems and offer users a best wireless accessing environment depending on dynamic spectrum allocation. Due to involvement of more number of user's spectrum allocation and scheduling should be wisely done. If proper spectrum allocation is not done, the probability of collision increases in the network which in turn degrades the network performance. A new technique known as Improved Quality of Service Scheduling (IQS) is proposed in order to avoid collisions and to improve the Quality of Service (QoS). IQS enhances the QoS parameters. In this proposed technique network bipartition is done and each region is provided with a Cognitive radio (CR)base station, it allocates appropriate scheduling to each node which lies in its region. Here, spectrum allocation is based on priority, real-time and non-real-time video transmission applications are considered for priority considerations. This leads to increase in network performance. The simulation results convey that, IQS decreases the overhead ratio, collision probability, delay and also increases throughput and network efficiency.

Keywords: Scheduling, IQS, Cognitive Radio Networks, Distributed architecture, QoS, Network efficiency.

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Authors:	Deepika Rani Sona, Kalapraveen Bagadi
Paper Title:	Design of an Optimized Social Arithmetic Mean Based Relay Selection Scheme for D2D Cooperative Communication

Abstract: Over the years, wireless mobile connectivity has encompassed billions of people all over the world giving more connectivity and freedom to interact. Dramatically increasing data traffic has been a significant product of this exponential rise in the subscriber base, leading to a drastic demand-supply shortage. Current generation cellular networks such 5G mobile networks and D2D cooperative communication have been poised as solutions for the global bandwidth and supply shortage, anticipating more power efficiency, transmission capacity, reduced latency and a host of other improved efficiency parameters. However, as the mobile devices in a particular area grow, short-range data and multimedia transfer using fewer resources need to be exploited to give better transferability. The paper deals with improving the delivery performance parameters by designing a multi-hop relay based device-to-device communication paradigm where both proximity and social link parameters have been utilized to increase throughput.

Keywords: Device to Device (D2D) communications, Long Term Evolution (LTE), User Equipment, Signal to Noise Ratio (SNR), social-aware relay selection.

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Authors:	AnupaVijai, S Padmavathi, D Venkataraman	
Paper Title:	Cloud and Shadow Identification from Aerial Images	
Abstract:	Clouds and shadows pose severe problems in discernment of the scene and identification of objects in aerial photography. The changes in illumination, ensued by the presence of cloud and the shadow, are some of the reasons that lead to ambiguity, while carrying out image segmentation leading to detection of targeted objects. Conventional methods are efficient in detecting thick clouds in contrastive background, but perform poorly in the perception of thin clouds, multiple clouds and their shadows. Reference images for the input are needed in most cases, and separate algorithms are pursued, to identify clouds and shadows in an image, which might not be feasible in all scenarios. Techniques used in this paper to detect cloud and shadows, obviating the need for reference images, are image enhancement, analysis of color histogram of input images, adoption of automatic thresholding and mathematical morphology on the input image. The proposed algorithm, was found to be fast, and experimented on various images that contained multiple white cloud clusters of different shapes, thickness and their shadows. The algorithm was validated with an accuracy of 94.6% and 87.2% for identification of clouds and shadows, respectively.	
Keywords:	aerial image, automatic threshold, cloud detection, color histogram, morphological operations, shadow detection.	
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97.	<p>Paper Title: Low Power and High Performance FIR Filter For Reconfigurable Applications</p> <p>Abstract: Reconfigurability is the utmost requirement for Finite Impulse Response (FIR) filters that are used in many applications related to digital signal processing. The transposed form of filter often support multiplication techniques and they are pipelined which enhances the performance of the filter and also low power is often achieved. In this work, an LUT reduction technique is used for the blocked FIR filter, which greatly reduces the power consumed by the filter and also enhances the speed by reducing the delay of the circuit. A comparison is made for the proposed filter design with the existing blocked FIR filters presented over the years. The proposed design offers less Energy per sample (EPS) and Area delay product (ADP) when compared to the reconfigurable architectures for large filters. From the synthesis results, it can be seen that for a filter length of 16, the proposed design offers 34.6 % reduction in ADP and 63 % reduction in EPS.</p> <p>Keywords: ADP, EPS, FIR, Reconfigurability.</p> <p>References:</p> <ol style="list-style-type: none"> B. K. Mohanty and P. K. Meher, "A High-Performance FIR Filter Architecture for Fixed and Reconfigurable Applications" IEEE Trans on VLSI, Feb 2015. S. A. White, "Applications of distributed arithmetic to digital signal processing: A tutorial review," IEEE ASSP Mag., vol. 6, no. 3, pp. 4–19, Jul. 1989. J. Park, W. Jeong, H. Mahmoodi-Meimand, Y. Wang, H. Choo, and K. Roy, "Computation sharing programmable FIR filter for low-power and high-performance applications," IEEE J. Solid State Circuits, vol. 39, no. 2, pp. 348–357, Feb. 2004. NagaJyothi, Grande, and Sridibhatla SriDevi. "Distributed arithmetic architectures for fir filters-a comparative review." 2017 International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET). IEEE, 2017. K.-H. Chen and T.-D. Chiueh, "A low-power digit-based reconfigurable FIR filter," IEEE Trans. Circuits Syst. II, Exp. Briefs, vol. 53, no. 8, pp. 617–621, Aug. 2006. Jyothi, Grande Naga, and Sridibhatla. "Asic implementation of low power, area efficient adaptive fir filter using pipelined da." Microelectronics, Electromagnetics and Telecommunications. Springer, Singapore, 2019. 385-394. R. Mahesh and A. P. Vinod, "New reconfigurable architectures for implementing FIR filters with low complexity," IEEE Trans. Comput.-Aided Design Integr. Circuits Syst., vol. 29, no. 2, pp. 275–288, Feb. 2010. Grande, Naga Jyothi, and Sridibhatla SriDevi. "Asic implementation of shared lut based distributed arithmetic in fir filter." 2017 International conference on Microelectronic Devices, Circuits and Systems (ICMDCS). IEEE, 2017. S. Y. Park and P. K. Meher, "Efficient FPGA and ASIC realizations of a DA-based reconfigurable FIR digital filter," IEEE Trans. Circuits Syst. II, Exp. Briefs, vol. 61, no. 7, pp. 511–515, Jul. 2014. J.-I. Guo, C.-M. Liu, and C.-W. Jen, "The efficient memory-based VLSI array design for DFT and DCT," IEEE Trans. Circuits Syst. II, Analog Digit. Signal Process, vol. 39, no. 10, pp. 723–733, Oct. 1992. H.-R. Lee, C.-W. Jen, and C.-M. Liu, "On the design automation of the memory-based VLSI architectures for FIR filters," IEEE Trans. Consum. Electron., vol. 39, no. 3, pp. 619–629, Aug. 1993. D. F. Chiper, M. N. S. Swamy, M. O. Ahmad, and T. Stouraitis, "A systolic array architecture for the discrete sine transform," IEEE Trans. Signal Process., vol. 50, no. 9, pp. 2347–2354, Sep. 2002. H.-C. Chen, J.-I. Guo, T.-S. Chang, and C.-W. Jen, "A memory-efficient realization of cyclic convolution and its application to discrete cosine transform," IEEE Trans. Circuits Syst. Video Technol., vol. 15, no. 3, pp. 445–453, Mar. 2005. D. F. Chiper, M. N. S. Swamy, M. O. Ahmad, and T. Stouraitis, "Systolic algorithms and a memory-based design approach for a unified architecture for the computation of DCT/DST/IDCT/IDST," IEEE Trans. Circuits Syst. I, Reg. Papers, vol. 52, no. 6, pp. 1125–1137, Jun. 2005. P. K. Meher, "Systolic designs for DCT using a low-complexity concurrent convolutional formulation," IEEE Trans. Circuits Syst. Video Technol., vol. 16, no. 9, pp. 1041–1050, Sep. 2006. P. K. Meher, "Memory-based hardware for resource-constrained digital signal processing systems," in Proc. 6th Int. Conf. ICICS, Dec. 2007, pp. 1–4. P. K. Meher, "New approach to LUT implementation and accumulation for memory-based multiplication," in Proc. IEEE ISCAS, May 2009, pp. 453–456. P. K. Meher, "New look-up-table optimizations for memory-based multiplication," in Proc. ISIC, Dec. 2009, pp. 663–666. P. K. Meher, "Hardware-efficient systolization of DA-based calculation of finite digital convolution," IEEE Trans. Circuits Syst. II, Exp. Briefs, vol. 53, no. 8, pp. 707–711, Aug. 2006. DesignWare Building Block IP User Guide, Synopsys, Inc., Mountain View, CA, USA, 2012, 06-SP2. 	537-540
98.	<p>Authors: Revathi M</p> <p>Paper Title: Drain Characteristic Analysis of High Electron Mobility Transistors (MOSHEMT)</p> <p>Abstract: A High-electron-mobility transistor, otherwise called a field-effect transistor consolidating an intersection between two materials with various band holes as the channel rather than a doped region. While lately, gallium nitride HEMTs have pulled in consideration because of their powerful execution. In this paper a MOSHEMT device is designed and afterward break down the device DC characteristic. MOSHEMT is a modified structure of HEMT. In MOSHEMT an oxide layer (HfO₂) is embedded to the device. Characteristic dissect of device include the breaking down of channel current, gate leakage current and furthermore the Ioff/Ion proportion of the device. HEMT transistors can work at higher frequencies.</p> <p>Keywords: HEMT, MOSHEMT, 2 DEG region, Gallium arsenide, Gallium nitride, oxide layer (HfO₂).</p> <p>References:</p> <ol style="list-style-type: none"> Development of High Electron Mobility Transistor.To cite this article: Takashi Mimura 2005 Jpn. J. Appl. Phys. 44 8263. Mimura, Takashi; Hiyamizu, Satoshi; Fujii, Toshio; Nanbu, Kazuo" A New Field-Effect Transistor with Selectively Doped GaAs/n-Al_xGa_{1-x}As Heterojunctions", Journal of Applied Physics, Volume 19, Issue 5, pp. L225-L227 (1980).. R. Ross, S. Svensson, and P. Lugli, Pseudomorphic HEMT Technology and Applications. Dordrecht-Boston-London: Kluwer Academic Publisher, 1996. Takashi Mimura, Fellow, IEEE Early History of the High Electron Mobility Transistor (HEMT) IEEE Transactions on Microwave 	541-544

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Authors:	N. K. Kund
Paper Title:	Comparative CFD Studies on Jet Impingement Cooling Using Water and Water-Al₂O₃ Nanofluid as Coolants

Abstract: The present study involves numerical investigations on jet impingement cooling with the water-Al₂O₃ nanofluid as coolant. A series of numerical simulations along with the CFD studies are carried out using ANSYS Fluent software. The appropriate governing transport equations of continuity, momentum and energy relating to the forced convection are solved to predict the velocity, temperature and the pressure fields. The hydrodynamic modelling involves the inertia, viscous and the pressure forces concerning the velocity and pressure. However, the thermal modelling relates to the convection and diffusion concerning only the temperature. Normally, the target plate cooling also involves the identified model parameters such as the jet velocity, nozzle diameter and the nozzle to heated target plate distance. The numerical simulations are performed with the jet velocity of 60 m/s, nozzle diameter of 2 mm and the nozzle to heated target plate distance of 5 mm so as to predict the flow behaviors. As expected, the pressure slowly decreases and the velocity together with the temperature gradually increases along the radially outward direction over the heated target plate from the stagnation point. In addition, the numerical simulations are also carried out only with the water in order to compare the cooling behavior with the water-Al₂O₃ nanofluid. Though, the trends of results are very similar for both water as well as water-Al₂O₃ nanofluid, however, the later one gives the superior cooling effect.

Keywords: CFD, Coolant, Jet Impingement, Temperature, Water-Al₂O₃ Nanofluid.

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100.

Paper Title: **Soil Moisture Monitoring System Using IOT**

Abstract: Interconnection of number of devices through internet describes the Internet of things (IoT). Every object is connected with each other through unique identifier so that data can be transferred without human to human interaction. The proposed concept of the automated irrigation system uses a NodeMCU and other modules so that agricultural lands are irrigated automatically without the presence of the human i.e. the motor in field switches ON when the soil moisture value goes below a customizable threshold value and gets OFF when it is above or equal to the threshold value. For larger depths. Moisture content in the soil can be found using HYDRUS software. The IoT features provided by NodeMCU are used to transfer the data like moisture value in the soil, temperature etc. from agriculture field onto the cloud. Previous works involve irrigation without human intervention, but this work provides many more add-ons like being able to access the field condition using mobile or through web page. The user is also given opportunity to control the motor using his/her mobile with a pre-defined condition of mobile and NodeMCU getting connected to the same internet. Hydrus-2D is used to predict the moisture levels at a depth of greater than 30cm in different soils. It can be used in gardens and can be extended to agricultural fields. This type of advanced and personalized set-up can be very useful for todays farmers. This can decrease man force and cause increase in production and its quality, thereby benefitting the farmer economically. The personalization of the set-up can be done using Arduino IDE and Blynk mobile application.

Keywords: Blynk, Hydrus-2D, NodeMCU, Soil Moisture.

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Authors: X.Anitha Mary, Lina Rose, K.Rajasekaran

Paper Title: Development of Water Level Monitoring System with Capacitive Sensor

Abstract: Tanks are used to store water in households. Tamil Nadu faces a 40% water deficit currently. In which water tank overflow occupies 11% in this deficit. When we turn on the motor we are not aware of the water level present in the tank, we only realize after the tank over flows. Due to these incidences water is being wasted in large quantities every day in India. When there is an overflow of water from the tank algae is formed on the roof tops and also around the tanks, which when unnoticed degrades the tank material along with the building. Water leaks into the house through the damaged roof tops. The objective of the paper is to develop an efficient method to measure water level in a Sintex tank.

Keywords: capacitive sensor, Astable Multivibrator, XBEE, water level.

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Paper Title: Effect of Bio-Preparation on Physiological Status of Dry Cows

Abstract: The physiological maturity of newborn animals depends on the physiological and biochemical status of mother cows during the dry period. Any abnormality of this status initiates the appearance of disturbances in the mother-fetus functional system, affecting the harmonious development of the fetus in the last trimester of pregnancy. Therefore, adapting the vital processes in the body of dry cows can increase the viability of newborn calves, which is important. The aim of the research is to study the possibility of correcting the physiological state of the cows by using of the biotechnological preparation Albit-Bio. As a result of the study the natural resistance factors in animals during the research period, it was found that cows of the experimental group additionally fed with "Albit-Bio" were characterized by the best indicators of cellular protection factors compared with control group of cows. Particularly, the blood phagocytic activity was higher by 37.50%, ($P \leq 0.05$) and, the phagocytic index was higher by 51.37, ($P \leq 0.05$) and the phagocytic number - by 5.42%, which indicated a more pronounced aggressiveness of neutrophils. After calving, the animals of this group were characterized by a good neutrophil digesting ability.

Keywords: dry cows, biotechnological preparation Albit-Bio, physiological status, blood, natural resistance.

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Paper Title:

Advanced Drowsiness Detection Systems Based on Human Activities and Videos

Abstract: Drowsiness and lack of attention in driving are main two reasons for any road accident. So far several approaches like face recognition, measurement of human body using wrist band, measuring heart beat and others are defined to detect these kinds of situations to avoid such accidents. All these approaches need some forceful/peripheral attachment with/on driver to do so other than these approaches other solutions are having various limitations in functionalities. In case of solutions using face detection, it is difficult to get the face impression during night or in dark/dull light when maximum chances of accidents are suggestive. On the other hand, with solutions using wristband, drivers have to wear wristband while driving, similarly there are several methods where drivers need to wear some headband or external device. In this manuscript, we have proposed a comprehensive and experimented solution for drowsiness problem. Our approach is sovereign of any device/external gadget dependency. Proposed approach introduces the algorithmic solution to detect the sleeping behavior of a driver with existing parameters and will generate alert for the driver and vehicles near the vehicle driver suffering from drowsiness or lack of attention. The proposed approach is tested over more than 180 test cases with efficacious results.

Keywords: Automotive safety in automotive, Drowsiness, Car-to-car communication, driver behavior dissemination, driver fatigue detection, driver inattention monitoring, wearable devices.

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	<p>Authors: Praveen Barapatre, Jayantilal N. Patel</p> <p>Paper Title: Determination of Soil Moisture using Various Sensors for Irrigation Water Management</p>	
	<p>Abstract: This research examination analyzes prototyping an organized calibration and working of various soil moisture sensors. It provides recommendations on how to upgrade Internet of Things (IoT) based soil moisture identification system for irrigation frameworks. The observational examination used two sensors to distinguish the soil moisture fronts which are Resistive Soil Moisture and Capacitive Soil Moisture. The results of this study indicate IoT based soil moisture detection is an effective method that provides reliable front data that can be used to adapt and improve irrigation and precision farming methods. Confirmation of the positive impact of this prototyping is presented in this study.</p>	
	<p>Keywords: Agriculture, Irrigation, Sensor, Soil Moisture.</p>	
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	<p>Authors: Valerii A. Lopatin, Roman V. Seryshev, Pavel V. Trifonov, Kirill Yu. Mukhin, Valerii V. Smirnov</p> <p>Paper Title: Increasing the Level of STP In Information Processing</p>	
	<p>Abstract: The paper addresses the issue of increasing the level of STP in information processing. The factors that hinder the increase in the level of STP processes are investigated, and ways to increase the level of STP are researched, with the current state of information technologies considered. Factors are identified by a structural analysis of the process model, the construction of an STP level estimation algorithm, and a comparative analysis of the STP level for processes with low and high STP levels.</p>	
	<p>Keywords: Processes, STP level, process model, internal process environment, process template, process instances.</p>	
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Paper Title: The Effect of Metabolites Echinococcus Granulosus On the Amino Acid Composition of The Cattle Slaughter Products

Abstract: The studies have shown that with the increase in the degree of cattle infestation with Echinococci, a decreased concentration of bound amino acids is observed in the organs and tissues, especially in the affected organs (liver, lungs), which is an evidence of their decomposition to free amino acids. The diversity of their concentrations in various organs and tissues has been established, which is related to the functional peculiarities of the organs. When comparing the total concentration of bound amino acids in the cattle strongly invaded with Echinococci with that in clinically healthy animals, it has been found that its concentration decreased 1.5 times in the liver and in the rib eye, 1.3 times — in the lung tissues and in the spleen, and 1.2 times — in the heart muscle and in the tissues of the kidneys. With a strong degree of infestation, the total concentration of bound amino acids in all organs and tissues was 1.5 times lower than in clinically healthy animals. It should be noted that in the case of echinococcosis, the following related amino acids were not registered in cattle: in the heart muscle — lysine, in the liver and lungs — lysine and tyrosine; and in the tissues of the liver of clinically healthy animals — bound amino acid lysine in the liver tissues, and lysine and tyrosine — in the lung tissues. Decreased concentration of bound amino acids in the case of echinococcosis is an evidence of the destructive processes in the organs and tissues of the animals, which results in deterioration of the quality and safety of animal slaughter products.

Keywords: cattle, echinococcosis, bound amino acids, slaughter products, safety, organs, tissues.

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Paper Title: Candle Stick Pattern RecognitionUsing Convolutional Neural Network (ResNet)

Abstract: Financial Markets is depicted as a place where you can make money easily. So, the analysis of the stock market is one of the most happening and interesting analysis Lot of top investment banking company HNI's (High net worth individuals) who are Active in financial markets use a leading indicator called candle sticks for finding the direction of the movement of a stock and act accordingly to yield maximum profit. Many researchers have come up with a lot of modelling to find these movements. In this research we are going to use Data Analysis and Convolutional Neural Network to find the patterns and movement of the stock prices.

Keywords: Candle Stick Analysis, Data Analysis, Convolutional Neural Networks, Residual Neural Network.

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Authors: K.KusumaLatha,B.Ram Sai Prakash, P.V.R.D.PRASADA RAO

Paper Title: Warehousing Of Medical Data Using Blockchain

Abstract: Block chain is one of the genius innovations among all the technologies. It works like a database which stores the data. It changed the traditional method of storing the information and also the transactions that are made between computers virtually and securely throughout the internet. Block chain enables advanced organization of data to traverse the world without being altered, and was initially made for bitcoin exchanges which were virtual currency that was circulated by open source developers. Basically it works as a decentralized

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(shared) technology. The database updates are shared over the network thus it opposes from single point failure, and the changed will be updated securely with faster settlement. In this procedure no node in the block chain can't able to know what the transaction is. Our aim is to create a secured block chain database system to store and retrieve the Information. This block chain system centralizes the information sharing among all the medicinal hospitals and secures the data without any tampering and retrieves the medical data efficiently.

Keywords: Blockchain, Medical data, Security, SHA256 Algorithm.

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Authors:

Akilesh M, Kathiresan Ganesan, Soundararajan R, Dinesh G, Abhay Charan

Paper Title:

Numerical Simulation of Vibration and Structural Born Noise Analysis of Industrial Gearbox

Abstract: Unchecked vibrations can generate noise, accelerate rates of wear, cause safety glitches, resulting in low efficiency and at times a costly failure in mechanical components. Just like gear and shafts, the gearbox casing is a vital transmission component. So, while designing, the gearbox casing strength is a significant parameter to consider. The reasons for vibrations are external disturbances, load fluctuations, transmission faults, gear mesh stiffness and many other reasons. Therefore, it is vital to estimate and settle the limits of vibrations and noise in designing stage using Finite Element Analysis (FEA). This paper comprises dynamic analysis and Structural born noise calculation for a single stage helical gearbox casing by employing Finite Element Analysis. Using SOLIDWORKS the 3D model of gearbox was prepared and using ANSYS 18.1 software finite element simulation was done. To forecast the natural frequencies and dynamic responses of the system for the excitation frequencies and its harmonics, Modal and Harmonic analysis was carried out. The estimation of natural frequencies of the gearbox casing in Modal analysis aids in keeping the natural frequency away from resonance frequencies. The magnitude of the natural frequencies of the gearbox is estimated using Harmonic analysis. The results of harmonic analysis were used as input for acoustic study and the Structural Born Noise (SBN)was measured. Obtained noise values are well within the limits and the design was verified.

Keywords: SBN, SOLIDWORKS, FEA, ANSYS 18.1.

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Authors:

Sk. Nagurvali, S Nagakishore Bhavanam, Vasujadevi Midasala, J Lavanya

Paper Title:

Design and Simulation of Srichakra Shape Microstrip Tri-Band Patch Antenna

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Abstract: Today's communication demand the antennas those are capable to handle the two (or) more frequencies. Here a single patch of srichakra shape microstrip radiator is proposed. Design can be made up of the Rogers RO 3003 material of thickness 1 mm. The antenna is made by cutting the Hexagram slots in a circular patch. This can be modelled by the commercial software HFSS. From the achieved results the antenna operated in NATO J-band, Ka-band and K-bands with the gains 5.368dB, 8.13dB, 8.52dB, 8.89dB at the centre frequencies 12.2GHz, 23GHz, 25.8GHz, and 31.8GHz respectively.

Keywords: Srichakra, hexagram slot, NATO J-band, Ka-band, K-band.

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Authors: Praveen Kumar Joshi, R. P Singh, Chava Sunil Kumar

Paper Title: Power Quality Improvement in Distribution System using Active Filter Technology

Abstract: Power distribution systems are crucial for growth of industries and pave way for economic growth as well. In such systems, flaws in distribution leads to deteriorated quality distribution. Active Power Filter (APF) is the device which is capable of eliminating both lower order and higher order harmonics in distribution systems. Distribution networks bestow a great job in supplying power to different kinds of non-linear loads. For instance, it can supply power to high power industrial electrolysis and three phase rectifier fed motor drives. In the rectifiers and inverter stations converter transformers are used. Converter transformer plays an important role in distribution systems. Traditional converter transformers in the presence of non-linear loads harmonic components can cause affect winding of the transformer. This in turn reduces the life time of transformer besides brining many power quality problems to the distribution networks. To overcome these drawbacks, this paper proposes a converter transformer with APF to leverage benefits of APF and improve power quality improvement in distribution systems. The filter circuit is associated with the secondary common winding and secondary prolonged winding provided a tap at the connecting point of these two. When secondary prolonged winding encounters harmonic current, common winding associated with the new converter transformer is able to cause contrasting harmonic current in order to balance it. This is made possible with the secondary common winding with zero impedance design. Thus in the new converter transformer, the primary winding does not have any induced harmonic current. The proposed APF is evaluated with simulation study that showed power quality enhancement in distribution when compared with state of the art shunt active power filtering.

Keywords: Distribution systems, converter transformer, novel active power filter, current control.

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Authors:	Abdul Rahiman Sheik, Kalva Sri Rama Krishna
Paper Title:	Optimal Design and Synthesis of Linear Antenna Array Using Social Group Optimization Technique

Abstract: In the recent past many evolutionary computing algorithms are proposed for linear array synthesis with several objectives adopting many available synthesis techniques. Every synthesis technique has its unique performance on each objective. It is evident from the literature that incorporating newly proposed heuristic approaches which are widely accepted in other disciplines for antenna array synthesis is a predominant part of research in electromagnetics. This consistently helped antenna engineers to take on the challenges of pattern synthesis for wireless applications. Accordingly in this paper a new algorithm namely Social Group Optimization Algorithm (SGOA) has been chosen and applied for optimally designing linear array synthesis. Further a comparative study is performed to analyze the performance of this algorithm over existing popular numerical technique called Chebyshev technique. Several objectives are considered for synthesis of LA in this work. Obtaining a very low SLL of -50dB with narrowest possible BW that is equal to the Chebyshev BW (TBW) for the same SLL is one of the major objective of investigation. The other objectives are to study the synthesis process using both amplitude only and amplitude-space techniques. Symmetrical LA is considered in all the cases mentioned in this paper.

Keywords: SLL, SGOA, BW, ARRAY FACTOR.

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Authors: Sergey Vladimirovich Svistunov, Nina Nikolaevna Bondarenko, Andrey Georgievich Koshchaev, Dmitry Alexandrovich Normov, Vladimir Nikolaevich Shevkopljas, Olga Petrovna Neverova, Anatoly Michailovich Smirnov

Paper Title: Productive Qualities of Gray Mountain Caucasian Bees of Type Krasnopolyansky

Abstract: The article discusses the research aimed at studying the productive qualities of gray mountain Caucasian bees of type Krasnopolyansky and improvements in breeding them. The study was based on the data of zootechnical accounting performed in 2018 at the apiaries where comparative assessment of the diversity and the differentiation of gray mountain Caucasian bees' populations had been previously performed based on the morphometric analysis and microsatellites for identifying the differences in the structure of the genealogical tree of gray mountain Caucasian bees of type Krasnopolyansky built for seven loci of microsatellites and three morphological features. Four groups of medium strength of bee colonies were formed (for each apiary). All apiaries were geographically isolated from each other. During the experiment, the bee colonies were self-sufficient in carbohydrate and protein food. The amount of sealed brood was assessed three times in 12 days' periods using a frame-mesh. The following were determined: the average daily egg production by queen bees in

the spring and before the main honey flow; the number of bees grown in the spring and by the beginning of the main honey flow. After comparative assessment of the bee colonies' productivity, the group with the best development of the bees before the main honey flow was identified. Queen bees in this group were on average by 16 % superior in terms of egg production to gray mountain Caucasian queen bees of type Krasnopolyansky, while in the other three bee colonies, according to the latest accounting, the average daily egg production by queen bees was 1,933 – 2,242 pcs. This apiary will be further used in breeding for identifying queen bees, the offsprings of which will inherit the economically useful features, and which can potentially become ancestors of new bee lines with the productivity increased by at least 15 %.

Keywords: honey bee, beekeeping, queen bee, efficiency, egg productivity, gray mountain Caucasian bees of type Krasnopolyansky.

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Paper Title: Security against ARP Spoofing Attacks using Bayesian Support Vector Regression

Abstract: In computer networks, Address Resolution Protocol (ARP) discovers the MAC address associated with an IP address but ARP lacks authentication in exchanging MAC address between hosts. This creates opportunity for hackers to employ ARP spoofing to damage the data and system. Many protection systems have been developed but the requirement to modify the basic network structure and expensive tools make it difficult to utilize. This paper investigates the practical limitations and considers the problem of detecting incompletely rectified adversaries from past sessions. For resolving this problem, Bayesian Support Vector Regression based ARP (BSVR-ARP) spoofing attacks protection mechanism is proposed. This mechanism considers the host configuration changes and network transmission errors for a probability prediction algorithm to detect the attackers. The attackers from the past sessions are also detected based on past knowledge and then using these detection results, they are either rectified or discarded from the network transmission routes. The detection and prevention of ARP spoofing has been accurate and effective in BSVR-ARP. The experimental results show that the proposed mechanism overcomes the limitations of other ARP spoofing prevention schemes and has higher accuracy of detection with minimal errors.

Keywords: Address resolution protocol, ARP spoofing, cache poisoning, Bayesian Support Vector Regression, probability prediction algorithm.

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Paper Title: Implementation and Verification of Rgb to Grayscale Converter Ip Using System Verilog

Abstract: In this paper, a generic rgb to gray scale converter intellectual property (IP) core is implemented and verified. First verification environment for the device under test (DUT) is implemented using system verilog class libraries and Qsys tool of Quartus software. Then the device under test (DUT) is verified by performing two tests. First test is video file reader test which is carried out to check the functionality of the device under test and another test is constrained random test which is performed to verify the device under test outputs with randomly generated expected outputs. Both the test are performed using Modelsim software.

Keywords: Intellectual Property (IP) core, Verification, Device Under Test (DUT), Verification Environment, System Verilog.

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Authors:	A. Y. Murashko, V. B. Orlov, A. V. Zubov, L. A. Bondarenko, V. A. Petrova
Paper Title:	Qualitative Analysis of the Behavior of One Mechanical System

Abstract: The study of oscillations occurring in mechanic systems is not only urgent but also vital issue, especially if the mechanic system operates under extreme conditions. A certain mechanical system is analyzed by designing of computations which account for possible variations of solution properties upon equivalent transformations. Generally, the subject matter of research upon such approach is comprised of ideal sign models of dynamic systems presented in the form of mathematical equations (sets of equations) relating physical variables describing qualitatively state of these systems. The research procedure is based on consideration of models of actual dynamic systems in various forms of recording of the relevant equations and determination of parameters, the minor variations of which can lead to variation of behavior quality of dynamic system. The main aim of this article is detection of parameters of the considered dynamic system which in the case of their minor variations can lead to loss of stability, overshoot or overcontrol of this system upon its operation. The obtained conclusions confirm once more on the basis of actual example the necessity to analyze model types of dynamic systems already at the stage of their mathematical simulation.

Keywords: Model, engineering analysis, computations, stability, control, stabilization, ill-posed systems.

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Authors:	Andrey Vladimirovich Valoshin
Paper Title:	Protein Exchange and Localization in the Organism of Fattened Bull-Calves after the Introduction of Various Dosages of Vitamin A into the Diets with Bagasse Pellets

Abstract: Research data are provided about the effect of various dosages of vitamin A (retinol acetate) on the metabolism and localization of the protein in the organism of experimental animals (fattened bull-calves), that is, conversion of proteins in the diet into the main nutrients of the edible portion of the carcass (cuts) of bull-calves fed on diets with bagasse pellets. It has been found that vitamin A preparations are to be introduced into such diets; in the experiment, the authors used retinol acetate with the biological activity of 1 mln IU in 1 g, so as to make their content in the diets about 25 – 27 thous. IU per 100 kg of live weight (the optimal dosage, depending on the body weight of the animal during the experiment). This helps improve the average daily live weight gain of bull-calves by 11.7 %, of the carcass weight – by 9.2 %, including flesh – by 11.1 %. In the flesh of the carcass, the content of protein increased by 15.4 %, of fat – by 15.2 %, and of energy – by 8.2 %. The conversion ratio of feed protein to food protein in the meat part of the carcass increased by 1.33 %, of feed energy – by 1.2 %.

Keywords: bull-calves, fattening, bagasse pellets, meat yield, conversion, and localization of feed protein and energy.

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Authors:

Ranjan Mishra, Raj Gaurav Mishra, R. K. Chaurasia, Amit Kumar Shrivastava

Paper Title:

Design and Analysis of Microstrip Patch Antenna for Wireless Communication

Abstract: The microstrip antenna required for wideband correspondence ought to be lightweight, ease in fabrication and smaller in size. The present situation plan is to create a simple geometrical shaped structure of the microstrip antenna, which would give decent broadband. The paper presents the design analysis of rectangular and square shaped microstrip antenna. Both the antennas used microstrip line for feeding purpose. The square-shaped microstrip antenna is offering wider bandwidth as compared to rectangular microstrip and sufficient return loss. The compact antenna is mean for its operation in X band of frequency. The proposed microstrip antenna is showing a wide bandwidth of 500 MHz with a high return loss of -24 dB. This high bandwidth provides its usefulness in many wideband utilities in X- band.

Keywords: Broadband, Microstrip Antenna, Reflection coefficient, Stub Matching.

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Authors:

Subramanyam Busetty, Srihari Vedartham

Paper Title:

Evaluation of Ground Water Quality by Fuzzy

Abstract: Due to rapid urbanization and inadequate solid waste disposal leads contamination of ground water and surface sources in and around the dump site. In the present study groundwater quality survey was carried out at a major solid waste disposal site at the temple city of Thanjavur (Tamil Nadu, India), where groundwater samples were collected and analyzed for six chemical parameters such as pH, Total Dissolved Solids (TDS), Alkalinity, Hardness, Chloride and Turbidity to assess the effect of solid-waste disposal on the groundwater quality. The quality parameters of the samples were compared with IS code to know the suitability of water for drinking purpose. The study indicates that water quality parameters exceed the permissible limits for drinking at many locations leading the water unsuitable for drinking.

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Keywords: quality Index, contamination, solid waste, percolation.

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	<p>Authors: Farida Smolnikova, Zhanar Moldabayeva, Marina Klychkova, Olga Gorelik, Ruslan Khaybrakhmanov, Irina Mironova, Azamat Kalimullin, Gulnara Latypova</p> <p>Paper Title: Sour Milk Production Technology and Its Nutritive Value</p>	
	<p>Abstract: This paper presents the method of sour (fermented) milk drink production technology and its nutritive value. The method includes the preparation of mixture from milk and plant ingredients (dill and parsley), cooling, adding the symbiotic starter "Simbilact V1VO with lactulose", fermentation and mixing, cooling the product and packaging. Souring the mixture is carried out at 37 °C for 6-8 hours, and the ingredients are taken at the following ratio: milk 91%, parsley 2.5-5.0%, dill 2.5-5.0%, symbiotic starter 1.5%. The nutritive value is higher in developed sour milk drink as compared to the control milk drink. The developed sour milk product tends to have more vitamins (especially Vitamin C), minerals and protein than the control sour milk product.</p>	
	<p>Keywords: sour milk, fermentation, dill, parsley, technology, symbiotic starter culture.</p> <p>References:</p> <ol style="list-style-type: none"> Kakimov, A., Smirnova, I., Zharykbasov, Y., Kakimova, Z., Yessimbekov, Z., Mirasheva, G., Baybalinova, M., 2017. Specific activity of Cs-137 in milk of Semey region of East Kazakhstan area. <i>Annual Research and Review in Biology</i>, 12 (5), DOI: 10.9734/ARRB/2017/33391. Gorelik, O., Shatskikh, Y., Rebezov, M., Kanareikina, S., Kanareikin, V., Lihodeyevskaya, O., Andrushechkina, N., Harlap, S., Temerbayeva, M., Dolmatova, I., Okus Khanova, E., 2017. Study of chemical and mineral composition of new sour milk bio-product with sapropel powder. <i>Annual Research and Review in Biology</i>, 18 (4), DOI: 10.9734/ARRB/2017/36937 Semenikhina, V.F., Rozhkov, I.V., Begunova, A.V., Fedorova, T.V., Shirshova, T.I., 2018. Development of biotechnology of fermented milk product with Lactobacillus reuteri LR1 and the evaluation of its functional property in experiment in vitro and in vivo. <i>Voprosy Pitaniia</i>, 87 (5), pp. 52-62. Kapsakhbayeva, Z., Mayorov, A., Moldabayeva, Z., Baitukanova, S., Utegenova, A., Okus Khanova, E., 2018. Hallumi type cheese production technology and its nutritive value. <i>International Journal of Engineering and Technology(UAE)</i>, 7 (4.36), pp. 363-367. Aboushanab, S., Vyrova, D., Selezneva, I., 2018. Characterization of low- and non-fat yogurt manufactured with addition of beta-glucan as a dietary supplement. <i>AIP Conference Proceedings</i>, 2015(1), DOI: 10.1063/1.5055076. Kakimov, A., Mayorov, A., Ibragimov, N., Zhumadilova, G., Muratbayev, A., Jumazhanova, M., Soltanbekov, Z., Yessimbekov, Z., 2019. Design of equipment for probiotics encapsulation. <i>International Journal of Innovative Technology and Exploring Engineering</i>, 8 (4), pp. 468-471. Alenisan, M.A., Alqattan, H.H., Tolbah, L.S., Shori, A.B., 2017. Antioxidant properties of dairy products fortified with natural additives: A review. <i>Journal of the Association of Arab Universities for Basic and Applied Sciences</i>, 24, pp. 101-106. Akhmetova, S.O., Suleimenova, M.S., 2018. Quality management system for improvement of quality and efficiency of food production: Case of dairy products enterprise. <i>Entrepreneurship and Sustainability Issues</i>, 6 (1), pp. 289-310. Serikova, A., Smolnikova, F., Rebezov, M., Okus Khanova, E., Temerbayeva, M., Gorelik, O., Kharlap, S., Baitukanova, S., Baitukanova, S., Tumbasova, Y., 2018. Development Of Technology Of Fermented Milk Drink With Immune Stimulating Properties. <i>Research Journal of Pharmaceutical Biological and Chemical Sciences</i>, 9(4), pp. 495-500. Borisenko, A.A., Kas'yanov, G.I., Borisenko, A.A. (jun.), Zaporozhskiy, A.A., 2005. Development of balanced multicomponent food products based on their nutrient composition. <i>News of Institutes of Higher Education.Food Technology</i>, 2(3), pp. 106–107. Tamine, A. Y., Thomas, L. V., 2005. Probiotic dairy products. Blackwell Pub. Mikkola, M., Colantuono, F., 2017. Consumer insight and approaches in new dairy products development. <i>Advances in Dairy Products</i>, pp. 404-420. Rai, A. K., Sanjukta, S., Jeyaram, K., 2017. Production of angiotensin I converting enzyme inhibitory (ACE-I) peptides during milk fermentation and their role in reducing hypertension. <i>Critical reviews in food science and nutrition</i>, 57(13), pp. 2789-2800. 	
120.	<p>Authors: Shanmathi Sridhar, A. Leema Rose</p> <p>Paper Title: Performance Evaluation of Post-Tensioned Concrete Beams with Bonded System</p>	670-672
121.	<p>Abstract: Looking at the modern trend of construction, post-tensioning method is popularly used in commercial and residential sectors. The application of post-tensioning system is expanding because of its benefits over conventional method of construction, for example, more slender structural members, lighter in weight and smaller floor-to-floor heights. By employing post-tensioning method one can plan the most monetary and the safe structure. Prestressed concrete has been utilized as a replacement of reinforced concrete everywhere throughout the world for quite a long time. Presently, prestressed technology gives productive answers for different structural members and circumstances. The experimental results on the flexural behavior of post-tensioned concrete beams with bonded system are compared. Four rectangular post-tensioned beams were tested and analyzed. The beams were tested under single point monotonic loading condition and two point monotonic loading condition. The load-deflection behavior, stress-strain behavior and crack patterns are presented from the test results. Post-tension system effectively controlled deflection and crack due to the presence of tendons in addition to the reinforcing steel. All the four test outcomes were compared and they clearly showed good results over the conventional beams.</p>	673-677

	<p>Keywords: RAPT, Tendons, Post-tension, Bonded system, Prestressed concrete.</p> <p>References:</p> <ol style="list-style-type: none"> Ankit Sahu, P. A. (2014). Cost Comparison Between RCC & Post-Tensioned Prestressed Beams Spanning 26m . International Journal of Computational Engineering Research (IJCER) , IV, 2250-3005. Assaad Taoum, H. J. & D. H., 2015. Flexural behavior of locally post-tensioned. Australian Journal of Structural Engineering Chengquan Wang, Y. S. R. Y. a. Z. W., 2017. Ductility and Ultimate Capacity of Prestressed Steel Reinforced Concrete Beams. ScienceDirect, pp. 1-6. O.F. Hussien, T. E. (2012). Behavior of bonded and unbonded pre-stressed normal and high strength concrete beams . HBRC Journal , 239-251. KishanKamani, M. A. K., 2018. Comparative Study of Bonded &Unbonded Post-Tensioning Beams in Building. Volume V, pp. 2351-2356. Nishant M. Dobariya, A. A. (2017). Comparative Study Of Bonded & Unbonded Post-Tensioning For Long Span Beam In Building . International Journal of Advance Engineering and Research Development , 532-539. Thomas H.-K. Kang, Y. H. (2015). Experimental and Numerical Assessment of Bonded and Unbonded Post-Tensioned Concrete Members . ACI Structural Journal , 735-748. 	
	<p>Authors: N.Sunanda , N.Sriyuktha , P.Sai Sankar</p> <p>Paper Title: Revocable Identity - Based Encryption For Secure Data Storage In Cloud</p>	
	<p>Abstract: Cloud Computing gives an adaptable and advantageous route for sharing of the data , which in-turn have advantages for the public and the people. There might be a case, there exists a natural resistance for clients to straightforwardly redistribute the mutual information to the cloud server since the information regularly contain significant data. In this way, it is important to put cryptographical access control on the data we share through cloud. Identity based encryption builds a practical data sharing system. Here the access control not being static, it is the point at which some client's authorization is lapsed, there ought to be an mechanism that can revoke him/her from the system. So that the revoked client cannot access the shared data. To this extent , in our research we propose a model called revocable-storage identity based encryption (RS-IBE), which can give the forward/backward security of cipher text by presenting the functionalities of client revocation and cipher text update. The performance of the RS-IBE model has its own advantages in terms of efficiency and thus is a cost-effective data sharing system.</p>	
	<p>Keywords: cryptographical , RS-IBE , revocation, Cipher text, Cloud.</p> <p>References:</p> <ol style="list-style-type: none"> Jianghong Wei, Wenfen Liu, Xuejian Hu, "Secure Data Sharing in Cloud Computing Using Revocable-Storage Identity-Based Encryption", Journal Of Latex Class Files, Vol. 14, No. 8, August 2015. Yuh -Min Tseng, Tung-Tso Tsai, Sen-Shan Huang, and Chung-Peng Huang, "Identity-Based Encryption with Cloud Revocation Authority and Its Applications", IEEE TRANS. CLOUD COMPUTING 2017. A. Shamir, "Identity-based cryptosystems and signature schemes," in Advances in cryptology. Springer, 1985, pp. 47–53. D.Boneh and M.Franklin, "Identity-based encryption from the weil pairing," SIAM Journal on Computing, vol. 32, no. 3, pp. 586–615, 2003. Wang, B. Li, and H. Li, "Public auditing for shared data with efficient user revocation in the cloud," in INFOCOM, 2013 Proceedings IEEE. IEEE, 2013, pp. 2904–2912. S.Ruij, M. Stojmenovic, and A. Nayak, "Decentralized access control with anonymous authentication of data stored in clouds," Parallel and Distributed . Systems, IEEE Transactions on, vol. 25, no. 2, pp. 384–394, 2014. X. Huang, J. Liu, S. Tang, Y. Xiang, K. Liang, L. Xu, and J. Zhou, "Cost-effective authentic and anonymous data sharing with forward security," Computers,IEEE Transactions on, 2014, doi: 10.1109/TC.2014.2315619. C.-K. Chu, S. S. Chow, W.-G. Tzeng, J. Zhou, and R. H. Deng, "Key-aggregate cryptosystem for scalable data sharing in cloud storage," Parallel and Distributed Systems, IEEE Transactions. R. Housley, W. Polk, W. Ford, and D. Solo, "Internet X.509 public key infrastructure certificate and certificate revocation list (CRL) profile," IETF, RFC 3280. 10.W. Aiello, S. Lodha, and R. Ostrovsky, "Fast digital identity revocation," Proc. Crypto'98, LNCS, vol. 1462, pp. 137-152. D. Boneh, X. Ding, G. Tsudik, and C.-M. Wong, "A Method for fast revocation of public key certificates and security capabilities," Proc.10th USENIX Security Symp., pp. 297-310. Girishma, V., & Satyanarayana, K. V. V. (2016). Securing data stored in clouds using multi keys and proxy injection schemes. Journal of Theoretical and Applied Information Technology, 88(3), 553-557. Retrieved from www.scopus.com. Paruchuri, V. L., Anantha, N. L., Konagala, V. L., & Bhattacharyya, D. (2016). Ciphertext-policy attribute-based encryption for access control of data in cloud. International Journal of Software Engineering and its Applications, 10(8), 13-22. doi:10.14257/ijsea.2016.10.8.02. Ramya, K. R., Malleswari, D. N., Rani, C. R., Bhattacharyya, D., & Kim, H. -. (2016). Key aggregate based homomorphic encryption for efficient authentication for secure cloud storage. International Journal of Database Theory and Application, 9(11), 137-148. doi:10.14257/ijdta.2016.9.11.13. Vurukonda, N., & Thirumala Rao, B. (2017). Secure sharing of outsourced data in cloud computing with comparison of different attribute based encryption schemes: A review. Journal of Advanced Research in Dynamical and Control Systems, 9(Special Issue 14), 680-698. Retrieved from www.scopus.com. 	678-682
122.	<p>Authors: V. Gokula Krishnan, N. Sankar Ram</p> <p>Paper Title: Co-operative Cluster based Multi-Agent Approach for Efficient Traffic Forecasting and Management in VANET</p>	
	<p>Abstract: Vehicular Adhoc Network (VANET) is a kind of advanced MANET specially designed for vehicular communication. Routing in dynamic environment is difficult therefore Multi agent based cooperative routing in</p>	

123.	<p>dynamic vehicular technology is proposed. The objective of this work is to determine effective routing by utilizing the information provided by the intelligent multi agent systems. A Co-operative Cluster based Multi-Agent Approach (CCMAA) for intelligent routing protocol is proposed for better results since implementing traffic forecasting and efficient routing in dynamically changing environment is a challenging task. The multi agent system includes mobile agent, static agent, service agent and this agent are used for optimal communication and reduces network traffic. The performance evaluation is done using the simulation tool Network Simulator (NS2) tool. Packet delivery rate, delay and throughput are the performance metrics used to evaluate the proposed protocol.</p> <p>Keywords: Intelligent vehicles, Multi Agent technique, Co-operative routing, Traffic forecasting.</p> <p>References:</p> <ol style="list-style-type: none"> 1. , Ramesh B., and S. K. Mahabaleshwar. "Multi agent based congestion control in VANETs." International Journal of Future Computer and Communication, vol. 3, no. 2, (2014): 102. 2. Hanashi, Abdalla M., Irfan Awan, and Mike Woodward. "Performance evaluation with different mobility models for dynamic probabilistic flooding in MANETs." Mobile Information Systems, vol. 5, no. 1 (2009): 65-80. 3. Kwak, Jin Sam, and Jae Hong Lee. "Infrared transmission for inter-vehicle ranging and vehicle-to-roadside communication systems using spread-spectrum technique." IEEE Transactions on intelligent transportation systems vol. 5, no. 1 (2004): 12-19. 4. Kwak, Jin Sam, and Jae Hong Lee. "Infrared transmission for inter-vehicle ranging and vehicle-to-roadside communication systems using spread-spectrum technique." IEEE Transactions on intelligent transportation systems 5, no. 1 (2004): 12-19. 5. Frazzoli, Emilio, and Francesco Bullo. "Decentralized algorithms for vehicle routing in a stochastic time-varying environment." In Decision and Control, 2004. CDC. 43rd IEEE Conference on, vol. 4, pp. 3357-3363. IEEE, 2004. 6. Fahmy, M. Farazy, and D. N. Ranasinghe. "Discovering automobile congestion and volume using vanet's." In ITS Telecommunications, 2008. ITST 2008. 8th International Conference on, pp. 367-372. IEEE, 2008. 7. Wischhof, Lars, and Hermann Rohling. "Congestion control in vehicular ad hoc networks." In Vehicular Electronics and Safety, 2005. IEEE International Conference on, pp. 58-63. IEEE, 2005. 8. Wischhof, Lars, Andr Ebner, and Hermann Rohling. "Self-organizing traffic information system based on car-to-car communication: Prototype implementation" In International Workshop on Intelligent Transportation (WIT), pp. 49-53. 2004. 9. Claes, R., Holvoet, T., & Weyns, D. (2011). A decentralized approach for anticipatory vehicle routing using delegate multiagent systems. IEEE Transactions on Intelligent Transportation Systems, 12(2), 364-373. 10. Chen, B., & Cheng, H. H. (2010). A review of the applications of agent technology in traffic and transportation systems. IEEE Transactions on Intelligent Transportation Systems, 11(2), 485-497. 11. Weyns, D., Holvoet, T., & Helleboogh, A. (2007, September). Anticipatory vehicle routing using delegate multi-agent systems. In Intelligent Transportation Systems Conference, 2007. ITSC 2007. IEEE (pp. 87-93). IEEE. 12. Dresner, K., & Stone, P. (2004, July). Multiagent traffic management: A reservation-based intersection control mechanism. In Proceedings of the Third International Joint Conference on Autonomous Agents and Multiagent Systems-Volume 2 (pp. 530-537). IEEE Computer Society. 13. Kakkasageri, M. S., & Manvi, S. S. (2012). Multiagent driven dynamic clustering of vehicles in VANETs. Journal of Network and Computer Applications, 35(6), 1771-1780. 14. Claes, R., Holvoet, T., & Weyns, D. (2011). A decentralized approach for anticipatory vehicle routing using delegate multiagent systems. IEEE Transactions on Intelligent Transportation Systems, 12(2), 364-373. 	683-689
124.	<p>Authors: G Rajender, T Anil Kumar, K Srinivasa Rao</p> <p>Paper Title: Dual bound Kalman Filter for Signal Estimation in Multipath Fading for MIMO-OFDM Communication system</p> <p>Abstract: In this paper, Signal estimation in MIMO-OFDM communication using enhanced kalman filtration is proposed. Received Signal is passed through estimator unit, where the interference level is estimated and applied over the signal to compensate the error to minimal. Recursive estimators are used for estimation, in the kalman filter model, least mean square (LMS) estimator is used for the error estimation and minimization. In recursive estimation convergence delay is primal factor of estimate and defines the speed of estimation. In the existing process of estimation, errors are propagated in a backward direction to update the weight factor for forward error minimization. However, the error updation in the dynamic channel model is non linear and a backward feed loop in different cases leads to instability and doesn't converge. This problem is solved by introducing dual bound estimation logic, where a forward weight adaptation in parallel with backward weight is monitored to derive a updating weight factor. The error performance, delay and MSIE parameter is validated for different SNR sand step sizes.</p> <p>Keywords: Dual bound coding, Kalman filter, IMO-OFDM Communication system.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Amirkhossein Fereidounabar,Gian Carlo Cardarilli, Luca Di Nunzio, Rocco Fazzolari, "UAV Channel Estimation with STBC in MIMO Systems", The International Conference on Advanced Wireless, Information, and Communication Technologies, Procedia Computer Science, vol. 73, pp. 426 – 434, Elsevier, 2015. 2. Ashish Kr. Gupta, Mukesh Pathela, Arun Kumar, "Kalman Filtering based Channel Estimation for MIMO-OFDM", International Journal of Computer Application, Vol. 53, pp. 0975 – 8887, 2012. 3. M. Huang, X. Chen, L. Xiao, S. Zhou and J. Wang, "Kalman-filter-based channel estimation for orthogonal frequency-division multiplexing systems in time-varying channels", IET Comm., vol.4, pp. 795–801, IEEE, 2007. 4. Shijie Zhang, Dan Wang and Jun Zhao, "A Kalman FilteringChannel Estimation Method Based on State Transfer Coefficient Using Threshold Correctionfor UWB Systems", International Journal of Future Generation Communication and Networking, Vol.7, pp.117-124, 2014. 5. T. Y. Al-Naffouri and A. A. Quadeer, "A Forward-Backward Kalman Filter-based STBC MIMO OFDM Receiver", Hindawi Publishing Corporation, Eurasip Journal on Advances in Signal Processing, vol.14, 2008. 6. Ashish Kakadiya, M Solanki, K Hadia, M Rathod, "Analysis of adaptive channel estimation techniques in MIMOOFDM system", 	690-696

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Authors: Agnivesh, Rajiv Pandey, Amarjeet Singh

Paper Title: Enhancing K-means for Multidimensional Big Data Clustering using R on Cloud

Abstract: One of the critical problems with K-means clustering is that it only converges to local optima which is easier than solving for global optima but can lead to less optimal convergence. This is particularly true for big data as the initial centers play a very important role on the performance of this algorithm. The paper proposes a novel K-means algorithm which presents a method to find optimized location of initial centers and initial number of clusters. This results in obtaining final set of clusters to converge globally, facilitating fast and accurate clustering over large datasets. Cloud computing implements massive scale and complex computing. Large amounts of data are inexpensively and efficiently analyzed by using parallelism technique. To acquire parallelism and scalable computing, R Studio server is deployed on Amazon Web Service Elastic Compute Cloud instance which divides the job among various nodes. The proposed methodology presents a very competitive performance taking considerable less computation time and cost effective. It can be compared to complex Hadoop Distributed File System and MapReduce A major drawback with Apache Hadoop is its MapReduce paradigm that is highly receptive when a process iterates number of times. R performs execution within memory which is faster and less complex as compared to Read/Write to the disk repeatedly in MapReduce. The research work is simulated on some popular real datasets from UCI Machine Learning repository. The results confirm that the proposed work models a robust and scalable technique for clustering big datasets.

Keywords: Artificial Intelligence, Big Data, Cloud Computing, K-means, MapReduce; R.

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Authors:	Adusumilli Sanjay, Putta Vijay Venkat Sai, Gogu Arun Kumar,T.Gunashekar, Sk. Hasane Ahammad
Paper Title:	Energy Efficient Resource Load Balancing In Cloud Computing

Abstract: To reach the requirements of today's most challenging problems in optimization of various parameters are to be done. To right utilization of available resources is very important and there is a requirement in advancing the proper and less usage of energy by the virtual machines. The tasks are to be optimized from Virtual machines to physical machines. In the cloud computing system, there is a huge problem of Connecting with virtualization, dynamism and resources.[3] These are classified according to the requirement of resources and finding the proper virtual machine and further continuing in search of physical machine. Here the selected virtual machine can be released. The given algorithm decreases the consumption of energy by decreasing the working states of multiple physical machines and reduces the task rejection rate and make span. By using the Cloudsim simulator, the results are demonstrated.

Keywords: Active host set, Deadline of task, Host set, Taskset, VM types.

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	<p>Authors: D.Rajitha, G.Karunakar, Rudra Pratap Das</p> <p>Paper Title: Novel Technique of Synthesizing and Optimizing Linear Antenna Array having Minimal Side Lobes and Null Control Using Invasive Weed Concept</p>	
127.	<p>Abstract: In this paper, a special optimization technique called Invasive weed optimization (IWO) has been initiated to synthesize linear variety of antenna arrays. IWO is applied to optimize amplitude excitations for performance improvement such as a reduced level of side lobes as well as control of null. A design example is considered and the amplitude weights are optimized with and without considering a specific beam width. In comparison with the conventional linear array antenna radiation pattern, this approach yields diminished levels of side lobe coupled with nulls positions in specific lines of choice.</p> <p>Keywords: Antenna Array, Low side lobe level, Null control, Invasive weed optimization.</p> <p>References:</p> <ol style="list-style-type: none"> 1. J. Johnson and Y. Rahmat-Samii, "Genetic algorithms in engineering electromagnetics", IEEE transactions on antennas and propagation magazine, vol. 39, No. 4 , pp. 7-21, Aug. 1997. 2. Majid M. Khodier and Christos G. Christodoulou, " Linear array geometry synthesis with minimum side lobe level and null controlling using particle swarm optimization", IEEE transactions on antennas and propagation, vol. 53, no. 8, pp. 2674-2679, August 2005. 3. A. R. Mehrabian and C. lucas, "A novel numerical optimization algorithm inspired from weed colonization", Ecol. Inform., vol. 1, no. 4, pp. 355-366, Dec. 2006. 4. Shaya Karimkashi and Ahemd A. Kishk, "Invasive weed optimization and its features in Electromagnetics", IEEE transactions on antennas and propagation, vol. 58, no. 4, April 2010 5. G.Karunakar and GSN Raju, "Influence of Dipole Length on Radiation Characteristics", IEEE Xplore, May - 2006, Article number . 5419770, Publisher: IEEE. 6. Oliveri, G. and A. Massa, Genetic algorithm (GA)-enhanced almost difference set (ADS)-based approach for array thinning,"IET Microwaves, Antennas & Propagation, Vol. 5, 305{315, 2011. 7. Mahanti, G. K., N. Pathak, and P. Mahanti, Synthesis of thinned linear antenna arrays with fixed sidelobe level using real-coded genetic algorithm," Progress In Electromagnetics Research,Vol. 75, 319{328, 2007. 8. Zhang, L., Y.-C. Jiao, Z.-B. Weng, and F.-S. Zhang, Designof planar thinned arrays using a Boolean differential evolutionalalgorithm," IET Microwaves, Antennas & Propagation, Vol. 4,2172{2178, 2010. 9. Rocca, P., G. Oliveri, and A. Massa, Differential evolution as applied to electromagnetics," IEEE Antennas and Propagation Magazine, Vol. 53, 38{49, 2011.20. 	708-710
	<p>Authors: Karanam Madhavi, G. Bhavyasri, G. Ramesh, Ch. Mallikarjuna Rao, Lavanya Gottemukkala</p> <p>Paper Title: Load Effectiveness on Coverage-Technique for Test case Prioritization in Regression Testing</p>	
128.	<p>Abstract: An approach is relied on the potentiality of function-coverage method depends on the correlation value among the coverage and fault rate. As the load increases on the test group, the response of the fault rate and the coverage information have observed. This observation states, while increasing the load the techniques involved are honed the performance of the function coverage technique. Test Case prioritization is an essential aspect for the improvement of functional testing along with coverage data. Test cases grouped and prioritized to lag the regression testing cost and lead to amplify the fault rate. Clustered test scripts are analysed in the increasing of load with the help of specified potential testing tool.</p> <p>Keywords: Clustered Technique, Regression Testing, Function Coverage Techniques, Performance Testing, Test Case Prioritization, and Load applied effectiveness.</p> <p>References:</p> <ol style="list-style-type: none"> 1. G. Bhavyasri and A. Ananda Rao, "Enhancing the Performance of Coverage-Based Techniques in Test Case Prioritization", International Journal of Scientific Research in Computer Science, Engineering and Information Technology, Vol 5, 2017, pp. 468-473,. 2. Elbaum, S., Malishevsky, A. G., & Rothermel, G. "Prioritizing test cases for regression testing". ACM , Vol. 25, No. 5, 2000, pp. 102-112. 3. Eghbali, S., & Tahvildari, L. "Test Case Prioritization Using Lexicographical Ordering". IEEE Transactions on Software Engineering, 42(12), 2016, 1178-1195. 4. Elbaum, S., Malishevsky, A. G., & Rothermel, G. "Test case prioritization: A family of empirical studies". IEEE transactions on software engineering, 28(2), 2002, 159-182. 5. Rothermel, G., Untch, R. H., Chu, C., & Harrold, M. J. "Prioritizing test cases for regression testing. IEEE Transactions on software engineering", 27(10), 2001, 929-948. 6. Akbar SiamiNamin, James H. Andrews, "The Influence of Size and Coverage on Test Suite Effectiveness" Department of Computer Science", Texas Tech University at Abilene, University of Western Ontario London, Ontario, Canada. 7. Inozemtseva, L., & Holmes, R.. "Coverage is not strongly correlated with test suite effectiveness."In Proceedings of the 36th International Conference on Software Engineering, may 2014, pp. 435-445. 8. Srikanth, H., Williams, L., & Osborne, J. "System test case prioritization of new and regression test cases".In Empirical Software Engineering, International Symposium, Nov 2005, pp. 1-10. 9. Carlson, R., Do, H., & Denton, A. "A clustering approach to improving test case prioritization: An industrial case study". (ICSM), 2011 27th IEEE International Conference on Software Maintenance , Sep 2011, pp. 382-391. 10. Arafeen, M. J., & Do, H. "Test case prioritization using requirements-based clustering". (ICST), 2013 IEEE Sixth International Conference on In Software Testing, Verification and Validation, March 2013, pp. 312-321. 11. Miller, T. "Using dependency structures for prioritization of functional test suites". IEEE Transactions on Software Engineering, 39(2), 2013, 258-275. 	711-715

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Authors:	Amit R. Nagpure, Avinash J. Agrawal
Paper Title:	Using Bidirectional, GRU and LSTM Neural Network methods for Multi-Currency Exchange Rates Prediction

Abstract: Anticipating multi-money trade rates and handling time arrangement data is regularly a critical issue in the monetary market. This paper bids the forecast of top exchanged monetary forms on the globe utilizing diverse profound learning models which incorporate top remote trade (Forex) monetary forms. This paper implements the Recurrent Neural Network models using Bidirectional RNN, Gated Recurrent Unit (GRU) and Long Short-Term Memory (LSTM) network. They foresee the transaction scale between the world's top exchanged monetary standards, for example, EUR, JPY, GBP, AUD, CAD, CHF, CNY, SEK, NZD, and INR from information by day, over 30 years to March 2019.

Keywords: Bi-directional RNN, Deep Learning, Foreign exchange (Forex), Gated Recurrent Unit (GRU), Long Short-Term Memory (LSTM) network, Multi-currency, Machine learning, Recurrent Neural Network (RNN).

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Authors:	Nagarajan Munusamy , Rashmi. P.Karchi
Paper Title:	Exploration of Unmixing and Classification of Hyperspectral Imagery

Abstract: Hyperspectral imaging is the vital method and an effective tool to quantify as well identify dissimilar objects from remotely recognized spectral information. Using OMEGA instrument, the Mars Region is imaged using an unprecedented spatial and spectral combination of resolution spectrometer. Hyperspectral images provide high resolution, and its spectral range gives the ability to identify chemical mixture in the atmosphere of Mars more precisely than before. Due to the inadequate spatial resolution of Hyperspectral sensors mixed pixel arises. Such mixed pixels contain more than one distinct material, which is called endmembers. These hyperspectral images provide good resolution, and the range of spectra will give the ability to identify the chemical species present in the atmosphere of Mars more accurately than before. The proposed methodology is evaluated on the real hyperspectral datasets. The integration of Unmixing algorithm termed "Non-Linear Hybrid Approach for Regularized Simultaneous Forward-Backward Greedy Algorithm (NonLHA-RSFBGA)" with the Singular Spectrum Analysis approach, resulting in a better level of classification using the ART classifier for the

identification/classification of the Mineral endmember. The results of the proposed method for the classification of the endmembers in hyperspectral imagery is promising.

Keywords: Endmember, Hyperspectral image classification, Mixed pixel, Unmixing.

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Paper Title: BIM Aided Real Time Progress Management Model for Construction

Abstract: In developing countries like India construction industry significantly influence economic growth. Construction industry develops the infrastructure for a better world. Construction industry deals with large amount of resources. Timely planning of resources for smooth execution is important in such projects. Building Information Modeling (BIM) which was earlier used for representation of the building in 3 dimensions (3D) now aids planning process by incorporating the time and cost as 4th and 5th dimensions (4D & 5D) respectively. Timely planning of resources is possible by reducing the resource buffer. It also helps in improving coordination between different stakeholders in the project. 5D model is developed during the planning phase. 4D and 5D

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simulation helps in visually analyzing the execution process by which the errors can be optimized. Variety of software was used in developing this model. The current research is done to develop a 5D BIM simulation model to help the planning engineers to overlook the requirements or issues during the course of execution. An apartment building in Bangalore, Karnataka which is under the initial phase of construction is taken to validate the model. Construction projects involve exorbitant resources; therefore, it is important to carefully study and regulate the construction works and projects without delay and the current study provides insights for Civil engineering students and practitioners. It helps in proactive planning and holistically be prepared for any constraint or situation which may arise during the course of the project. It not only used during the course of execution but may be extended beyond that.

Keywords: Building Information Modeling, Optimized, Simulation.

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Authors: Gunjalli Gowthami, Muthu D, Venkata Subramaniam C

Paper Title: Building Maintenance Prioritization Using Programming Model

Abstract: Buildings are the assets constructed to serve the activities of the users. Naturally along with its life cycle buildings are bound to deteriorate. In order to have a sustainable performance of the building, proper maintenance is to be carried out. Condition-based maintenance is considered as an effective approach over time-based maintenance because of its ability in minimization of total maintenance cost. The absence of building maintenance decision-making tool and the limited budget allocation are some of the factors causing the

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133.	<p>Authors: Aishwarya S, Muthu D, Venkata Subramanian C</p> <p>Paper Title: Progress monitoring in a Real Time Infrastructure projects</p> <p>Abstract: India is one of the countries where the infrastructure projects face delay. And progress monitoring for linear projects is one of the crucial parts in such projects. Progress monitoring should be done at every stage at daily basis to avoid delays, risk and cost overruns in a linear infrastructure project. This paper aims at reviewing causes and sources of delay in linear infrastructure projects and suggestions to overcome the difficulties in conventional progress monitoring techniques. The methodology followed in this research is review of literatures for understanding the causes and effects of delays and project management software for progress monitoring. From the findings through literature review and this research , the main factors which cause delay in infrastructure projects (based on ranking) mainly in railway projects namely land acquisition , Front availability , labor and material availability , unfavorable weather conditions , fund constraints , slow progress work , Change of scope , less granularity of information, Improper site management and some external factors. The decision making related to any activities can be made by using this project management software which will replace the traditional progress monitoring techniques in the future. This paper concluded by suggesting few recommendations to improve the efficiency of progress monitoring and ways to avoid delays in future projects.</p> <p>Keywords: Daily Progress Report, Delay analysis, Infrastructure Projects, Progress Monitoring, Project Management.</p> <p>References:</p> <ol style="list-style-type: none"> Benjamin Boahene Akomah & Emmanuel nana Jackson, "Contractors' Perception Of Factors Contributing To Road Project Delay" , International Journal Of Construction Engineering and Management, 5(3), 2016, pp. 79–85. Kartik Bagrecha & Ayushi Bais, "Study On Delay Construction Project In India", International Journal Of Innovations In Engineering Research And Technology[IJIERT], Volume 4 , Issue 11, 2017, pp.6-10. Dinesh Kumar R , "Causes And Effects Of Delays In Indian Construction Projects", International Research Journal Of Engineering And Technology[IRJET], Volume 3, Issue 4, 2016, pp.1831-1837. Yofita Honrao & Desai D B , "Study Of Delay In Execution Of Infrastructure Projects - Highway Construction" , International Journal Of Scientific And Research Publications, Volume 5, Issue 6, 2015, pp.1-8. Rahul Kolhe & Milind Darade, "Detail Analysis Of Delay In Construction Projects", International Journal Of Innovative Science, Engineering & Techonology, Volume 1, Issue 10, 2014, pp.70-72. Gandhak P S & Syed Sabihuddin, "Stakeholders' Perception Of The Causes And Effect Of Construction Delay On Project Delivery" , International Journal Of Modern Engineering Research [IJMER], Volume 4, Issue 2, 2014, pp.153 - 161. Patil S K , Gupta A K , Desai D B & Sajane A S, "Causes Of Delay In Indian Transportation Infrastructure Projects", International journal Of Research In Engineering And Technology, Volume 2, Issue 11, 2013, pp.71-80. Ham, Young jib, Kevin k Han, Jacob J Lin & Mani Golparvar - Fard "Visual monitoring of civil infrastructure systems via camera-equipped Unmanned Aerial Vehicles (UAVs): a review of related works", Visualization in Engineering, 4(1), 2016, pp.1-8. Seyed Taha Hosseini Mortaji, Slamaek Noori, Rassoul Noorossana & Morteza Bagherpour, "An Ex Ante Control Chart For Progress Monitoring Using Earned Duration Management Observations ", Journal Of Industrial Engineering International , 2018, pp.793-806. Jadidi, H., Ravanshadnia, M, Hosseinalipour, M & Rahmani, F , "A step-by-step construction site photography procedure to enhance the efficiency of as-built data visualization: a case study", Visualization in Engineering, 3(1),2015, pp.1-12. EI - Kholy A M , "Predicting Cost Overrun In Construction Projects", International Journal Of Construction Engineering And 	743-747

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Paper Title: Putting in Place a System of Integrated Reporting in Organizations

Abstract: This paper formulates a set of theoretical aspects of putting in place a system of integrated reporting in present-day organizations within the agricultural sphere. The authors provide a rationale for the need to develop integrated reporting as a tool for better providing for the needs of present-day society, in conjunction with the principles of sustainable development. Special attention is devoted to issues related to defining the objectives for preparing integrated reports, identifying some of the key functions of integrated reporting, and identifying and classifying some of the key types of interested users of this type of reporting. The paper provides insight into and describes in detail the conceptual essence of integrated reporting.

Keywords: integrated reporting, controllable resources, sustainable development, agriculture, reporting-analytical system.

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Paper Title: Growth Regulators as A Factor of Optimizing the Biometric Parameters and Productivity of Improved Potatoes in Nursery Conditions

Abstract: The paper is focused on the influence of synthetic growth regulators on the biological productivity of potato plants and on some biometric indicators in nursery conditions on sod-podzolic soils. The field method was used for this research; after measuring the metric and weight properties, the data obtained were further subjected to statistical analysis of variance. A positive effect of growth regulators (Amulet, El-1) on the productivity and quality of improved potato varieties of the early variety Udacha in the system of original seed breeding has been discovered. The use of growth regulators on potato in nursery conditions contributed to increasing the vegetative mass of plants, the yield, the reproduction rate, and the qualitative indicators, to reducing the content of nitrates in the tubers, and to improving plants' resistance to late blight and viral diseases.

Keywords: growth regulators, Amulet, El-1, the yield, leaves' assimilation surface, productivity, dry matter, starch, nitrates, late blight, viruses.

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	<p>Authors: S. Dhamodaran, J. Refonaa , R. Ranjith Kumar, G. Pavan Kumar</p> <p>Paper Title: Rainfall Prediction Using Intelligent Retrieval and Data Analytics</p>	
136.	<p>Abstract: Many new approaches are being researched on to predict the rain before hand in order to minimize the amount of damage to a particular area or make the people of the area aware of the rain hit so that they could take some previous safety measures. Machine learning is gaining a vital growth in almost all the technologies and prediction of weather is not an exception. In this paper we have proposed a system that could predict the rain before hand using machine learning techniques. We have used machine learning model that uses a unique algorithm for constructing the rain patterns. These patterns are then used to get the meteoric information on the web and then the datasets are retrieved for the Pinglin lookout of Central Meteoric Administration of Taiwan's Ministry of Communications. Initially the algorithm works on gathering some of the information like rain, humidity and temperature of a particular area and then making use of random forest for predicting the rain. Apache Spark is used for evaluating the results of the designed model[7][10]. When compared to other approaches classification of data seems to be an efficient way of predicting the rain as hence it is used in the current work. The evaluation results are performed based on evaluating various parameters and the proposed model seems to provide a better efficiency when compared to the rest of the previous traditional rainfall prediction systems.</p> <p>Keywords: Big data, Apache Spark, Random forest, Decision tree, Rainfall, Prediction, Machine Learning techniques.</p> <p>References:</p> <ol style="list-style-type: none"> Zhang, L. Lu, J. Yu, and H. Zhou, "Short-term water level prediction using different artificial intelligent models," in 2016 5th International Conference on Agro-Geoinformatics, Agro-Geoinformatics 2016, 2016. S. Zainudin, D. S. Jasim, and A. A. Bakar, "Comparative Analysis of Data Mining Techniques for Malaysian Rainfall Prediction," Int. J. Adv. Sci. Eng. Inf. Technol., vol. 6, no. 6, pp. 1148–1153, 2016. D. Nayak, A. Mahapatra, and P. Mishra, "A Survey on Rainfall Prediction using Artificial Neural Network," Int. J. Comput. ..., vol. 72, no. 16, pp. 32–40, 2013. S. Dhamodaran, Dr. M. Lakshmi "Design And Analysis Of Spatial-Temporal Model Using Hydrological Techniques" IEEE International Conference on Computing of Power, Energy & Communication" on March 22nd and 23rd, ISBN 978-1-5090-4324-8/17, 2017. N. Tyagi and A. Kumar, "Comparative analysis of backpropagation and RBF neural network on monthly rainfall prediction," Proc. Int. Conf. Inven. Comput. Technol. ICICT 2016, vol. 1, 2017 N. Solanki and G. P. B, "A Novel Machine Learning Based Approach for Rainfall Prediction," Inf. Commun. Technol. Intell. Syst. (ICTIS 2017) - Vol. 1, vol. 83, no. Ictis 2017, 2018. S. Dhamodaran, A. Shruthi, Adline Thomas, "High-Resolution Flood Hazard Mapping Using Remote Sensing Data", International Conference on Computation of Power, Energy Information and Communication (ICCP-EIC), ISBN: 978-1-5090-0901-5, IEEE. P. Ramasubramanian, Arputharaj Kannan, "A genetic-algorithm based neural network short-term forecasting framework for database intrusion prediction system. Soft Comput. 10(8): 699-714 (2006) N. Mishra, H. K. Soni, S. Sharma, and A. K. Upadhyay, "Development and Analysis of Artificial Neural Network Models for Rainfall Prediction by Using Time-Series Data," Int. J. Intell. Syst. Appl., vol. 10, no. 1, pp. 16–23, 2018. RS Tamilvizihi T, Parvatha Varthini.B., Manoj. K, An Extended Form of MATLAB To-Map Reduce Frameworks in HADOOP Based Cloud Computing EnvironmentsResearch Journal of Applied Sciences Engineering and Technology 12 (9), 900-906. S. Dhamodaran, K. R. Sachin and Rahul Kumar, "Big Data Implementation of Natural Disaster Monitoring and Alerting System in Real Time Social Network using Hadoop Technology", Indian Journal of Science and Technology, Vol 8(22), IPL0278, September 2015 M. P. Darji, V. K. Dabhi, and H. B. Prajapati, "Rainfall forecasting using neural network: A survey," 2015 Int. Conf. Adv. Comput. Eng. Appl., no. March, pp. 706–713, 2015. P. Brereton, B. A. Kitchenham, D. Budgen, M. Turner, and M. Khalil, "Lessons from applying the systematic literature review process within the software engineering domain," J. Syst. Softw., vol. 80, no. 4, pp. 571–583, 2007. B. a. Kitchenham et al., "Preliminary guidelines for empirical research in software engineering," IEEE Trans. Softw. Eng., vol. 28, no. 8, pp. 721–734, 2002. B. Kitchenham and S. Charters, "Guidelines for performing Systematic Literature reviews in Software Engineering Version 2.3," Engineering, vol. 45, no. 4ve, p. 1051, 2007. 	759-761
137.	<p>Authors: Ekaterina Aleksandrovna Trushkova, Arif Pirvelievich Shikverdiev, Nina Aleksandrovna Oganezova, Andrey Anatolyevich Vishnyakov, Nikita Ivanovich Obrezkov</p> <p>Paper Title: Government Programs on The Youth Entrepreneurship Development in The Arkhangelsk Region</p> <p>Abstract: In the current context, the issues of effective development of the entrepreneurship, ensuring the achievement of a balance of economic and social goals in social development become of urgent relevance. The solution of this complex task puts forward high requirements for the assessment of entrepreneurial activity as a key element of the economy, which determines the basis of socio-economic development of the region. The article considers youth entrepreneurship as prospective lines of economic development being the potential of its growth. The authors emphasize on the necessity to assess the cross-effects of the implementation of government programs in terms of achieving common goals, namely the development of entrepreneurship, or contextual goals, such as for example, increasing the entrepreneurial activity of citizens, and the development of youth entrepreneurship. The authors consider the concept of cross-effect, and reveal the conditions of its application. It is emphasized that this method allows identifying cross-effects when implementing several government programs, or assessing the impact of several programs on the achievement of the goals pursued by just one program, or vice versa. The analysis of the cross-impact of the government programs of the Arkhangelsk Region is analyzed in terms of achieving the contextual goals in the development of youth entrepreneurship</p> <p>Keywords: entrepreneurship, youth entrepreneurship, government programs, cross-effect, strategic planning.</p>	762-767

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Authors:**M.Vishnu Monishan, P.B.Pankajavalli, G.S.Karthick****Paper Title:****Implementation of Novel Optimal Scheduling and Routing Algorithm on IoT-Based Garbage Disposal System**

Abstract: Internet of Things (IoT) is a technology which incorporates objects together via communication technologies and enables task automation. Nowadays, huge amount of solid wastes are generated and waste management has become a major concern. Therefore, this work proposes a novel IoT-based system for garbage collection and disposal which integrates house hold bins (HHB) and mobile garbage collector (MGC) which have mobility for automatic garbage collection and disposal. The HHB collects the garbage waste upto its threshold limit, when it reaches the threshold level it finds the nearest MGC with the help of optimal scheduling and routing algorithm to transfers the wastes to MGC, when MGC reaches the threshold level, it disposes those collected garbage to the dump yard. The implementation of optimal scheduling and routing algorithm on this system is evaluated under testbed environment and its performance found to be very effective than the existing technologies.

Keywords: IoT, Smart Bins, Garbage Disposal, Smart city, MGC, HHB, Sensors.

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	Authors: B. Bhaskar kumar Rao, R. Vasanth kumar Mehta, B. Narendra kumar Rao	
	Paper Title: Clustering Based Test Suite Selection for Ranking of Program Execution Sequence Using Improved Precision in Regression Testing	
139.	<p>Abstract: In Software development, Testing plays an important role. Testing becomes tedious with increase in no of test cases. Test Suite size increases and it becomes difficult with redundant test cases and faulty test cases. Localization of fault is the process of isolating faulty location of program during its execution. Current approach uses the comparison of a successful run test case with a failed run test case spectrum for identification of faults. Along with above specified approach, criteria of program cohesion and program history are also used in effective localization of faulty components. The results suggest better performance when compared with other scenarios.</p> <p>Keywords: Fault Localization, Regression testing, Test case Selection, Inclusiveness, Precision.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Sri vidhya J," Modified Genetic approach for Regression Testing Cost Reduction", International Journal of Infinite Innovations in Engineering and Technology, Volume 1, Issue 1, May 2014. 2. Alireza Khalilian and Saeed Parsa ,Bi-criteria Test Suite Reduction by Cluster Analysis of Execution Profiles ,International Federation for Information Processing ,CEE-SET 2009, LNCS 7054, pp. 243–256, 2012. 3. Mala, D.J., Mohan, V., "Quality Improvement and Optimization of Test cases– A Hybrid Genetic Algorithm Based Approach", ACM SIGSOFT Software Engineering notes, Vol. 35(3), pp: 1-14, ACM Press, 2010. 4. Osamu Mizuno, and Hideaki Hata,"Prediction of Fault-prone Modules Using A Text Filtering Based Metric", International Journal of Software Engineering and Its Applications, Vol. 4, No. 1, January 2010. 5. Ying, A.T.T.; Murphy, G.C.; Ng, R.; Chu-Carroll, M.C., "Predicting source code changes by mining change history," Software Engineering, IEEE Transactions on , vol.30, no.9, pp.574,586, Sept. 2004. 6. Xia Cai, Michael R. Lyu,"The Effect of Code Coverage on Fault Detection under Different Testing Profiles",A-MOST '05 Proceedings of the 1st international workshop on Advances in model-based testing, ACM SIGSOFT Software Engineering Notes, Volume 30 Issue 4, July 2005. 7. Munson, J.C.; Elbaum, S., "Software reliability as a function of user execution patterns," Systems Sciences, 1999. HICSS-32. Proceedings of the 32nd Annual Hawaii International Conference on , vol.Track8, no., pp.12 pp., 5-8 Jan. 1999. 8. Hassan, A.E.; Holt, R.C., "Predicting change propagation in software systems," Software Maintenance, 2004. Proceedings. 20th IEEE International Conference on , vol., no., pp.284,293, 11-14 Sept. 2004. 9. Frank Eichinger, KlemensBöhm, Matthias Huber,"Improved Software Fault Detection with Graph Mining ",Proceedings of the 6th International Workshop on Mining and Learning with Graphs (MLG), Helsinki, Finland, 2008. 10. Reiss, S.P.; Renieris, M., "Encoding program executions," Software Engineering, 2001. ICSE 2001. Proceedings of the 23rd International Conference on , vol., no., pp.221,230, 12-19 May 2001. 11. Gang Shu, Boya Sun, Andy Podgurski, Feng Cao, "MFL: Method-Level Fault Localization with Causal Inference", ICST, 2013, 2013 IEEE Sixth International Conference on Software Testing, Verification and Validation ICST 2013. 12. Narendra Kumar, A. RamamohanReddy,"Frequent Segment Clustering of Test cases for Test Suite Reduction",WSEAS Transactions on Computers, Vol-13,July 2014. 13. Narendra Kumar, A. RamamohanReddy,"Frequent Item Test Case Clustering Based Test SuiteReduction", The Mediterranean Journal of Computers and Networks,Vol-10, issue-2,249-260. 	773-780
140.	<p>Authors: Ch. Vijayalakshmi, J. Srinivasa Rao</p> <p>Paper Title: Empowering Time Critical Evidence In Search Of Social Media</p> <p>Abstract: Social media life assumes an indispensable job in obliging people faked by natural pains. These people use internet based life to bid direction, aid circumstances where time is a basic administration. In addition, widespread online networking stages like Twitter and Facebook are not favorable for obtaining reaction in an intermittent procedure. Strategies to provoke responders for putting resources into web-based life ought to see and scaled down the components including their reaction time. We remove from logical examinations on information chasing and authoritative lead to sort clients who keep up intermittent and reliable inputs for the inquiries communicated over web-based life. We first attract a few avocations to prove the consequent accessibility and terminated reaction conduct of competitor responders and join these criteria with client understanding. We show a calculation to organize the responders dependent on their special rankings for inquiries posted on Twitter as a type of information looking for activity in online life and use them to quantify our preparation. The trial show that the proposed system is useful in watching reasonable presents with deference on schedule and fitting responders for questions in internet based life.</p> <p>Keywords: Social media, Data pre-processing, Incremental clustering, Hash tag, term frequency-inverse document frequency(TF-IDF), topic detection and tracking (TDT).</p> <p>References:</p> <ol style="list-style-type: none"> 1. "An Incremental Clustering Algorithm based on sample selection" (Jan 2017). Chen Lei, Wu Chong. 2. "Using TF-IDF to Determine Word Relevance in Document Queries". Juan Ramos. 3. "A Review of K-mean Algorithm" Jyoti Yadav, Monika Sharma, CSE Department,M.D.U Rohtak, Haryana, India 2 Assistant Professor, IT Department, M.D.U Rohtak, Haryana, India. 4. "Empirical Analysis of User Behavior in Social Media "Santosh Kumar Ray, Mohammed Saeed, Sharmila Subrahmaniam Khawarizmi International College, University College Campus, Al Ain, UAE. 5. "An Incremental Clustering Method of Micro-Blog Topic Detection" Meng Wang^{1,2} Lushan college GuangXi University of Science 	781-785

	<p>and Technology Liuzhou, China Xiaorong Wang2 2 Computer college GuangXi University of Science and Technology Liuzhou, China</p> <p>6. "Clustering of text documents by implementation of K-means Algorithms" Mr. Hardeep Singh, Assistant Professor, Department of Professional Studies Post Graduate Government College Sector 11, Chandigarh</p> <p>7. "K*-Means: An Effective and Efficient K-means Clustering Algorithm", Jianpeng Qi, Yanwei Yu*, Lihong Wang, and Jinglei Liu School of Computer and Control Engineering, Yantai University, Yantai, Shandong 264005, China</p> <p>8. "Data Cleaning with Constraints and Experts" Ahmad Assadi Tel Aviv University Tova Milo Tel Aviv University Slava Novgorodov Tel Aviv University</p> <p>9. "Enhancing Data Analysis with Noise Removal" Hui Xiong, Member, IEEE, Gaurav Pandey, Student Member, IEEE, Michael Steinbach, Member, IEEE Computer Society, and Vipin Kumar, Fellow, IEEE Computer Society.</p>	
	<p>Authors: Deepak Kumar Naik, Madhav B T P, J Krishna, Venkateswara Rao M, D Nitish, Y Ramkumar, D Sai Teja</p> <p>Paper Title: CSRR Loaded Miniaturized 5G Antenna for Vehicular Communication Appliance</p>	
	<p>Abstract: This paper proposes an Iterated T-shaped antenna for 5G based vehicular communications. To design the proposed antenna, a T-shaped radiating element with coplanar wave guide (CPW) feeding is used and defected ground structure (DGS) were made in the ground. The bandwidth of 5.93GHz and 4.04GHz over the frequency ranging from 26.63-32.56 GHz and 34.11-38.15 GHz respectively are achieved. The designed antenna model covering the required frequencies of 28 and 37 GHz for the future 5G applications in vehicular communications. The proposed antenna attained a peak gain 7.05 dB in the operating band and fabricated with compact dimension of 12 x 12 x 0.8 Rogers RT duroid 5880 substrate with dielectric constant () of 2.2. The antenna is designed using ANSYS HFSS and the vehicular placement analysis is carried out with the ANSYS Savant tool. The measured outcomes are in good agreement with simulated outcomes.</p>	
	<p>Keywords: T-patch shape antenna, Defected Ground Structures (DGS), Complementary Split Ring Resonator (CSRR), Vehicular Communications.</p>	
	<p>References:</p> <ol style="list-style-type: none"> Verma, A. K., et.al "Synthesis of microstrip lowpass filter using defected ground structures." IET microwaves, antennas & propagation 5.12 (2011): 1431-1439. Pei, et al. "Miniaturized triple-band antenna with a DGP for W-LAN/Wi-MAX applications." IEEE Antennas and Wireless Propagation Letters 10 (2011): 298-301. Madhav, B. T. P., et al. "Analysis of DGS notched monopole antenna." ARPN Journal of Engineering and Applied Sciences, ISSN 6608.10 (1819): 2. Madhav, B. T. P., et al. "CPW - fed antenna for wideband applications based on tapered step ground and EBG structures." Indian Journal of Science and Technology 8.S9 (2015): 119-27. Ram Kiran, et al. "Novel compact notch band antenna with asymmetrical fractal aperture." Leonardo Electronic Journal of Practices and Technologies 27.2 (2015): 1-12. Reddy, et al. "Asymmetric DGS monopole antenna for wideband communication systems." International Journal of Communications Antenna and Propagation 5.5 (2015): 256-262. Madhav B. T. P, et al. "A Novel trapezoidal monopole printed notch antenna with s-band rejection." Journal of Theoretical & Applied Information Technology 76.1 (2015). Lakshminikanth, et al. " Log periodic printed dipole antenna with a notched filter at 2.45 GHz frequency for wireless communication applications." Journal of Engineering and Applied Sciences, ISSN (1816): 40-44. Lakshmi, et al. "Novel notched circular patch antenna with sequential rotated 2x2 array." Journal of Engineering Science and Technology Review 8.4 (2015): 73-77. Bhavani, et al. "Multiband slotted aperture antenna with DGS for C and X-band communication applications." Journal of Theoretical and Applied Information Technology 82.3 (2015): 454. Babu, et al. " monopole multiband antenna with metamaterial loading and Flared V-shape slot." International Journal of Communications Antenna Propagation 5.2 (2015): 93-97. Madhav B. T. P,et al. "Circularly polarized slotted aperture antenna with CPW-fed for broadband applications." Journal of Engineering Science and Technology 11.2 (2016): 267-277. Madhav, B. T. P., et al. "Design and analysis of compact coplanar wave guide fed asymmetric monopole antennas." Research Journal of Applied Sciences, Engineering and Technology 10.3 (2015): 247-252. Sunder, P. Syam, et al. "Novel miniatured wide band annular slot monopole antenna." Far East Journal of Electronics and Communications 14.2 (2015): 149. Srinivas, M. S. S. S., et al. "A novel compact CPW fed slot antenna with Electro-magnetic band gap structures." ARPN Journal of Engineering and Applied Sciences, ISSN 6608.10 (1819): 2. Murthy, et al. "Reconfigurable notch band monopole slot antenna for W-LAN/IEEE-802.11n applications." International Journal of Intelligent Engineering and Systems, ISSN (2017): 2185-3118. Rao, et al. "Microstrip reconfigurable monopole antenna with parasitic strip loaded." ARPN Journal of Engineering and Applied Sciences, ISSN 6608 (1819): 1-7. Raman, Y. S. V., et al. "Analysis of circularly polarized notch band antenna with Defected Ground Structures." dimensions 11.2 (2006): 3. Ramkiran, D. S., et al. "Compact Microstrip Band pass Filter with DGS." Far East Journal of Electronics and Communications 15.1 (2015): 75. M. Venkateswara rao, et al. "Metamaterial inspired quad band circularly polarized antenna for W-LAN/ISM/Bluetooth/Wi-MAX and satellite communication applications." AEU-International Journal of Electronics and Communications 97 (2018): 229-241. Madhav, B. T. P., et al. "Conformal Band Notched Circular Monopole Antenna Loaded with SRR." Wireless Personal Communications 103.3 (2018): 1965-1976. 	
141.		786-791
	<p>Authors: L. Priya, N.Venkatesh Kumar, M.SanjayBalaji, C.V.Revanth</p> <p>Paper Title: A Mechanical Device for the Reduction of Distal Radius Fracture</p>	
142.	<p>Abstract: Distal radius fracture is one of the most common fractures that occur to a person or a child who undergoes any accidents or has any bone diseases. There are several ways of treating this fracture. It involves relocating the fractured bone by a process called reduction. A novel method of reducing the radial bone using a mechanical device has been proposed where it decreases the number of surgeons, time required to reduce the</p>	792-796

distal radius fracture and seeks to improve the accuracy of reduction. This paper describes the mechanism of reduction, design considerations and the disease conditions for which the device could be used.

Keywords: Distal radius fracture; reduction; internal fixation; external fixation; K-wires; Aluminium; C-arm; Fluoroscopy.

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Paper Title:	Implementation Of Most Appropriate Leakage Power Techniques In Vlsi Circuits Using Nand And Nor Gates

Abstract: The speedy boom of semiconductor generation and growing call for portable devices powered gadgets via battery has led the constructors to scale back the capabilities size resultant decreased threshold voltage in addition to there by way of enabling integration of relatively complex capability on a single chip. In each technological and implementation components Chip's most strength method is adopted. Sleepy stacked with LECTOR technique. This includes leakage control transistor introduced between pull up and pull down circuit. The Stack effect might be brought through substituting every current transistor with two half of sized transistor. It supplies the challenge of the location because of utilization of greater transistor toward keeping the circuit kingdom at some point of sleep mode. As CMOS era scales down, the supply voltage must be decreased such that dynamic energy may be kept at realistic degrees.

Keywords: LECTOR technique, CMOS.

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Authors: Sandeep Kumar, Amanpreet Tangri, Abhishek Singh Rana	
Paper Title: Model Testing of Reinforced Soil Slope under Surcharge Loading With Adaptable Confronting	
<p>Abstract: Soil nailing is a mechanism used to strengthen and the existing soil. A number of bars are installed into a slope during the top-down excavation. The excavation support is an effective and economical way to build a retention wall to support hilltop, bridge abutments and highways. This process is effective on uneven soils, broken rock, shale and hard surface conditions. In this research, a physical model is prepared that comprises of pressure gauge, Acrylic sheet, flex sensor, multimeter and four steel bars. The experiments are conducted on four different materials named as Hexagon Geonet, tuflex geonet, hexagonal drainage geonet, and Biaxial Geogrid..From the experiment it is observed that Biaxial Geogrid can bear maximum stress of 78 Kg/cm2. Also the experiment is performed with flexible facing and rigid facing and concluded that rigid facing perform well with a maximum stress of 98 Kg/cm2.</p>	
<p>Keywords: Soil nailing, Flexible facing, rigid facing.</p>	
<p>References:</p>	
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Authors: Vijayakumar P, Chaitanya Kumar Chittoju, A.V.Bharadwaja, Payal P. Tayade, Tamilselvi M, R.Rajashree, Xiao-Zhi Gao	
Paper Title: FPGA Implementation of AES for Image Encryption and Decryption	
<p>Abstract: Information is the key source to mankind and securing it is the biggest task. Unauthorized access of information deals with the security. For securing the data many cryptographic algorithms have been proposed, from block cipher algorithms to stream cipher algorithms. Advanced Encryption Standard (AES) is one of the most widely used algorithm for data encryption and decryption. Many researchers have put their effort to develop a new prototype of cryptographic algorithm and tried to implement in FPGAs system. AES is a network of all possible</p>	145. 807-812

cases of data are scramble, which has mathematical operations performed and its each output bit depends on every input bit. The encryption process and the decryption process of image is done with using AES 128 bit encryption algorithm. The $m \times n$ image data is turned into a binary or hexadecimal format by using MATLAB syntax and create a textfile. By using this text file as an input and cipher text is fed to the AES for encryption and decryption process. The entire design is functionally simulated using ModelSim-Altera 6.4a. Implementation and other parameters were analyzed using Xilinx ISE synthesis tools. The results were analyzed using device Virtex-6 XC6VLX240T FPGA kit with Xilinx ISE 14.7.

Keywords: Advanced Encryption Standard; Field Programmable Gate Array; Cipher; AES Encryption; AES decryption; MATLAB; Image.

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Authors: D Sreenivasa Rao, I. Govardhani, T. Harish, P. Venkateswara Rao, K. Raviteja, L. Koteswara Rao

Paper Title: A Simple Reconfigurable Elliptical UWB Antenna with Dual Band Rejection

Abstract: This paper offers a reconfigurable elliptical UWB antenna with dual band rejection characteristics. This antenna is modelled on 38 X 40 mm² FR4 substrate. It has ability to wisely handle the issue of interferences comes from the Wi-MAX 3.3GHz-3.7GHz, X-Band satellite communication uplink frequency 7.9GHz-8.4GHz. Two U-Shaped slots one is 28mm created on the patch and another 11.1mm placed on the feed line to achieve band rejection at Wi MAX and X-Band satellite uplink band. Two PIN Diodes are placed on the slots to get on demand band rejection. The antenna is constructed and simulated using HFSS. The planned antenna has VSWR < 2 from 3-11 GHz.

Keywords: UWB antenna, U-shaped slot, Band rejection, Reconfigurable antenna.

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Authors: Akanksha Shankar Shetty, Manoj R

Paper Title: Prediction Of Default Credit Card Users Using Data Mining Techniques

Abstract: Development of financial sector has led to an increase in financial risk. In order to prevent such risks, this study proposes a model for prediction of default cards with the help of data mining techniques. Balancing algorithms such as SMOTE and ADASYN algorithms are used to balance the imbalanced data because balanced data can be useful in increasing the efficiency of the model. Later both the balancing techniques are

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compared to see which one performs better. This balanced data is then taken as an input to an machine learning algorithm such as SVM to predict default credit cards. Accuracy of this model is found out by comparing it with other data models.

Keywords: Default credit cards, prediction model, data mining, classification, machine learning.

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Authors: K.Jayamalini, M.Ponnavaikko

Paper Title: Enhanced Social Media Metrics Analyzer Using Twitter Corpus as an Example

Abstract: Social media is the collection of online communications channels dedicated to community-based input, interaction, content-sharing and collaboration. Websites and mobile applications dedicated to forums, microblogging, social networking, social bookmarking, social curation, and wikis are most popular and different types of social media. Social media become an essential part of human life. In business, social media is used to market products, promote brands, and connect to current customers and foster new business. Online social media is ubiquitous in nature. It allows people to use short text messages to express their opinions and sentiments about products, events and other people. For example, Twitter is an online news and social networking service where users post and interact with short messages, called "tweets". Therefore, nowadays social media become a potential source for business to find people's sentiments and opinions about a particular event or product. Social media analytics is the practice of gathering huge amount of digital data generated online from blogs and social media websites and analyzing them to find the insights and make business decisions. This paper focuses on development of enhanced social media metrics analyser using various latest methods and algorithms with the help of R language and R tool.

Keywords: Social Media data, Opinion Mining(OM), Sentiment Analysis (SA), Metrics Analyser, Twitter.

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	Tweets by Multi-Label Classification”, 2016 IEEE/WIC/ACM International Conference on Web Intelligence,pp. 536 – 539. 11. Moh. Nasrul Aziz ; Ari Firmanto ; A. Miftah Fajrin ; R. V. Hari Ginardi,” Sentiment Analysis and Topic Modelling for Identification of Government Service Satisfaction”, (ICITACEE), IEEE: 2018, pp. 125 – 130.	
	Authors: Sakshi Sharma, Gaurav Verma	Paper Title: Performance Analysis and Fault Detection of Benchmark Circuits using Synopsys Tool
149.	<p>Abstract: This paper represents the different scan chain techniques which will be used to detect the faults in different benchmark circuits. The fault testing is done using Synopsys Tool such as Design Compiler, DFT Compiler, Prime Time and Tetramax. The prime time generates the critical path delay report which is read by Tetramax tool to insert the fault in the circuit and accordingly the faults are detected. Basically scan chain techniques are used to detect the faults in design but the advantage of these techniques is that they will also help in power reduction as represented by the analysis.</p> <p>Keywords: Scan chain, benchmark circuit, design compiler, DFT compiler, primetime, tetramax, fault detection.</p> <p>References:</p> <ol style="list-style-type: none"> 1. B. Pandey and M. Pattanaik, “Clock Gating Aware Low Power ALU Design and Implementation on FPGA”, 2nd International Conference on Network and Computer Science (ICNCS), Singapore, Vol. 2, No. 5, pp. 341-345, April 1-2, 2013. 2. M. P. Dev, D. Baghel, B. Pandey, M. Pattanaik, A. Shukla, “Clock Gated Low Power Sequential Circuit Design”, IEEE Conference on Information and Communication Technologies(ICT), pp. 440-444, 11-12 April, 2013. 3. B. Pandey, J.Yadav, N. Rajoria, M. Pattanaik, “Clock Gating Based Energy Efficient ALU Design and Implementation on FPGA”, International Conference on Energy Efficient Technologies for Sustainability-(ICEETs), Nagercoil, Tamilnadu, pp. 93-97, April 10-12, 2013. 4. B. Pandey and J. Yadav, J. Kumar, “”, 5th International Conference on Computational Intelligence nd Communication Networks, November 11, 2013. 5. D. Stroobandt, P. Verplaetse, J.V Campenhout “Towards synthetic benckmark circuits for evaluating timing driven-CAD tools”. 6. X. liu, M. S. Hsiao, S. Charravarty, P. J. Thadikaran, “Novel ATPG Algorithms for Transition Faults”, The Seventh IEEE European Test Workshop, Proceedings, pp. 47 – 52, May 2002. 7. B.P.S. Tomar, V. Chaurasia, J. Yadav, B. Pandey “Power Reduction of ITC’99-b01 Benchmark Circuit Using Clock Gating Technique”, International Conference on Computational Intelligence and Communication Networks, pp. 423 - 427, September 27 – 29, 2013 8. A. K. Majhi and V.D. Agrawal, “Delay Fault Model and Coverage”, Proceedings of the VLSI Design Conference, pp. 364-369,6 August, 2002. 9. Synopsys “Tetramax® ATPG User Guide Version H-2013.03-SP4”, September 2013. 10. Synopsys “Design Compiler® User Guide Version E-2010.12”, December 2010. 11. Synopsys “Prime Time ® User Guide Version E-2016.12”, December 2016. 12. G. Verma, R. Kumar, V. Khare, “Regression based FPGA power estimation tool (FPE_Tool) for embedded multiplier block”, International Journal of Information Technology (Springer), pp. 1-4, 2018. 13. D. K. Gupta, V. K. Gupta, M. Chandra, G. Verma, “Real-Time Implementation of Parallel Architecture Based Noise Minimization from Speech Signals on FPGA”, Wireless Personal Communications, vol. 103, no. 3, pp. 1941 – 1963, Dec. 2018. 14. G. Verma, M. Kumar, V. Khare, “Low Power Synthesis and Validation of an Embedded Multiplier for FPGA Based Wireless Communication Systems” Wireless Personal Communications, vol. 95, issue 2, pp. 365-373, July 2017. 15. G. Verma, M. Kumar, V. Khare, B. Pandey, “Analysis of Low Power Consumption Techniques on FPGA for Wireless Devices” Wireless Personal Communications, vol 95, issue 2, pp. 353-364, July 2017. 16. G. Verma, C. Dabas, A. Goel, M. Kumar and V. Khare, “Clustering Based Power Optimization of Digital Circuits for FPGAs”, Journal of Information and Optimization Sciences (Taylor & Francis), vol. 38, no. 6, pp. 1029-1037, Oct 2017. 	829-834
	Authors: Sreevardhan Cheerla, D Venkata ratnam, Chandra Vinay, Narayanasetti Avinash, Illa Anish, Shaik Baji Imran	Paper Title: A Semi Empirical Path Loss Model By Using Artificial Neural Networks (Ann)
150.	<p>Abstract: Path loss Models are essential for determining strength of received signals in hostile mobile propagation environment. In this paper, a method for propagation path prediction for urban, suburban and rural areas at 800 MHz, 1800 MHz is presented based on Artificial Neural Networks (ANN). The application of feed forward ANNs makes it likely to overcome drawbacks that we come across when we use prediction models, including both statistical and deterministic models. The Model uses the back propagation algorithm and considers the semi empirical model (COST-231 Walfisch Ikegami) as the reference standard, from which we consider the inputs. The obtained measurements are splitted into three sets, of which the first set is utilized for Model Training, second set for Model Testing and last set for Model Validation. The ANN Model’s performance for frequencies 800MHz and 1800 MHz demonstrates that the Mean Absolute Error (MAE) is 3.24 (Urban), 2.51 (Rural) and 1.91 (Sub urban) regions, corresponding MAE for 1800 MHz are is 2.52 (Urban), 2.18 (Rural) and 1.72 (Sub urban).</p> <p>Keywords: Path loss, Artificial Neural Networks, Multilayer perceptron, Costs 231 WI Model, Levenberg Marquardt (LM) algorithm.</p>	835-841
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Authors:	Abhishek Sharma, Nitish Kumar Sharma, Avani Chopra
Paper Title:	The Partial Replacement of Cement by Waste Marble Dust and Fine Aggregate by Tyre Rubber Waste

Abstract: Leaving the waste materials to nature straightforwardly can cause ecological issue. Henceforth the reuse of waste material has been underscored. Marble is one of the vital materials utilized in the development business. Marble powder is delivered from handling plants amid the sawing and cleaning of marble squares and around 20 - 25% of the prepared marble is transform into powder structure. Overall creation of tyre increments because of increment of vehicle industry, it is hard to arrange the waste tyre as the accessibility and limit of spaces of landfill diminishes. In this examination, execution of waste materials, waste marble dust and tyre rubber waste as a halfway substitution of cement and fine aggregates for M30 grade of concrete is learned at various rates and its impact on solid properties like Compressive Strength , Flexural Strength and Split Tensile Strength is examined. The waste marble dust was utilized in the level of (20%, 25%, and 30%) and tyre rubber waste was utilized in the level of (5%, 10%, and 15%). Results showed that substitution of waste marble dust to the cement and tyre rubber waste to the fine aggregates in concrete at proportions 20% and 5% there was no impact on the properties of concrete however for different proportions changes were watched.

Keywords: Waste Marble Dust, Crumb Rubber, Mechanical Properties, Fine Aggregates, Waste tyre.

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	<p>Authors: Mohammad Kabir Yaqubi, Sandeep Salhotra</p> <p>Paper Title: The Automated Cost Estimation in Construction</p>	
152.	<p>Abstract: The importance of decision-making in cost estimation for the building design process signifies the requirement for both designers and project managers. This article examines the usefulness of neural network methodology to address costs assessment at early stages of building design. The data is collected from 10 educational projects constructed in India. An automatic cost estimation GUI is prepared in MATLAB simulator to calculate the total cost of a construction project. Artificial intelligence is used to train the system on the basis of the data collected from 10 different projects and cost has been analyzed with higher accuracy. From the experiment it is observed that the use of artificial neural network helps the project participants to analyze total cost in a very small time.</p> <p>Keywords: Automated Cost Estimation, Educational Projects, Built Up Area, Ground Coverage Area, Utilities, ANN.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Hegazy, T., & Ayed, A. (1998). Neural network model for parametric cost estimation of highway projects. Journal of Construction Engineering and Management, 124(3), 210-218. 2. Cheng, M. Y., Tsai, H. C., & Hsieh, W. S. (2009). Web-based conceptual cost estimates for construction projects using Evolutionary Fuzzy Neural Inference Model. Automation in Construction, 18(2), 164-172. 3. Günaydin, H. M., & Doğan, S. Z. (2004). A neural network approach for early cost estimation of structural systems of buildings. International Journal of Project Management, 22(7), 595-602. 4. Hola, B., & Schabowicz, K. (2010). Estimation of earthworks execution time cost by means of artificial neural networks. Automation in Construction, 19(5), 570-579. 5. Adeli, H., & Wu, M. (1998). Regularization neural network for construction cost estimation. Journal of construction engineering and management, 124(1), 18-24. 6. Kim, G. H., Yoon, J. E., An, S. H., Cho, H. H., & Kang, K. I. (2004). Neural network model incorporating a genetic algorithm in estimating construction costs. Building and Environment, 39(11), 1333-1340. 7. Olotuah, A. O. (2002). Recourse to earth for low-cost housing in Nigeria. Building and environment, 37(1), 123-129. 8. Gould, F. E. (2000). Construction Project Management, Wentworth Institute of Technology, Vary E. Joyce, Massachusetts Institute of Technology. 9. Chardon, S., Brangeon, B., Bozonnet, E., & Inard, C. (2016). Construction cost and energy performance of single family houses: From integrated design to automated optimization. Automation in Construction, 70, 1-13. 10. Hola, B., & Schabowicz, K. (2010). Estimation of earthworks execution time cost by means of artificial neural networks. Automation in Construction, 19(5), 570-579. 11. Kim, G. H., Yoon, J. E., An, S. H., Cho, H. H., & Kang, K. I. (2004). Neural network model incorporating a genetic algorithm in estimating construction costs. Building and Environment, 39(11), 1333-1340. 12. Wang, X. J. (2018, February). Forecasting construction project cost based on BP neural network. In Measuring Technology and Mechatronics Automation (ICMTMA), 2018 10th International Conference on (pp. 420-423). IEEE. 13. Juszczuk, M. (2019, January). Cost Estimates of Buildings' Floor Structural Frames with the Use of Support Vector Regression. In IOP Conference Series: Earth and Environmental Science (Vol. 222, No. 1, p. 012007). IOP Publishing. 14. Juszczuk, M., Leśniak, A., & Zima, K. (2018). ANN Based Approach for Estimation of Construction Costs of Sports Fields. Complexity, 2018. 	845-849
153.	<p>Authors: Manas Kumar Yogi, Karri Vijaya Lakshmi, Koondrapu Koushik Sri Sai</p> <p>Paper Title: Application of Kraft–McMillan Inequality for Software Test Case Prioritization</p> <p>Abstract: The motivation behind this prioritization is to improve the probability that if the experiments are utilized for relapse testing in the given request, they will more firmly meet some goal than they would on the off chance that they were executed in some unique request. A few associations want to run "Smoke" or "Sanity" test each time they get another form or form of the creating software. For this situation, experiments will be organize dependent on all the real modules of the software and sanity will be kept running on them to check the fundamental usefulness for instance, in a mobile testing, sanity test suite will have experiments like "restarting the gadget", "killing", "marking in", "refreshing software" etc. Whether the company runs relapse or sanity or both, Test Case Prioritization procedures are pertinent for every one of the cases. Organizing experiments should be possible based on necessities, expenses of bug fixing, history of the parent gadget and so forth. In this paper we apply a novel approach of data structures to develop a friendship relation between similar test cases so as to not spend time on testing similar functional test cases. At the end of the paper we find appreciable experimental results which outweigh the current techniques used in software testing area.</p> <p>Keywords: Test case ,Prioritization, Kraft, McMillan, Friendship.</p> <p>References:</p> <ol style="list-style-type: none"> 1. S. Elbaum, A. G. Malishevsky, G. Rothermel, "Test case prioritization: A family of empirical studies", IEEE Trans. Softw. Eng., vol. 28, no. 2, pp. 159-182, Feb. 2002. 2. E. G. Cartaxo, F. G. O. Neto, P. D. L. Machado, "Automated test case selection based on a similarity function", Lecture Notes Informat., vol. 7, pp. 399-404, 2007. 3. T. Y. Chen, M. F. Lau, "Test case selection strategies based on boolean specifications", Softw. Testing Verification Rel., vol. 11, no. 3, pp. 165-180, 2001. 	850-855

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154.	Authors:	Suhas Chitturi, Surya Teja Marella, Swaroop Chitturi , Sk.Hasane Ahammad	
	Paper Title:	A Novel Cloud Partitioning Algorithm Using Load Balancing In Public Cloud Environment	
	Abstract: Cloud computing is a growing technology which is termed basically as use of various services like storage, servers, software and other software development platforms over the internet, often referred as the term "cloud", which is used to provide different resources in order to perform complicated tasks. As we know in present scenario, the traffic on the internet is growing rapidly and the number of services to be offered to the users is increasing due to the rapid increase in popularity of these cloud services. This results in the increase workload on the server ultimately slowing down the process and leading to overloading of the servers. Thus, in order to prevent this, load balancing is used. [1]A proper load balancer results in cloud computing services to be efficient and also leads to positive user satisfaction. The paper aims to provide a load balance model related to the concept of cloud partitioning with the help of a switch mechanism which gives a choice to switch various strategies for different situations which is to be used for the public cloud. The concept of game theory is applied in this algorithm in order to improve the efficiency in public cloud environment.		
	Keywords: Cloud Computing, Load Balancing, VM Scheduling.		
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155.	Authors:	xZain-Ul-Abdin Butt, Nitish Kumar Sharma, Nirbhay Thakur	
	Paper Title:	Comparison between Symmetrical and Unsymmetrical Building under Seismic Load Using Bracing and Shear Wall	
	Abstract: Structure engineering is a subset of civil engineering based on fundamental engineering. Physics laws and empirical database of the performance of various geometries and materials as it is directly approaches to the integrity, behavior and serviceability of the structure. The main emphasis of structure engineering is to transfers several forces along with the controlled utilization of any material or element under its serviceable conditions without any severe damage. It helps to make the structure safe, economic, durable and disaster resistant. Structures like roads, tunnels, buildings, power station, dams, bridges etc. are some of major successful outcomes of structural engineering for mankind and play an important part in services to the nation and its progress.		
	Keywords: Symmetrical and Unsymmetrical Building, Bracing and Shear Wall, U and L Type Shapes.		
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	<p>Authors: Mohammad Abdul Salam, Nirbhay Thakur, Nitish Kumar Sharma</p> <p>Paper Title: Comparative Study on Dynamic Analysis of a Multi-Storey Frame in Zone III and Zone V</p>	
	<p>Abstract: Former incidence of earthquake consequences in breakdown of building which were not predominantly contrived to be earthquake resistant. In interpretation of this, the structure has to be premeditated with seismic confrontation. An earthquake is the outcome of an abrupt release of dynamism in the Earth's crust that crafts seismic waves. It is also known as a quake, tremor or tremblor. An earthquake is instigated by a sudden slip on a fault.</p> <p>Keywords: Dynamic Analysis, Response Spectrum Method, Zone III and V, Shapes H and T.</p> <p>References:</p> <ol style="list-style-type: none"> Atif, Mohd, Laxmikant Vairagade, and Vikrant Nair. "Comparative study on seismic analysis of multistory building stiffened with bracing and shear wall." International Research Journal of Engineering and Technology (IRJET) 2.05 (2015): 1158-1170. Azam, Shaik Kamal Mohammed, and Vinod Hosur. "Seismic Performance Evaluation of Multistoried RC framed buildings with Shear wall." International Journal of Scientific & Engineering Research 4.1 (2013). Azam, Shaik Kamal Mohammed, and Vinod Hosur. "Seismic Performance Evaluation of Multistoried RC framed buildings with Shear wall." International Journal of Scientific & Engineering Research 4.1 (2013). Biradar, Umesh R., and Shivaraj Mangalgi. "Seismic response of reinforced concrete structure by using different bracing systems." Int J Res Eng Technol 3.9 (2014): 422-426. Biradar, Umesh R., and Shivaraj Mangalgi. "Seismic response of reinforced concrete structure by using different bracing systems." Int J Res Eng Technol 3.9 (2014): 422-426. http://ijiset.com/vol3/v3s2/IJISET_V3_I2_18.pdf JIANG, Jun, et al. "Seismic Design Of A Super High-Rise Hybrid Structure." The 14th World Conference on Earthquake Engineering, October 12-17, 2008, Beijing, China. 2008. KG, Viswanath, Prakash KB, and Anant Desai. "Seismic analysis of steel braced reinforced concrete frames." International Journal of Civil & Structural Engineering 1.1 (2010): 114-122. Madan, S. K., R. S. Malik, and V. K. Sehgal. "Seismic Evaluation with Shear Walls and Braces for Buildings." World Academy of Science, Engineering and Technology, International Journal of Civil, Environmental, Structural, Construction and Architectural Engineering 9.2 (2015): 185-188. Massumi, Ali, and Mohsen Absalan. "Interaction between bracing system and moment resisting frame in braced RC frames." archives of civil and mechanical engineering 13.2 (2013): 260-268. 	
156.	<p>Authors: K. P. Rajesh and M. Mary Synthuja Jain Preetha</p> <p>Paper Title: Analysis of per Cell Spectral Efficiency parameters for Smart Base Station Controller</p> <p>Abstract: In this paper a new Base Station Controller is designed with the analysis of several parameters on Per Cell Spectral Efficiency. The new SE expression is derived based on the new precoding scheme and is analyzed with different existing linear precoding schemes. The analyzed results with the different precoding schemes conclude that the proposed linear scheme PZF_n performs better than the existing schemes, especially when the antenna number is approaching towards 1000. This is a good sign, as 5G is standardized to serve with 1000 transmitting antenna within a single base station of the cell. Here Per Cell Spectral Efficiency is analyzed with parameters like Per Cell SE for fixed number of Users, pilot reuse factor β, achievable SE per UE, SNIR, Coherence Block Length and finally with hardware impairments. All the simulated results conclude that antenna number is proportional to the transmitted data. Hence the base station can decide the number of antenna to be used to transmit data depending upon the amount of data to be transmitted.</p> <p>Keywords: Massive MIMO, Spectral Efficiency, Pilot reuse factor.</p> <p>References:</p> <ol style="list-style-type: none"> E. Bjornson, E. G. Larsson and M. Debbah, "Massive MIMO for Maximal Spectral Efficiency: How Many Users and Pilots Should Be Allocated", IEEE Trans. Wireless Communication, vol. 15, No. 2, pp.1293-1308, 2016. T. L. Marzetta, "Noncooperative cellular wireless with unlimited numbers of base station antennas," IEEE Trans. Wireless Commun., vol. 9, no. 11, pp. 3590–3600, Nov. 2010. J. Hoydis, S. ten Brink, and M. Debbah, "Massive MIMO in the UL/DL of cellular networks: How many antennas do we need?" IEEE J. Sel. Areas Commun., vol. 31, no. 2, pp. 160–171, 2013. H. Q. Ngo, E. G. Larsson, and T. L. Marzetta, "Energy and spectral efficiency of very large multiuser MIMO systems," IEEE Trans. Commun., vol. 61, no. 4, pp. 1436–1449, 2013. E. Bjornson, L. Sanguinetti, J. Hoydis, and M. Debbah, "Optimal design of energy-efficient multi-user MIMO systems: Is massive MIMO the answer" IEEE Trans. Wireless Commun., vol. 14, no. 6, pp. 3059–3075, 2015. K. P. Rajesh M. Mary Synthuja Jain Preetha, Enhanced Spectral Efficiency for 5G Massive MIMO System, International Journal of Innovative Technology and Exploring Engineering, Vol.8, No.6, pp. 584-587, 2019 D. Ha, K. Lee, and J. Kang, "Energy efficiency analysis with circuit power consumption in massive MIMO systems," in Proc. IEEE Int. Symp. Personal, Indoor and Mobile Radio Commun., 2013. 	866-868
157.	<p>Authors: K. P. Rajesh and M. Mary Synthuja Jain Preetha</p> <p>Paper Title: Analysis of per Cell Spectral Efficiency parameters for Smart Base Station Controller</p> <p>Abstract: In this paper a new Base Station Controller is designed with the analysis of several parameters on Per Cell Spectral Efficiency. The new SE expression is derived based on the new precoding scheme and is analyzed with different existing linear precoding schemes. The analyzed results with the different precoding schemes conclude that the proposed linear scheme PZF_n performs better than the existing schemes, especially when the antenna number is approaching towards 1000. This is a good sign, as 5G is standardized to serve with 1000 transmitting antenna within a single base station of the cell. Here Per Cell Spectral Efficiency is analyzed with parameters like Per Cell SE for fixed number of Users, pilot reuse factor β, achievable SE per UE, SNIR, Coherence Block Length and finally with hardware impairments. All the simulated results conclude that antenna number is proportional to the transmitted data. Hence the base station can decide the number of antenna to be used to transmit data depending upon the amount of data to be transmitted.</p> <p>Keywords: Massive MIMO, Spectral Efficiency, Pilot reuse factor.</p> <p>References:</p> <ol style="list-style-type: none"> E. Bjornson, E. G. Larsson and M. Debbah, "Massive MIMO for Maximal Spectral Efficiency: How Many Users and Pilots Should Be Allocated", IEEE Trans. Wireless Communication, vol. 15, No. 2, pp.1293-1308, 2016. T. L. Marzetta, "Noncooperative cellular wireless with unlimited numbers of base station antennas," IEEE Trans. Wireless Commun., vol. 9, no. 11, pp. 3590–3600, Nov. 2010. J. Hoydis, S. ten Brink, and M. Debbah, "Massive MIMO in the UL/DL of cellular networks: How many antennas do we need?" IEEE J. Sel. Areas Commun., vol. 31, no. 2, pp. 160–171, 2013. H. Q. Ngo, E. G. Larsson, and T. L. Marzetta, "Energy and spectral efficiency of very large multiuser MIMO systems," IEEE Trans. Commun., vol. 61, no. 4, pp. 1436–1449, 2013. E. Bjornson, L. Sanguinetti, J. Hoydis, and M. Debbah, "Optimal design of energy-efficient multi-user MIMO systems: Is massive MIMO the answer" IEEE Trans. Wireless Commun., vol. 14, no. 6, pp. 3059–3075, 2015. K. P. Rajesh M. Mary Synthuja Jain Preetha, Enhanced Spectral Efficiency for 5G Massive MIMO System, International Journal of Innovative Technology and Exploring Engineering, Vol.8, No.6, pp. 584-587, 2019 D. Ha, K. Lee, and J. Kang, "Energy efficiency analysis with circuit power consumption in massive MIMO systems," in Proc. IEEE Int. Symp. Personal, Indoor and Mobile Radio Commun., 2013. 	869-872

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Authors: **G.V.N. Kaushik**

Paper Title: **Thermal and Static Structural Analysis on Piston**

Abstract: In IC engine, Piston is one of the most important and complex part. With increasing power and performance of engine, higher thermal load and the thermal stresses are acting on piston, thereby, decreasing its life time. It is important to maintain Piston in good condition in order to maintain the proper functioning of the engine. Piston mainly fails due to thermal Conditions. In this paper 3D model of piston is developed, structural and thermal analysis is done by ANSYS using 5 different materials to find out the temperature and thermal stress distribution, theoretically finding the total heat flux and compare with the practical values of different Piston Materials used.

Keywords: IC engine, Piston, ANSYS, Piston Materials.

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6. Analysis of Thermal Temperature Fields and Thermal Stress under Steady Temperature field of Diesel Engine Piston Yaohui Lu, Xing Zhang, Penglin Xiang, Dawei Dong PII:S1359-4311(16)33168-4 DOI: <http://dx.doi.org/10.1016/j.applthermaleng.2016.11.070> Reference: ATE 9481
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Authors: **M Harikanth, P Rajarajeswari**

Paper Title: **Malicious Event Detection Using ELK Stack Through Cyber Threat Intelligence**

Abstract: In the modern world the main objective of any system is to keep their network or system Threat free. It's not an easy one to ensure security in this threat progressing cyber world. So, many things are going on to get an solution to this everlasting issue. Threat intelligence is used to solve this cyber threat to a maximum extent. The proposed system describes an environment that will check whether the operations are going good in an organization or not in a real time. For an large organization with large capital it is easy to afford the customized tools that are available in the market. But it is not the same with the small ones. The proposed system is more practical and any small organization can afford this solution to detect most of the malicious operation that are going on their environment either local or remote. A threat intelligence interface, the proposed system will detect and prioritize the threats that are going on the network at a particular point of time.

Keywords: Main objective, Threat intelligence interface.

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18. Identifying mobile malware and key threat actors in online hacker forums for proactive cyber threat intelligence;John Grisham ; Sagar Samtani ; Mark Patton ; Hsinchun Chen;2017 IEEE International Conference on Intelligence and Security Informatics (ISI)
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Authors:

K Mariya Priyadarshini, R. S. Ernest Ravindran, P. Ratna Bhaskar

Paper Title:

A Detailed Scrutiny and Reasoning on VLSI Binary Adder Circuits and Architectures

Abstract: In this document a survey on recent developments in the design of binary adders is done. Adders are the core cells of any arithmetic unit which define the speed of any processor. The motivation of this paper is to focus on different kinds of architectures of higher order binary adders that provide high speed, less power to increase the level of integration on any integrated circuits (IC). Though there are many algorithms proposed for improving the speed of an adder the challenges still remain in designing fast and accurate adders. At the schematic level we scrutiny six different adders for high speed and low power applications.

Keywords: carry propagation delay, fast adder principles, carry selection, carry skip, prefix adders.

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Authors: Om Prakash Samantray, Satya Narayan Tripathy, Susanta Kumar Das

Paper Title: A Data Mining Based Malware Detection Model using Distinct API Call Sequences

Abstract: Malware is a serious threat from the last decade and the threat is increasing every year with the extensive use of internet. Rigorous researches have been going on to save our important information from being stolen and damaged by the malicious software. Despite many malware detection strategies, zero-day malware detection still is a challenge for the researchers. Here, we have presented a model which picks distinct API call sequences as feature and then uses data mining classification algorithms for malware detection. Distinct API call sequences are extracted from PE files which are supplied as input to different data mining or machine learning techniques. We have selected six robust data mining classifiers, namely Decision Tree (DT), Support Vector Machine (SVM), Naive Bayes (NB), K-Nearest Neighbor (KNN), J48 and Random forest (RF) to carry out the experiment. A comparison of their performance is also presented

Keywords: API Call Sequence, Data Mining, Malware analysis, Malware detection.

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162.	Authors:	Arathi Boyanapalli, Rohini Patil
	Paper Title:	Assistive Technology using IoT for Physically Disabled People
	Abstract:	An assistive technology can help in improving communication between disabled people and their caregiver by providing an opportunity of continuous help to patients by providing services such as Monitoring Patient, Home Automation, Voice to speech / SMS or Touch to speech/SMS. The objective of this research work was to propose and develop an Internet of Things (IoT) based system for physically disabled people. A dynamic system consisting of sensors, ARM7 processor, Bluetooth, speaker, relays and GSM connected over an internet

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was developed. Communication between hardware and software was done using RS232 communication. With this system, patient on reaching the Higher Limit (HL) or Lower Limit (LL) can send alerts to all the mobile numbers entered over the network. The android application was used to send the SMS through voice or touch on buttons. This system was tested by sending SMS to caregivers who is at remote location. This application not only promotes healthy relationship between the patient and caregiver but also increases the zest for life.

Keywords: Internet of Things (IoT), Touch to speech, Voice to speech/SMS; Paralyzed, Assistive technology.

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Authors:	S. Venkata Rama Rao , A. Mallikarjuna Prasad , Ch. Santhi Rani
Paper Title:	Unequally Spaced Linear Antenna Array Synthesis with Minimum Side Lobe Levels Using Modified Differential Evolution Algorithm

Abstract: Antenna arrays are popularly used in various applications which include satellite, radar, wireless and cellular mobile communications etc. The present day communication systems performance greatly depends on the efficient design of antenna array systems. To meet the demands of noise free communications, it is required to design the antenna arrays with low side lobe levels (SSL). In this paper, a modified version of differential evolution (DE) algorithm is proposed to synthesize the linear antenna arrays with minimum side lobe levels. The mutation part of the traditional DE has been modified by adopting the normal mutation parameter. The various linear antenna arrays (10, 20 and 28 element) have been considered for the synthesis. The proposed modified DE (MDE) along with traditional DE algorithm and particle swarm optimization (PSO) algorithms have been applied. All the algorithms are applied to optimize the position between the elements. The numerical illustrations illustrate that the proposed method is out performed the traditional DE and PSO in terms of low side lobe level and convergence rate. From these results it is demonstrating that MDE is best suitable candidate for the optimization problems.

Keywords: Convergence rate, differential evolution, linear antenna array, MDE, PSO, side lobe levels.

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Authors:	V. JoshibhaBency, C. Annadurai, D. Ramkumar, R. Rajesh
Paper Title:	Lightweight Node Authentication and Establishing a Secure AODV protocol in Mobile Ad hoc Network
<p>Abstract: A MANET is an independent network communication through a wireless medium without requiring any fixed infrastructure, where a target node is not in the direct range of transmission over a sender node, and where midway nodes are needed in order to forward packets. The midway nodes here are not only the host but also acts as a router for hand over packets. Nonetheless, it is very simple to attack the defenseless character of the ad hoc networks by malicious node like the dropping or hand over of forged data etc. As the need for dynamic network is constantly developing, security problems in the network layer in particular must be properly solved according to MANETs. This paper discusses a series of routing violations and proposes an improvement in AODV's design to authenticate route requests using digital signatures to prevent malicious node attacks.Keywords: MANET, AODV Protocol, Attacks, Secure Routing, Cryptography, Digital signature.</p> <p>References:</p> <ol style="list-style-type: none"> 1. SandeepLalasahebDhende, Dr. S. D. Shirbahadurkar, Dr. S. S. Musale, Shridhar K Galande 'A Survey on Black Hole Attack in Mobile Ad Hoc Networks', International Conference on Recent Advances in Information Technology, 2018. 2. LalithHimral, Vishal Vig&Nageshchand 'Preventing AODV Routing protocol from Black Hole Attack', International Journal of Engineering Science and Technology, 2011. 3. NabilNissar, NajibNaja, AbdellahJamali 'Lightweight Authentication-based Scheme for AODV in Ad-hoc Networks', International Conference on Wireless Technologies, Embedded and Intelligent Systems, 2017. 4. NishuKalia, Harpreet Sharma 'Detection of Multiple Black hole nodesattack in MANET by modifying AODV protocol' International Journal on Computer Science and Engineering, 2016. 5. AdwanYasin, Mahmoud Abu Zant 'Detecting and Isolating Black-Hole Attacks inMANET Using Timer Based Baited Technique', Wireless Communications and Mobile Computing, 2018. 6. DharaBuch and DeveshJinwala 'PREVENTION OF WORMHOLE ATTACK INWIRELESS SENSOR NETWORK', International Journal of Network Security & Its Applications, Vol.3, No.5, Sep 2011. 7. Jiwen CAI, Ping YI, Jialin CHEN, Zhiyang WANG, Ning LIU 'An Adaptive Approach to Detecting Black and Gray Hole Attacks in Ad Hoc Network', IEEE International Conference on Advanced Information Networking and Applications, 2010. 8. Aqeeltaha, Raedalsaqour, Mueenuddin, Mahaabdelhaq and tanzilaSABA 'EnergyEfficient Multipath Routing Protocof Mobile Ad-Hoc Network Using theFitnessFunction', IEEE Journals & Magazines, 2017 9. SisilySibichen, SreelaSreedhar, 'An Efficient AODV Protocol and Encryption Mechanism for Security Issues in Adhoc Networks', pg: 1-6, IEEE Conferences, 2013. 10. Hao yang, Haiyunluo, Fan ye, Songwulu, and Lixiazhang, 'Security in Mobile adhoc networks', Volume:11, Issue: 1 Page s: 38 - 47, IEEE Journals & Magazines, 2004. 11. Ali Dorri and Seyed Reza Kamel and Esmailkheyrkah, 'Security Challenges In Mobile Ad Hoc Networks: A Survey', Vol.6, IEEE Journals & Magazines, 2015. 12. C.Siva Ram Murthy and B.S.Manoj, "Ad hoc Wireless Networks—Architectures and Protocols", Pearson Education, 2007. 13. Lehane B., Doyle L., O'Mahony D, "Shared RSA key generation in a mobile ad hoc network", Military Communications Conference, 2003, IEEE Xplore, Volume 2, pp. 814 - 819, 2003. 14. S. Sumathy and B.Upendra Kumar, "Secure Key Exchange and Encryption Mechanism for Group Communication in Wireless Adhoc Networks", International Journal on Applications of Graph Theory in Wireless Adhoc Networks and Sensor Networks (Graph-Hoc), Volume 2, No. 1, pp. 9-16, 2010. 15. Rezvani, M., Ignjatovic, A., Bertino, E., Jha, S.: A collaborative reputation system based on credibility propagation in WSNs. In: IEEE 21st International Conference on Parallel and Distributed Systems (ICPADS 2015), pp. 1-8, December 2015 16. D. Ramkumar and C. Annadurai " Continuous Authenticaion Consoles in Mobile Ad hoc Networks (MANET)", Cluster Computing, Springer, Nov 2017. 	

Authors:	K.Ch.Sri Kavya, Sarar K Kotamraju, M.Sreevalli, M.Parvathi Priyamvada, K.Ravi Teja, M.Asma
Paper Title:	Design and Optimization of Array Antennas using Artificial Intelligence

Abstract: The configuration of any array antenna requires a set of very critical necessities and parameters. Some of these are frequently represented in terms of antenna parameters, such as radiation pattern, Gain or Directivity, Main Beam width, Side Lobe Length etc. In general, antenna requirements are specified for a set of frequencies or frequency band. This paper proposes a hybrid method using artificial intelligence to design and optimize the array antennas. Firstly, a linear array antenna is designed in matlab software. An error in tilt is introduced manually to the array elements. Considering this as a distortion in real time, this error is optimized using Artificial Neural Networks algorithms. The neural network works on the modelling and optimizing the antenna arrays, by

functioning on the geometric parameters and by taking into account some predetermined criteria. Artificial Intelligence is the tool used to optimize the error since it is can generate the results very fast compared to any other different optimization algorithms. The results are simulated using Antenna tool box and Artificial Neural Network tool box in Matlab.

Keywords: Array Antennas, Artificial Neural Networks, Optimization.

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Authors: Tigist Hilemariam Senbetu, Kishore Kumar K, G.M. Karpura Dheepan

Paper Title: IoT Based Irrigation Remote Real-Time Monitoring And Controlling Systems

Abstract: Internet of Things (IoT) is a worldwide network of “smart devices” that can sense and interact with their environment by means of the internet for their communication and interaction with users and other systems. Farming plays key part in the growth of a country like Ethiopia. Problems about agriculture have been continuously delaying the growth of the country. The lone answer to this difficult is modern agriculture and technology for sustainable use of water by updating the present old-style methods of farming. Hereafter the planned method targets IoT enabled remotely real-time way of monitoring and controlling suitable irrigation systems. Arduino mega founded automatic irrigation IoT system is suggested for upgrading and it will allow having a better water management and treatment on irrigation systems. Hence, exploitation of water resource again improves productivity of the crop. The proposed system is developed such that the data sent from the sensors and predict the amount of water needed. The water flow controller, pH sensor, water level monitoring sensor in the pond and temperature and soil moisture sensors are used to get information through External Wi-Fi. Finally it is been sent as a notification through mobile and computer. Based on the acquired value the proposed system calculates pH, water level , temperature and Soil Moisture required for irrigation. The major advantage of the system is, the direct human intervention is avoided when implementing the system with variety of low cost sensors and Internet of Things (IoT). The stakeholders will attain greater productivity with saving time and money.

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Keywords: IoT, Irrigation, Arduino, pH,Sensor.

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Authors:	K. Sarat Kumar, P. Kanakaraja , K. Ch. Sri Kayva, NLSP Sairam , N.ch. Hemanth, E. Saichand , M. Tejaswi, L.Sri Naga Teja
Paper Title:	Artificial Intelligence (Ai) and Personal Assistance for Disabled People using Raspberry Pi

Abstract: Now a days, Internet of things (IoT) becoming very essential in the society. IoT is a network in which all the physical objects (or) things that are connected to internet and exchange the data from one device to another and also benefit for humans. The main objective of this project is to control the home appliances by using speech. In this the speech recognition is done by Amazon Alexa which is interlinked with raspberry pi module. The electrical appliances like fan, lights, fridge etc. are integrated in a system which are connected to raspberry pi to control the home appliances that are to be performed by the user commands which are easy to interact with the humans and the devices. There are several technologies existing in the society to control home appliances but in our project, we are implementing raspberry pi and nodeMCU which were interconnected to If This Then That (IFTTT) and Adafruit to control the home appliances. We have achieved the control on home appliances.

Keywords: Home automation, Voice Recognition, Raspberry Pi, Relays, Amazon Alexa, Adafruit, IFTTT,

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Authors: **Niranjanamurthy M, S Jagannatha, Manju Khari, Bhawna Nigam**

Paper Title: **Implementation of Activity Dashboard in online shopping Industry Internal Tool-OMS**

Abstract: Online shopping is one of the most top domain industries. It refers to buying and selling goods through internet. The purpose of this research work is to recommend Electronic Commerce domain industry to integrate and implement functionality in existing Order Management System (OMS) model. For increasing sales, revenue and Customer interest on particular store this research work proposing the following four functionality in

Activity Dashboard such as Group, Component, Priority, Status. After placing an order the order data of Group, Component, Priority, Status will come to Activity dashboard functionality under Order Management System (OMS). This activity dashboard helps to control all orders activities, status and processing activity on an Activity dashboard. This activity dashboard should add in one of OMS module. The industry people can manage and interact with orders through this useful internal tool. Using this activity dashboard data, industry people can make decisions and modify, process the orders.

Keywords: E-Commerce, Activity Dashboard, Group, Component, Priority, Status.

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938-948

Authors:	Sakthivel M, M R V Jeswanth Reddy, B Sai Naveen, A Venkata Manoj, A Manikanta Shetty, B Vinay kiran Bhavanam
Paper Title:	Experimental Investigation To Study The Effect Of Cooling Medium (Air) In Controlling The Solar Panel Temperature

Abstract: Paper An experimental study has been conducted to control the solar panel temperature during the peak noon hours. Due to the high solar intensity during noon hours, the solar panel temperature attains very high temperature in the range of 65°C to 70°C. High temperature is not advisable for the better performance of the solar panel. Hence to control the temperature, some heat removal method has to be considered. In this study, air has been considered as a cooling medium as it is available abundantly. To predict the effect of the cooling medium (air), experiments are conducted without cooling medium and with cooling of panel from the top or from the bottom of the panel. Parameters like glass temperature, power generation and efficiency of the solar panel are compared for the three types of experiment (without cooling, with air cooling from the top and air cooling from the bottom of the panel). It is concluded that solar panel can be maintained in the range of 40°C to 45°C with the

cooling arrangement and short circuit current can also be maintained in the range 13 Amperes to 15 Amperes, whereas without cooling, short circuit current varies in the range of 9 Amperes to 15 Amperes. Hence the power generation is maintained in the specified range. Comparing the cooling of panel either from top or from bottom of the panel it is concluded that cooling from the bottom is more effective as thickness of the Tedlar plate is less than thickness of glass cover.

Keywords: Solar panel, Glass cover temperature, Air cooling, Power generation, Short circuit current, Open-circuit voltage.

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Authors:	N V V N J Sri Lakshmi, K Durga Bhavani, O Tejaswi, K Swapna Bhanu, N Aswini, K Mahima
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Paper Title:	Pollution Based Traffic Control System using Internet of Things
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Abstract: Traffic congestion is the extreme concerned problem in enormous cities around the world. As the traffic increases at the signal zone area, automatically the area is polluted with harmful gases. The architecture of our proposed design is implemented on the traffic signaling junction point. In the signaling area, the road junctions are fully cooperated with the gas sensor. This gas sensor is interfaced with the ESP8266 Micro controller, which observes the traffic density and increase the time delay by traffic congestion. The circulation method of signaling system is further implemented by the extension of adding the MQ series gas sensor. By using the Wi-Fi microcontroller, the pollution data from the gas sensor is uploaded in the cloud with the service 'ubidots' using Internet of Things (IoT) technology. The Application programming interface (API) in the cloud will store the values of the MQ sensor data. This data will be continuous visualized in the dashboard for the incoming status of the road junction pollution. By observing the pollution at the signal area, the time interval is increased to clear the traffic. Thus, heavy traffic movement thickness is reduced and allow the citizens to flow the traffic easily.

953-956

Keywords: MQ series-based gas sensor, Internet of Things, Traffic density, internet of Things.

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Authors:**G. Bala Sai Tarun, J.V. Sriram, K. Sairam, K. Teja Sreenivas, M.V.B.T. Santhi****Paper Title:****Rainfall prediction using Machine Learning Techniques**

Abstract: Rainfall prediction is very important in several aspects of our economy and can help us preventing serious natural disasters. Some areas in India are economically dependent on rainfall as agriculture is primary occupation of many states. This helps to identify crops patterns and correct management of water resources for the crops. For this, linear and non-linear models are commonly used for seasonal rainfall prediction. Few algorithms used for rainfall prediction are CART, Genetic Algorithms and SVM, these are computer aided rule-based algorithms. In this paper, we performed qualitative analysis using few classification algorithms like Support vector machines(SVM), Artificial Neural Networks, Logistic regression. Dataset used for this classification application is taken from hydrological department of Rajasthan. Overall, we analyze that algorithm which is feasible to be used in order to qualitatively predict rainfall.

Keywords: Rainfall prediction, Correlation based feature selection, Machine Learning.

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957-963**171.****Authors:****Anand Neil Arnold, Vairamuthu S****Paper Title:****Music Recommendation using Collaborative Filtering and Deep Learning**

Abstract: The concept of filtering out songs based on the interest of a user is the core principle of today's music streaming (MS) service. Recommendation Systems (RS) are a key component of the MS companies. Different companies use different types of RS. Since the web is now an important medium for almost every kind of business and electronic transaction, it serves up as the driving force for the development of RS technology. There is significant dependency that exists between user and item-based activity which is the basic principle of recommendation. With the rise of digital content distribution, people now have access to music collections on an unprecedented scale. Commercial music libraries easily exceed 15 million songs, which vastly exceeds the listening capability of any single person. With millions of songs to choose from, people sometimes feel overwhelmed. Most common RS are designed using the concept of filtering techniques and deal with the count and similarities between the likenesses of the users. Our approach, in this paper, is to enhance the RS by combining the filtering technique with Deep Learning. It will use the traditional filtering technique and use the album art of the song to recommend new songs. The hybrid RS will scan the album art of the song for unique labels.

172.	<p>Keywords: Recommendation system, collaborative filtering, text analysis, object detection, deep learning.</p> <p>References:</p> <ol style="list-style-type: none"> recommendations. In Innovations in Information, Embedded and Communication Systems (ICIIECS), 2017 International Conference on (pp. 1-4). IEEE. Sasaki, S., Hirai, T., Ohya, H., & Morishima, S. (2013, September). Affective music recommendation system reflecting the mood of input image. In Culture and Computing (Culture Computing), 2013 International Conference on (pp. 153-154). IEEE. Soleymani, M., Aljanaki, A., Wiering, F., & Veltkamp, R. C. (2015, June). Content-based music recommendation using underlying music preference structure. In Multimedia and Expo (ICME), 2015 IEEE International Conference on (pp. 1-6). IEEE. Fang, J., Grunberg, D., Luit, S., & Wang, Y. (2017, December). Development of a music recommendation system for motivating exercise. In Orange Technologies (ICOT), 2017 International Conference on (pp. 83-86). IEEE. [9] Xiao, L., Zheng, Y., Tang, W., Yao, G., Ruan, L., & Wang, X. (2013, August). A GPU-accelerated large-scale music similarity retrieval method. In Green Computing and Communications (GreenCom), 2013 IEEE and Internet of Things (iThings/CPSCom), IEEE International Conference on and IEEE Cyber, Physical and Social Computing (pp. 1839-1843). IEEE. Liu, H., Hu, J., & Rauterberg, M. (2009, November). Music playlist recommendation based on user heartbeat and music preference. In Computer Technology and Development, 2009. ICCTD'09. International Conference on (Vol. 1, pp. 545-549). IEEE. Reddy, M. S., & Adilakshmi, T. (2014, January). Music recommendation system based on matrix factorization technique-SVD. In Computer Communication and Informatics (ICCCI), 2014 International Conference on (pp. 1-6). IEEE. Makarand, V., & Sahasrabuddhe, H. V. (2014, January). Novel Approach for Music Search Using Music Contents and Human Perception. In Electronic Systems, Signal Processing and Computing Technologies (ICESC), 2014 International Conference on (pp. 1-6). IEEE. Lin, K., Xu, Z., Liu, J., Wu, Q., & Chen, Y. (2016, August). Personalized music recommendation algorithm based on tag information. In Software Engineering and Service Science (ICSESS), 2016 7th IEEE International Conference on (pp. 229-232). IEEE. https://towardsdatascience.com/review-yolov2-yolo9000-you-only-look-once-object-detection-7883d2b02a65 https://towardsdatascience.com/yolov1-you-only-look-once-object-detection-e1f3ffec8a89 https://www.analyticsvidhya.com/blog/2018/12/practical-guide-object-detection-yolo-framework-python/ https://pjreddie.com/darknet/yolo/ 	964-968				
173.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Authors:</td><td>Prathyusha Reddy Y, Manasa B, Jyothi V, Srikanth V</td></tr> <tr> <td>Paper Title:</td><td>Detection and Defense of DDoS Attack for WSN</td></tr> </table> <p>Abstract: Internet of things (IoT) is being widely used in different areas. With the existence of smart and sensing devices at low cost adoption of Internet of Things (IoT) devices has been increased. So they are being used at homes, to predict environmental changes, hospitals, and many more. These IoT devices can be attacked in many ways which results in the great loss of security issues by performing attacks. One of the attacks is Distributed Denial of Service. The Distributed Denial of Services (DDoS) attack is done from a different number of systems which attack one target with large number of requests at a time. So the resources become unavailable to the users. This became our motivation to overcome the issue. To solve this kind of attacks we proposed a framework. In this paper we proposed how the IoT devices can be made secure from the DDoS attack using Wireless Sensor Networks (WSN). The defense mechanism is the one which detects and defense the DDoS attack. In this mechanism the malicious user continuously sends many number of requests to the target, making the resources unavailable to the users. So the wireless sensor detects the attack and defense the attack by using snort rules.</p> <p>Keywords: IoT, DDoS, Server, WSN, Malicious User, Attacks, Devices, Snort rules.</p> <p>References:</p> <ol style="list-style-type: none"> Securing Heterogeneous IoT with Intelligent DDoS Attack Behavior Learning Nhu-Ngoc Dao, Trung V. Phan, Umar Sa'ad, Joongheon Kim, Thomas Bauschert, and Sungrae Cho. Liang, L., Zheng, K., Sheng, Q., & Huang, X. (2016). A Denial of Service Attack Method for an IoT System. 2016 8th International Conference on Information Technology in Medicine and Education (ITME).doi:10.1109/itme.2016.0087. Marques da Silva Cardoso, A., Fernandes Lopes, R., Soares Teles, A., & Benedito Veras Magalhaes, F. (2018). Poster Abstract: Real-Time DDoS Detection Based on Complex Event Processing for IoT. 2018 IEEE/ACM Third International Conference on Internet-of-Things Design and Implementation (IoTDI).doi:10.1109/iotdi.2018.00036. Gurulakshmi, K., & Nesarani, A. (2018). Analysis of IoT Bots Against DDOS Attack Using Machine Learning Algorithm. 2018 2nd International Conference on Trends in Electronics and Informatics (ICOEI).doi:10.1109/icoei.2018.8553896. Kawamura, T., Fukushi, M., Hirano, Y., Fujita, Y., & Hamamoto, Y. (2017). An NTP-based detection module for DDoS attacks on IoT. 2017 IEEE International Conference on Consumer Electronics - Taiwan (ICCE-TW). doi:10.1109/icce-china.2017.7990972. Anthi, E., Williams, L., & Burnap, P. (2018). Pulse: an adaptive intrusion detection for the internet of things. Living in the Internet of Things: Cybersecurity of the IoT - 2018 .doi:10.1049/cp.2018.0035. Yin, D., Zhang, L., & Yang, K. (2018). A DDoS Attack Detection and Mitigation With Software-Defined Internet of Things Framework. IEEE Access, 6, 24694–24705.doi:10.1109/access.2018.2831284. Lightweight Bloom-filter based DDoS Mitigation for Information-Centric IoT Gang Liu , Wei Quan , Nan Cheng , Bohao Feng , Hongke Zhang , Xuemin (Sherman) Shen, School of Electronic and Information Engineering, Beijing Jiaotong University, Beijing 100044, China School of Telecommunication Engineering, Xidian University, Xi'an, China. Yilmaz, Y., & Uludag, S. (2017). Mitigating IoT-based Cyberattacks on the Smart Grid. 2017 16th IEEE International Conference on Machine Learning and Applications (ICMLA). doi:10.1109/icmla.2017.0-109. Bhunia, S. S., & Gurusamy, M. (2017). Dynamic attack detection and mitigation in IoT using SDN. 2017 27th International Telecommunication Networks and Applications Conference (ITNAC).doi:10.1109/itnac.2017.8215418. Sonar K. and Upadhyay H., "An Approach to Secure Internet of Things Against DDoS." Proceedings of International Conference on ICT for Sustainable Development. Springer Singapore, 2016. Hsiao-Chung LIN, and WANG Ping, "Implementation of an SDN-based Security Defense Mechanism Against DDoS Attacks". DEStech Transactions on Economics and Management, 2016. O. Depren, M. Topallar, E. Anarim, M. K. Ciliz,"An intelligent intrusion detection system (IDS) for anomaly and misuse detection in computer networks", Expert Systems with Applications, vol. 29, pp. 713–722, 2005. M. De Donno, N. Dragoni, A. Giaretta, and A.Spongardi, "A Taxonomy of Distributed Denial of Service 	Authors:	Prathyusha Reddy Y, Manasa B, Jyothi V, Srikanth V	Paper Title:	Detection and Defense of DDoS Attack for WSN	969-974
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Authors: S sunithamani, T.Yamini Priyanka, p. Bhanu, n. Sudharshan reddy Paper Title: Study of Effect of Number of Fingers in a Mems Differential Capacitive Accelerometer	Abstract: This paper is about the study of MEMS capacitive accelerometer for dual axis sensing. For the accelerometer design a capacitive approach is used and this depends on number of fingers attached to the proof mass. We have used a comb structured differential capacitive accelerometer and are studied with different fingers. We have studied and simulated a MEMS differential capacitive accelerometer using COMSOL Multiphysics.	
Keywords: capacitive accelerometer, dual axis, differential capacitive sensing, MEMS. References: <ol style="list-style-type: none"> 1. Kamal Prakash Pandey *Anil Kumar, 2. "Design and Analysis of dual Axis MEMS Capacitive Accelerometer "Volume 9, Number 5, 2017. 3. Payal Kokcha1, Karambir Shoeran2, 4. "DESIGN AND SIMULATION OF MEMS CAPACITIVE ACCELEROMETER" Volume 2, Issue 12,2015. 5. Vijayakumar S.* Vijila G. Alagappan M. Anju Gupta,"Design and Analysis of 3D Capacitive Accelerometer for Automotive Applications". 6. Ce Zheng1, Xingguo Xiong2, Junling Hu3,"COMSOL Simulation of a Dual-axis MEMS Accelerometer with T-shape Beams". XingguoXiong,"MEMS dual axis accelerometer with H-T shape structure". 7. Rebeiz, G.M.; Muldavin, J.B., "RF MEMS switches and switch circuits," Microwave Magazine, IEEE , vol.2, no.4, pp.59-71, 2001. 	975-979	
Authors: Automatic Accident Alert System (AAAS) Paper Title: C.H. Sreekrishnan, Siddhant Jain, Pratishtha Singh Guide: - R.Jayaraj	Abstract: The paper presents a design for an Arduino-Android based accident alert system. The system consists of an Arduino module which interfaces with Android OS using native Application. The system is developed to alert close relatives and concerned emergency services in case an accident occurs. By this project, we also aim to make transportation safer by giving timely intimation for medical assistance. The Arduino module will get readings through various sensors when a collision occurs and then transmit it to mobile via Bluetooth which will alert the preset contacts or authority.	
Keywords: Arduino, Android, Application. References: <ol style="list-style-type: none"> 1. ADXL-335 datasheet analog.com 2. Simple angle meter using ADXL335 accelerometer electronicsblog.net 3. Global Status Report on Road Safety 2015 by World Health Organization (WHO) 4. Accidental Deaths and Suicides in India by National Crime Record Bureau (NCRB) 	980-982	
Authors: R Sathya, Divyadeep Rawat, Antra Mondal, Shubham Choudhary, Ashutosh Jain Paper Title: Economically Efficient Data Feature Selection Using Big Data Analysis	Abstract: In a rapid period, advanced data is increment in exponential way which are helpful in corporate, establishment, science, building and innovation and so on zone for settling on explicit choice and forecast. Enormous information investigation assume an essential job as information mining methods are not proficient to deal with these huge information .enormous information having expansive, complex and speed qualities which are look into region now a days. For expansive volume information, it having substantial high measurements need new or changed existing component choice strategies. In this paper, we have examined contrast highlight determination strategies like channels, wrappers, installed and half and half. We have likewise examined utilization of highlight choice strategy in huge information are till now presented for explicit applications. Here, in this paper, some element determination channel based techniques are tried with dispersed parallel condition of huge information and it performed better contrast with unique dataset as far as time and precision are to be considered. The project focuses on reducing the cost and time takenin the processing of data and selection of the accurate algorithm for feature selection.	
Keywords: Big Data, Feature Selection, Modernisation. References: <ol style="list-style-type: none"> 1. Liang Zhao, Zhikui Chen, Yueming Hu, Geyong Min, Zhaohua Jiang. "Distributed Feature Selection for Efficient Economic Big Data Analysis", IEEE Transactions on Big Data, 2018 Publication. 2. Liang Zhao, Zhikui Chen, Yueming Hu, Geyong Min, Zhaohua Jiang. "Distributed Feature Selection for Efficient Economic Big Data Analysis", IEEE Transactions on Big Data, 2016 Q. Song, J. Ni and G. Wang, "A Fast Clustering-based Feature Subset Selection Algorithm for High-dimensional Data," IEEE Transactions on Knowledge and Data Engineering, vol.25, no.1, pp.1-14, 2013. 3. A. Cuzzocrea, G. Fortino, and O. F. Rana, "Managing data and processes in cloud-enabled large-scale sensor networks: State-of-the-art and future research directions," in 13th IEEE/ACM International 	983-987	

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Authors:	J.Dhiyaneswaran, S.Mohamed Raakin , M.Praveen Kumar, A.Kapilan, J.Manikandaprasanth
Paper Title:	Performance Optimization of CI Engine Fueled by Biodiesel and Hydrogen with Dee Injection

Abstract: The present concern on energy demands, leads to a growing interest on alternative fuels like biodiesel, alcohol, biogas, hydrogen and producer gas. To provide a sustainable solution, conventional engines suitably modified and experimented for favorable results. In this context the present work deals with a newer approach of performance optimization of CI engine using biodiesel and hydrogen with Diethyl ether (DEE) injection. Biodiesel from pongamia pinnata and hydrogen are used as fuel and DEE is used as an ignition improver. To optimize the engine performance following parameters are considered injection timing of DEE and crank angle position. With the help of taguchi technique L25 orthogonal array is used to have various combinations of parameters. Experiments has been conducted for 12 lpm of hydrogen at constant flow rate. The DEE is injected at 44°, 88°, 132°, 176°, and 220° of crank angle position with help of electronic control unit. Compared to diesel the biodiesel hydrogen blend, operation with ignition improver at 3 ms of DEE and 132° of crank angle position, brake thermal efficiency is increased with considerable reduction in emission.

Keywords: DEE,CI,Hydrogen,Pongamia Pinnata.

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	Authors: Abheesta Vemuru, E. John Bruce, A. Veeramuthu	
	Paper Title: Automatic Security Analyzing Router OS	
	<p>Abstract: Most, if not all, Routers in this world are Network-embedded Devices that run vendor firmware that controls all of its' integral functions. This router is usually the first line of defense between a user in that particular network and the devices on the Internet. The case is the same in Offices as well as Homes. While the world has always succeeded in rapidly evolving and advancing technology in all fields, the networking field develops at a relatively slower pace. Routers are vital for the security of any Network considering how they are in a privileged position with respect to the remaining devices on that network. Even so, Routers are more often than not, not updated by the users thus leaving various security vulnerabilities. To fix this, concepts and models have been made to analyze device in a large scale by scanning or by manually testing each device. All these tests and analyses are done externally to the router but not as an internal process by the router itself. It would save a lot of resources if the router was automated to test its own security at regular intervals. Thus, this work will involve the building of a Router from scratch using an Operating System with minimal packages, and shell scripts that build a Dynamic Analysis software.</p>	
178.	<p>Keywords: Dynamic Analysis Software, Network-embedded Devices, Operating System, Router, Security, Shell Scripts, Vulnerabilities.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Daming D. Chen, Manuel Egeley, Maverick Woo, and David Brumley, "Towards Automated Dynamic Analysis for Linux-based Embedded Firmware" Internet Society, pp.1-16. 2016. 2. Andrei Costin, Jonas Zaddach, Aurélien Francillon, and Davide Balzarotti, Eurecom, "A Large-Scale Analysis of the Security of Embedded Firmware" Proceedings of the 23rd USENIX Security Symposium, USENIX Association, pp. 95-110, 2014. 3. Nadia Heninger, Zakir Durumeric, Eric Wustrow, J. Alex Halderman, "Mining Your Ps and Qs: Detection of Widespread Weak Keys in Network Devices" Proceedings of the 21st USENIX Security Symposium, USENIX Association, pp. 1-21, 2012. 4. Anthony J. Bonkoski, Russ Bielawski, J. Alex Halderman, "Illuminating the Security Issues Surrounding Lights-Out Server Management" Proceedings of the 7th USENIX Workshop on Offensive Technologies, p. 1-9, 2013. 5. Hao Li, Dong Tong, Kan Huang, Xu Cheng, "FEMU: A firmware-based emulation framework for SoC verification" IEEE/ACM/IFIP International Conference on Hardware/Software Codesign and System Synthesis, pp.257-266, 2010. 6. Jonas Zaddach, Luca Bruno, Auélien Francillon, Davide Balzarotti, "Avatar: A Framework to Support Dynamic Security Analysis of Embedded Systems' Firmwares" pp. 1-16, 2014. 7. "FIRMANDYNE" [Online]. Available: https://github.com/firmadyne/firmadyne 8. "QEMU" [Online] Available: https://www.qemu.org/ 9. "Fedora" [Online]. Available: https://getfedora.org/ 10. "Red Hat" [Online]. Available: https://www.redhat.com/en 11. "CentOS Project" [Online] Available: https://www.centos.org/ 12. "VMWare Workstation" [Online] Available: https://www.vmware.com/ 13. "Dirty Cow Exploit" [Online] Available: https://dirtycow.ninja/ 	992-996
	Authors: B Arun Kumar, V Siva Nagaraju	
	Paper Title: Home Area Network Based Smart Meter Design using IoT	
	<p>Abstract: This manuscript suggests the smart advanced meter with reading indication utilizing the GSM it developed to diminish the power utilization in home range networks in this framework bill toward giving power meter reading to client with a caution message before expanding of unit bill. This manuscript shows the activities to display energy utilization at provincial level. This aide in decreasing utilization of energy & display the utilized units. The objective will be to create the intelligent electrical components & give comfort to customer to decrease utilization of power in web applications. The utility administration reading as SMS will be received by "smart power meter programmable interface" & the activity will be executed toward the meter according to given majority of the data microcontroller might be utilized to display & record the readings of meter. The GSM receiver at the alternate end that holds the database performs as billing point. Whether any altering happens the controller will send the information to server and also it may be cut down the power supply naturally. Ethernet executes the operation of IoT through that the information will be send of the web page. We configuration an IoT framework utilizing the web protocol, & executed in a testbed for energy management requisitions. To display the viability of the intended testbed, we display a few outcomes utilizing the suggested design of IoT.</p>	
179.	<p>Keywords: ARM Processor, GSM Module, sensors, Keil software, IoT.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Pany, Jayanta Kumar, and RN Das Choudhury. "Embedded automobile engine locking system using GSM technology."International Journal of Instrumentation, Control and Automation (IJICA) 1.2 (2011). 2. Liu, Xiaoping P., et al. "Guest editorial introduction to the focused section on wireless mechatronics." IEEE/ASME Transactions on Mechatronics 17.3 (2012): 397-403. 3. PIC Microcontroller and Embedded Systems, Mazidi, MuhammadAli;Mckinaly,RolinD;Causey,Pageno99-112. 4. Microcontrollers Architecture, Programming, Interfacing andSystemDesign, Raj Kamal, (2011), Page no 34-52. 5. GSM based Automated System for Monitoring andControlling of Substation, AmitSachan, M.Tech. Thesis, Page no7-9June2012. 6. A. Kansal, J. Hsu, S. Zahedi, and M. Srivastava, —Power management in energy harvesting sensor networks, ACM Transactions on Embedded Computing Systems, Vol. 6, No. 4, Article 32, September, 2007. 7. C. Moser, L. Thiele, D. Brunelli, and L. Benini, —Adaptive power management for environmentally powered systems, IEEE 	997-999

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	<p>Authors: G.Sandeep, N.V.K.Ramesh</p> <p>Paper Title: Accident Detection and Rescue System using Prioritized Traffic Switching</p>	
180.	<p>Abstract: Traffic accidents are one of the leading cause of death for a human being in all our world. Whenever an accident happens emergency services plays an important role to rescue the person from death. The crucial part in rescuing the person is identifying the location where the accident happens and how fast the medical person dispatched to the location. An approach like to use in-vehicle automatic accident detection and prevention system sends an alerts to the nearest ambulance location leads to reduce the time delay between the accident occurred spot. Whenever the ambulance reach the traffic signal the ambulance driver controls the traffic signals in the path and intimates to the local traffic control section regarding the direction of ambulance through the GSM technology which is used to intimate the vehicle location by latitude and longitude coordinates. In the ambulance with the help of highly equipped medical devices monitor the patient condition and sends a preliminary reports to the hospital through the web. The components used to implement this approach is ATmega328P microcontroller, ESP8266 node MCU, ACTIVE RF communication TRANSMITTER/RECIEVER, temperature sensor, MEMS, gas sensor, GPS, GSM.</p> <p>Keywords: AT mega 328P, ESP8266 node MCU, MEMS, RF TX/RX, Temperature sensor, gas sensor, GSM, GPS.</p> <p>References:</p> <ol style="list-style-type: none"> 1. https://en.wikipedia.org/wiki/Traffic_accidents_in_India#Measures_to_reduce_traffic_collisions 2. Tejas Naik, Roopalakshmi R, Divya Ravi N, Pawdhan Jain, Sowmya B H and Manichandra "RFID-Based Smart Traffic Control Framework for Emergency Vehicles" 2nd International Conference on Inventive Communication and Computational Technologies 2018 IEEE 3. Arif Shaik, Natalie Bowen, Jennifer Bole, Gary Kunzi, Daniel Bruce, Ahmed Abdalgawad, Kumar Yelamarthi "Smart Car: An IoT Based Accident Detection System" 2018 IEEE Global Conference on Internet of Things (GCIoT). 4. Dr.D.Selvathi ,P.Pavithra ,T.Preethi "Intelligent Transportation System for Accident Prevention and Detection" International Conference on Intelligent Computing and Control Systems 2017 5. V.Ramya, B. Palaniappan, K. Karthick "Embedded Controller for Vehicle In-Front Obstacle Detection and Cabin Safety Alert System" International Journal of Computer Science & Information Technology Vol 4, No 2, April 2012. 6. Ullas S, Raksha Ghosh, Pragathi R, Shreyas Ry " Real Time Accident and Breakdown Alerting Systems: A Survey" International Journal of Latest Engineering and Management Research ISSN: 2455-4847 7. @available https://www.engineersgarage.com/electronic-components/ht12d-datasheet 8. @available www.ti.com/lit/ds/symlink/lm35.pdf 9. @available https://www.sunrom.com/p/alcohol-sensor-module-mq3 	1000-1003
181.	<p>Authors: Peddagolla Anjaneyulu, P Ashok Babu</p> <p>Paper Title: A New Secured Technology for user Robust Fingerprint Identification</p> <p>Abstract: This paper proposes a hearty fingerprint-based Confirmation algorithm that ensures secure confirmation considerably for limited-sized incomplete fingerprints. It need get progressively regular that a number from claiming later customer devices, for example, such that advanced mobile phones, utilize finger impression sensors for client verification. Those sensors should be installed are by favored with consumable less space for preferred usability and item design, the sensing regions are hence set accordingly. To supplement the insulate area, gadgets frequently all the store numerous acquisitions starting with a solitary finger On enrollment, after the fact on confirm no less than At whatever a standout among them effectively match an procurement On verification. Acknowledging that low majority of the data entropy of a incomplete image, those security part for little area-based frameworks will be An real concern. On the other hand, erratic variability because of finger rotation, grip positions, Also skin deformity need a negative sway for bio metric execution.</p> <p>Keywords: ARM Processor, Finger print module, LCD Display, Keil Software.</p> <p>References:</p> <ol style="list-style-type: none"> 1. T.-Y. Je a e V. Govindaraju, "A minutia-based partial fingerprint recognition system", Journal Pattern Recognition archive, Vol. 38, Issue 10, 2005, pp. 1672-1684, Elsevier editor, DOI 10.1016/j.patcog.2005.03.016 2. S. Mil'shtein, A. Pillai, A. Shendye, C. Liessner, M. Baier, "Fingerprint Recognition Algorithms for Partial and Full Fingerprints", proc. of IEEE Conference on Technologies for Homeland Security, 2008, pp. 449 – 452, DOI 10.1109/THS.2008.4534494 3. P. Vijayaprasad, Md.Nasir Sulaiman, Norwati Mustapha, Rahmita Wirza O.K. Rahmat, "Feature-based technique for Partial Fingerprint Matching", 7th International IEEE Conference on Information Technology in Asia (CITA), pp. 1-4, ISBN 978-1- 61284-128-1, DOI 10.1109/CITA.2011.5999524. 4. G. Fang, S.N. Srihari, H. Srinivasan and P. Phatak, "Use of Ridge Points in Partial Fingerprint Matching," in Biometric Technology for Human Identification IV: proc. of SPIE, 2007, Vol. 6539, pp. 65390D-1 to 65390D-9., DOI 10.1117/12.718941 	1004-1007

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Authors: Arpan Singh, Christy Jackson j

Paper Title: Fire Alert System using Real-Time Video Processing

Abstract: The aim of this work is to develop a fire alert system using some parts of Internet of Things (IOT) and video processing to ensure the fire breakage and notify fire-station with a SMS. It uses different types of sensors to detect the breakage. Existing system contains work which is individually developed system that uses sensors and camera respectively. The proposed system contains sensors with camera and Raspberry Pi board, Arduino Uno microcontroller; by the use of this above-mentioned things this system tends to overcome the false rate of fire alert which helps in making people safe who might get nerd. In this project, there we are try to use Global Positioning System (GPS) Module for sending a current location to the fire-base station for further rescue process to save life. This paper also uses a Short Message Service (SMS) provider called as "twilio" that is used to send a SMS alert to the people.

Keywords: Raspberry Pi, Arduino Uno, Fire Alert, video processing, image processing, Pi Camera, IOT, GPS Module.

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22. AUTOMATIC FIRE DETECTION SYSTEM USING IOT by Sailaja Vungarala, Ammaji Kasi Asst. Professor(CSE), Marri Laxman Reddy Institute of Technology and Management Dundigal
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Authors: Ashima Narang, Deepali Gupta, Amandeep Kaur

Paper Title: Efficient FragSecure Framework for Data Security and Fragmentation in Cloud Computing

Abstract: With the development in the technology, the risks of the threats and theft are increases day-by-day and this will put question mark in user's mind while using the different technologies like Cloud. The demand of the Cloud is also increasing due to its different services so there is a need to prevent the cloud network from external or internal attacks with the objective to make it more secure to provide better and efficient services. The number of security mechanisms was proposed for security where some of them use a concept of fragmentation that divides the data into subparts and then encrypt and store each part into different servers. These mechanisms are good enough to provide security but the problem of data loss due to fragmentation was introduced. So, to cop up this problema novel framework is designed with secure environment to protect cloud from theft of the data/tasks given by users and also reduces the data loss factor. In this framework,data is divided into fragments on the basis of different criteria to control data loss and then each fragment is encrypted using hybrid security algorithm. This framework is simulated on local cloud environment with a large amount of data storage where data is of different types like, image, audio and text data. The results achieved is better as compare to the existing frameworks in terms of Data Loss, Storage time, and Size of the data after encryption.

Keywords: Cloud Computing, Security, Fragmentation, Data Storage, Hybrid Encryption.

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184.	<p>Authors: S.Sunithamani, N. Vidhupriya, K. Sai Srilekha, K. Uday Kumar</p> <p>Paper Title: Study of piezoelectric cantilever based energy harvester for IOT applications</p> <p>Abstract: This paper presents the conversion of mechanical vibration into electrical energy using piezoelectric cantilever based energy harvester. By using Comsol Multiphysics 5.2 we constructed various geometries of the cantilever beam in order to compare displacement and voltage and hence calculate the generated power. The effect of these geometries is studied by applying stress or load on the cantilever beam. The H-Shaped cantilever generates a maximum power of $98.37\mu\text{W}$ at frequency of 65.32Hz, whereas the L-shaped cantilever, rectangular cantilever, rectangular cantilever with a rectangular hole generates less power $55.16\mu\text{W}$, $2.85\mu\text{W}$ and $4.09\mu\text{W}$ respectively. This piezoelectric energy harvester can be used for powering sensors associated with internet of things (IoT).</p> <p>Keywords: Piezoelectric, Cantilever, IoT, Energy harvester.</p> <p>References:</p> <ol style="list-style-type: none"> 1. khoon-keat Chow, Swee-Leong Kok, Kok-Tee Lau, Ali Mohammed Abdal-kadhim.(May 2018). P(VDF-TrFE) piezoelectric sensor for Internet of Things application. Proceedings of Mechanical Engineering Reasearch day 2018,pp-42-43. 2. P. Graak, A. Gupta, S. Kaur, P. Chhabra, D. Kumar, A. Shetty. Design and Simulation of Various Shapes of Cantilever for Piezoelectric Power Generator by Using Comsol. 3. Agnimitra Singh, VanditaKhare.Optimization of Different Shaped Electrostatic Cantilever Beams.International Journal of Advanced Research in Computer Science and Electronics Engineering (IJARCSEE) Volume 3, Issue 3, March 2014. 4. Sunithamani S, Lakshmi P, Eba Flora E "PZT length optimization of MEMS piezoelectric energy harvester with a non-traditional cross section: simulation study", Journal of Microsystem technologies, pp.2165-2171, vol. 20, no.12, 2014. 5. Sunithamani S and Lakshmi P, "Simulation study on performance of MEMS piezoelectric energy harvester with optimized substrate to piezoelectric thickness ratio", Journal of Microsystem technologies, pp. 733-738, vol.21 ,no.4, 2015. 6. Sunithamani S, Lakshmi P and Senbagavalli S "Modelling and Analysis of MEMS Bimorph Piezoelectric Energy Harvester for Green Energy Source", Journal of Chemical and Pharmaceutical Sciences, JCHPS Special Issue 7: pp 258-262, 2015. 7. Sunithamani S, Lakshmi P and Senbagavalli S "Performance Analysis of MEMS Based Bimorph Piezoelectric Energy Harvester", International Journal of Applied Engineering Research, pp 15985-15988,vol.10, no.20, 2015. 8. Sunithamani S and Lakshmi P, "Experimental study and analysis of unimorph piezoelectric energy harvester with different substrate thickness and different proof mass shapes" Journal of Microsystem technologies, pp 2421–2430.Vol.23, no.7, 2017. 9. Sunithamani S, Lakshmi P, Eba , " Design of Piezoelectric Energy Harvester with Controlled and Regulated Output Voltage: Simulation Study",WSEAS Transactions on Power Systems, Volume 12, 2017, Art. #7, pp. 63-72, 2017. 	1015-1022
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	<p>Authors: Aadil Ahmad Khan, Gurinder kaur, Khushpreet singh</p> <p>Paper Title: Feasibility of Geopolymer Concrete Incorporating plastic Aggregates</p> <p>Abstract: In this experimental work, the HDPE(high density polyethylene) plastic as coarse aggregate is used in fly ash based geopolymer concrete. The geopolymer concrete was prepared with low calcium fly ash and the coarse aggregates of size 10-20mm was replaced with plastic aggregates at different percentages I.e. 0%, 10%,</p>	
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20% and 30% to study the strength properties such as compressive strength and split tensile strength. Geopolymer concrete was prepared with the use of alkaline solutions NaOH and Na₂SiO₃. Geopolymer concrete samples at all percentages were cured in oven at 60°C for 24 hours and then kept under room temperature for curing for 3, 7 and 28 days. It has been experimented that, due to the increase of the plastic aggregate percentage in concrete decreases the compressive strength. Geopolymer concrete is a raw material based concrete that leads to the usage of materials which are produced as a raw material from industries and when these raw materials were induced in the geopolymer preparation it leads to the reduction of carbon emissions and acts as a greater concrete towards environment. The usage of plastic in geopolymer concrete is another benefit for the environment. It has been observed that the concrete shows the better strength at 0% replacement of plastic in geopolymer concrete.

Keywords: Aqueous solution, fly ash, Geopolymer concrete, Plastic aggregates(HDPE), strength properties.

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Authors:	S. Rajaprakash, S. Muthuselvan, Pradeep P V , Balamurugan.A, Praveen M, Rishi kumar S
Paper Title:	Building's Health Monitoring System using Internet of Things

Abstract: Buildings are susceptible to damage due to various factors. Moreover; those same structures can suffer long-term damage if their strength is allowed to deteriorate gradually over time. The fix of these damages is very costly. Structural Health Monitoring (SHM) can relieve high repair costs by distinguishing and estimating harming wonders as they happen. In like manner, Structural Health Monitoring can moderate long haul harm by persistently observing the auxiliary state of key segments. In this work is to monitor the buildings and to alert the users by giving early indications through notifications. Structural monitoring of buildings using Internet of Things, Continuous monitoring can give early indications of structural malfunctioning of buildings. The developed WSN system continuously collects structural response data from a network of sensor nodes & uploads it to a cloud server. The response data (parameters) such as temperature, pressure, crack which can be monitored lively and represented graphically. The data imported from the cloud server has applied into analytic and if the limit is exceeded, the server will pop the alert message to the user's mobile application. Thus it helps to improve the knowledge concerning structural behavior and early damage detection.

Keywords: raspberry Pi, Structural Monitoring System, damage detection.

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	<p>Symposium on Structural Health Monitoring and Nondestructive Testing 4-5 October 2018, Saarbruecken, Germany.</p> <p>9. Sangmin Park, Soung Hoan Park , Lee Won Park 2,, Sanghoon Lee “Design and Implementation of a Smart IoT Based Building and Town Disaster Management System in Smart City Infrastructure” in Appl. Sci. 2018, 8, 2239; doi:10.3390/app8112239. 2018.</p> <p>10. snehal r. shinde, mr. a. h. karode, dr. s. r. suralkar ” iot based environment monitoring system” volume-7 issue-2 february-2018 issn no 2277 - 8179 ic value : 4.176 ic value : 93.98</p> <p>11. Tuan Nguyen Gia Mai Ali Imed Ben Dhaou , Amir M. Rahmani “IoT-based continuous glucose monitoring system: A feasibility study” Tuan Nguyen Gia et al. / Procedia Computer Science 109C (2017) 327– 334 – ScienceDirect Procedia Computer Science 109C (2017) 327–334 1877-0509 Peer-review under responsibility of the Conference Program Chairs. 10.1016/j.procs.2017.05.35.</p> <p>12. S. Muthuselvan, S. Rajaprakash, K. Karthik, R. Jaichandran, Suman Sharani “Medicare Mobile Applications Implemented Using Android”, in International Journal of Engineering and Advanced Technology,- ISSN: 2249 – 8958, Volume-8 Issue-4, April 2019.</p> <p>13. S.Rajaprakash, Karthik .Ksomasundaram k, priyanka varshini & rishi Abishek ”.dlifi based interactive intelligent shopping system with autopayment using android” in International Journal of Mechanical and ProductionEngineering Research and DevelopmentVol. 8, Special Issue 4, Dec 2018, 882-887.</p>	
	<p>Authors: Tummala sai roopa, Yarlagadda purna, Chaitanya Krishna</p> <p>Paper Title: A Novel Approach for Bug Triaging with Specialized Topic Model</p>	
187.	<p>Abstract: Programming associations spend in excess of 48% of price in overseeing programming bugs. An unpreventable walk of explaining bugs is bug triage, which hopes to viably consign a fashioner to another bug. Bug triaging suggests the path toward doling out a bug to the most reasonable originator to fix. It ends up being progressively troublesome and confounded as the degree of programming and the amount of architect's augmentation. Programming bugs are predictable and bug triaging is a troublesome, dreary, dull and expensive errand. For tremendous programming adventures, the amount of moving toward bug reports is commonly high. Triaging these broad amounts of moving toward bug reports is a troublesome and dreary errand. Some portion of the bug triaging method is consigning an as of late arrived bug answer to an architect who could successfully resolve the bug. Delegating bug answer to the relevant creator is an indispensable walk as it diminishes the bug throwing. Bug heaving is the path toward reassigning the bug answer to another promising architect, if the essential picked one can't resolve it.</p>	
	<p>Keywords: Tossing Graph Techniques, CLUBAS algorithm.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Jifeng Xuan, He Jiang, Yan Hu, Zhilei Ren, Weiqin Zou, 2. Zhongxuan Luo, and Xindong Wu, “Towards Effective Bug Triage with Software Data Reduction Techniques”, <i>IEEE transactions on knowledge and data engineering</i>, vol. 27, no. 1, january 2015 3. D. Cubrani and G. C. Murphy, “Automatic bug triage using text categorization,” in Proc. 16th Int. Conf. Softw. Eng. Knowl. Eng., Jun. 2004, pp. 92–97. 4. J. Anvik, L. Hiew, and G. C. Murphy, “Who should fix this bug?” in Proc. 28th Int. Conf. Softw. Eng., May 2006, pp. 361–370. 5. J. Xuan, H. Jiang, Z. Ren, J. Yan, and Z. Luo, “Automatic bug triage using semi-supervised text classification,” in Proc. 22nd Int. Conf. Softw. Eng. Knowl. Eng., Jul. 2010, pp. 209–214. 6. K. Nigam, A. K. McCallum, S. Thrun, and T. Mitchell, “Text classification from labeled and unlabeled documents using EM,” <i>Machine Learning</i>. Hingham, MA, vol. 39, pp. 103-134, May 2000. 7. M. Alenezi, K. Magel, S. Banitaan “Efficient Bug Triaging Using Text Mining” <i>Academy Publisher</i>, 2013. 8. W. Zou, Y. Hu, J. Xuan, and H. Jiang, “Towards training set reduction for bug triage,” in Proc. IEEE 35th Annual Computer Software and Applications Conference, Washington, DC, USA: IEEE Computer Society, 2011, pp. 576–581. 9. A. Tamrawi, T. Nguyen, J. Al-Kofahi, and T. Nguyen, “Fuzzy set and cache-based approach for bug triaging,” in Proc. 19th ACM SIGSOFT Symposium and the 13th European Conference on Foundations of Software Engineering, 2011, pp. 365–375. 10. G. Jeong, S. Kim, and T. Zimmermann, “Improving bug triage with tossing graphs,” in Proc. Joint Meeting 12th Eur. Softw. Eng. Conf. 17th ACM SIGSOFT Symp. Found. Softw. Eng., Aug. 2009, pp. 111–120. 11. Q. Shao, Y. Chen, S. Tao, X. Yan, and N. Anerousis, “Efficient ticket routing by resolution sequence mining,” in Proc. 14th ACM SIGKDD Int. Conf. Knowl. Discovery Data Mining, Aug. 2008, pp. 605–613. 12. M. D'Ambros, M. Lanza, and M. Pinzger. “A Bug’s Life” Visualizing a Bug Database. In <i>Proceedings of IEEE International Workshop on Visualizing Software for Understanding and Analysis (VisSoft 2007)</i>, pages 113–120, Banff, Alberta, Canada, 2007. IEEE Computer Society. 13. C. A. Halverson, J. B. Ellis, C. Danis, and W. A. Kellogg. “Designing task visualizations to support the coordination of work in software development.” In <i>CSCW ’06: Proceedings of the 2006 20th Anniversary Conference on Computer Supported Cooperative Work</i>, pages 39–48, 2006. 14. P. Bhattacharya P. and Neamtiu I.: <i>Fine-grained incremental learning and multi-feature tossing graphs to improve bug triaging</i>, in Proc. of ICSM’10, pp.1-10 (2010). 15. P. Bhattacharya, L. Neamtiu, C. R. Shelton “Automated, highly-accurate, bug assignment using machine learning and tossing graphs”, 2012. 	1032-1038
188.	<p>Authors: Kotha Naga lakshmi prasanna, Kotapati Naresh, V. Hari Kiran</p> <p>Paper Title: A Hybrid Collaborative Filtering for Tag Based Movie Recommendation System</p> <p>Abstract: Collaborative Filtering (CF) is one in all the chief flourishing proposal strategies. Regardless of its prosperity, despite everything it experiences a few shortcomings proportional to information meagre condition and client cold-begin issues prompting poor suggestion precision and decreased inclusion. Trust-based suggestion ways consolidate the extra information from the client's social trust organize into mutual separating and may higher explain such issues. In this paper we tell the best way to utilize trust with community separating to determine the issues and improve the outcomes.</p> <p>Keywords: collaborative filtering, recommendation system, dynamic user, information sparsity.</p> <p>References:</p>	1039-1042

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Authors:	Adlene Ebenezer P, Shantanu Fartyal, Manish Prakash, Osama Habib, Aditya Siddharth
Paper Title:	Progressive Learning via Rearrangement of Noisy Labels

Abstract: In the recent years the innovation in machine learning has scaled up to a whole another level. Large scale learning problems need a vast variety of labels which can be collected at a low cost. Crowdsourced data offers a really low cost but it comes with a lot of noise, this means that the data collected cannot be trusted and hence can degrade the performance. Among the noisy labels, some labels can be really important. To tackle the difficulty of noisy labels and degraded performance, we offer to propose and actualize, a framework including POSTAL (Progressive Stochastic Learning of Noisy Labels), a new innovation for rearrangement of labels. Our framework gives a double arrangement. One, it sorts all the labels from the reliable one to noisy one. Two, progressively feed the data into the machine to learn.

Keywords: POSTAL, Noisy Labels, Progressive Learning.

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Authors:	K. Usha Prameela, Pavan Kumar
Paper Title:	Execution Proportions of Multi Server Queuing Modelwith Pentagonal Fuzzy Number: DSW Algorithm Approach

Abstract: This paper displays a multi-server queuing miniature in fuzzy condition. We accept the inter-arrival(entry) time and service(overhauled) time as pentagon fuzzy numbers, and the arithmetic of interval numbers is enforced. In this proposed model, the idea of the α -cut through DSW calculation is connected to decide the execution proportions. The effectiveness of the proposed model is outlined by fathoming a numerical precedent by thinking about hypothetical information.

Keywords: Queuing Model, Pentagon Fuzzy Numbers, DSW Algorithm, α -cut, execution proportions.

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	Authors: Payal Maharathi Paper Title: Adsorption Of Ciprofloxacin Antibiotics By Azadirachta Indica (Neem Leaf) And Their Characterisation	
	<p>Abstract: Adsorption of ciprofloxacin antibiotics using neem leaves biochar was studied. The neem leaves biochar had relatively BET specific surface area that was $8.6 \text{ m}^2/\text{g}$. In this research, the removal of ciprofloxacin was effective using the biochar. The adsorption occurred at the homogeneous sites of the biochar and obeyed Langmuir model. The maximum removal efficiency was 70% of ciprofloxacin against 0.2g of biochar. Biochar is used for water remediation and for treating of water and wastewater. The biochar was prepared from pyrolysis that may fast or slow. The different removal efficiency was detected with various experiment. The characterisation of the biochar using SEM analysis showed the adsorption of ciprofloxacin in the non uniform pores of the biochar. In this study biochar was produced at 250°C from neem leaves is seen as effective temperature for adsorption of the ciprofloxacin antibiotics. The samples were examined using UV-VIS spectrophotometer and it shows a good removal efficiency.</p>	
	Keywords: Adsorption, Biochar, Ciprofloxacin.	
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	Authors: Lovneesh Sharma, Sandeep Nasier Paper Title: Dynamic Seismic Evaluation of Irregular Multi-Storey Buildings Using Bracing in Zone V as Per IS: 1893-2016	
	<p>Abstract: There are mainly 2 different types of irregularity in the structure, one is plan irregularity and another is vertical irregularity. The introduction of irregularity in the structure creates complex design and construction problems as irregular structures behave differently from regular structure. The response of such structure under seismic load depends on various factors and it is a dire need to understand the behavior of such irregular structure for the development of new design and construction technique through which the performance of the same shall be evaluated. Therefore, in order to understand the behavior of irregular structure with bracing system, the present study was conducted. For this, different types of irregularities were chosen for 12 storey building i.e. H-shape, L-shape and O-shape. The introduction of V-type bracing has its own significance in the present study. Heavy mass was placed at 6th floor and 9th floor but not simultaneously. Dynamic seismic analysis in seismic zone V was adopted and it was carried out in Staad. Pro software. The evaluation of the irregular building along with the effectiveness of bracing was found out as it was the ultimate objective of the present study. It concluded that the</p>	

lateral sway of the column shows very little variation when the heavy mass was transferred from 6th floor to 9th floor as the value of displacement is almost same. But L-Shaped 12 storey building shows poor performance while resisting the lateral forces as it entails maximum value of displacement i.e. 82.405 mm. With the introduction of heavy masses on floor, bending moment and shear force has increased 1.46 and 1.50 times respectively.

Keywords: Static and Dynamic Seismic Analysis, Staad.Pro.

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Authors:	B. Tulasilakshmi Devi, B. Sreenivasa Reddy, G.V P N Srikanth
Paper Title:	Effect of Hall Currents, Permeability, Heat Source and Forchhemir Parameters on Steady MHD Flow of Nano-Fluid with Rotation Through Non-Darcy Porous Medium Over Exponentially Stretching Porous Sheet

Abstract: We analyse the combined influence of Hall currents, rotation, chemical reaction and dissipation on non-Darcy convective heat and mass transfer flow of nanofluids through a porous medium past an exponentially stretching sheet .By using Runge-Kutta –Shooting method the equations have been evaluated for different variations. It is found that the linear and rotational velocities, nanoparticle volume fraction enhance with Hall pall parameter (m) and reduces with rotation parameter (R) while the temperature reduces with m and increases with R.

Keywords: Hall Currents, Rotation, Chemical Reaction, Dissipation, Non-Darcy Porous Medium, Nano-fluid.

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Authors: **G. Sireesha**

Paper Title: **Toroidal Properties of Polychromatic Quasi Crystals**

Abstract: A group theoretic method of obtaining the maximum number of non-vanishing independent constants required to describe a chosen toroidal property of the 54 polychromatic classes is presented. The toroidal coefficients obtained for all the 54 polychromatic classes are tabulated and the results obtained are briefly discussed.

Keywords: Toroidal properties, polychromatic quasi crystals, independent constants.

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Authors: **S. Cynthiya Margaret Indrani, N.Srinivasan**

Paper Title: **CMI Dual Algorithm for the Solution of Linear Programming Problems**

Abstract: In this paper, a new approach CMI Dual algorithm is introduced. This method is very easy to solve linear programming problem. Sometimes it involves less number of iterations than the Existing dual simplex method. This method is very strong with effortless iterations and also it saves the Precious time by avoiding the calculations of net evaluations

Keywords: CMI Dual Method, LPP, Optimal Solution.

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Authors: **K. Thiagarajan, A. Veeraiah**

Paper Title: **Basic Study with Support and Support value of Connected Network Graph Support study for Special**

	Graph	
196.	<p>Abstract: In this paper we observed the definition of Midvertex graph and Middle graph approach for the connected network topology, and derived some new results and theorems on Support of the Midvertex graph and Middle graphs. And this study leads to new approach from all the other generation of connected network topology. Also obtain new results for support value of some special graphs of like Ladder graph, Wheel graph, $C_n+, C_n+, C_n, , C_n-, C_n-$.</p> <p>Keywords: Crown graph, Domination set, Middle graph, Support of Midvertex graph and Middle graph.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Harrary F, "Graph theory", Addison Wesley, Reading Massachusetts, USA, 1969. 2. Narasinhg, Deo, "Graph Theory with Applications to Engineering and Computer Science", Prentice Hall of India, New Delhi, 1990. 3. Kulli V. R and Janakiram B, "Global non split domination in graphs", International Proceedings of the National Academy of Sciences 11-12, India, 2005. 4. Thiagarajan K, Veeraiah A, "Expanding Network through MIDVERTEX", IOSRD, International Journal of Network Science - 2017, Vol - 1, pp.1 - 6. 5. Thiagarajan K, Veeraiah A, Umanath K, "Study on Connected NetworkthroughMiddle graph Approach", International Journal of Pure and Applied Mathematics - 2017, Vol 117, pp. 679 - 686. 	1084-1086
197.	<p>Authors: K. Thiagarajan, P. Mansoor</p> <p>Paper Title: Some Bounds for the Sum of Domination Number and Chromatic Number of Network Graphs in Terms of Number of Edges</p> <p>Abstract: In the advanced world of technology, graph theory has become an essential tool in studying problems in social networks, computer based networks and other complex network systems. To identify and solve those problems, the best method is to have a graph theoretical framework on it. In graph theory, several inequalities involving number of edges, domination number and chromatic number of a graph G have been established. In this paper we shall discuss some results on the domination number of connected expanded network graphs and introduce some inequalities connecting number of edges, domination number and chromatic number for some special types of graphs which will be useful in studying various network related issues.</p> <p>Keywords: Chromatic Number, C_n+ Graph, C_n+C_n Graph, Domination Number, Expanded Network Graph, Semi Node, Wheel Graph.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Harrary, F. "Graph theory", Addison Wesley, Reading Massachusetts, USA, 1969. 2. Narsingh, Deo, "Graph Theory with Applications to Engineering and Computer Science", Prentice Hall of India, New Delhi, 1990. 3. K. Thiagarajan, P. Mansoor, "The $C_n +$ Graph and Incidence Matrix", International Journal of Pure and Applied Mathematics, Vol 117, No 21, 2017, 689-697. 4. M. Chelali, L. Volkmann, "Relation Between the Lower Domination parameters and the Chromatic number of a Graph", Discrete Mathematics 274, 2004, 1-8. 5. K. Thiagarajan, P. Mansoor, "Expansion of Network ThroughSeminode", IOSRD International Journal of Network Science, Vol 1, Issue 1, 2017, 7-11. 6. D. Gernert, "Inequalities Between The domination Number and The chromatic number of a Graph", Discrete Mathematics 76, 1989, 151-153, North-Holland. 7. K. Thiagarajan, P. Mansoor, "Complete Network Through folding and Domination Technique", International Journal of Engineering Research, Vol 10, No 39 (2015), Research India Publications. 	1087-1089
198.	<p>Authors: S. Vimala, K. Thiagarajan, A. Amaravathy</p> <p>Paper Title: Optimization for Transportation Problem through Origin-Max-Max Method</p> <p>Abstract: In this article, Proposed method namely ORIGIN-MAX-MAX method is related for determined the beneficial result for transportation problem. The propone data is different way to get optimal answer without bother of degeneracy condition.</p> <p>Keywords: Degeneracy, Pay off Matrix, Transportation problem.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Glover, F, D Karney, D Klingman and A Napier (1974). A computation study on start procedures, basis change criteria, and solution algorithms for transportation problems. <i>Management Science</i>, 20(5), 793-813. 2. Shih, W (1987). Modified Stepping-Stone method as a teaching aid for capacitated transportation problems. <i>Decision Sciences</i>, 18, 662-676. 3. Sudhakar. V. J, Arunsankar. N and Karpagam. T(2012)A New Approach for Finding an Optimal Solution for Transportation Problems, European Journal of Scientific research ISSN 1450-216X Vol.68 No.2 (2012), pp. 254-257. 4. Vasudevan. J, E Malini and DJ Victor (1993). Fuel savings in bus transit using depot/terminal bus allocation model. <i>Journal of Transport Management</i>, 17(7), 409-416. 5. K. Thiagarajan, A. Amaravathy, S. Vimala, K. Saranya (2016). OFSTF with Non linear to Linear Equation Method – An Optimal Solution for Transportation Problem, Australian Journal of Basic and Applied Sciences, ISSN – 1991-8178 Anna University-Annexure II, SI No. 2095. 	1090-1093

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	<p>Authors: S. Vimala , K. Thiagarajan , A. Amaravathy</p> <p>Paper Title: Normalised Optimal Solution for Transportation Problem by Centralised Max-Max Method</p>	
199.	<p>Abstract: In this article, proposed method namely CENTRALISED MAX-MAX method is related for finding the feasible solution for transportation problem. The proffer data is different way to reach optimal solution without confusion of degeneracy condition.</p> <p>Keywords: Degeneracy, Pay Off Matrix, Transportation problem.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Gass, SI (1990). On solving the transportation problem. <i>Journal of Operational Research Society</i>, 41(4), 291-297. 2. Goyal, SK (1984). Improving VAM for unbalanced transportation problems. <i>Journal of Operational Research Society</i>, 35(12), 1113-1114. 3. Reinfeld, NV and WR Vogel (1958). <i>Mathematical Programming</i>. Englewood Cliffs, New Jersey: Prentice-Hall. 4. Shih, W (1987). Modified Stepping-Stone method as a teaching aid for capacitated transportation problems. <i>Decision Sciences</i>, 18, 662-676. 5. K.Thiagarajan, A. Amaravathy, S. Vimala, K. Saranya (2016). OFSTF with Non linear to Linear Equation Method – An Optimal Solution for Transportation Problem, Australian Journal of Basic and Applied Sciences, ISSN – 1991-8178 Anna University-Annexure II, SI No. 2095. 6. A.Amaravathy, K. Thiagarajan, S. Vimala, MDMA Method –An Optimal Solution for Transportation Problem, Middle – East Journal of Scientific Research 24(12):3706-63710,2016 ISSN 1990-9233 7. A.Amaravathy, V. Seerengasamy, S. Vimala, Comparative study on MDMA Method with OFSTF Method in Transportation Problem, International Journal of Computer & Organization Trends(IJCOT) – Volume 38 Number 1 - December 2016, ISSN 2249-2593. 8. S. Vimala, K. Thiagarajan, A. Amaravathy, OFSTF Method –An Optimal Solution for Transportation Problem, Indian Journal of Science and Technology, Vol 9(48), DOI:17485/ijst/2016/v9i48/97801, December 2016. ISSN (Print) : 0974-6846 ,ISSN (Online) : 0974-5645 9. A.Amaravathy, K. Thiagarajan , S. Vimala, Cost Analysis – Non linear Programming Optimization Approach , International Journal of pure and applied mathematics Volume 119 No.10 2018, 989-1000 ISSN:1311-8080(printed version), ISSN:1314-3395(on –line version). 	1094-1097
	<p>Authors: K . R. Karthikeyan, M. Musthafa Ibrahim, K. Srinivasan</p> <p>Paper Title: Coefficient Inequalities of a Subclass of Analytic Functions Defined Using q-Differential Operator</p>	
200.	<p>Abstract: By making use of a q-analogue of the Sălăgean differential operator, we define a new subclass of analytic functions. We obtain Fekete-Szegö inequality and coefficient inequality of certain class satisfying bi-convex criteria. Fekete-Szegö inequality of several well-known classes are obtained as special cases from our results. Applications of the result are also obtained on the class defined by convolution.</p> <p>Keywords: Fekete-Szegö inequalities and p-valent Functions. [2010]30C45.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Ş. Altinkaya and S. Yalçın, Initial coefficient bounds for a comprehensive subclass of Sakaguchi type functions, <i>Acta Univ. M. Belii, ser. Math.</i> 23 (2015), 27–33. 2. L. Bieberbach, Über die koeffizienten derjenigen potenzreihen, welche eine schlichte Abbildung des Einheitskreises vermitteln. <i>S.-B. Preuss. Akad. Wiss.</i> (1916), 940-955. 3. J. H. Choi, Y. C. Kim and T. Sugawa, A general approach to the Fekete-Szegö problem, <i>J. Math. Soc. Japan</i> 59 (2007), no. 3, 707-727. 4. A. Chonweerayoot, D. K. Thomas and W. Upakarnikaset, On the Fekete-Szegö theorem for close-to-convex functions, <i>Publ. Inst. Math. (Beograd) (N.S.)</i> 52(66) (1992), 18-26. 5. M. Darus and D. K. Thomas, The Fekete-Szegö theorem for strongly close-to-convex functions, <i>Sci. Math.</i> 3 (2000), no. 2, 201-212. 6. H. E. Darwish, A. Y. Lashin and A. N. Alnayef, Fekete- Szegö inequality for certain subclass of analytic functions, <i>J. Fract. Calc. Appl.</i> 8 (2017), no. 1, 29–37. 7. M. Fekete and G. Szegö, Eine Bemerkung Über Ungerade Schlichte Funktionen, <i>J. London Math. Soc.</i> S1-8 no. 2, 85. 8. 8.W. Koepf, On the Fekete-Szegö problem for close-to-convex functions, <i>Proc. Amer. Math. Soc.</i> 101 (1987), no. 1, 89-95. 9. K. Kuroki and S. Owa, Notes on new class for certain analytic functions, <i>RIMS Kokyuroku</i>, 1772 (2011) pp. 21-25. 10. W. Ma and D. Minda, A unified treatment of some special classes of univalent functions, in <i>Proceedings of the Conference on complex Analysis</i>, Z. Li, F Ren, L Lang , and S. Zhang (Eds), International press Boaton, Mass, USA, (1994), 157-169. 11. W. Ma and D. Minda, Coefficient inequalities for strongly close-to-convex functions, <i>J. Math. Anal. Appl.</i> 205 (1997), no. 2, 537-553. 12. W. Rogosinski, On the coefficients of subordinate functions, <i>Proc. London Math. Soc.</i> (2) 48 (1943), 48–82. 13. Y. Sun, Y.-P. Jiang and A. Rasila, Coefficient estimates for certain subclasses of analytic and bi-univalent functions, <i>Filomat</i> 29 (2015), no. 2, 351–360. 14. H. Orhan and E. Gunes, Fekete-Szegö inequality for certain subclass of analytic functions, <i>Gen. Math.</i> 14 (2006), no. 1, 41–54. MR2233678. 15. G. Ş. Sălăgean, Subclasses of univalent functions, in <i>Complex analysis—fifth Romanian-Finnish seminar, Part 1 (Bucharest, 1981)</i>, 362–372, <i>Lecture Notes in Math.</i>, 1013, Springer, Berlin. 16. A. C. Schaeffer and D. C. Spencer, <i>Coefficient Regions for Schlicht Functions</i>, American Mathematical Society Colloquium Publications, 	1098-1101

	Vol. 35, Amer. Math. Soc., New York, NY, 1950.		
	Authors: R. Mary Jeya Jothi, R, Revathi	Paper Title: SSP Structure on the Cartesian Product Sm+1 x Pn	
201.	<p>Abstract: In G, if there exists a minimal dominating set in every induced subgraph H which meets all the cliques (maximal), then G is known as Super Strongly Perfect (SSP). This paper investigates the construction of Cartesian product of SSP graphs like star, path graphs. With this investigation, it is analysed the structural properties of stacked book graph with respect to its diameter and domination numbers.</p> <p>Keywords: Cartesian product, minimal dominating set, SSP and stacked book graphs.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Aurenhammer, F.; Hagauer, J.; Imrich, W., "Cartesian graph factorization at logarithmic cost per edge". <i>Comput. Complexity</i> 1992, vol. 2, no.4: 331-349. 2. R. Mary Jeya Jothi, "A discussion on SSP Structure of Pan, Helm and Crown Graphs", ARPN Journal of Engineering and Applied Sciences, 2015, vol. 10, no. 9, pp. 4115 - 4121. 3. R. Mary Jeya Jothi, et al, "Super Strongly Perfect Graphs in the Selection of Cluster Heads in Wireless Sensor Networks", <i>Applied Mechanics and Materials</i>, 2014, vol. 591, pp. 206-210. 4. R. Revathi and S.Ganesh, "Modular Multiplicative Divisor Labeling of k-Multilevel Corona Related Graphs", <i>Journal of Computational and Theoretical Nanoscience</i>, 2016, vol. 13, pp.7634-7639. 	1102-1104	
	Authors: Jainab Zareena	Paper Title: Performance on Soft Computing Techniques	
202.	<p>Abstract: Soft computing techniques occupy a phenomenal position in terms of classifying cloud, forecasting rainfall, thunderstorms, wind speed, and atmospheric temperature. Many researchers focused on studying the utility of neural network models, a method of soft computing used to forecast weather and other environmental factor. However, Soft computing mechanism such as fuzzy sets, artificial neural networks, evolutionary computation, rough sets, and probabilistic reasoning could be applied to various field of study. Through earlier research studies, it is evident that working with soft computing techniques is much easier as compared to the traditional statistical methods. The present study explores the reviews of those papers that deal with the concept of 'modern soft computing techniques'.</p> <p>Keywords: Soft Computing technique, Statistical methods, Computing mechanism, Neural network.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Zadeh, Lotfi A (1994) "Fuzzy Logic, Neural Networks, and Soft Computing," <i>Communications of the ACM</i>, Vol. 37 No. 3, pages 77-84. 2. X. S. Yang, Z. H. Cui, R. Xiao, A. Gandomi, M. Karamanoglu (2013) <i>Swarm Intelligence and Bio-Inspired Computation: Theory and Applications</i>, Elsevier. 3. D. K. Chaturvedi (2008) "Soft Computing: Techniques and Its Applications in Electrical Engineering", Springer. 4. Das, S. K., Kumar, A., Das, B., & Burnwal, A. (2013). On soft computing techniques in various areas. <i>Computer Science & Information Technology (CS & IT)</i>, 3, 59-68. 5. Kumar, V., Sharma, A., & Kumar, R. (2013). Applying Soft Computing Approaches to Predict Defect Density in Software Product Releases: An Empirical Study. <i>Computing and Informatics</i>, 32(1), 203-224. 6. Sharma, M., Mathew, L., & Chatterji, S. (2014). Weather forecasting using soft computing techniques. <i>International Journal Of Advanced Technology In Engineering And Science</i>, 2(7), 473-480. 7. Lai, C. L., & Wang, H. F. (2015, March). Application of soft computing techniques to forecast monthly electricity demand. In <i>Industrial Engineering and Operations Management (IEOM)</i>, 2015 International Conference on (pp. 1-7). IEEE. 8. Govindarajan, P., & Ravichandran, K. S. (2017, August). Modified stemmer for a medical system—evaluated using predefined metrics. In <i>2017 International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS)</i> (pp. 1746-1750). IEEE. 9. Omolaye, P. O., Mom, J. M., & Igweue, G. A. (2017). A Holistic Review of Soft Computing Techniques. <i>Applied and Computational Mathematics</i>, 6(2), 93. 10 Phonsa, G., & Bansal, K. K. (2018). A Comprehensive Review of Soft Computing Techniques. <i>International Journal of Applied Engineering Research</i>, 13(11), 9881-9886. 	1105-1106	
203.	<p>Authors: S.K.Binu Siva Singh, K.V. Karthikeyan</p> <p>Paper Title: Performance on Coupled Network in Node Unbiased Level Raise To Unprejudiced Network–Directed Graph Approach</p> <p>Abstract: In this study we observed the concept of source node, sink node and bye-pass node from network topology. Defined Single Source out Node and Single Sink in Node for the network to get optimized balanced entire network. The proposed definitions will be very useful in future for different types of network topologies to get corresponding optimized balanced network.</p> <p>Keywords: Balanced, Bye-pass node, in degree, out degree, Single Sink in Node, Single Source out Node, Sink node, Source node.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Gallian J.A., " A Dynamic Survey of Graph Labeling ",The Electronic journal of Combinatorics, 2015. 2. J.A. Bondy and U.S.R. Murty, "Graph Theory with Applications", London ,Macmillan 1976. 3. V. Rajeswari, K. Thiagarajan "Study on Binary Equivalent Decimal Edge Graceful Labeling in " IndianJournal of Science and 	1107-1112	

	<p>Technology, Vol 9(S1) DOI: 10.17485 /ijst/2016/v 9iS1/108356 December 2016, ISSN (Print) :0974-6846, ISSN (Online) : 0974-5645.</p> <p>4. Rajeswari.V,Thiagarajan.K "Study on Strong Binary Equivalent Decimal Edge Graceful Labeling" in International Journal of Pure and Applied Mathematics, Volume 119 No.102018,1021-1030,ISSN:1311-8080.</p> <p>5. Harary, F. "Graph theory", Addison Wesley, Reading Massachusetts, USA, 1969.</p> <p>6. M. Chelali, L.Volkmann, "Relation Between the Lower Domination parameters and the Chromatic number of a Graph", Discrete Mathematics 274, 2004, 1-8.</p> <p>7. K. Thiagarajan and P. Mansoor, "Expansion of Network Through Seminode", IOSRD International Journal of Network Science,Vol 1, Issue 1, 2017,7-11.</p>	
	<p>Authors: Sabna.K.S, Mangalambal.N.R</p> <p>Paper Title: Finitely Generated L-Slice for a locale L</p>	
204.	<p>Abstract: The notion of an action of a locale L on a join semilattice J with bottom element 0J is developed and is utilized to form the entity (σ, J), which we call L-slice, that has properties which could be studied algebraically as well as topologically. We investigate the properties of L-slice (σ, J) of a locale L. We have proved that the product of two L-slices of a locale is an L-slice. The notion of finitely generated L-slice of a locale L is introduced and we have shown that every finitely generated L-slice (σ, J), of a locale L with n generators is isomorphic to the quotient slice of the L-slice (Π, \ln).</p> <p>Keywords: Single phase multilevel inverter, Multi carriers, Sixty Degree PWM, Twenty seven levels, Cascaded multilevel inverter, and Distortion Factor.</p> <p>References:</p> <ol style="list-style-type: none"> 1. M.F.Atiyah, I.G.Macdonald, Introduction to commutative algebra ,Addison-Wesley Publishing Company 2. G.Birkhoff, Lattice Theory, American Mathematical Society. 3. George Gratzer, General lattice theory,Birkhauser,2003. 4. H.Herrlich, G.E.Strecker, Category Theory: An Introduction, Allyn and Bacon, 1973. 5. P.T.Johnstone, Stone Spaces, Cambridge University Press, 1982. 6. P.T.Johnstone, The point of pointless topology, Bulletin of American Mathematical society,1983. 7. H.Matsumara, Commutative algebra, Addison Wesley Longman 1970. 8. C.Musli, Introduction to Rings and Modules, Narosa Publishing House, 1994. 9. J.Picado and Pultr, Frames and locales: Topology without points, Front. Math., Springer, Basel,2012. 10. K.S Sabna and N.R Mangalambal, Fixed point with respect to L-slice homomorphism σ_a, Archivum Mathematicum, Masaryk University, Vol 55, Issue 1,. 11. Scott and C.Strachey, Towards a mathematical semantics for computer languages, Poceedings of the Symposium on Computers and Automata ,Polytechnic Institute of Brooklyn Press, New York 1971. 12. Samson Abramsky, Achim Jung, Domain Theory, Handbook of logic in Computer Science(Vol- 3),Oxford University Press UK,1994. 13. Saunders MacLane, Categories for the working Mathematician ,Springer-Verlag, New York, Inc 1998. 14. S. Vickers, Topology via Logic, in: Cambridge Tracts in Theoretical Computer Science, Vol. 5, Cambridge University Press, Cambridge, 1985. 	1113-1116
205.	<p>Authors: A.Meenakshi</p> <p>Paper Title: Paired Equitable Domination in Inflated Graphs</p> <p>Abstract: Let G be a connected graph. A equitable dominating set U of a connected graph G is called the paired equitable dominating set if U dominates G and the induced sub graph of U has a perfect matching. The minimum cardinality of paired equitable dominating set is called paired equitable domination number of G and is denoted by $\pi_e(G)$. The inflation graph G_I is obtained from a graph G by modifying every vertex x of degree $d(x)$ by a clique $K_{d(x)}$. In this paper we study the paired equitable domination number for some inflated graphs and arrive with few general results</p> <p>Keywords: Paired equitable domination, inflated graph, dominating set and domination number.</p> <p>References:</p> <ol style="list-style-type: none"> 1. J.A.Bondy Murthy, Graph Theory with Applications, Elsevier science publishing co., Inc, Newyork, N.Y.10017, (1976). 3. Micheal A.Henning, Adel P.Kazemi, "Total domination in inflated graphs," Discrete Applied Mathematics, Vol.160,pp.164-169,2012 4. A.Meenakshi and J.Baskar Babujee, Paired equitable Domination in Graphs, International Journal of Pure and Applied Mathematics, Vol.109,No.7, 2016, 75-81. 5. V.Swaminathan and K.M.Dharmalingam, Degree equitable domination on graphs, Kragujevac journal of mathematics, Volume 35, Number 1(2011), 191-197. 6. Teresa W.Haynes, Stephen T.Hedetnimi , Peter J. Slater, (1998) Fundamentals of Domination in Graphs, Marcel Decker. 	1117-1120
	<p>Authors: S. Sendhamizh Selvi, S.Jenita</p> <p>Paper Title: Variance of Time to Recruitment for a Two Grade Manpower System with Independent and Non-Identically Inter - Decision Times and Correlated Wastages with Thresholds having Different Distributions</p> <p>Abstract: In this paper, the problem of time to recruitment in an organization with two grades when it is subjected to loss of manpower due to the policy decisions taken by the organization is studied. As the exit of</p>	

personnel is unpredictable, a recruitment policy involving two thresholds for each grade there are optional and mandatory, is suggested to enable the organization to plan its decision on recruitment. Based on shock model approach two mathematical models are constructed using the univariate policy of recruitment. Performance measures namely mean and variance of the time to recruitment are obtained for model I when (i) loss of man powers are exchangeable and constantly correlated exponential random variables (ii) inter-decision times form a sequence of independent and non-identically distributed exponential random variables and iii) optional and mandatory thresholds follows extended exponential distribution. In model II, optional and mandatory thresholds follows SCBZ property.

Keywords: Manpower planning, shock models, univariate recruitment policy, extended exponential distribution, hypo-exponential distribution, SCBZ property, exchangeable and constantly correlated exponential random variables.

206.

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4. Esther Clara.S. (2011), Contributions to the Study on Some Stochastic Models in Manpower Planning, Ph.D Thesis, Bharathidasan University.
5. Kasturri.k and Srinivasan.A, (2005), Expected Time to Recruitment for Correlated Inter-decision Times of Exits when Threshold Distribution has SCBZ Property, *ActaCienciaIndica*. Vol.XXXIM, No.1, pp 277-283.
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8. SendhamizhSelvi.S., (2009), A Study on Expected Time to Recruitment in Manpower Model for a Multigraded System Associated with an Univariate Policy of Recruitment, Ph.D Thesis, Bharathidasan University.
9. SendhamizhSelvi.S and Jenita.S, (2016), Estimation of Mean and Variance of Time to Recruitment in a Two Graded Manpower System with Two Continuous Thresholds for Depletion Having Independent and Non-identically Distributed Random Variables, *Proceedings of Heber International Conference on Applications of Actuarial Science, Mathematics, Management and Computer Science*, pp 116-127.
10. SendhamizhSelvi.S and Jenita.S, (2016), Estimation of Mean Time to Recruitment in a Two Graded Manpower System with Depletion and Inter-decision Times are Independent and Non-identically Distributed Random Variables, *International Journal of Mathematics Trends and Technology (IJMTT)*, ISSN: 2231-5373, Vol 39, pp: 34-41.
11. SendhamizhSelvi.S and Jenita.S, (2016), Estimation of Mean Time to Recruitment for a Two Graded Manpower System Involving Independent and Non-identically Distributed Random Variables with Thresholds Having SCBZ Property, *International Journal of Science and Research (IJSR)*, ISSN: 2319-7064, Vol 6, Issue 3, pp: 1001-1005.
12. SendhamizhSelvi.S and Jenita.S, (2018), Variance of Time to Recruitment for a Two Graded Manpower System with Different Distribution Thresholds having Non-identically Distributed Wastages and Correlated Inter-Decision Times, *Journal of Global Research in Mathematical Archivers (JGRMA)*, ISSN: 2320-5822, Vol 5, No. 7, pp: 63-68.

Authors:	D. Florence Isido, V.M.Chitra
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Paper Title:	On Difference Cordial Labeling of Networks
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Abstract: Let G be a (p,q) . Let $f:V(G) \rightarrow \{1,2,3,\dots,p\}$ be a function. For each edge uv assign the label $|f(u)-f(v)|$, f is called a difference cordial labeling if f is one to one map and $|e_f(0)-e_f(1)| \leq 1$, where $e_f(1)$ and $e_f(0)$ denote the number of edges labeled with 1 and labeled not with 1 respectively. A graph with difference cordial labeling is called difference cordial graph. In this paper we investigate the difference cordial labeling of the butterfly network, benes network, path union of cycles and corona product of cycles with $[K]_1, K_2$ and K_3

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Keywords: Butterfly graph, benes graph, path union of cycles, corona product of cycles with K_1, K_2 and K_3 and difference cordial labeling.

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Authors:	K. R. Karthikeyan, K. Ramachandran, K. Srinivasan
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Paper Title:	On A Class Non-Bazilević Function Involving Q-Differential Operator
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Abstract: We define a - differential operator which combines well-known Dziok-Srivastava operator and Sălăgean differential operator. Using this -differential operator, we define a presumably new class of non-Bazilević function which has interesting subclasses of univalent functions as its special case and derive subordination and superordination results for the class in the unit disk. Further, interesting subordination conditions for starlikeness with respect -symmetric points are obtained. Finally, we give relevant connections of

our main results with former results obtained by various other authors.

Keywords: q-calculus, univalent functions, starlike functions, convex function, Dziok-Srivastava operator, subordination, superordination.

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Authors: V.Srimanju, SK.Khadar Babu

Paper Title: Oscillation and Nonoscillation Criteria for Generalized Second Order Quasilinear -Difference Equations

Abstract: New oscillation and nonoscillation theorems are obtained for the generalized second order quasilinear -difference equation $\Delta_{\alpha(\ell)} \left(|\Delta_{\alpha(\ell)} u(k-\ell)|^{\gamma-1} \Delta_{\alpha(\ell)} u(k-\ell) \right) + p(k) |u(k)|^{\gamma-1} u(k) = 0$, where $\gamma > 0$ is a constant and $p(k)$ is a real valued function with $p(k) \geq 0$.

Keywords: Generalized difference equation, Quasilinear, Oscillation.

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Authors: R.Revathi, R. Mary Jeya Jothi

Paper Title: A Performance on MMD Graphs

Abstract: A graph $G(V, E)$ with n vertices is said to have modular multiplicative divisor (MMD) labeling if there exist a bijection $f : V(G) \rightarrow \{1, 2, \dots, n\}$ and the induced function $f^* : E(G) \rightarrow \{0, 1, 2, \dots, n-1\}$ where $f^*(uv) = f(u)f(v)(\text{mod } n)$ for all $uv \in E(G)$ such that the sum of all edge weights is a multiple of n .

This paper studies MMD labeling of larger families of graphs namely, the join of C_n^+ with union of $2m$ disjoint copies of K_1 and corona of star S_n with union of $2m$ disjoint copies of K_1 .

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	<p>Keywords: Graph labeling, corona, join of two graphs, MMD labeling, graph C_n^+</p> <p>References:</p> <ol style="list-style-type: none"> 1. F. Harary, Graph Theory, Addison-Wesley, Reading, Massachusetts, 1972. 2. J. A. Gallian, A Dynamic Survey of Graph Labeling, Electronic J. of combinatorics Dec. 7, #DS6. 3. H.T. Marbun and A.N.M. Salman, AKCE Int. J. Graphs Comb., 10, No. 2, pp. 183-191. 4. R. Revathi and S.Ganesh, J. of Taibah University for Science, Elsevier SCI Ltd., Vol. 11, No. 2, pp. 294-297.. 5. R. Revathi and S.Ganesh, J. of Computational and Theoretical Nanoscience, Vol. 13, No. 10, pp. 7634-7639 6. R. Mary Jeya Jothi, "Cyclic Structure of Triangular Grid Graphs Using SSP", International J. of Pure and Applied Mathematics, Vol. 109, No.9, pp. 46 - 53. 	
	<p>Authors: A.Durai Baskar, S.Saratha Devi</p> <p>Paper Title: Super C-Logarithmic Meanness of Graphs Obtained from Paths</p>	
211.	<p>Abstract: Two functions namely f and f^* is defined for a graph G whose order $V = p$ and size $E = q$ as $f: V(G) \rightarrow \{1, 2, \dots, V + E \}$ is an injective and $f^*[uv] = \left\lceil \frac{f(v)-f(u)}{\ln f(v)-\ln f(u)} \right\rceil$ is an induced bijective function of f respectively. Then f is called a Super C-logarithmic mean labeling if $f(V(G)) \cup \{f^*(uv); uv \in E(G)\} = \{1, 2, 3, \dots, p+q\}$. A graph that admits a Super C-logarithmic mean labeling is called a Super C-logarithmic mean graph. In this manuscript, some of the graphs like path, total graph of a path, middle graph of a path, triangular ladder, the graph $P_n \odot S_m$ for $m \leq 3$, the graph $TW(P_n)$, the graph $[P_n; S_1]$, subdivision of $P_n \odot K_1$ and the arbitrary subdivision of $K_{1,3}$ admits Super C-logarithmic mean labeling.</p> <p>Keywords: Labeling, logarithmic mean labeling, logarithmic mean graph.</p> <p>References:</p> <ol style="list-style-type: none"> 1. A. Durai Baskar, S. Arockiaraj and B. Rajendran, F-Geometric mean labeling of some chain and thorn graphs, Kragujevac Journal of Mathematics, 37(1) (2013), 163-186. 2. A. Durai Baskar, S. Arockiaraj and B. Rajendran, Geometric meanness of graphs obtained from paths, Utilitas Mathematica, 101 (2016) 45-68. 3. A. Durai Baskar and S. Arockiaraj, Super Geometric Mean Graphs, SUT Journal of Mathematics, 52 (2016) 97-116. 4. A. Durai Baskar and S. Arockiaraj, Further Results on Super Geometric Mean Graphs, International Journal of Mathematical Combinatorics, 4 (2015) 104-128. 5. J.A. Gallian, A dynamic survey of graph labeling, The Electronic Journal of Combinatorics, 17(2017). 6. F. Harary, Graph theory, Addison Wesely, Reading Mass., 1972. 	1145-1149
	<p>Authors: Srimathi V, Bennilo Fernandes J</p> <p>Paper Title: Induced Extended Fuzzy Clustering Method (IEFCLM) for Uncertainty</p>	
212.	<p>Abstract: The Act 1995 seriously started taking policy decisions to rehabilitate the PWDs by allotting funds and implementing programs, though not to the full satisfaction of PWDs. The rural PWDs are yet to be sensitized on their rights as per the Act. Assuring by a NGO in Melmalayanur District found over eighty percent of PWDs not having the basic Natural ID card, require for availing and rehabilitation measures. In this paper the difficulties faced by the rural deprived PWDs were analyzed using Induced Extended Fuzzy Clustering Model (IEFCLM). There are four sections. Section one describes the PWDs, giving the historical background. Section two gives the methodology of hidden pattern of Induced Extended Fuzzy Clustering method. Section three discusses the study using IEFCLM. Fourth section gives the result of the study.</p> <p>Keywords: Fuzzification, Induced FCM, Extended FCM, algorithm, Persons with disabilities.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Pathianathan, T., Thirusangu, K. and John, M.M. (2005). On School Dropouts of School Children – A Fuzzy Approach. <i>Acta Ciencia Indica</i>, XXXIM., 4:1279-1299. 2. Kandasamy, W.B.V., Smarandache, F. and Ilanthenral, K. (2007). Elementary Fuzzy Matrix Theory and Fuzzy Models for social Scientists. <i>Automaton</i>, USA., 180-210. 3. Narayananamoorthy, S. and Kalaiselvan, S. (2012). Adaptation of Induced Fuzzy Cognitive Maps to the Problems Faced by the Power Loom Workers. <i>I.J. Intelligent Systems and Applications</i>, 9: 75-80. 4. Praveen Prakash, A., Esther Jerlin, J. and Arthi, K. (2014). A Study on the Causes for Failures in Mathematics by Engineering Students of Chennai Using Extended Fuzzy Clustering Model. Proceedings of the ERCICA2014., 3:323-328. www.elsevierst.com/ConferenceBookdetail.php?pid=83 5. Velusamy, K. and Gomathy, C. (2018). Solving Fuzzy Clustering Problem Using Hybridization of Fuzzy C-Means and Fuzzy Bee Colony Optimization. International Journal of Computer Engineering and Applications., 12(4): 317-324. 	1150-1152
213.	<p>Authors: K.Thirugnanasambandam, G.Chitra</p> <p>Paper Title: Fibonacci Prime Anti-magic Labeling of Cycle Related Graphs</p>	
	<p>Abstract: A Fibonacci Prime Anti-magic labeling of a graph G is an injective function $g: V(G) \rightarrow \{f_2, f_3, \dots, f_{n+1}\}$, where f_n is n^{th} Fibonacci number, such that $g(uv) = g.c.d(g(u), g(v)) = 1$, for all $u, v \in V(G)$ and the induced a function $g^*: E(G) \rightarrow N$ defined by $g^*(uv) = (g(u) + g(v))$ and all these edge labeling are distinct. A</p>	1153-1154

graph which admits Fibonacci Prime Anti-magic labeling is called a Fibonacci Prime Anti-magic graph. In this article we investigate some cycle related graphs are Fibonacci Prime Anti-magic labeling.

Keywords: Fibonacci prime anti-magic graph, cycles, barycentric subdivision, crown graphs.

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Authors: **K.Meena, K.Sivakamasundari, V.M.Chitra**

Paper Title: **Applications of Δ^* -Closed Sets in Bitopological Spaces**

Abstract: The motive is to extend the separation axioms of Δ^* -closed sets concept in topological spaces to bitopological spaces and establish few types of space s denoted by(k, m)- Δ^*_δ ,(k, m)- $\Delta^*_\delta g^*$,(k, m)- $g_\delta T_{\Delta^*}$ and(k, m)- $g_\delta T\Delta^*$ -spaces. Also their interrelations are discussed.

Keywords: Δ^* , g_δ , $g_\delta T$ and(k, m)- Δ^* -closed sets.

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Authors: **P.Naga Jyothi, D Rajya lakshmi, K.V.S.N.Rama Rao**

Paper Title: **Performance on Fraud Detection in Medical Claims of Healthcare Data**

Abstract: Healthcare is more focused by most of the individuals. As the expenditure margin is beyond their limits too, the people do not care much about, apart from healthy livelihood. The interesting part of everyone's life is the government is providing policies and the individual is also holding private policies for their medical healthcare. At the same time, the fraud is growing faster in this scenario. Detection and prevention of fraudulent activities have been increasing with various sophisticated tools. But, still there are some lapses in analyzing and finding suspicious activities and mismanagement of system in medical insurance. In this paper, we described the survey of various technologies, methods applied to medical healthcare fraud detection of an individual, corporate hospitals and industries. The survey includes various characteristics of data, what are key steps for processing and analyzing the data for classification and finding of communities' methods for further fraud prevention and detection techniques. The majority of reviews the authors have concluded that the use of advanced machine learning techniques will improve the quality of healthcare systems. These algorithms can address some potential problems, comparisons and results were substantial with their limitations.

Keywords: medical healthcare, Machine learning, Fraud detection, Fraud Prevention Communities Suspicious activities, Classification.

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Authors: B.K.Jaleesha, S.Shenbaga Ezhil

Paper Title: A Performance on Simulation with Methodologies

Abstract: Simulation had its wide application in engineering field like designing multi-dimensional components, physical science like nuclear fusion, social science like forecasting. Now a day's computer simulation is becoming more popular. To create new simulation model it is a basic step to have a clear idea about the methodologies used in simulation. The main objective of the paper is to review simulation and analyze the types of simulation models with differences. In this paper we discussed the need of simulation, the basic steps need to be followed for making a simulation model, the types of simulations based on comparative data type with specific advantages and disadvantages.

Keywords: Simulation, real system, model, variable behavior, prediction.

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Authors: V. Sujatha, E.A. Mary Anita

Paper Title: FEM – Hybrid Machine Learning Approach for the Detection of Sybil attacks in the Wireless Sensor Networks

Abstract: Wireless Sensor networks finds its application in various areas such as habitat monitoring, home automation, industrial automation, military applications and health care etc. Even though Wireless sensor

networks are omnipresence, they are vulnerable to the various security threats. Sybil attacks are considered to be one of the most important attacks for which the several detection algorithms and systems were designed and implemented. But still the existing algorithms need intelligence for better accuracy of detection. Hence new technique FEM(Fuzzy Extreme machines) is proposed which works on the hybrid Fuzzy and powerful Extreme learning machines for the detection of Sybil attacks. The experiments were conducted on real time Testbeds which consist of ARM as main CPU interfaced with CC2530 Zigbee transceivers and tested in LEACH environment. Results in terms of accuracy detection obtained from the FEM approach proves to be more vital when compared with the other existing classifier algorithms.

Keywords: FEM, Fuzzy, Extreme Learning Machines, Sybil Attacks, LEACH.

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Authors: N.S.Usha, E.A.Mary Anita

Paper Title: Improved Centralized Base Station Mechanism to Detect Replicas or Clone nodes in Static Wireless Sensor Network

Abstract: The Wireless Sensor Networks offers a wide range of applications due to the high sensing and processing speed of sensor nodes. Since sensor nodes are often deployed in a hostile, unattended, unsafe environment, they are susceptible to many sensible attacks. One such attack is a replication attack or Clone node or identity attack, is a type of insidious attack in which the attacker captures an authentic node, extracts from it all secret credentials and generates replicas identical to the original. These replicas are then used to disrupt its normal functionality by the attacker during the network setup. Several studies have provided many methods to curb replicas, but wireless communication remains an enormous challenge. Our proposed model defines a new mechanism, namely BS-SECCISRNNA (Secure Key Exchange Combined Clone Identification & Secure Neighbour Node Authentication Base Station). This method provides an efficient and quicker identification of clones at multiple locations in the network over a shorter period of time. Simulation results show that our proposed schemes can identify clones simultaneously at multiple locations and define an alternate path for future data transmission.

Keywords: Wireless Sensor Network, Clone node, Detection, Key distribution.

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1180-1188**218.****Authors:** D.Vinodha , S.Jonisha, M.Renukadevi, Yuvaraj Selvam**Paper Title:** A Comprehensive Performance on Traffic Signal Management Systems

Abstract: Need for an efficient road traffic analysis system become vital with the drastic increase in the usage of vehicles in modern cities. A comprehensive literature review was performed with emphasis on existing adaptive traffic signal control systems and connected vehicle data and traffic control based on their approach and effectiveness. The goal of this survey is to identify and analyze various frameworks involving traffic analysis and signal management systems. Several control concepts were discussed to improve the mobility and safety.

Keywords: Traffic signals, adaptive control, connected vehicles, mathematical models.

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220.	<p>Authors: K. Thiagarajan, N. Subashini, S.K. Chithralekha Devi</p> <p>Paper Title: Folding Techniques in Chemical Structures</p> <p>Abstract: In this paper, we have observed the definitions of point folding and edge folding from the graph theory in mathematics. Also we have derived newly semi- edge folding techniques to get new applications in chemical world. The proposed methodology is very useful for chemical compounds like methane, ethane etc after applying appropriate procedure to get decided meaningful concept in Chemistry through folding technique.</p> <p>Keywords: Chemical Structures, Edge Folding, Folding, Point Folding , Semi Edge Folding.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Frank Harary, Graph Theory, Addison Wesley Publishing Company, Third Printing (1972). 2. Narsingh Deo, Graph Theory With Applications To Engineering And Computer Science, PHI Publications, New Delhi (1995). 3. Gallian J.A., A Dynamic survey of graph labeling, Electronic Journal of combinatorics (2010) 4. Proceedings of sixth international conference on "Frontiers In Intelligent Computing Theory And Applications"(FICTA 17), KIIT University, Bhubaneswar. 5. Proceedings of Sixth International Conference on "Contemporary Engineering and Technology-2018"(ICCET18), Prince Shri Venkateswara Padmavathy Engineering College, Ponmar, Chennai, Tamilnadu. 6. Proceedings Of Thirteenth International Conference On Science, Management And Engineering (ICSME 17), Kerala, India. 7. Bondy J.A., Murthy U.S.R., Graph theory with Applications, American Elsevier Publishing Company, Inc., New York, New York (2015). 8. Thiagarajan K and Padmashree J, "Study on Finite Words in Semi graph Folding", Journal of Applied Sciences Research, 2015, Volume 11, Number 14, pp.30-35. 	1195-1199
221.	<p>Authors: A.Durai Baskar, A. Rajesh Kannan , P. Manivannan , R.Rathajeyalakshmi</p> <p>Paper Title: Logarithmic Mean Labeling of Some Chain Graphs</p> <p>Abstract: A function f is called a logarithmic mean labeling of a graph $G(V, E)$ with p vertices and q edges if $f: V(G) \rightarrow \{1, 2, 3, \dots, q+1\}$ is injective and the induced function $f^*: E(G) \rightarrow \{1, 2, 3, \dots, q\}$ defined as $f^*(uv) = \left\lfloor \frac{f(v)-f(u)}{\ln f(v)-\ln f(u)} \right\rfloor$, for all $uv \in E(G)$, is bijective. A graph that admits a logarithmic mean labeling is called a logarithmic mean graph. A graph that admits a logarithmic mean labeling is called a logarithmic mean graph. In this paper, we study the logarithmic meanness of some chain graphs.</p> <p>Keywords: labeling, logarithmic mean labeling, logarithmic mean graph.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Durai Baskar, S. Arockiaraj and B. Rajendran, F-Geometric mean labeling of some chain graphs and thorn graphs, Kragujevac Journal of Mathematics, 37 (2013) 163–186. 	1200-1203

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Paper Title:

Logarithmic Mean Labeling of Some Cycle Related Graphs

Abstract: A function f is called a logarithmic mean labeling of a graph $G(V, E)$ with p vertices and q edges if $f: V(G) \rightarrow \{1, 2, 3, \dots, q+1\}$ is injective and the induced function $f^*: E(G) \rightarrow \{1, 2, 3, \dots, q\}$ defined as $f^*(uv) = \left\lfloor \frac{f(v)-f(u)}{\ln f(v)-\ln f(u)} \right\rfloor$, for all $uv \in E(G)$, is bijective. A graph that admits a logarithmic mean labeling is called a logarithmic mean graph. In this paper, we study the logarithmic meanness of some cycle related graphs like the cycle C_n for $n \geq 3$, union of a cycle C_m and a path P_n , union of any two cycles C_m and C_n , the graph $C_3 \times P_n$ and the graph $C_n \circ K_1$.

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Keywords: labeling, logarithmic mean labeling, logarithmic mean graph.

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Authors:

K. Thiagarajan, N. Subashini, S.K. Chithralekha Devi

Paper Title:

Folding Techniques in Alcohol Chemical Structures

Abstract: In this paper, we have observed the definitions of point folding and edge folding from the graph theory in mathematics. Also we have derived newly semi- edge folding techniques to get new applications in Alcohol chemical world. The proposed methodology is very useful for Alcohol chemical compounds like methanol, ethanol etc after applying appropriate procedure to get decided meaningful concept in Chemistry through folding technique.

Keywords: Alcohol Chemical Structures, Edge Folding, Folding, Point Folding, Semi Edge Folding.

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Paper Title:

Statistical Analysis of Animal Adoption using R

Abstract: Animal shelters and rescue organizations hold the responsibility for catering to the needs of the animals that are abandoned or given up by their owners. The datasets are obtained from adoption centers in Austin, Texas between the years 2013 and 2017 and from Bloomington, Indiana between the years 2004 and 2017 with the aim of finding patterns and conducting data analysis on the different parameters that were involved with these adoption centers. Since 3 primary datasets dealing with different attributes related to the adoption centers are procured, all implementation in this study are purely based on this. Hence, the paper is designed to have several specific objectives and derived inferences for each of the datasets. The data is analysed with the statistical methods and visualization tools like bar plots, pie charts, line graphs, predictive regression models, all executed on R studio, an integrated development environment for R. The statistical model discussed in the data set enable us to make conclusions about why certain animals are euthanized, whether there is any particular preference for

	<p>adoption, what kind of animals are taken in by adoption centers, whether the total annual revenue gained by the adoption centers could be predicted and so forth. R has proven to be extremely useful because of its ease of use, excellent visualization tools and robust environment.</p> <p>Keywords: Adoption, Dataset, Euthanasia, Parameters, Shelter.</p> <p>References:</p> <ol style="list-style-type: none"> Bartlett, P. C., Bartlett, A., Walshaw, S., & Halstead, S. (2005). Rates of euthanasia and adoption for dogs and cats in Michigan animal shelters. <i>Journal of Applied Animal Welfare Science</i>, 8(2), 97-104. Brown, W. P., & Morgan, K. T. (2015). Age, Breed Designation, Coat Color, and Coat Pattern Influenced the Length of Stay of Cats at a No-Kill Shelter. <i>Journal of Applied Animal Welfare Science</i>, 18(2), 169-180 Clay, Rebecca (2016): Austin, Texas Animal Shelter Intake and Outtake dataset from https://data.world/rebeccaclay/austin-tx-animal-center-stats David James and Kurt Hornik (2015). chron: Chronological Objects which Can Handle Dates and Times. R package version 2.3-47. H. Wickham. (2009) ggplot2: Elegant Graphics for Data Analysis. Springer-Verlag New York. Indiana Government, The United States of America: Animal Care and Control Division Statistics from https://data.bloomington.in.gov/dataset/9a0fc126-0775-4952-96ff-76e67ffbc7 Lord, E., Widmar, N. O., & Litster, A. (2014). Economic impacts of adoption and fundraising strategies in animal shelters. <i>Preventive Veterinary Medicine</i>, 113, 423-429. La Jeunesse, C. G. (2013). Workable Answers: Expanding Knowledge Around Euthanasia: A Review of Blue Juice: Euthanasia in Veterinary Medicine, by Patricia Morris. <i>Journal of Applied Animal Welfare Science</i>, 16(2), 205-208 Patronek, G. J., & Crowe, A. (2018). Factors Associated with High Live Release for Dogs at a Large, Open-Admission, Municipal Shelter. <i>Animals</i>, 8(4), 45. R Core Team (2016). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. https://www.R-project.org/ Rachael Mozes, David L Pearl, Lee Niel, J Scott Weese (2017) Epidemiological investigation of euthanasia in an Ontario animal shelter, <i>Journal of Feline Medicine and Surgery</i>, 20 (6), 479-486 Sloane Hawes, Josephine Kerrigan, and Kevin Morris (2018) Factors Informing Outcomes for Older Cats and Dogs in Animal Shelters, <i>Animals</i>, 8(3), 36. Texas government, The United States of America, Data set on Austin Animal shelters [csv files] from https://data.austintexas.gov/Health-and-Community-Services/Austin-Animal-Center-Outcomes/9t4d-g238 Zar, J. H. (1999). Biostatistical analysis. Upper Saddle River, NJ: Prentice-Hall. 	1213-1219	
224.			
	<p>Authors: Rishabh Kala, Dhrubanka Dutta, Vignesh Sasikumar, Umamaheswari .S, Bhuvaneswari R</p> <p>Paper Title: Cost of Living in Metropolitan Cities: Statistical Analysis using R Studio</p>		
225.	<p>Abstract: Be it for the purpose of seeking better education, to make a living or just to live a busy life full of hustle and bustle, people find themselves travelling to huge metropolitan cities. With the numbers increasing with leaps and bounds, the cost of living is drastically affected. The resources are used extensively, but the process of mass production acts as a counter to this in some sectors. It is imperative to be aware of the necessities and their costs in these cities to plan a satisfactory life, without causing a ruckus and ending up broke. Keeping in mind, the necessity of living in these metropolitan cities, a statistical study is aimed to analyse the cost of living in these huge hubs, which would help the people to get a good idea of the financial challenges and aid them to plan their budget for comfort life. The study involves a survey inquiring about the cost of basic amenities required to live in metropolitan cities in India. The average expenditure of people is to determine the deviation across the country. Testing of hypothesis is applied to test the significant difference between average from our observations (which acted as sample) and average from the internet source (as population). The statistical study proves to be an efficient tool in identifying the most cost efficient city, to sustain a satisfactory life at minimal expense and financial efficiency in various aspects. The result clearly indicates the significance of the data analytics which guides the individuals to plan their future living in these humungous cities. The report serves as an aid to the common masses to sustain a satisfactory lifestyle in the buzzing metropolitan cities, getting the most out of every penny.</p> <p>Keywords: Cost, Data, Expenditure, Graph, Metropolitan.</p> <p>References:</p> <ol style="list-style-type: none"> Boon Seng Tan. (2016) Comparing Cost of Living of Cities Using Expatriate Price Survey, Policy Studies. 37(1) 53-71. David Albouy, Gabriel Ehrlich, and Yingyi Liu (2016) Housing Demand, Cost-of-Living Inequality, and the Affordability Crisis. NBER Working Paper No. 22816. H. Wickham. (2009) ggplot2: Elegant Graphics for Data Analysis. Springer-Verlag NewYork. Hadley Wickham and Garrett Grolemund (2017). R for Data Science: Import, Tidy, Transform, Visualize, and Model Data 1st Edition.O'Reilly Media,Inc., Ismail Haque and PriyankPravin Patel (2018) Growth of metro cities in India:trends,patterns and determinants, Urban Research & Practice,11(4),338-377. R Core Team (2016). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. https://www.R-project.org/ Tan Khee Giap, Luu Nguyen Trieu Duong, Divya Chandran, Tan KongYam (2018) Annual Indices for Expatriates and Ordinary Residents on Cost of Living, Wages and Purchasing Power for World's Major Cities. Jadavpur University, Kolkata. Zar, J. H. (1999). Bio statistical analysis. Upper Saddle River, NJ: Prentice-Hall. 	1220-1223	
	<p>Authors: D.Karthikeyan, G.Jeevitha</p> <p>Paper Title: Heat and Mass Transfer on MHD Two Phase Blood Flow through a Stenosed Artery with Permeable Wall</p>		

Abstract: This paper analyzed the heat and mass transfer effects on the two-phase model of the unsteady pulsatile blood flow when it flows through the stenosed artery with permeable wall under the effects of radiation and chemical reaction. We derive a mathematical model for the mixed convection problem of two-phase blood flow as nonlinear partial differential equations and get the exact solutions in terms of Bessel functions for the velocity, temperature and concentration profiles. The effects of various parameters on flow characteristics for two phase blood flow through stenosed artery are depicted in graphs.

Keywords: Bessel differential equation, Blood flow, core and plasma regions.

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Authors:	A. Sadiquali , P. Arul Paul Sudhahar
Paper Title:	A Face Change of Monophonic Dominating Sets by Non-adjacency in Graphs

Abstract: The concept of an independent domination number (id-number in short) of a graph is related to the movements of a chessboard. In this paper, we extend the notion of id-number into an independent monophonic domination number of graphs(abridged as imd-number) by introducing chordless paths and non-adjacency property among vertices. The imd-number can be used to optimize the number of mutually non-attacking queens in the play of Chessboard. Discussed the face changing process of monophonic dominating sets by non-adjacency property and some of its properties are studied. It is shown that for $d_m, k, p \in \mathbb{Z}^+$ with $3 \leq d_m \leq k$ and $p \geq k+1 + \lceil (2d_m)/3 \rceil$ there exists connected graphs G such that $|V|=p$, $\text{diam}(G)=d_m$ (monophonic diameter of G) and imd-number $i_m(G)=k$. Also for $k, l \in \mathbb{Z}^+$ with $2 \leq k \leq l \leq p$, there exists connected graphs $G \in \xi(G)$ such that $m(G)=k, \gamma(G)=k$ and $i_m(G)=l$. The imd-number of certain common class of graphs are determined.

Keywords: Monophonic Domination Number, Independence Number, Independent Monophonic Domination Number and Independent Monophonic Dominating sets.

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	<p>Approach. Applied Mathematical Sciences 11.60 (2017): pp 2995-3005. doi.org/10.12988/ams.2017.79291</p> <p>21. A.Sadiquali, P. Arul Paul Sudhahar. Monophonic Domination in Special Graph Structures and Related Properties. International Journal of Mathematical Analysis 11.22 (2017): 1089-1102.doi.org/10.12988/ijma.2017.79125.</p> <p>22. A.Sadiquali, P. Arul Paul Sudhahar. Upper Monophonic DominationNumberof a Graph.Int. Journal of Pure and App. Math. Special Issue Vol. 120No. 7 (2018), pp 165-173. www.acadpubl.eu/hub/</p> <p>23. A.P Santhakumaran, P. Titus and R. Ganesamoorthy: On The Monophonic Number of a Graph Applied Math and Informatics. Vol 32, pp 255-266 (2014)</p> <p>24. A.P. Santhakumaran, P.Titus: Monophonic Distance in Graphs J. Discrete Math.Algorithms and App.2(2011), pp 159-269</p>	
	<p>Authors: Tintumol Sunny, Sr. Magie Jose</p> <p>Paper Title: Boxdot and Star Products on Interval - Valued Intuitionistic Fuzzy Graphs</p>	
	<p>Abstract: In this paper, Boxdot product and Star product on interval-valued intuitionistic fuzzy graphs has been introduced and degree of vertices of these new product graphs are determined. Some results involving these products are stated and proved.</p> <p>Keywords: Interval-valued intuitionistic fuzzy graph, Strong interval - valued intuitionistic fuzzy graph, Boxdot product, Star product, degree of vertices.</p> <p>References:</p> <p>1. Akram M and Davvaz B, "Strong intuitionistic fuzzy graphs", Filomat, 26(1), 2012, pp.177- 196. 2. Akram M, Dudek W.A, "Interval-valued fuzzy graphs", Computers and Mathematics with Applications, 61, 2011, pp. 289-299. 3. A. Mohamed Ismayil and A. Mohamed Ali, "On Strong Interval-Valued Intuitionistic Fuzzy Graph", Fuzzy Mathematics and Systems, 4, 2014, 161-168. 4. Atanassov K.T, "Intuitionistic fuzzy sets", Fuzzy Sets and Systems", 20, 1986, 87-96. 5. Atanassov K and G. Gargov, "Interval-valued intuitionistic fuzzy sets", Fuzzy Sets and Systems, vol.31,1989, pp.343-349. 6. Atanassov K.T, "Intuitionistic fuzzy sets: Theory, applications", Studies in fuzziness and soft computing, Heidelberg, New York, Physica-Verl., 1999. 7. L AZadeh, "Fuzzy sets", Information and Control, 8, 1965,pp.338-353. 8. L. A. Zadeh, "The concept of a linguistic and application to approximate reasoning ", Information Sciences, 8,1975, pp. 149-249. 9. Mishra S.N and Pal.A, "Product of Interval-Valued Intuitionistic fuzzy graph", 5, 2013, pp. 37-46. 10. Rosenfeld, "Fuzzy graphs", Fuzzy sets and their applications, Academic Press, New York , 1975, pp. 77-95. 11. ShovanDogra, "Different types of Product of Fuzzy Graphs", Progress in Nonlinear Dynamics and Chaos, 3, 2015, pp.41-56. 12. Yeh R.T, Bang S.Y, "Fuzzy relations fuzzy graphs and their applications to clustering analysis, in: L.A. Zadeh, K.S. Fu, M. Shimura (Eds.)", Fuzzy Sets and Their Applications, Academic Press, 1975, pp. 125-149.</p>	
228.		1238-1242
	<p>Authors: Sathish Kumar Kumaravel, Suresh Rasappan</p> <p>Paper Title: Estimation of Recurrent Chaotic Neural Networks Varying Delays through Self-tuning Feedback Control Mechanism</p>	
	<p>Abstract: In this paper, the estimate the noise of recurrent chaotic neural networks with varying time delays. The design of adaptive synchronization control by means of tracking controller is presented which enables the, exponentially mean square stability of the synchronization error of CRNN system.</p> <p>Keywords: Recurrent, Chaos, Networks, Delays, Feedback control.</p> <p>References:</p> <p>1. Z.G. Wu, P. Shi, H.Y. Su and J. Chu, "Exponential stabilization for sampled-data neural-network-based control systems," IEEE Trans. Neural Netw. Learn. Syst., 2014, vol. 25, p.2180-2190. 2. Chuan-Ke, Z, Yong, H and Min, W: 'Exponential synchronization of neural networks with time-varying mixed delays and sampled-data' Neurocomputing, 2010, vol. 74, pp. 265-273. 3. J. D. Cao and J. Q. Lu, "Adaptive synchronization of neural networks with or without time-varying delays," Chaos: An Interdisciplinary Journal of Nonlinear Science, 2006, vol. 16, pp. 130-133. 4. H. G. Zhang, Y. H. Xie and D. R. Liu, "Synchronization of a class of delayed chaotic neural net-works with fully unknown parameters," Dynamics of Continuous, Discrete and Impulsive Systems Series B: Applications and Algorithms, 2006, vol. 13, pp. 297-308. 5. J. Lu and G. Chen, "Global asymptotical synchronization of chaotic neural networks by output feedback impulsive control an LMI approach," Chaos Solitons Fractals, 2009, vol. 41, pp. 2293 - 2300. 6. Y. Chen and W.X. Zheng, "Stochastic state estimation for neural networks with distributed delays and Markovian jump," Neural Networks, 2012, vol. 25, pp. 14-20. 7. Bowong, S., Kakmeni, F.M.M.: 'Synchronization of uncertain chaotic systems via backstepping approach' Chaos Solitons Fractals, 2004, vol. 21, pp. 999-1011. 8. Y. R. Liu, Z. D. Wang and X.H. Liu, "Design of exponential state estimators for neural networks with mixed time delays," Physics Letters A, 2007, vol 364, no. 5, pp. 401-412. 9. H. Zhang, Y. Xie, Z. Wang, and C. Zheng, "Adaptive synchronization between two different chaotic neural networks with time delay," IEEE Transactions on Neural Networks, 2007, vol. 18, no. 6, pp.1841-1845. 10. P. Balasubramaniam and V. Vembarasan, "Synchronization of recurrent neural networks with mixed time-delays via output coupling with delayed feedback," Nonlinear Dynamics, 2012, vol. 70, no. 1, pp. 677-691.</p>	
229.		1243-1246
	<p>Authors: A. N. Deepthi, N. R. Mangalambal</p> <p>Paper Title: A Note on Weierstrass Transform of Hyperfunctions</p>	
	<p>Abstract: In this paper the Weierstrass transform of Sato's hyperfunctions and some of its properties are studied using the concept of defining function of hyperfunctions and the Laplace transform of hyperfunctions.</p>	1247-1252

	<p>Keywords: Hyperfunctions, Laplace transform, Weierstrass transform.</p> <p>References:</p> <ol style="list-style-type: none"> Urs Graf, Introduction to Hyperfunctions and Their Integral transforms, Birkhauser, 2010 A.H. Zemanian, Generalized Integral Transformations, Dover Publications, Inc., New York. M. Morimoto, An Introduction to Sato's Hyperfunctions, American Mathematical Society, Providence, Rhode Island, 1993 M. Sato, Theory of Hyperfunctions I, J. Fac. Sci. Univ. Tokyo, Sect. I, 8(1959), pp 139-193 M. Sato, Theory of Hyperfunctions II, J. Fac. Sci. Univ. Tokyo, Sect. I, 8(1960), pp 387-437 A.G. Smirnov, Fourier Transformation of Sato's Hyperfunctions, arXiv:math/0401151v2 [math.FA] 30 Sep 2004 V. Karunakaran, T. Venugopal, The Weierstrass Transform for a Class of Generalized functions, Journal of Mathematical Analysis and Applications 220, pp 508-527 (1998) 	
	<p>Authors: Lakshmi.S, Mary Anita E A, Jenefa J</p> <p>Paper Title: Detection and Prevention of Black Hole Attacks in Vehicular Ad Hoc Networks</p>	
	<p>Abstract: Vehicular networks are prone to various security attacks because of its dynamic topology. One such attack is the black hole attack which advertises itself to source vehicle as the shortest path to the destination and drops the received packets. An efficient solution to detect black hole attackers in the vehicular network is proposed in this paper. It detects as well as broadcast information about the attackers to all other vehicles through RSUs. Thereby data packets will not be transmitted in the routes with attackers and it will be isolated from the network by which the network will be prevented from the black hole attack. Both simple as well as collaborative attackers are simulated and the performance of the proposed scheme is compared with that of the other related schemes. Simulation results show that the proposed scheme has better performance in terms of PDR and throughput with acceptable delay.</p>	
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	<p>Authors: R.Gayathri, D.P Sangeetha, Uday Bikram Yadav</p> <p>Paper Title: High Density Noise Suppression Using Modified Weighted Average Filtering</p>	
	<p>Abstract: In this paper, High density noise is suppressed by using Modified weighted Average Filter. The new method suppresses noise in two steps. At first, all the corrupted pixels are detected by using impulse detection, and this corrupted pixels are applied for image correction, where distance transform and index array is computed, which contains the linear index of the nearest non zero pixels of noisy pixels and distance, this index array also contain closest pixel map(CPM),and initial image is obtain from bilinear interpolation and applied to weighted average filter, where new weight are recalibrate by replacing noisy pixels with new intensity values. Simulation results shows that the output of Weighted Average Filter provides better image visual quality with low PSNR value.</p>	
	<p>Keywords: Average Filtered, CPM, impulse detection, image correction, initial image, index array, Weighted Average Filter.</p> <p>References:</p>	

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233.	<p>Authors: Karia M.C., Popat M.A., Sangani K.B</p> <p>Paper Title: An Experimental Investigation on Effect of Volume Energy Density for Selective Laser Melted Inconel718</p> <p>Abstract: Selective laser melting (SLM) is one of the most propitious powder bed process, ancestor of additive manufacturing (AM) group of technologies capable of manufacturing full functional metal components. Owing to superior properties like strength at high temperature conditions, corrosion resistance, weldability made Inconel718 acceptable material for high temperature applications. Experimental study is presented to investigate the influence of volume energy density on microstructure evolution, defect formation mechanisms, surface and mechanical properties and effects of post process aging treatment on selective laser melted Inconel718. Specimens were fabricated with applied range of energy density between 38.5 J/mm³ to 114 J/mm³. Various set of combinations of laser power, scanning speed, and layer thickness with constant beam diameter and hatch spacing are used. The responses for surface roughness, porosity, hardness were measured. The microstructures and surface morphology were characterized by using scanning electron microscopy (SEM) and optical microscopy.</p> <p>Keywords: Energy Density, Inconel718, Microstructure, Selective Laser Melting.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Yadroitsov; P. Bertrand et al; "Parametric analysis of selective laser melting process" <i>Applied Surface Science</i> Vol.253 pp 8064-8069(2007). 2. Kruth, J. P., et al; "Selective laser melting of iron-based powder" <i>Journal of Material Processing Technology</i> Vol.149 (1) pp.616-622 (2004). 3. K Amato, S. Gaytan"Microstructure and material behavior of Inconel 718 fabricated by selective laser melting" <i>Acta Materialia</i> 60(5) pp 2229-2239(2012). 4. Kruth J.,Levy G.;"Consolidation Phenomenon in Laser and Powder Bed Based Layer Manufacturing " <i>CIRP Annals-Manufacturing Technology</i> 56(2) pp 730-759(2007). 5. Yasa E.; Kruth J. et al; "Application of laser remelting on selective laser melting parts" <i>Advances in production Engineering & management</i> pp 64259-70 ISSN 1834-6250(2011). 6. X. Wang; T. Keya et al; "Build height effect on Inconel parts fabricated by selective laser melting" <i>Procedia Manufacturing</i> Vol.5 pp 1006-10(2016). 7. Qingbo Jia and D. Gu, "Selective laser melting of Inconel 718 super alloy parts: densification, microstructure and properties" <i>Journal of Alloys & Compounds</i> 585 pp 713-721(2014). 8. Qingbo Jia and D. Gu. "Selective laser melting additive manufactured Inconel 718 superalloy parts: High temperature oxidation property and its mechanisms" <i>Optics & Laser Technology</i> Vol.62 pp 161-171(2014). 9. D. Zhang and Wen Niu; "Effect of standard heat treatment on the microstructure and mechanical properties of selective laser melting manufactured Inconel 718 superalloy" <i>Material Science & Engineering A</i> Vol.644 pp 32-40(2014). 10. Chelbus, K.Gruber et al; " Effect of heat treatment on the microstructure and mechanical properties of Inconel718 processed by selective laser melting" <i>Material Science & Engineering A</i> Vol.639 pp 647-655(2015). 11. Yanjin Lu et al; " Study on microstructure , mechanical property and residual stress of SLM- Inconel-718 alloy manufactured by differing island scanning strategy" <i>Optics & Laser Technology</i> Vol.75 pp 197-206(2015). 12. T.Trosch et al; "Microstructure and material properties of selective laser melted Inconel 718 compared to forging and casting" <i>Material Letters</i> Vol.164 pp 428-431 (2016). 13. R. Konecna et al; " Micro structural and directional fatigue behavior of Inconel 718 produced by selective laser melting" <i>Procedia Structural Integrity</i> Vol.2 pp 2381- 2388(2016). 14. S. Sun, M Brandt, M.Eatson; " Powder Bed fusion process an overview" <i>Laser Additive Manufacturing</i> doi:10.1016/B978-0-08-100433-3.000002-6 15. Y. Wang, J Shi "Selective Laser Melting of Graphene Reinforced Inconel 718 Superalloy: Evaluation of Microstructure and Tensile Performance" <i>ASME Paper No. MSEC2016-8683</i>, pp. V001T02A024; 8 pages doi:10.1115/MSEC2016-8683(2015) 16. V.D.Divya R. Moreno et al "Microstructure of selective laser melted CM24LC nickel-based superalloy and its evolution through heat treatment" <i>Materials Characterization</i> doi: 10.1016/j.matchar.2016.02.004 (2016) 	1262-1270

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Authors: Vandana Agarwal, Naveen Agrawal

Paper Title: Hole Filling Method For Triangular Mesh Generation

Abstract: One of the reasons which results into erroneous triangulated model is the formation of holes during mesh generation. The formation of holes in triangulated models is primarily due to missing data while scanning the object. These holes in the model will result in joining of the triangulated facets in the wrong direction. This further makes large and complicated holes in the model. Most of the work presented in literature identify and fill these holes after the completion of triangulated model which is a time consuming and computationally extensive task. In the present work an algorithm for identifying and filling the hole is proposed which will work along with mesh growing process. The algorithm has been applied to create a triangulated model of a phone receiver. Further, the patch created after filling the hole preserves the shape of original mesh and it blends with the neighboring mesh in a smoother way.

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Keywords: Triangular mesh, boundary vertex, hole.

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	<p>Authors: Hasna Hena, Ahmed Al Marouf, Rezwana Sultana</p> <p>Paper Title: MangoLDB: A Dataset of Mango Leaves RGB, Binary and Gray-Scale Image</p>	
235.	<p>Abstract: This paper presents the very first image dataset of mango leaves of different species which are originated in Bangladesh. This dataset contains the RGB, binary and gray-scale; three versions of each images. Being the national tree of Bangladesh, mango is a sweet and juicy drupe having numerous species of trees. The scientific name for the commonly found mango species is <i>Magnifera Indica</i>. After the Jamdani Saree and Hilsha, different species of mango such as Khir sha, Langra, Aswina, Fazli, Haribhanga are the future geographical identification (GI) products of Bangladesh. Therefore, being highly demandable fruit, the identification of different species from its leaf images could be a challenging task. Agriculture specialists, farmers and general people may have difficulty to recognize samples just by observing the leaves. In this paper, we have formulated an image dataset of mango leaves of six different species namely, Aswina, Fazli, Gopalvog, Khirsha, Langra and Lokhna. After data retrieval, cleaning and processing, we have created an image dataset consisting of 7905 sample images. The images are collected using Smart phone having enough image pixel information for applying image processing tools. The dataset contains a minimal amount (1.5%) of blur and noise. The dataset could be considered as the basic ground-truth dataset for species recognition, disease recognition etc. from mango leaves in the area of computer vision.</p> <p>Keywords: Computer Vision, Mango, <i>Magnifera Indica</i>, Mango Leaves Image Dataset, Species recognition.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Pedro F.B. Silva, Andre R.S. Marcal, Rubim M. Almeida da Silva, “Evaluation of Features for Leaf Discrimination”, Springer Lecture Notes in Computer Science, Vol. 7950, pp. 197-204, 2013. 2. Zoë Migicovsky, Mao Li, Daniel H. Chitwood, Sean Myles, “Morphometrics Reveals Complex and Heritable Apple Leaf Shapes”, <i>Frontiers in Plant Science</i>, 2018. 3. Kaggle Leaf Classification Data [Online] https://www.kaggle.com/c/leaf-classification 4. Neeraj Kumar, Peter N. Belhumeur, Arijit Biswas, David W. Jacobs, W. John Kress, Ida C. Lopez, João V. B. Soares, “Leafsnap: A Computer Vision System for Automatic Plant Species Identification”, Proceedings of the 12th European Conference on Computer Vision (ECCV), October 2012. 5. R.Nikam, M. Sadavarte, “Application of Image Processing Technique in Mango Leaves Disease Severity Measurement”, National Conference on Emerging Trends in Computer, electrical and Electronics (ETCEE-2015), International Journal of Advance Engineering and Research Development (IJAERD), 2015. 6. K. Muthukannan, P. Latha, P. Nisha, R. Pon Selvi, “An Assessment on Detection of Plant Leaf Diseases and Its severity using image segmentation”, International Journal of Computer Science and Information Technology Research (IJCSITR), January-March 2015. 7. J. Sethupathy, Veni S., “OpenCV based Disease Identification of Mango Leaves”, International Journal of Engineering and Technology (IET), Vol. 8 no 5, October-November 2016. 8. G. Kshirsagar, A. N. Thakre, “Plant Disease Detection in Image Processing using MATLAB”, International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC), Vol. 6, issue. 4, April 2018. 9. V. B. Batule, G. U. Chavan, V. P. Sanap, K. D. Wadkar, “Leaf Disease Detection using Image Processing and Support vector machine (SVM)”, Journal for Research, Vol 2, issue 2, April 2016. 10. A. N. Rathod, B. Tanawal, V. Shah, “Image Processing Techniques for Detection of Leaf Disease”, International Journal of Advanced Research in computer Science and Software Engineering (IJARCSSE), Vol. 3, issue. 11, November, 2013. 	1277-1281
	<p>Authors: D.Suresh Babu, Dr G Krishna Kishore, S.Ravi Kishan, Uma Maheswari Y</p> <p>Paper Title: Continuous Top-K Monitoring on Document Streams</p>	
	<p>Abstract: The effective handling of document streams plays a vital position in bunches of information sifting structures. Rising bundles, alongside data update separating and informal community warnings, request bestowing stop clients with the most appropriate substance material to their inclinations. In this work, individual inclinations are demonstrated by a fixed of key expressions. A basic server screens the report move and constantly surveys to each client the top-k documents which can be greatest significant to her key expressions. Our goal is to help huge quantities of clients and over the top stream cites, while crisp the apex k results about this moment. Our answer relinquishes the ordinary recurrence requested ordering technique. Rather, it pursues an identifier-requesting worldview that suits higher the character of the problem. At the point when supplemented with an interesting, territorially versatile strategy, our technique gives checked optimality w.r.t. the quantity of considered inquiries in venture with stream occasion, and a request of significance shorter reaction time (i.e., time to revive the inquiry results) than the present day most recent.</p> <p>Keywords: Top-k Query, Continuous query, Document Stream.</p> <p>References:</p>	

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	Authors: Tatimatla Sri Sai Rishitha, G. Krishna Mohan, J. Satish Babu Paper Title: Efficient Privacy Protection for e-Health Records over Mobile Cloudlet based on Advanced Security Mechanism	
	<p>Abstract: Outsourcing medical data in e-healthcare systems with respect to data storage and sharing to different users is an aggressive concept in real time cloud computing applications. Privacy based medical data sharing is a challenging issues for secure data storage in cloud. However different types of security related approaches were achieved to access personal health information related services are explored into real time data sharing aspects in distributed environment. In privacy management of e-health data, scalability, cryptography, fine grained access control between different users is a basic issue to share patient's personal data in cloud. So that, in this paper, Novel Distributed Patient Centric Framework (NDPCF), which describes efficient mechanism for access control to different users in semi-trusted e-health care systems. To configure efficient scalable access control for patient's health care records we privilege the attribute based encryption (ABE) to encrypt and decrypt patient's health records. Our proposed approach also has dynamic modification access policies for different attributes user revocation at emergency situations. Extensive experimental results of proposed approach gives better and efficient security related results.</p> <p>Keywords: Cloud computing, personal health information, medical data assistance and access control.</p> <p>References:</p> <ol style="list-style-type: none"> 1. L. Ibraimi, M. Petkovic, S. Nikova, P. Hartel, and W. Jonker, "Ciphertext-policy attribute-based threshold decryption with flexible delegation and revocation of user attributes," 2009. 2. A. Boldyreva, V. Goyal, and V. Kumar, "Identity-based encryption with efficient revocation," in ACM CCS, ser. CCS '08, 2008, pp. 417–426. 3. S. Yu, C. Wang, K. Ren, and W. Lou, "Attribute based data sharing with attribute revocation," in ASIACCS'10, 2010. 4. N. Cao, C. Wang, M. Li, K. Ren, and W. Lou, "Privacy-preserving multi-keyword ranked search over encrypted cloud data," Parallel and Distributed Systems, IEEE Transactions on, vol. 25, no. 1, pp. 222–233, 2014. 5. S. Narayan, M. Gagné, and R. Safavi-Naini, "Privacy preserving hr system using attribute-based infrastructure," ser. CCSW '10, 2010, pp. 47–52. 6. L. Ibraimi, M. Asim, and M. Petkovic, "Secure management of personal health records by applying attribute-based encryption," Technical Report, University of Twente, 2009. 7. X. Liang, R. Lu, X. Lin, and X. S. Shen, "Patient self-controllable access policy on phi in ehealthcare systems," in AHIC 2010, 2010. 8. K. T. Pickard and M. Swan, "Big desire to share big health data: A shift in consumer attitudes toward personal health information," in 2014 AAAI Spring Symposium Series, 2014. 9. J. Bethencourt, A. Sahai, and B. Waters, "Ciphertext-policy attribute-based encryption," in IEEE S&P '07, 2007, pp. 321–334. 10. J. A. Akinyele, C. U. Lehmann, M. D. Green, M. W. Pagano, Z. N. J. Peterson, and A. D. Rubin, "Self-protecting electronic medical records using attribute-based encryption," Cryptology ePrint Archive, Report 2010/565, 2010, http://eprint.iacr.org/. 11. M. Chase and S. S. Chow, "Improving privacy and security in multi-authority attribute-based encryption," in CCS '09, 2009, pp. 121–130. 12. X. Liang, R. Lu, X. Lin, and X. S. Shen, "Ciphertext policy attribute based encryption with efficient revocation," Technical Report, University of Waterloo, 2010. 13. A. Lewko and B. Waters, "Decentralizing attribute-based encryption," Advances in Cryptology—EUROCRYPT, pp. 568–588, 2011. 14. S. Jahid, P. Mittal, and N. Borisov, "Easier: Encryption-based access control in social networks with efficient revocation," in ASIACCS, Hong Kong, March 2011. 15. S. Rui, A. Nayak, and I. Stojmenovic, "Dacc: Distributed access control in clouds," in 10th IEEE TrustCom, 2011. 	1286-1289
	Authors: Dr. K V V Satyanarayana, S Vijay Kumar Paper Title: Adaptive Framework Combining Sensors for Data Monitoring	
	<p>Abstract: Internet of Things (IoT) is an emerging concept to explore different services and increase quality of service parameters in real time applications. Major challenge behind heterogeneous data processing effectively to extract features from data sources by constrained IOT intelligence to enhance improvement of wireless sensor networks. So that in this paper we propose Pro-tagg, we also propose an effective disseminated mining calculations called GMP Mine and Cluster Ensemble(CE) calculation (anticipate straightaway) to limit the quantity of gatherings with the end goal that individuals in every one of the found gatherings are exceptionally related by their development designs. We also compress data and mine relative moving data in network to explore different locations of objects in wireless sensor networks. Proposed approach gives better and efficient results with respect to provide privacy for different nodes in wireless network communication.</p> <p>Keywords: Internet of Things, wireless sensor networks, resource utilization, pro-tagg.</p> <p>References:</p>	

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	Authors: J.Satish Babu, Jakkala Pranay Reddy, Dantu Sri Vishnu Sai Lohit, Ravanala Chandu, G. Krishna Mohan Paper Title: Search Engine Optimization on Big Data	
	<p>Abstract: The term big data was invented to capture the means of the rising trend in the volume of knowledge conjointly exhibits the improved characteristics as compared with ancient knowledge management and analytics of big data is important for achieving scientific and engineering breakthroughs, mining for timely and relevant info. Two potential solutions are to style a replacement real-time operation model or a knowledge analysis mechanism. During this paper we tend to primarily specialize in data transmission, data acquisition, data storage, and data analytics. We tend to aiming to solve these issues in search engine optimization (SEO). Search engine Optimization (SEO) is characterized as a gathering of techniques and practices that permit a site to get more activity from internet searchers also, it is still one of the biggest challenges in search engines of Semantic webs. This paper proposes another sort of web page search which depends on the competitive intelligence. It use link based ranking evolutionary scheme to suit clients' preferences.</p>	
	<p>Keywords: Big data, Data transmission, Data acquisition, Data Storage, Data analytics, Search engine optimization (SEO).</p>	
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	Authors: Mehaboob Arshiya, V Srikanth Paper Title: Advanced Snort Driven Collaborative Framework for DDOS Attack Detection in Network Classification	
	<p>Abstract: Distributed denial of service (DDOS) attacks is the major and consistent security and privacy problem in wireless ad hoc networks. Detection of denial of service attacks is a challenging task which comes under distributed and high-end networks. DDOS attacks are appeared based on different features in network classification. Traditionally mutual feature based approaches were introduced can handle relevant features relates to detection of DDOS attacks in cases of network intrusion detection. So that in this paper, we propose and present Distributed and Collaborative Protection in Network Classification (DCPNC) for the identification of DDOS attacks in wireless network classification. Proposed approach composed with detection of intrusion in network systems located in internet service provider (ISP) at wireless network communications. Proposed approach also consists of virtual protection rings around the network to exchange data throughout all nodes present in network classification. Proposed approach applied in real world knowledge based data set for the detection of network classification. Experimental results of proposed approach gives better and support low overhead with different network parameters in network classification.</p>	

	<p>Keywords: Wireless network communication, Feature based selection, Internet service provider, KDD cup data sets, Network classification.</p>					
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	<table border="1"> <tr> <td>Authors:</td><td>T. Srilatha, K. Subrahmanyam, K. Amarendra</td></tr> <tr> <td>Paper Title:</td><td>Skyline based Keyword Search Aware Repeated Queries from Incentive Environment</td></tr> </table>	Authors:	T. Srilatha, K. Subrahmanyam, K. Amarendra	Paper Title:	Skyline based Keyword Search Aware Repeated Queries from Incentive Environment	
Authors:	T. Srilatha, K. Subrahmanyam, K. Amarendra					
Paper Title:	Skyline based Keyword Search Aware Repeated Queries from Incentive Environment					
241.	<p>Abstract: Efficient query retrieval is an aggressive concept in real time data retrieval in terms of photos, videos and other's data. Data retrieval from different source based on user historical in different streams via mobile data records. User preference is also an aggressive concept to explore data from different sources. User preference is described based on identification of points of interest (POI) like in travel route communication, for better query results extraction from different data sources. In this paper, we propose Hybrid frame work which consists of query profile and skyline data retrieval calculation method. Proposed approach consists of update skyline query calculation which preservers Meta data about data retrieval based on user preference and location of user which gives updated results with respect to relevant data from different data sources. Experimental results of proposed approach gives better and efficient query retrieval with respect to time and other attributes in real time query based search engine applications.</p> <p>Keywords: Data retrieval, location based search, travel route recommendation, skyline query, Hybrid query profiler, Query profiler and update query.</p> <p>References:</p> <ol style="list-style-type: none"> 1. G Q. Yuan, G. Cong, and A. Sun, "Graph-based point-of-interest recommendationwith geographical and temporal influences," in Proc. 23rd ACM Int. Conf. Inf. Knowl. Manage., 2014, pp. 659– 668. 2. M. Ye, P. Yin, W.-C. Lee, and D.-L. Lee, "Exploiting geographicalinfluence for collaborative point-of-interest recommendation," in Proc. 34th Int. ACM SIGIR Conf. Res. Develop. Inf. Retrieval, 2011,pp. 325–334. 3. Y.-T. Wen, P.-R. Lei, W.-C. Peng, and X.-F. Zhou, "Exploringsocial influence on location-based social networks," in Proc. IEEEInt. Conf. Data Mining, 2014, pp. 1043–1048. 4. Papapetrou, O., Garofalakis, M., 2014. Continuous fragmentedskylines over distributed streams. In: Proc. IEEE Int'l Conf. onData Engineering, pp. 124–135. 5. R.D. Kulkarni *, B.F. Momin, "Skyline computation for frequent queries in update intensive environment", Journal of King Saud University – Computer and Information Sciences (2016) 28, 447–456. 6. Y.-T. Wen, K.-J. Cho, W.-C. Peng, J. Yeo, and S.-W. Hwang, "KSTR: Keyword-aware skyline travel route recommendation," in Proc. IEEE Int. Conf. Data Mining, 2015, pp. 449–458. 7. Han, X., Li, J., Yang, D., Wang, J., 2013. Efficient skyline computationon big data. IEEE Trans. Knowl. Data Eng. 25 (11), 2521–2535. 8. Papadias, D., Tao, Y., Fu, G., Seeger, B., 2005. Progressive skylinecomputation in database systems. ACM Trans. Database Syst. 30(1), 41–82. 9. Xia, T., Zhang, D., Fang, Z., Chen, C., Wang, J., 2012. Onlinesubspace skyline query processing using the compressed skycube.ACM Trans. Database Syst. 37 (2) 15. 	1305-1309				

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Authors: **G. Keerthi, P. Sai Kiran**

Paper Title: **Source based Privacy for Confidential Data in Cloud based e-Healthcare Systems**

Abstract: In cloud computing, Service oriented architecture (SOA) is an emerging concept in e-health care systems. Outsourced consists both sensitive and non-sensitive patient's data like case sheets and others, patients data to be stored in private cloud. Privacy is an aggressive concept to store patient's data in cloud. Conventionally novel cloud computing paradigm based on service oriented architecture is provided for different user's to store their data in heterogeneous cloud environment. To provide customizable data security for e-health records of different patients in e-health care systems. Source based privacy is also a problem in storage of patients data. So that in this paper, we propose and present a Secure Indexing approach for efficient privacy preserving based secure approach to handle privacy in both search hidden data and also check access patterns of human based on redundancy and combine the concept of attribute separation based on authentication with respect to audit ability to prevent source leakage in e-health care systems. Experimental results of proposed approach gives better and efficient authentication time efficiency results on user privacy in cloud related health care systems.

Keywords: Service oriented cloud computing, data privacy, e-health care systems, secure indexing approach and authentication based audit ability.

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Authors: **J.Satish Babu, Chinnam Siva Koteswara Rao, Debrup Banerjee, S. Sagar Imambi, G Krishna Mohan**

Paper Title: **Opinion Mining for Drug Reviews**

Abstract: Nowadays, people extract information from many user-centered platforms like Facebook, Twitter, and Amazon etc. Even the information about the medicines to be used is being extracted from the net rather than getting appointment from a doctor which takes a lot of time. Probabilistic aspect for mining models (PAMM) is a technique which is used to identify the medicines which belong to the same class rather than searching the medicines from all classes. Another technique used in this is Opinion Mining which extracts only specified information from large amounts of data. Compared with various products, medicines have limited aspects like reviews from the people, their experiences, type of medicine to be used, medicine dosage etc. PAMM technique works more efficiently compared to other techniques.

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Keywords: User Centered Platforms, Probability, Opinion Mining and Aspect Based Mining.

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	Authors: S Vivek Reddy, K Thirupathi Rao	
	Paper Title: Optimized Micro Service based IOT Sophisticated Model over Distributed Environment	
	<p>Abstract: Internet of things (IoT) is an emerging service for micro based service to use and enable different types of real time applications like smart cities, transport related system, medical related systems. So that research relates to micro service analysis in distributed environment is advances to run dynamic related services virtually. Micro service based programming is introduced to process data in distributed environment for different IoT devices. Micro service server data processor takes more intensity to describe different services in distributed environment. Optimized service process for different IoT systems is required to process services in distributed environment. So that in this paper, propose and present Optimized and Sophisticated Classification model to optimize sub set services from overall services in distributed environment. This approach also consists position based sorted index calculation method to provide parallel indexing for different services for IoT devices. Experimental results of proposed approach give better and efficient simulation results when compared to existing approaches.</p>	
	<p>Keywords: Internet of Things, map reduce, micro job scheduler, Performance tuning, Sophisticated classification model.</p>	
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Authors:	S Sai Shankar, V Krishna Reddy
Paper Title:	Adaptive Cloud Framework to Explore Outsourced data in Wireless IoT Computing Systems

Abstract: Internet of Things (IoT) is important platforms to provide efficient data retrieval from outsource wireless data storage system in day-to-day activities. Major challenge in these type of wireless storage data sources to extract useful data from heterogeneous data by constrained IoT in real time vehicular ad hoc networks. Privacy is also complex task for retrievable data from wireless storage system. So that in this paper, we propose Hash based cipher-text attribute based encryption paradigm (HCPABEP) to explore secure based data retrieval from vehicular ad hoc networks. Road side unit (RSU) is the component to perform efficient encryption and decryption efficiency of vehicle information at storage in server side. Our proposed approach mainly adapted and estimated position of vehicles with encrypted and decrypted overhead in storage system. Our experimental results show that proposed approach gives better data forwarding with privacy preserving in vehicular ad hoc networks.

Keywords: Wireless sensor networks, Internet of Things, Road side Unit, attribute based encryption.

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Authors: Amandeep Kaur, Garima Malik

Paper Title: Modeling Customer Intention by integrating Corporate Image into Technology Adoption Model in Indian Internet Banking context

Abstract: This study conceptualizes and tests an integrative research model based on extended technology acceptance model (TAM) by integrating corporate brand image to strengthen the customer behavioral intention mediated through brand attitude to contribute to context of e-banking in India. First, the attempt is made to apply the psychological process model of cognitive, affective, and conative dimensions to measure the antecedents and results of corporate image. The study has gathered a total of 455 usable responses by self-administered questionnaire through convenience sampling from young employed graduates aged between 16-29 years. Data for the study has been analyzed using structural equation modeling techniques to test theoretical models to measure the relationship among factors that actually foster customer behavioral intention. The results have provided that brand familiarity, marketing communication (firm & non-firm based) relates to the corporate brand image. Corporate brand image and perceived usefulness significantly builds customer attitude and intention to use internet banking services. However, against the TAM postulation, perceived ease of use does not determine the customer's intention to adopt internet banking service.

Keywords: Behavioral intention, Corporate brand image, customer attitude, Internet banking.

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247.	<p>Authors: Deepak v Biradar, Nataraj K.R</p> <p>Paper Title: Energy Aware Mobile Sink Relocation by Detecting Bottleneck Nodes to Balance Load in Wsn</p> <p>Abstract: WSN consist of tiny light weighted sensors, which have been used in several applications for sensing real-time data, and forward the aggregated data to sink or base station. Since wsn are energy constrain, the key challenging is to extend network lifetime and to balance the nodes energy levels. In multihop routing, the nodes near to a static sink consume more power and become unbalanced due to more energy drain. To alleviate energy problems, mobility of the sink has been accepted as efficient way. Making sink mobile, provided best solution for</p>	1340-1344

balancing the network. In this paper we propose a new approach to extend network lifetime by relocating sink node near to bottleneck nodes which limits the network lifetime by disjoint links. The key concept is to target the set of node disjoint links which stops functioning due to low energy level, proposed algorithm finds disjoint links and triggers sink to relocate its position to connect nodes with minimum hop. The extensive simulation has been carried out to analyse proposed system and compared with EASR method.

Keywords: WSN, mobile sink, energy efficient routing, sink relocation.

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Authors: A. Rahul, K. Srideep, V. Sai Gireesh, T. L. Surekha

Paper Title: An Approach for Automation of Aquaculture and Alerting Aqua Farmer

Abstract: Time to time information about the water quality is crucial for the farmer to increase the productivity. In this project we use the arduino and sensors to sense the different values from the aqua pond and upload them to the cloud. Also, if the level of Dissolved Oxygen falls below a certain threshold value an SMS alert to the aqua farmer so that he can take preventive measures. Also, the aerators are turned on automatically to maintain the threshold value. Also, an android app is developed and downloaded on the farmers mobile so that he can monitor the parameters in the water and take pre-emptive actions to prevent the spread of any diseases in the pond and increase the productivity and health of the aquatic organisms. The app shows the present levels of parameters in the pond. Through this we can achieve the real time monitoring of the pond.

Keywords: Automatic Aerators, Real Time monitoring, Water parameters sensing, Cloud.

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	<p>Authors: D. Prabhakar, CH. Balaswamy, M. Akhil Poorvika, M. Venkata Krishna Sai, M. Subba Naidu</p> <p>Paper Title: Flexible Microstrip Patch Antenna using Different Substrates for Bio- Medical Applications</p>	
249.	<p>Abstract: This work deals with the simulation and features of Microstrip antenna having patch of different flexible substrates. The flexible antenna finds broad range of applications in defense, satellite, Bio-medical and automobile industries. At present it is the most researched topics across the globe. The flexible antenna gets adaptable to the surface and can be used across curved surfaces. Flexible Materials like Teflon, PTFE glass are the substrates which are used to design the patch antenna. Patch size was selected such that the antenna resonates at 2.45 GHz. The antenna with measured substrate properties was simulated in High Frequency Structure Simulator (HFSS). Small variation in resonant frequency caused due to finite ground plane dimensions and variation of feed location. The simulated results suggest that flexible substrate antennas can be successfully used for Bio- Medical Applications.</p> <p>Keywords: flexible antenna, microstrip patch antenna, Teflon, PTFE glass.</p> <p>References:</p> <ol style="list-style-type: none"> 1. D. Betancourt, J. Castan, "Printed antenna on flexible low-cost pet substrate for Uhf applications", Progress In Electromagnetics Research C, vol. 38, pp. 129-140, 2013. 2. A. Afyfl, L. Bellarbi, A. Errachid, M.A. Sennouni, "Flexible microstrip CPW slated antenna for breast cancer detection", 1st International Conference on Electrical and Information Technologies (ICEIT 2015), 2015. 3. Sudhir S, Mangilal A, Azadeh H, Parvin G, Kody V. Breast tumor detection by flexible wearable antenna system. Food and Beverage 2012. 4. C.Borja, J.Romeu,"Multiband Sierpinski fractal patch antenna", Antennas and Propagation Society International Symposium, IEEE, vol.3, pp.1708-1711, July 2000. 	1350-1352
	<p>Authors: Nagalapalli Satish, Sathyananthan Rangarajan, Deeptha Thattai, Rehana Shaik</p> <p>Paper Title: Comparison of Historical Precipitation Data between Cordex Model and Imd Over Malaprabha River Basin, Karnataka State, India</p>	
	<p>Abstract: Validation of precipitation data is important for hydrological modeling. Though there are many models available, rainfall prediction is difficult due to various uncertainties. This study is an attempt to compare and assess the Coordinated Regional Climate Downscaling Experiment (CORDEX) model data and India Meteorological Department (IMD) observed gridded data over Malaprabha river basin, Karnataka state, India. Both gridded data sets were downscaled at $0.25^\circ \times 0.25^\circ$ resolution and then processed into a 12×115 matrix form by using QGIS (2.18.24) and MATLAB (R2003a). These two products were compared over the period 1961-2015 to evaluate their behavior in terms of fitness by using statistical parameters such as NSE, D, R, MAE, MBE and RMSE values. Results showed that out of 16 grid points, fourteen grid points showed medium correlation ranging between 0.30 and 0.49.</p> <p>Keywords: CORDEX model, Data compression, Malaprabha river basin, Validation of IMD and CORDEX model data.</p> <p>References:</p> <ol style="list-style-type: none"> 1. T. A. McMahon, M. C. Peel, and D. J. Karoly, "Assessment of precipitation and temperature data from CMIP3 global climate models for hydrologic simulation," Hydrol. Earth Syst. Sci, 2015, vol. 19, pp. 361-377. 2. D. A. Hughes, "Comparison of satellite rainfall data with observations from gauging station networks," Journal of. Hydrol, 2006, vol. 327, pp. 399–410. 3. D. R. Legates, and C. J. Willmott, "A comparison of GCMsimulated and observed mean January and July precipitation," Global Planet, 1992, Change, 5, pp. 345–363. 4. F. Johnson, and A. Sharma, "Measurement of GCM skill in predicting variables relevant for hydroclimatological assessments," Journal of Climate, 2006, vol. 22, pp. 4373–4382. 5. T. A. McMahon, M. C. Peel, G. G. S. Pegram, and I. N. Smith, "A simple methodology for estimating mean and variability of annual runoff and reservoir yield under present and future climates," Journal of Hydrometeorol, 2011, vol. 12, pp. 135–146. 6. P. D. Jones, and M. Hulme, "Calculating regional climatic time series for temperature and precipitation: methods and illustrations," Int. Journal of Climatol, 1996 vol 16, pp. 361-377. 7. D. Tsintikidis, K. P. Georgakakos, J. A. Sperfslage, D. E. Smith, T. M. Carpenter, "Precipitation uncertainty and raingauge network design within Folsom Lake watershed," Journal of Hydrologic Engineering, 2002, vol. 7, pp. 175-184. 8. D. J. Seo, " Real-time estimation of rainfall fields using radar rainfall and rain gage data," Journal of Hydrology, 1998, vol. 208, pp. 37- 52. 9. U. Haberlandt, "Geostatistical interpolation of hourly precipitation from raingauges and radar for a large-scale extreme rainfall event," Journal of Hydrology, 2007, vol. 332, pp.144-157. 10. W. Xu, Y. Zou, G. Zhang, M. Linderman, "A comparison among spatial interpolation techniques for daily rainfall data in Sichuan Province, China," International Journal of Climatology, 2015, vol. 35, pp. 2898- 2907. 11. P. Nastos, J. Kapsomenakis, K. Philandras, "Evaluation of the TRMM 3B43 gridded precipitation estimates over Greece," Atmospheric Research, 2016, vol. 169, pp. 497-514. 12. A. Bandyopadhyay, G. Nengzouzam, W. Rahul Singh, N. Hangsing and A. Bhadra, "Comparison of Various Re-analyses Gridded Data with Observed Data from Meteorological Stations over India , " EPiC Series in Engineering 2018, Vol. 3, pp. 190–198 13. T. Dinku, P. Ceccato, E. Grover-kopec, M. Lemma, S. J. Connor and F. Ropelewski, "Validation of satellite rainfall products over East 	
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Authors: M.S.Sivapriya, Aditi Tiwari, Ritesh Kumar Singh

Paper Title: **Filtration of Unwanted Messages from Osn User Wall Using Machine Learning**

Abstract: The platform to make friends and pass message among each other are becoming a powerful source and tool of communication. Social Networking sites serves as the best platform for entertainment of upcoming generation. OSNs helps the users to connect online to others in order to communicate and share their various experiences in the forms of posts and status. But now-a-days Online Social Networking are facing many problems of posting annoying content on someone else's profile which make others humiliated after seeing this. In arrangement to eliminate these foul words, machine learning is used that will filter the unbearable word from the present content. The content of social media are amorphous Since the data (textual content) on online media is mainly unstructured and often in casual style, the existing research on message-level offensive language detection cannot detect the accurate offensiveness of the content. In comparison with message-level offensiveness detection, the identification at user level will be more viable but this is under analysis stage. In disposition for removal of objectionable words from an OSN user's wall, a new system will be offered which will have LSF(Lexical Syntactic Feature), the objectionable content will be filtered based on LSF. Different approaches like Bag of Words(Bow) and n-gram will be used through which filtration of bad words will occur. Thus, the focus of the ongoing work is to offer a mode that will filter the unrelated messages and propose a Filtered Wall (FW).

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Keywords: Online Social Network(OSN); Offensive words; Lexical Syntactic Feature(LSF); Bag of Words (BoW); n-gram algorithms; data filtration; short text classification.

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Paper Title: **Comparative Analysis on Image Compression Techniques for Medical Images**

Abstract: Image compression is an indispensable technique, which has grown as a major research area. As we know that the natural images contain various discontinuities e.g. textures, edges in geometry etc whose orientation are in different directions. In this paper comparison and analysis of various image compression techniques applied to the field of medical is proposed, Those techniques are JPEG, ROI-based, Wavelet and fractal compression. In the field of medicines, diagnosis is effective only and only when the techniques used for compression are able to preserve all the necessary image particulars. The interest of this study is to measure different parameters of the above listed techniques (i.e. compression ratio, duration of processing, PSNR, MSE) which have a characteristic impact on each other.

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Keywords: JPEG, compression, ROI, Wavelets, encoding, DCT ,DWT.

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	<p>Authors: Bhavnesh Jaint, S.Indu, Neeta Pandey</p> <p>Paper Title: Energy Efficient Communication Techniques for Wireless Sensor Networks</p>	
	<p>Abstract: In wireless sensor networks (WSN), energy efficiency is of critical concern as the sensor nodes are powered by limited battery capacity. The choice of a modulation scheme and error control code plays an important role in determining the energy consumption of WSN. This paper analyses the performance of error control codes and various modulation schemes for WSN. The analysis reveals that the energy consumption in WSN can be decreased by a suitable choice of modulation scheme and error control codes. Our simulation results show that by using BPSK modulation with Reed Solomon (RS) code saves 48 % energy in WSN at an internode distance of 60 meters in comparison to higher order modulation schemes.</p>	
253.	<p>Keywords: Energy Efficiency,Error Control Codes Modulation Scheme, Wireless Sensor Networks.</p> <p>References:</p> <ol style="list-style-type: none"> 1. S. Chouhan, R. Bose, and M. Balakrishnan, "A framework for energy consumption-based design space exploration for wireless sensor nodes," IEEE Trans. Comput-Aided Design Integr. Circuits Syst., vol. 28, no. 7, pp 1017-1024, ,July 2009. 2. S. Cui, A. J. Goldsmith, and A. Bahai, "Energy-constrained modulation optimization," IEEE Trans. Wireless Commun., vol. 4, no. 7, pp. 2349-2360, Sept. 2005. 3. A. Y. Wang, S. H. Cho, C. Sodini, and A. Chandrakasan, "Energy efficient modulation and MAC for asymmetric RF microsensor systems," in Proc.Int.Symp. Low Power Electronics Design,2001, pp. 106-111, 4. H. Sharma and V. K. Sachan, "Optimization of energy efficiency in Wireless Sensor Networks using Error control codes," Students Conference on Engineering and Systems (SCES-2012), MNNIT, Allahabad, 2012, 5. G. A. AL-Suhail, K.W. Louis, and T. Y. Abdallah, "Energy Efficiency Analysis of Adaptive Error Correction in Wireless Sensor Networks,"IJCSE International Journal of Computer Science Issues,vol. 9, issue 4, no 2, July 2012, pp 79-84. 6. H. Sharma and V. K. Sachan, "Performance analysis of modulation Techniques for Energy Efficient Wireless Sensor Networks" International Conference on Communication and Electronics (ICCE-2012), held at KIET, Ghaziabad,U.P., Oct. 2012, India, proceedings vol.1, pp.79. 7. I.F. Akyildiz, W. Su, Y. Sankarasubramaniam and E. Cayirci, "A Surveyon Sensor Networks,"IEEE Communications Magazine, 2002. 8. M. A. Hannan, S. M. Abbas, S. A. Samad and A. Hussain, "Modulation Techniques forBiomedical Implanted Devices and TheirChallenges",SensorsJournal, 2012, vol.12, pp. 297-319. 9. G. Balakrishnan, M. Yang, Y. Jiang, and Y. Kim, "Performance analysis of error control codes for wireless sensor networks,"In Proc. Int. Conf. Inform. Technol., 2007, pp. 876-879. 10. B. Sklar, Digital Communications Fundamentals and Applications,2nd Ed., Pearson Education Inc., New Jersey, USA, 2012. 11. J. H. Kleinschmidt and W.D. C. Borelli, "Adaptive Error Control Using ARQ and BCH Codes in Sensor Networks Using Coverage Area Information,"IEEE 20th International Symposium on Personal, Indoor and Mobile Radio Communications, 2009. 12. J. G. Proakis, Digital Communications, 4th ed. New York, McGraw-Hill. 2014. 13. S. Lin and D. J. Castell, Error Control Coding – Fundamentals & Applications, 2nd ed., Pearson Education Inc., New Jersey, USA, 2004. 14. H. Anna,Wireless Sensor Network Design, John Willey & Sons Publication Publications, 2003. 15. H. Carl and A. Willing, Protocols and Architecture for Wireless Sensor Networks, John Willey & Sons Publication, 2005. 16. Motview 2.0 User Manual & Mica2 Datasheets. 17. V. Pushpa, H. Ranganathan and M. Palanivelan, "BER Analysis of BPSK for Block Codes and Convolution Codes Over AWGN Channel", Int. Journal of Pure and Applied Mathematics, vol.114,no. 11, 2017, pp 221-230. 18. N. A. Alrajeh, U. Marwat, B. Shamsand S. S. H. Shah, "Error-Correcting Codes in Wireless Sensor Networks:An Energy Perspective", Journal of Applied Mathematics & Information Sciences, vol. 9, no. 2, 2015, pp 809-818. 	1368-1373
	<p>Authors: D. Naveen Sai, Damalra Paradhasaradhi, R.S. Ernest Ravindran</p> <p>Paper Title: Comparative Analysis of Efficient Hierarchy Multiplier using Vedic Mathematics</p>	
254.	<p>Abstract: Hierarchy multiplication is desirable since of its capacity to carry the multiplications with high speed. An approach of implementation of hierarchy multiplier involves utilization of array multiplier. A drawback of array multiplier is that it has a critical delay path. In order to overcome this problem, a new methodology has been proposed in this paper which replaces the array multiplier with a Vedic multiplier. In Vedic multiplier 'Urdhava-tiryakbhyam' sutra makes the partial products and erase the unnecessary multiplication steps. The methodology has been implemented in mentor graphics tool using 45nm technology. From the simulation results, the proposed methodology reduces the area and delay when compare to the different existing designs.</p> <p>Keywords: Vedic Multiplication, array multiplication, carry save adder, hierarchy multiplier.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Mohan Shoba and Rangswamy Najera, Energy and Area Efficient Hierarchy Multipliers Architecture based on Vedic Mathematises and 	

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	<p>Authors: Jothibasu M, Aakash B, Shanju Ebanesh K, Gokul Vinayak L</p> <p>Paper Title: Automatic Room Monitoring with Visitor Counter (ARM – VC)</p>	
255.	<p>Abstract: The objective of the paper is to reduce the high and ever increasing demand of electricity. As the technology advancements predominate in today's digital world we prefer classier and smarter advancements in simple and basic needs of the human lives, so this paper gives us a solution to make the surroundings smarter and economic. To achieve the objective we can install Automatic Room Monitoring in every houses or seminar halls and so on. It uses infrared sensors to detect the persons entering and leaving and the room and monitors the room appliances like light, fan and air conditioners. Technology from the purpose of simplicity has turned into technology for necessity. Developing and generating the electricity at small scale is a cumbersome process instead we consume less electricity and conserve it for a sustainable development of energy resources. The proposed model from the paper is able to monitor and control the room appliances respective of the people in the room additionally it can also instantaneously count the number of persons in a room. It has various applications in the field of consuming energy resource and also as a bi – directional visitor counter.</p> <p>Keywords: Arduino UNO, relay, sensor</p> <p>References:</p> <ol style="list-style-type: none"> https://circuitdigest.com/microcontroller-projects/automatic-room-light-controller-with-bidirectional-visitor-counter-using-Arduino UNO https://www.Arduino UNO.cc/ Anjali Sinha, Arpita Singh, Deepa Singh, Parul Singh , Anil Maurya and Mahesh Kumar Singh, Automatic Room Light Controller with Visitor Counter, International Journal on Emerging Technologies (Special Issue NCETST-2017) 8(1): 172-175(2017). Muhammad Umar Farooq, AammaShakoor, Abu BakarSiddique, ARM based Bidirectional Visitor Counter and Automatic Room Light Controller using PIR sensors, Advances in Science, Technology and Engineering Systems Journal Vol. 1, No. 5, 10-15 (2016). SubhankarChattoraj, AdityaChakraborty, Bidirectional Visitor Counter with Automatic Room Light Controller and Arduino UNO as the master controller, International Journal of Scientific and Research Publications, Volume 6, Issue 7, July 2016. 6.Mahmud Hossain Jewel, JahidHasan, Nazmul Islam, Automatic Room Light Control Using Bidirectional Visitor Counter and Gas Detection, Faculty of Sciences and Engineering, East West University. https://www.youtube.com/watch?reload=9&v=61H8pc5TAM0 MangeshNikose, KrutikaGaikwad, PriyankaGamne, Aaishwarya Bodke, A Survey on Bidirectional Visitor Counter with Automaticlight and Fan Control for Room, International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering. 	1379-1383
256.	<p>Authors: C.Priyanka, E.RanaPratap, S.Bhaskar, Y.Naresh</p> <p>Paper Title: An Optimized Area Efficient High Speed CSD Multiplier for Image Processing Applications</p> <p>Abstract: Multiplier is a basic fundamental element in many digital and analog systems, Digital signal processing and image processing applications. Thus designing an efficient digital multiplier plays a vital role as hardware resources and processing time is considerably more compared to resources and processing time required to perform addition and subtraction. In this paper an high speed Vedic multiplier using CSD algorithm for image processing applications like edge detection is done and observed that high speed i.e. less delay and less area is achieved compared to Dadda multiplier using CSD algorithm. Simulation of this high speed multiplier is done in Xilinx ISE 14.2 tool using verilog programming and comparison among various factors like delay and area is done.</p> <p>Keywords: Area, CSD Algorithm, Delay, Multiplier.</p> <p>References:</p> <ol style="list-style-type: none"> Lakshmi kiran Mukkara, K.Venkata Ramanaiah "A Simple Novel Floating Point Matrix Multiplier VLSI Architecture for Digital Image Compression Applications", International Conference on Inventive Communication and Computational Technologies (ICICCT2018), ISBN:978-1-5386-1974-2 M.Lakshmi Kiran and Dr. K.Venkata Ramanaiah, " Implementation of High Speed and Low Area Digital Radix-2 CSD Multipliers using Pipeline Concept", International Journal of Electronics and Communication Engineering. ISSN 0974-2166 Volume 10, Number 1 (2017), pp. 53-61 Michael A. Soderstrand, "CSD MULTIPLIERS FOR FPGA DSP APPLICATIONS", 0-7803-776 1-31031\$17.00 02003 IEEE Navdeep Goel and LalitGarg, "Comparative Analysis of 4-bit CMOS Multipliers", Proceedings of International Conference on VLSI, 	1384-1388

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Authors: Boobalan S, Lakshmi K, Gobhinath S

Paper Title: Mathematical Modelling and Simulation of Non-Linear PID Controller for Spherical Tank Level Control in oil and Gas Industry

Abstract: In process industry specifically in oil and Gas industries, Spherical tank is preferred for storage of high-pressure fluids because of its strong structure and its even distribution of stresses on the sphere's surfaces, both internally and externally. Geometrically speaking its structure naturally highly nonlinear in nature. In oil and gas industries, every operation is done by the automation with the help of field sensors, controllers and final control elements (Actuators). Controlling any process variable is commonly difficult in oil and gas process industries. The level control of spherical tank is highly difficult job because of its geometrical structure. The area of the spherical tank is continuously varying with respect to its height. So, it required a special type of controllers needs to control it. This article presents the controller tuning methods of PID controller to control the level of Spherical Tank Control system.

Keywords: Spherical Tank, Level Control, Process Automation, Non-linear System, PID Controller, ZN Controller.

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Authors: Srinivasa G, Murali Mohan B M, Sarvesh Araballi

Paper Title: Data Analytics for Self-Pooling Facility in Cabs

Abstract: Transportation System is one of the backbones for any country growth. Either in Developed or Developing countries transport system plays key role as people are not interested to stuck in traffic or get affected by the pollution. Now almost all the countries are moving towards smart transportation system. On top of it for the Business People Time is very precious. The business people will think how to utilize the travelling time. At the same time students who are travelling regularly to college in the same direction interested to travel together.

258.	<p>Either Business People or Students if they have their own car, they will do carpooling or vehicle pooling. But still the problem is if the distance is too far no one is interested to drive such a long distance. And also as a socio cause now a days the people are worried about environment, people are very much interested to use cab services instead of using their own car. The only problem with cabs is though people are affordable to pay for cab every day the problem is they cannot travel together to utilize the travelling time for business purpose or for the students to save money. Though the Cab Services has grown a lot in India like OLA, UBER , MERU etc., Started with Self Cab Booking[3] to Share Cab Booking still the above two problems of Utilizing Travelling Time for business people and Saving the money for students who are frequent travelers is not solved. To solve these two problems the proposed method of Self Pooling facility is needed. Self-Pooling Facility is mandatory for the developing countries like India to serve the Students, Employees[3]and Business People who are frequent Travelers. And it also solves the problem of Business People from Developed and Developing Countries as well. The proposed method may not give 100% solution to the above two problems at least It solves the above two problems to the extent of 80-90%.</p> <p>Keywords: Transportation, Self Pooling, Students, Business People, Traffic.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Data Analytics To Allocate Berths In Reserved Compartments In Indian Railways, M. S. Satyanarayana, Abhilash D. C , Srinivasa G International Journal Of Engineering & Technology, 7 (2.33) (2018) 764-766 International Journal Of Engineering & Technology 2. Kumar, Kishore & Namavaram, Ramesh. (2016). A Study on Factors Influencing the Consumers in Selection of Cab Services. International Journal of Social Science and Humanities Research. 4. 557-561. 3. Hanif, K., &Sagar, N. (2016). An Empirical Research on the Penetration Levels for a Call-a-Cab Service in Mumbai. Reflections Journal of Management . 4. Harding, S. E., Badami, M. G., Reynolds, C. C., &Kandlikar, M. (2016). Auto-rick shaws in Indian cities: Public perceptions and operational realities. Transport Policy , 52, 143-152. 5. Srinivasa G , Lokesh M, Murali Mohan B M, Security providing cloud server using Steganography on encrypted and compressed video International Journal of Pure and Applied Mathematics Volume 118 No. 24 2018 ISSN: 1314-3395 6. www.wikipedia.com 7. www.google.com. 	1395-1397
Authors: R.Jeyakumar, R.Ramamoorthi , K.Balasubramanian Paper Title: Investigation on Mechanical Properties of Coconut Fiber reinforced Polyester Composites		
<p>Abstract: The composite materials reinforced with natural fibers plays a vital role for structural applications. Composites are escalating as sensible preferences in contrast to the metal combinations in numerous applications like automotives, marine and aviation, sports and products applications. Fiber composites offer numerous benefits like, high tensile strength and modulus, minimum specific gravity. In this paper it is viewed as that coconut inflorescence fiber reinforced polyester based polymer composites were manufactured by hand layup strategy and then followed by compression moulding method. The coconut fibers were exposed to alkali treatment to make the fiber free of hydrophobic substance. The mechanical properties for example tensile, flexural and izod impact strength were conducted and Scanning Electron Microscope investigation was carried out to discover the fracture failure. The results demonstrated that there is significant increment in strength of the composites contrasted with neat polymer composites. These natural fiber reinforced composites are mostly used in grain storage silos, bio gas containers, bath tubs , chairs lampshades, boats etc.</p> <p>Keywords: Coconut fiber composites, Compression moulding technique, Mechanical properties.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Naveen, J., M. Jawaid, P. Amuthakkannan, and M. Chandrasekar. "Mechanical and physical properties of sisal and hybrid sisal fiber-reinforced polymer composites." In Mechanical and Physical Testing of Biocomposites, Fibre-Reinforced Composites and Hybrid Composites, pp. 427-440. Woodhead Publishing, 2019. 2. Wu, Change, Kang Yang, Yizhuo Gu, Jun Xu, Robert O. Ritchie, and Juan Guan. "Mechanical properties and impact performance of silk-epoxy resin composites modulated by flax fibres." Composites Part A: Applied Science and Manufacturing 117 (2019): 357-368. 3. Saba, N., M. Jawaid, Othman Y. Alothman, and M. T. Paridah. "A review on dynamic mechanical properties of natural fibre reinforced polymer composites." Construction and Building Materials 106 (2016): 149-159. 4. Fuentes, C. A., Gitte Brughmans, L. Q. N. Tran, C. Dupont-Gillain, Ignace Verpoest, and A. W. Van Vuure. "Mechanical behaviour and practical adhesion at a bamboo composite interface: Physical adhesion and mechanical interlocking." Composites Science and Technology 109 (2015): 40-47. 5. Saba, N., M. Jawaid, Othman Y. Alothman, and M. T. Paridah. "A review on dynamic mechanical properties of natural fibre reinforced polymer composites." Construction and Building Materials 106 (2016): 149-159. 6. Sanjay, M. R., P. Madhu, Mohammad Jawaid, P. Senthamaraikannan, S. Senthil, and S. Pradeep. "Characterization and properties of natural fiber polymer composites: A comprehensive review." Journal of Cleaner Production 172 (2018): 566-581. 7. Naveen, J., M. Jawaid, P. Amuthakkannan, and M. Chandrasekar. "Mechanical and physical properties of sisal and hybrid sisal fiber-reinforced polymer composites." In Mechanical and Physical Testing of Biocomposites, Fibre-Reinforced Composites and Hybrid Composites, pp. 427-440. Woodhead Publishing, 2019. 8. Safri, Syafiqah Nur Azrie, Mohamed Thariq Hameed Sultan, Mohammad Jawaid, and Kandasamy Jayakrishna. "Impact behaviour of hybrid composites for structural applications: A review." Composites Part B: Engineering 133 (2018): 112-121. 9. Fragassa, Cristiano, Ana Pavlovic, and Carlo Santulli. "Mechanical and impact characterisation of flax and basalt fibrevinylester composites and their hybrids." Composites Part B: Engineering 137 (2018): 247-259. 10. Beninia, K. C. C. C., Herman Jacobus Cornelis Voorwald, and M. O. H. Cioffi. "Mechanical properties of HIPS/sugarcane bagasse fiber composites after accelerated weathering." Procedia Engineering 10 (2011): 3246-3251. 11. Mulinari, D. R., C. A. R. P. Baptista, J. V. C. Souza, and H. J. C. Voorwald. "Mechanical properties of coconut fibers reinforced polyester composites." Procedia Engineering 10 (2011): 2074-2079. 	1398-1402	

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	<p>Authors: N. Dinesh Kumar, P. Manisha Sai, S. Paalini, S. Anirudh</p> <p>Paper Title: Intra-Networking (Establishing a Private Branch Exchange)</p>	
260.	<p>Abstract: One of the major problems today in the enterprises of information technology is the transfer of information to the different sectors of the management. In this process it may face severe security issues and have to pay more for expenses equipment. By using the intranetworking systems, it can be negotiated. The main purpose of the intranetworking is to provide a medium for networking i.e., communication. By using this intranet technology communication is cheaper and easier than the previous equipment used. It also provides better internal communications and helps in creating better workplace for community where information storage is secured. Establishing a Private branch exchange (PBX) is a solution for this. This paper explains how a PBX can be established by any user, who requires it using an open source software called Asterisk.</p> <p>Keywords: Asterisk, Communications, Intranetworking, PBX, VOIP.</p> <p>References:</p> <ol style="list-style-type: none"> Yosua Alvin adi Soetrisno, Andy Purnama Nurhatta "Voice Codec Quality and interconnection testing between asterisk server and PSTN connection" Transmisi, 19, (3), July 2017 https://dev.mysql.com/doc/mysql-getting-started/en/ https://searchunifiedcommunications.techtarget.com/definition/VoIP https://www.asterisk.org/ N Dinesh Kumar, V.S.K Reddy, "AODV Routing Protocol for Congestion Control Based on Packet Priority", Vol 8, Issue 1(June, 2018), Journal of Communication Engineering & Systems, pp No: 59-68 N Dinesh Kumar, V.S.K Reddy, "Performance Analysis of Routing Protocols", Vol 8, Issue 5(May, 2018), IOSR Journal of Engineering, pp No: 69-77 N Dinesh Kumar, Anuj Saxena, Arvind Sundararajan, and N Roop Kiran, "Implementation of AODV Routing Protocol in NS2: A Comparison with DSDV Routing Protocol", Vol 1, Issue 5, (May 2014), International Journal & Magazine of Engineering, Technology, Management and Research, Pg No : 28 – 34 N Dinesh Kumar, Ch V B Aditya Kumar, Dr. V S K Reddy and P Raghuram, "Wireless Transmission of Biomedical Signals – Wireless Doc", Dec. 2011, Proc. IEEE Indicon 2011, BITS, Hyderabad, PP 1-5. (DOI: 10.1109/INDCON.2011.6139636) 	1403-1409
261.	<p>Authors: P. Vijayakumar, Nandini. N, Sai Ganesh N, Ranjit Sanjay Lawand, A.V.Bharadwaja, Tamizhselvan C, Yadav Kirti Ankush</p> <p>Paper Title: Smart Calendar Device for Differently Abled Person</p> <p>Abstract: According to the reports of World Health Organization (WHO) there were 285 million visually impaired people in the world in 2012, out of which 246 million was having low vision and 39 million were blind. Now a days visually challenged people are facing many difficulties in there day to day life. To perform simple tasks, visually impaired people have to rely on others. Many embedded devices are available in the market which will give physical support by providing date and time in voice mode to the impaired peoples. Our proposed smart calendar will perform the following tasks such as reading out current time, day of the week, date, setting alarm, remainders about the event and scheduling the tasks. The proposed system is implemented by using raspberry pi, mic, display, speaker and camera.</p> <p>Keywords: Visually impaired, Raspberry pi, Smart calendar, Power consumption, Machine Learning, Internet of things.</p> <p>References:</p> <ol style="list-style-type: none"> Aktaruzzaman, M. M., Badhan, S. M., Adnan, S., Alam, M. R., & Begum, M. T. (2017, December). Application of cloudbridge automation using raspberry Pi. In 2017 IEEE Region 10 Humanitarian Technology Conference (R10-HTC) (pp. 63-66). IEEE. Velmurugan, D., Sonam, M. S., Umamaheswari, S., Parthasarathy, S., & Arun, K. R. (2016). A smart reader for visually impaired people using raspberry pi. International Journal of Engineering Science and Computing IJESC, 6. Yu, Y. C., Shing-chern, D., & Tsai, D. R. (2010, August). A calendar oriented service for smart home.In The 6th International Conference on Networked Computing and Advanced Information Management (pp. 151-156). IEEE. Magar, S., Saste, V., Lahane, A., Konde, S., & Madne, S. (2017, February). Smart home automation by GSM using android application. In 2017 International conference on information communication and embedded systems (ICICES)(pp. 1-4). IEEE. Singh, M. K., Sajwan, S., & Pal, N. S. (2017, August). Solar assisted advance smart home automation.In 2017 International Conference on Information, Communication, Instrumentation and Control (ICICIC) (pp. 1-6). IEEE. Sunehra, D., & Tejaswi, V. (2016, October). Implementation of speech based home automation system using Bluetooth and GSM. In 2016 International Conference on Signal Processing, Communication, Power and Embedded System (SCOPES)(pp. 807-813). IEEE. Vikram, N., Harish, K. S., Nihaal, M. S., Umesh, R., Shetty, A., & Kumar, A. (2017, January). A low-cost home automation system using wi-fi based wireless sensor network incorporating Internet of Things (IoT). In 2017 IEEE 7th International Advance Computing Conference (IACC) (pp. 174-178). IEEE. Regan, M. J., & Barkunan, S. R. (2014). Voice Recognition Robot for Visually Impaired People. International Journal of Innovative Research in Computer and Communication Engineering, ISSN, 2(1), 2320-9801. 	1410-1414

Authors:	Simran Agrawal, Avinash J. Agrawal
Paper Title:	Reviewing Techniques For Automatic Response Grading Via Language Processing
Abstract:	<p>Automatic grading of student answers via natural language processing is a boon for the faculties and educational system in both technical and non-technical fields. It helps the students to get their document evaluation done irrespective of the state of mind of the examiner, and also helps in speeding up the process for grading, and eventually saving a lot of time and effort for the overall examination process. In this paper we have analyzed various methods which are useful in automatic grading of student answers (both long and short), most of them are based on mathematical variations in natural language processing techniques. Via this text we aim to assist researchers to decide which kind of base methods can be used in which kind of document scenarios, so that it helps them in selection of algorithms based on the input type, and speedup their macro-level research.</p>
Keywords:	Document, grading, response, natural, language, answers.
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Djamel, Bennouar, and DjellatouRachda. "Evaluating Short Answer Using Text Similarity Measures."</p> <p>14. Rokade, Amit, et al. "Automated Grading System Using Natural Language Processing." 2018 Second International Conference on Inventive Communication and Computational Technologies (ICICCT). IEEE, 2018.</p> <p>15. Contreras, Jennifer O., ShadiHilles, and Zainab BintiAbubakar. "Automated Essay Scoring with Ontology based on Text Mining and NLTK tools." 2018 International Conference on Smart Computing and Electronic Enterprise (ICSCEE). IEEE, 2018.</p> <p>16. Lahitani, AlfirnaRizqi, Adhistya Erna Permanasari, and Noor Akhmad Setiawan. "Cosine similarity to determine similarity measure: Study case in online essay assessment." 2016 4th International Conference on Cyber and IT Service Management. IEEE, 2016.</p> <p>17. Gomaa, Wael H., and Aly A. Fahmy. "Short answer grading using string similarity and corpus-based similarity." 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"Automated essay scoring linguistic feature: Comparative study." 2017 Intl Conf on Advanced Control Circuits Systems (ACCS) Systems & 2017 Intl Conf on New Paradigms in Electronics & Information Technology (PEIT). IEEE, 2017.</p>

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	Authors: Seeram Srinivasa Rao, Nagula Srikanth	
	Paper Title: Modeling and Analysis of Bore well Rescue Robot Using Haptics and Lora Technology	
Abstract: Abstract: The objective of the work was to present a robotic design to rescue a child from a bore well. The project has been focused on overcoming the challenge of digging a parallel hole in rescue operation. The rescue robot was modeled with two robotics hands, two sensor gloves, hydraulic fixer, camera and sensors. The rescuing operation of this robot functions using Haptics and Lora technologies. To get proper gripping action, end effectors similar to humanoid fingers were used. The robot conceptual design was developed in accordance with bore well dimensions, whose operating space could be adjusted with reference to dimensions. Children with less awareness of their surroundings get trapped by the bore wells, accidentally. Although the rescue operation is ongoing, many factors, such as lack of sufficient oxygen, rising temperature, cause another risk for child in such depth. Rescuing children from such situations is a challenging task. Without major risks, the proposed system rescues the child.		
Keywords: Haptics, Sensor Gloves, Rescue robot, Lora technology.		
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	Authors: Yogesh Kumar Gupta, Shruti Sharma	
	Paper Title: Impact of Big Data to Analyze Stock Exchange Data Using Apache Pig	
Abstract: Big Data is generated in different formats with high velocity and volume, for those reasons conventional approaches cannot deal with this kind of data. Hence big data tools i.e. Hadoop came into the glare due to its high scalability, availability and cluster environment mechanism accelerate the work in distributed manner. One of the prominent components of Hadoop is MapReduce which can handle any format of data but to use this module highly programming skill is needed for these reason users move towards Apache pig, as we can analyze data only by executing queries. Due to the fault tolerant feature, Pig conceives value under Hadoop platform. In this paper, we analyze stock exchange data of various sectors with the help of Apache pig. Stock exchange data from 2013-2018 is taken and calculate 52 week low, average and high prices through PigLatin script and represented the result in a pictorial form. We also characterize the comparative study of diverse sectors named Banking, IT, Oil and Sugar in order to make the clear image to understand the data. The organized system facilitates the researchers or analysts to come across absolute decision toward spend their assets by means of yield within small instance.		
Keywords: Big data, Hadoop, Apache pig, stock exchange data, stock sectors.		

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Authors:**Mohd Azlan Fahmi Muhammad Azmi, Azanizawati Ma'aram, Aini Zuhra Abdul Kadir, Nor Hasrul Akhmal Ngadiman****Paper Title:****Risk Factors of Low Back Pain Amongst Port Crane Operator in Malaysia**

Abstract: Low back pain was reported as the main case for the musculoskeletal disorder among port crane operators. This paper investigated the risk factors of LBP and identified the root causes of low back pain amongst port crane operator in Malaysia. Modified Nordic questionnaire, structured interviews with four quay crane operators, direct vibration measurement were used to collect the data. Then, the data were analysed using SPSS version 14 and ergonomics assessment named Rapid Upper Limb Assessment (RULA). From the results, univariate analysis indicated that there was significant association between duration of exposure with low back pain ($p < 0.001$). Binomial logistic regression showed that those operators who were exposed to current working conditions of more than 5 years were 7 times more likely to stop work due to low back pain. However, there was no significant association found between characteristics and low back pain. Combination effect of long term exposure to whole-body vibration and postural stress might increase the risk of low back pain. In conclusion, operators of quay crane are at risk of having low back pain due to the exposure of working conditions. The findings may help port crane operators to improve their awareness on risk of low back pain.

Keywords: Musculoskeletal Disorder (MSD), Low back pain (LBP), port crane operator, Whole-Body Vibration (WBV).

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Authors: Rajesh G, Carmel Mary Belinda M J , Soma Vinay, Shalini

Paper Title: Dynamic Social Opinion Models from Records Voting

Abstract: Here in this paper essential point is to find the main sentiment of open now a days each one of the administrators are doing fake votes result from open by giving of some money they are getting votes and they are wining and a segment of individuals as a rule they have to do vote for that particular individual since they don't have any decision to vote another person. So to vanquish each one of these issues that customer must be select in that near and dear record with exceptional id card purposes of enthusiasm after login they can see different sort of administrators they can see after that that customer can pick any of the person .in the wake of picking of that report they can get a couple of request in regards to that official they have to answer that request for depends of the customer answer government can decide who will win that choice. Here no convincing motivation to go to any were to give that vote for legislator in online piece self u can give your own supposition.

Keywords: Data mining ,influence analysis, social network.

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Authors: Abhishek Sawant, Naveen Kumar N

<p>Paper Title: Spark Machine Learning Pipelines to Predict Brain Tumor using Deep Learning</p> <p>Abstract: One of the challenging points in the field of Healthcare and Medicine is to detect cancer cells from a brain image generated in terms of MRI, CT-Scan etc. For efficiently determining the cancer cells in an image first the background of the image must be eliminated, Background check verification of patients is necessary. As multiple CT-Scan images show multiple cancer cells, sometimes though there are multiple cancer cells found in an image, yet we forget the root cancer cell and focus upon every cancer cells visualizable. The main target must be to visualize the number of cancer cells which are the root cause for child cancer cells and a re-verification on images which has multiple cancer cells detected. During such observation we ought to lack the cancer cell differentiation such kind of cancer and its type. In this paper we present the solution for the stated problem by processing an Image Dataset of Brain Tumor of various Patients using Tensor flow. The Image are contrasted based on features analyzed from the Dataset. Modelling is carried out using Deep Neural Featurizer which utilizes Inception V3 and Image Classification based on Logistic Regression. HealthCare's, Govt Agencies and Corporate companies working for Healthcare are looking for ways to assist patients, customers, staff and assets to tackle the cancer during the initial stage, provide solutions to help detect cancer at early stages. In this paper we introduce to deep learning models, Large-scale computing platform and combined altogether to learn powerful feature representations within image classification and retrieval.</p> <p>Keywords: Brain Tumor, Deep Learning, DCNN, Image Classification, Inception, Logistic Regression.</p> <p>References:</p> <ol style="list-style-type: none"> 1. V.P. Gladis Pushpa Rathi and S. Palani, "Brain Tumor Detection and Classification Using Deep Learning Classifier on MRI Images", Research Journal of Applied Sciences, Engineering and Technology, 2015. 2. T Chithambaram and K Perumal. "Brain Tumor Segmentation using Genetic Algorithm and ANN Techniques", IEEE 2017. 3. Vinay Rao et al "Brain Tumor Segmentation with Deep Learning", IEEE 2015. 4. A. Anbarasa Pandian and Dr. R. Balasubramanian, "Analysis on Shape Image Retrieval Using DNN and ELM Classifiers for MRI Brain Tumor Images", IJIEEB 2016. 5. Ankit Vidyarthi, Namita Mittal, "Brain tumor Segmentation Approaches: Review, Analysis and Anticipated Solutions in Machine Learning", IEEE 2015. 6. Amrutha Hebli, Dr. Sudha Gupta, "Brain Tumor Prediction and Classification using Support Vector Machine", IEEE 2017. 7. Lina Chato et al, "Wavelet Transform to Improve Accuracy of a Prediction Model for Overall Survival Time of Brain Tumor Patients Based on MRI Image", IEEE 2018. 8. K.S. Deepak et al "An efficient approach to predict tumor in 2D brain image classification techniques", IEEE2013. 9. R. Geetha Ramani, K. Sivaselvi "Classification of Pathological Magnetic Resonance Images of Brain using Data Mining Techniques", IEEE 2017. 10. Felix Fernando Gonzalez-Navarro et al "Using Machine Learning Techniques to Explore 1H-MRS data of Brain Tumors", IEEE 2009. 11. Hai Su et al "Robust Cell Detection of Histopathological Brain Tumor Images Using Sparse Reconstruction and Adaptive Dictionary Selection", IEEE 2016 	1444-1448
<p>Authors: T. Senthil Murugan, N.Vijayaraj</p> <p>Paper Title: Skewness Based Dynamic Resource Allocation in Cloud using Heterogeneous</p> <p>Abstract: Cloud computing enables the empowers professional clients to scale over the resource utilization dependent on cloud user requirements. Virtualization techniques are necessary for cloud environment to multiplexing the cloud resources. Here, virtualization techniques are used to allocate the cloud resources dynamically based on cloud user requirements. This paper consider green computing techniques has used for improving the quantity of servers. This paper considers the term "skewness" to improving the quality of service for server based on findings roughness with several dimensional strengths. Here we propose an algorithm names as Resource allocation using virtual machine with heterogeneous techniques. This algorithm helps to allocate the resources efficiently to the cloud users based on their needs. The results of this algorithm has compared with existing algorithm like skewness-avoidance multi-resource allocation (SAMR). Finally, this algorithm improved 67% of results in view of CPU utilization and 47% reducing memory consumption.</p> <p>Keywords: Skewness, Resource, Heterogeneous, Migration.</p>	
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Authors:	Sanket Kumar, Chandra J
Paper Title:	Skin Cancer Classification using Machine Learning for Dermoscopy Image

Abstract: Skin cancer is highly ambiguous and difficult to identify and cure in the last stage. To increase the survival rate, it is important to recognize the stages of skin cancer for effective treatment. The main aim of the paper is to classify the various stages of skin cancer using dermoscopy images from the data repository of ISIC and PH2. The data is pre -processed with the help of median filter and wiener filter for removing the noise. Segmentation is processed using Watershed and Morphological. After the segmentation, features were extracted using Grey Level Co-occurrence Matrix (GLCM), Color, Geometrical shapes in order to improve the accuracy of dermoscopy image. Finally, the dataset is classified with some popular methods like KNN with 89%, Ensemble with 84% and SVM works better than the other two methods by giving the highest accuracy of 92%.

Keywords: Support Vector Machine (SVM), K -Nearest Neighbour (KNN), Gray Level Co-occurrence Matrix (GLCM), Median Filter, Weiner Filter, Thresholding.

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Authors:	Syed Saifali, P Jaganathan, K S Satyanarayanan
Paper Title:	Experimental Study of Flexural and Torsional Behaviour of Beams With bacterial Concrete

Abstract: The main concept of replacing cement with fly ash can accomplish as sustainable development, in

construction industry, concrete is a most broadly utilized development material and cement is the only manufactured material and other materials like fine aggregate and coarse aggregate and water are natural resources. As per reports its states that by manufacturing a ton of cement 800 to 900 kg of co2 is emitted in to the atmosphere which results in to the global warming. In this project we are utilizing the fly ash as a byproduct, presently large amounts of fly ash are generated in thermal industries which international journal of science and research h are dumped as waste and it will be adverse impact on environment and humans. And in this project, it is decided to use bacteria and to enhance its properties of hardened concrete. For this bacillus subtilis has been chosen based on previous work done. The design mix is to made of M40 grade concrete. The ingredients for concrete are tested. It is proposed that incomplete substitution of cement by fly ash enriched by bacteria and to test the flexural and torsional strength of concrete at different ages.

Keywords: Flexural, Torsional, S1CC, S1CCB, S1CF, S1CFB, Bacillus subtilis.

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Authors: S.D.Kumar, Raja Bala Yoga Naveen, T.Rahul, B.Surrendran, P. ShanmukhaAravind

Paper Title: Electrically Driven Vehicle with Automatic and Manual Charging

Abstract: The use of conventional system for transportation has already had a source effect on the environment. This has called for the urgent shift to an alternative technology-Electric vehicles. This change has a lot of effect on the consumers as well as the environment. In order to encourage this change, we propose a method for electric vehicles fitted with various charging techniques .The engine and gearbox assembly is replaced with a motor and a axle setup and the power transmission takes place with the help of a chain drive, dynamo is fitted to scavenge the energy and supply back to the battery setup. A manual rotating mechanism is also provided for rotating the dynamo.

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Keywords: Charging, Conversion, Electrical vehicle, Dynamo.

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Authors: Om Prakash Kumar, Aman Singh, Rajat Sinha, Tanweer Ali

Paper Title: ACS Fed Triple Band Notched UWB Antenna for Diverse Wireless Applications

Abstract: In this manuscript a novel design of an asymmetric coplanar strip (ACS) fed UWB antenna with triple band notch facility is presented and discussed. The proposed antenna contains a combination of different

radii of semi-circular patches in order to obtain ultrawideband (UWB) characteristics. The achieved UWB bandwidth ranges from 2.9 to 9.3 GHz. It's compact and simple designs make it very useful for application with respect to UWB communication systems. Furthermore, modifications are made in the proposed UWB antenna to achieve band notch characteristics in order to remove the electromagnetic interference from the adjacent frequency bands. From the radiating monopole a combination of semi-circular and quarter circular slots are etched out to obtain triple notch bands at 3.1–3.8 GHz (WiMAX), 5.3–5.8 GHz (WLAN) and 6.9–7.5 GHz (higher C-band).

Keywords: asymmetric coplanar strip, ultrawideband, bandwidth, band notch.

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Authors:

Nazim Sha S, Rajeswari M

Paper Title:

The Efficiency Of Social Media In Political Campaigns And Their Influence On Deciding The Policymakers

Abstract: Advanced innovation has infinitely widened and complexified public activity, leveling open doors for correspondence and delivering another consciousness of the importance of a different form of social relations, even as of life in the world. This book investigates the manners by that online networking, by empowering human interest and friendliness in affiliation to those advancements, has featured for purchasers their own tendency as social creatures who have found higher approaches to be with each other, even as new difficulties. The complexity of systems via web-based networking media has created new forms of conflicts, and higher approaches to intervene felt forms of conflicts, that have led to AN interest for brand new forms of political investment, on these lines invigorating movement, while not broadening the act of 'governmental problems not surprisingly'. notwithstanding, with worries for the world within the background, AN inclination for elites and customary people alike to wish to envision a political declare every issue publically activity has become an unsustainable and disconcerting pattern. This book contends that enthusiasms for web-based life will be tempered in an exceedingly auxiliary approach through a commitment with investigations of online networking in affiliation to understandings of the historical scene of contemporary public activity given by sources in ancient and modern human science and political hypothesis. Web-based life makes conceivable new agreeable possibilities and diverse public, and however speaks to important progressions with contemporary public activity of previous occasions, for instance, the regard during which it makes an attempt to confine political activity within the bounds of a summed up open, during this manner obliging appeal and testing the self-importance of elites who look to force bound forms of political life. The outcomes discovered says that web-based social networking assumes an elementary job in shaping a preferred conclusion even as it's a viable instrument for political battling and people demonstrate their enthusiasm towards the ideologic gatherings victimization web-based systems administration for effort and additionally today social media plays an important role choose policy manufacturers and other people rely upon it noticeably.

Keywords: Social media, Advertisements, Politics, Campaigns, Efficiency, Elections, Internet, Facebook, Twitter, You Tube.

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Authors:	Nur Ikhwan Mohamad, Ali Md Nadzalan, Jaffry Zakaria, Gunathevan a/l Elumalai
Paper Title:	Comparison between Student Centered (Classroom Technology) Versus Lecturer Centered (Hands-On) Learning Approach in Physical Conditioning Short Course
Abstract:	<p>Problem Statement: Physical conditioning related course has been widely accepted as one of the fundamental courses for any exercise science or physical education programs or certifications. However, the teaching and learning approach are varied between one lecturer/instructor to another. Many physical conditioning courses conducted still relies on theoretical classroom approach and sometimes mix with a bit of lecturer-centered practical classes. Thus, questions arise whether a hands-on purely experiential student-centered approach may provide the best outcome. Thus, this research is proposed. Objectives: To compare outcome of experiential student-centered learning method versus classroom lecturer-centered learning method applied during physical conditioning related short course. Research Methodology: Thirty-five participants recruited for the purpose of the study. Participants were divided into two groups (experiential and classroom). Both groups participated in a course focusing on basic concepts of strength training basics exercise techniques. Pre and post learning assessment using squat's Movement Competency Screening (MCS) were conducted to determine learning outcome, based on ability to perform the movement appropriately. Results were compared statistically to serve the objectives of the study. Outcome: Result of this study indicated that no significant changes existed between pre and post learning process in both experiential and classroom approaches. Future Studies: Other variables that should be tested in the future may be the duration of actual practices effect on improving technical skills capabilities, as it seems learning alone without sufficient practice time will not improve technical skills capabilities. Impact: At this stage, it can safely be said that strength and conditioning educators can use both learning methods, but more practice time need to be allocated, even outside the learning sessions to assist mastery</p>

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275.	<p>Authors: N Sai Vaibhav, D Haritha</p> <p>Paper Title: Volatile Memory Acquisition and Extracting of Data Using Volatility Framework and Web GUI Application</p> <p>Abstract: Volatile memory plays a major role in live memory investigation, for the analysis of volatile memory, most of the investigators use Volatility Framework. In this paper, we are going to present how to extract the RAM memory from the suspected systems also preserving it using data acquisition tools and a Web GUI application using Volatility Framework. It also displays the extracted data as tables in the web page. It creates an easy approach for the investigators to do analysis by extracting the information from the volatile memory and also exporting that information as SQLite tables.</p> <p>Keywords: Digital Forensics; Volatile memory; Non-Volatile; RAM Dump; Artifact; Acquisition.</p> <p>References:</p> <ol style="list-style-type: none"> Periyadi1, Giva Andriana Mutiara1, Roni Wijaya1 (2017) "Digital Forensics Random Access Memory Using Live Technique Based on Network Attacked" ISBN: 978-1-5090-4911-0 (c) 2017 IEEE Steffen Logen, Hans Höfken, Marko Schuba "Simplifying RAM Forensics A GUI and Extensions for the Volatility Framework" Mary Geddes, Dr Pooneh Bagheri Zadeh "Forensic Analysis of Private Browsing" K. Hausknecht, D. Foit, J. Burić; MIPRO (2015) "RAM data significance in Digital Forensics" Matthew Simon Defence and Systems Institute (DASI) (2010) "Recovery of Skype Application Activity Data From Physical Memory" Jaina J ER&DC Institute of Technology, (2015) "Extracting Network Connections from Windows 7 64-bit Physical Memory" ISBN: 978-1-4799-7849-6/15/\$31. 00 ©2015 IEEE Khaleque Md Aashiq Kamal, Mahmoud Alfadel and Munawara Saiyara Munia (2016) "Memory Forensics Tools: Comparing Processing Time and Left Artifacts on Volatile Memory" ISBN: 978-1-5090-5769-6/16/\$31.00 ©2016 IEEE Charl Meyers, Adeyemi R. Ikuesan, Hein S. Venter (2017) "Automated RAM analysis mechanism for Windows Operating System for Digital Investigation" ISBN: 978-1-5386-0725-1/17/\$31.00 ©2017 IEEE Ranul Thantilage, Neera Jeyamohan (2017) "A Volatile Memory Analysis Tool for Retrieval of Social Media Evidence in Windows 10 OS based Workstations" 978-1-5386-2425-8/17/\$31.00 ©2017 IEEE Sunu Thomas, Sherly K.K, Dija S (2013) "Extraction of Memory Forensic artifacts from Windows 7 RAM Image" ISBN: 978-1-4673-5758-6/13/\$31.00 © 2013 IEEE Online "Volatility Framework" github Online "DATAINSIDER "What Are Memory Forensics? A Definition of Memory Forensics" Online "Volatility Framework – Volatile memory extraction utility framework" Online "Windows Memory Analysis with Volatility" Online "LiME – Linux Memory Extractor" github Online "SANS Digital Forensics and Incident Response Blog" SANS DFIR Online "Live Forensic Acquisition From Mac Computers" Online "Volatility profiles for Linux and Mac OS X" github Book "Practical Digital Forensics" by Richard Boddington. 	1487-1489
	<p>Authors: Revathi G, S.Venkatakrishnan</p> <p>Paper Title: Designing Optimal Network Topologies with Numerous Robustness and Efficiency Constraints</p> <p>Abstract: The configuration may be a important drawback in numerous applications, such as: distributed info systems, offer networks, content delivery networks and network-centric warfare. The wants of optimality vary with the aim that a network is constructed. Further, there are conflicting optimality needs inside a network that require to be balanced. The operational objective of network style is to reduce the cost of communication• during a network, i.e. to maximise network potency. However, potency should be achieved below many constraints. The shortage of reliabilities on a part of machines and links poses problems with resilience (or robustness) of the network within the face of failures. Since nodes and links will fail, it would be necessary to possess alternate communication ways between pairs of nodes. The amount of links that represent a network poses infrastructure and maintenance prices. Associate in asymmetry spatiality within the distribution of links across nodes poses</p>	

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problems with load equalization and congestion. Congestion successively will cause high latency, loss of network information and low accessibility, so reducing the performance of a network. In this thesis, we tend to address the type of network style issues below multiple constraints as delineate on top of. We tend to model the matter of network style for various design metrics and trade-offs. Each combination of metrics corresponds to performance needs of a category of networks. Further, inside a category of networks, the relative stress on improvement parameters may vary across specific deployments. we tend to use 3 crucial system parameters, efficiency, robustness and value to model performance needs. 2 application dependent setting variables are accustomed vary the relative importance between the on top of parameters. Employing a genetic formula method referred to as topology breeding, we tend to evolve optimum topologies below totally different environmental conditions. In this paper, we used enhanced circular list to reduce the cost and increase the efficiency of the network communication.

1490-1494

Keywords: Communication, Networks, Nodes, Optimality.

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Paper Title: Optimization Algorithm Based Image Enhancement Technique Using DWT-SVD

Abstract: Image Enhancement plays a vital role in digital image processing. In this proposed method of image enhancement based on DWT-SVD, another quality improving parameter is added to improve the overall quality of the enhanced image . This quality factor depends upon the optimized algorithm to be used. The purpose of introducing the quality factor is to reduce the losses introduced by the DWT operation during image enhancement. The experimental results of the proposed method performance will be shown in terms of PSNR, MSE, Mean and Standard Deviation over conventional and state-of-the-art techniques.

Keywords: Image Enhancement Techniques, Optimization algorithm, DWT-SVD.

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3. Cuckoo search algorithm based satellite image contrast and brightness enhancement using DWT-SVD, A.K.Bhandari , V.Soni , A.Kumar , G.K.Singh.
4. Artificial Bee Colony-based satellite image contrast and brightness enhancement technique using DWT-SVD, Ashish Kumar Bhandari, Vivek Soni, Anil Kumar & Girish Kumar Singh.
5. Image enhancement using Wavelet transforms and SVD, Ganesh naga sai Prasad , Habibullah khan, ,Bhavana.k ,Muralidhar.Ch ,Tulasi sai kiran.Ch.
6. Satellite Image Resolution Enhancement Using Dual-Tree Complex Wavelet Transform and Nonlocal Means, Muhammad Zafar Iqbal, Abdul Ghafoor, and Adil Masood Siddiqui.
7. Enhancement of Color Images by Scaling the DCT Coefficients Jayanta Mukherjee, Senior Member, IEEE, and Sanjit K. Mitra, Life Fellow, IEEE.
8. Image Denoising Using Bivariate Stable Distributions in the Complex Wavelet Domain, Alin Achim, Member, IEEE, and Ercan E. Kuruo˘glu, Member, IEEE.
9. Dark satellite image enhancement using knee transfer function and gamma correction based on DWT-SVD, A. K. Bhandari , Anil Kumar , G. K. Singh ,Vivek Soni.
10. Brightness preserving based on singular value decomposition for image contrast enhancement Randa Atta, Rabab Farouk Abdel-Kader.
11. Contrast Enhancement-Based Forensics in Digital Images, Gang Cao, Yao Zhao, Senior Member, IEEE, Rongrong Ni, Member, IEEE,

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278.	<p>Authors: Quosain Jawhar, Khushal Thakur, Kiran Jot Singh</p> <p>Paper Title: An Efficient Clustering Algorithm for Big Data Gathering in Large Scale Wireless Sensor Networks (LS-WSNs)</p> <p>Abstract: The tremendous development in communication technology has led to the rise of a new topic called Big Data. Large Scale Wireless Sensor Network (LS-WSN) is one of the key contributors to big data that produce a remarkable amount of data. Data collection pose a number of challenges to Wireless Sensor Networks (WSNs). To overcome these challenges various energy efficient routing algorithms are proposed. An energy efficient algorithm is proposed in this paper for LS-WSNs. The establishment of clustering communication is based on the remaining energy of sensor nodes and distance among them. In the proposed technique, network lifetime is evaluated and enhanced. Utilizing the concept of density-based clustering communication, network lifetime is enhanced and hence minimized energy consumption. Simulation results indicate that the proposed approach enhanced the network lifetime and can be a useful approach for WSNs in military applications. The efficacy of proposed technique is demonstrated via experimental results in terms of network lifetime acquired in MATLAB.</p> <p>Keywords: Wireless Sensor Networks (WSNs), Big Data, Energy Efficiency, Clustering, Network Lifetime.</p> <p>References:</p> <ol style="list-style-type: none"> IBM, “Four vendor views on Big Data and big data analytics: IBM,” http://www-01.ibm.com/software/in/data/bigdata/, Jan. 2012. A. Divyakant, B. Philip, and et al., “Challenges and opportunities with Big Data,” 2012, a community white paper developed by leading researchers across the United States. [Online]. 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Paper Title:

Booth Algorithm for the Design of Multiplier

Abstract: Most commonly used operation in many electronic and computing systems is multiplication operation. In order to meet the challenges that occur from advanced technology low power consumption is one of the important features in order to meet the various applications. Among the arithmetic operations the multiplication is one of the important operation that act as a basic operation to be used in every circuit to get efficient than other operations. Out the different types of multipliers the booth multiplier is one of the standard technique that allows a smaller, circuits to operate with fast and quick multiplication by using encoding techniques to the signed numbers of 2's complement. This standard technique is mostly used for the designing of the chip for any application and then provide improvements that are required to reduce the number of the partial products to half. The "Complex multiplication" techniques. In this way the booth multiplier can be able to reduce the number of iteration steps for performing the multiplication. When we consider the number of partial products of other conventional multiplier the booth multiplier can get less number of partial products. The main goal of any VLSI projects is to perform operations with high speed, low power consumption and also less area. Among the three features the speed is one of the most important factor that plays a vital role for every application. So, if we consider the process of algorithm for booth multiplier it generally consists of two basic steps which are generation and addition of partial products. The multiplier speed depends on the fastness of the partial products generated and how fast the addition is done by the multiplier. In this paper different techniques and algorithms are used for the design of the booth multiplier in order to get less consumption and less area to be consumed. Also focused on the improvement of speed of the multiplier and to reduce the delay.

Keywords: Signed numbers, Booth multiplier, speed.

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Paper Title:

A Firefly Approach to Collaborative Filtering based Recommender Systems through Fuzzy Features

Abstract: Recommender system (RS) is most important methods which offer the recommendation to the online user with ease to make his right decisions on items or services. The User-based Collaborative Filtering (CF) technique is one of mainly important method amongst various recommender systems.Collaborative Filtering (CF) approaches are either model-based/ memory-based. While the previous is more precise, it's not flexible in compare of model-based approach. Here we proposed a hybrid fuzzy-firefly method to RS, which maintain the precision of memory considered as CF & scalability of model considered as CF. Utilizing the hybrid characteristics, new user model (UM) has been created, which assisted in reaching vital reduction in system difficulty, sparse & create the grip of neighbour transitivity association. UM is working to discovery group of compatible clients in which a memory-based hunt is performed. Experimental results on Movie Lens dataset shows that proposed method not only improves recommendation accuracy significantly but also increases quality of prediction and recommendation performance.

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	<p>Authors: Ruchika Saini, Venkatadri Marriboyina, Sanjay Sood</p> <p>Paper Title: A Novel Dashboard Framework To Enhance Patient Outcome In Health Informatics</p>	
281.	<p>Abstract: The advancements in Information Technology and proliferation of robust data collection devices gathers enormous amount of data in Healthcare Informatics through Electronic Health Records, online patient portals and other mobile medical gadgets. The Healthcare informatics gains the momentum by a well-deserved attention and aimed to gain the insights from the data that is gathered, managed to interpret for the well-being of improvised patient outcome. The process of transformation of data into meaningful insights will help healthcare provider organizations and policy makers to make better decisions.Hence, this paper focuses on the design and development of an intuitive novel dashboard framework for effective decision driven health system to monitor, measure and improve the patient outcome. Section 1 of this paper introduces Health, Health care systems along with technology advancements towards patient care and analytics. Section 2, role of Dashboards in Health Informatics and section 3 provides the novel framework to enhance the patient outcome in Health Informatics and their results analysis.</p> <p>Keywords: data analytics, dashboard, healthcare providers, Key Performance Indicators (KPIs).</p> <p>References:</p> <ol style="list-style-type: none"> 1. Beat A. Schwendimann 1, Mar’ia Jes’us Rodr’iguez-Triana2, Andrii Vozniuk2, Luis P. Prieto1, Mina Shirvani Boroujeni1, Adrian Holzer2, Denis Gillet2 and Pierre Dillenbourg1, Understanding learning at a glance: An overview of learning dashboard studies 2. Fatemeh Rajabi, Evidence-informed Health Policy Making: The Role of Policy Brief 3. Marjan Ghazisaeidi, Reza Safdari, Mashallah Torabi, Mahboobeh Mirzaee, Jebrail Farzi, and Azadeh Goodini, Development of Performance Dashboards in Healthcare Sector: Key Practical Issues, Published online 2015 Oct 5. doi: 10.5455/aim.2015.23.317-321 4. pressbooks.com/chapter/3-introducing-the-key-stakeholders-patients-providers-payors-and policymakers-the-four-ps Book - CONNECTING HEALTH INFORMATION SYSTEMS FOR BETTER HEALTH 5. Mr. Ninaad Nirgudkar, Ms. Pooja Singh, The MEAN Stack, International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395 -0056, Volume: 04 Issue: 05 May -2017 6. http://www.b-eye-network.com/view/13334 7. Dr. Asya Al-Riyami, Health Researchers and Policy Makers: A Need to Strengthen Relationship 8. Yichuan Wang, LeeAnn Kung, Terry Anthony Byrd, Big data analytics: Understanding its capabilities and potential benefits for healthcare organizations, Technological Forecasting & Social Change 126 (2018) 3–13 9. IEEE Transactions On Visualization And Computer Graphics, Vol. 25, No. 1, January 2019 What Do We Talk About When We Talk About Dashboards? Alper Sarikaya, Michael Correll, Lyn Bartram, Melanie Tory, and Danyel Fisher 10. Hindawi Publishing Corporation, BioMed Research International, Volume 2015, Article ID 370194, 16 pages http://dx.doi.org/10.1155/2015/370194, Big Data Analytics in Healthcare, Ashwin Belle, Raghuram Thiagarajan, S. M. Reza 	1515-1519

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Authors: Piyush Kumar Ojha, P. R. Thakura

Paper Title: Single Phase Single Stage Boost Inverter for Hybrid Electric Vehicles

Abstract: Hybrid Electric vehicles are the key sector in vehicle industries owing to zero emission, and fuel optimization. Power electronic converters plays essential role in electric vehicles to improve efficiency and meet the desired performance characteristics. Boost inverters may be utilized as power electronics converters in electric vehicles. This inverter is a single stage DC –AC converter with voltage boosting ability also. It has major merits of compact size, less weight, less volume, high efficiency, etc. as compared with the double stage conventional converter. This paper presents the experimental as well as simulation analysis of single phase single stage boost inverter with resistive load .It is proved that desired voltage, current waveforms with suitable values has been achieved, also various performance parameters has been evaluated and good results are achieved.

Keywords: Boost Converter,Boost Inverter,Hybrid Electric Vehicles,THD.

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	Authors: Y N V Mani Sandeep Kumar, R. Leela Prakash, A. Siva Durga Mahesh, A. Aditya, T. Ram Ganesh	
	Paper Title: Experimental Investigation on Performance of a Compression Ignition Engine Fuelled With Linseed and Rice Bran Methyl Esters	
	Abstract: Increase in depletion of fossil fuels and increase in environmental consciousness leads industry to evolve alternative energy sources. Biodiesel is one among such evolutions. Alternate fuels are acceptable as they shows the characteristics that are nearly equal to the Petroleum products. In this study Linseed oil and Rice Bran oil is used for the production of biodiesel. These oils are edible and serves as the potential alternatives since consists the properties like density, calorific value, volatility etc. similar to the diesel properties up on some chemical processing Transesterification. Here these oils are Transesterified and made it as a biodiesel and blended with diesel in various proportions like B5, B10, B20, B30. Where B5 represents that the blend consists of 5% biodiesel and 95% diesel. Here the Linseed oil and Rice bran oil is available in larger quantity and these oils are trans-esterified and then blended with diesel. In the process of Transesterification the oil is processed with chemical agents and removal of glycerol from it leaving alkyl esters where this can be used as a biodiesel. The blends that are made using biodiesel and diesel were tested using IC engine test rig where, it gives the performance characteristics like Brake power (BP), Brake specific fuel consumption (BSFC), Brake Thermal Efficiency (BTHE), Indicated Thermal Efficiency (ITHE), Mechanical Efficiency and volumetric efficiency etc. The performance characteristics of various Blends were compared. Upon considering results the best suitable blends were shown further in this study.	
283.	Keywords: Biodiesel, Transesterification, Linseed oil, Rice bran oil, Performance characteristics. References: 1. https://www.researchgate.net/publication/322776883_petroleum_diesel_fuel_and_linseed_oil_mixtures_as_engine_fuels . 2. http://www.sciencelab.com/msds.php?msdsid=9924500 . 3. Technologic papers of the bureau of standards by s. w. straton no: 9 density and thermal expansion of linseed oil and turpentine. 4. International journal of mechanical engineering and technology (IJMET) volume 9, issue 4, April 2018, pp. 275–283, article id: ijmet_09_04_032 available online at http://www.iaeme.com/ijmet/issues.asp?jtype=ijmet&vtype=9&itype=4 5. ISSN print: 0976-6340 and ISSN online: 0976-6359. 6. International journal of mechanical engineering and technology (IJMET) volume 8, issue 11, November 2017, pp. 147–155, article id: ijmet_08_11_017 7. http://www.iaeme.com/ijmet/issues.asp?jtype=ijmet&vtype=9&itype=4 . ISSN print: 0976-6340 and ISSN online: 0976-6359.	1528-1533
	Authors: C.G. Rithick , V.R. Prasath kumar	
	Paper Title: Factors Causing Non-Compliance In Construction Site	
	Abstract: Construction is a complex process which involves integrating and sequencing at different stages of the project. Lean is a systematic method used for controlling the waste generated and help in providing an increase in productivity. Lean method can be adopted in the construction. Lean methodology adds worth by reducing the nonvalue adding this management philosophy was used by Toyota production system. This project tends to aim at eliminating the non-compliances occurring in site by using the lean as a tool, where this can be adopted for future projects. The work sampling and the non-compliance data are collected from site this helps in understanding the factors influencing the non-compliance questionnaire is prepared based up on the non-compliance report it is analyzed using the statistical package for social science version (21.0). This attest to the factors that influence the non-compliance. As a constructive approach to eliminate the non-compliance value stream mapping is adopted in which current and future state mapping is done.	
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Authors: Subhranshu Shekhar Padhee , Anil Arora

Paper Title: Verification of Analog & Mixed Signal Ips Using Sv-Uvm Methodology

Abstract: UVM Based methodology (UVM) is one of the broadly utilized check system to upgrade the confirmation nature of Simple and Complex IPs Configuration so as to accelerate the check procedure. A check situation to confirm the usefulness of IP by utilizing Framework in System Verilog - UVM based methodology. Simulator used to check the Complex IPs was Cadence Incisive. With the proper test plan and verification plan verification of IPs became easier. Analog and mixed signal IP structure are among the fastest developing need and market demand. Most frameworks on-chip (SoC) plans today are complex and mixed signal .The main goal of this project is to Verify the Functionality of Analog IPs like LDOs and the Functional Coverage.

Keywords: Universal Verification Methodology, LDOs, Self-Checking Test bench.

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Authors: Omkar S. Vaidya, Ravindra Patil, Gayatri M. Phade, Sanjay T. Gandhe

Paper Title: Embedded Vision Based Cost Effective Tele-operating Smart Robot

Abstract: In twenty-first century, robots have taken an important place not only in daily human life but also in different working fields. The computer vision has come to be an extensive area of research for real-time visual applications by connecting with an embedded system. The system is considered to be fine only when it is cost effective and have a good accuracy. Todays in score of fields require smart detection and recognition of objects, collect information from surroundings and perform different tasks such as security system, vehicle surveillance navigation, autonomous robot navigation etc. This paper represents a cost effective robot which is able to recognize different faces, speak their identities using python TTS and track the human smartly with obstacle avoidance feature in real-time. Here OpenCV library for performing different imaging operations and python language at its backend with multi-threading concept is used. Sensors are used to read surrounding parameters and the Wi-Fi (Wireless Fidelity) is the wireless medium to control robot from remote location via android mobile phone by the user. Alexa voice service is used which actually gave liveliness to the robot and is the great experience of intercommunication and joyful task.

Keywords: Embedded Vision, Face Recognition, Human Tracking, Python TTS.

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287.	<p>Authors: Jayeeta Majumder, Arunangshu Giri, Sourav Gangopadhyay</p> <p>Paper Title: Factors Affecting Work Life Balance of Employees in Indian Manufacturing Companies: An Empirical Analysis Using Structural Equation Modeling (SEM)</p> <p>Abstract: Work Life Balance has emerged as an important and significant aspect in present organizational environment. For balancing personal and professional life, organization should implement some strategies that can resolve the issues related to work-stress, workplace conflict, employee commitment, employee retention, job satisfaction, etc. In this study, secondary data has been used to create a hypothesized model depicting the influencing factors behind work-life balance and primary data has been used to support the model. The responses of 484 employees were collected from 5 types of manufacturing companies (Industrial and Commercial Machinery Industry, Electronic & Electrical Equipment Industry, Petroleum Refining & Chemical Industry, Food & Beverage Industry and Textile & Apparel Companies) in India. This study focuses the critical factors (Organizational Facility, Familial Positive Interference, Employee's Mental Strength) having impact on work life balance and job satisfaction. Exploratory Factor Analysis (EFA) and Structural Equation Modelling (SEM) using SPSS and AMOS Software have been used here. Also it investigates the issues and challenges regarding work life balance in manufacturing companies.</p> <p>Keywords: Work life balance, Organizational Facility, Familial Positive Interference, Employee's Mental Strength, Manufacturing Companies.</p> <p>References:</p> <ol style="list-style-type: none"> Ashwini, J. & Varma, A. J. (2016). A Study of Review of Literature on QWL—Manufacturing Sector. IOSR Journal of Business and Management (IOSR-JBM). 18(7). pp 93-97. Burke, R. J. & Greenglass, E. R. (1999). Work–family conflict, spouse support, and nursing staff well-being during organizational restructuring. Journal of Occupational Health Psychology. 4(4). pp 327-336. Clark, S. C. (2000). Work/Family Border Theory: A New Theory of Work/Family Balance. Human Relations. 53(6). pp 747-770. Ganiyu, I. O., Fields, Z., & Atiku, S. O. (2018). Work-Family Stressors and Manufacturing Firms Performance: Influence of Work-Life Balance Strategies. The Journal of Accounting and Management. 7(3). Greder, K.A.; Peng, C.; Doudna, K.D., & Sarver, S.L. (2017). Role of family stressors on rural low-income children's behaviors. Child & Youth Care Forum. 46(5). pp 703-720. Hian, C. C. & Einstein, W. O. (1990) Quality of work life (QWL): What can unions do? S.A.M. Advanced Management Journal. 55(2). pp 17-22. Kanwar, Y. P. S., Singh, A. K. & Kodwani, A. D. (2009). Work—Life Balance and Burnout as Predictors of Job Satisfaction in the IT-ITES Industry. Vision. 13(2). pp 1-12. Karpagham, C. & Magesh, R. (2017). Work Life Balance of Employees Working in Organized Manufacturing Sector: A Study with specific reference to Chennai, Tamil Nadu, and India. Asian Journal of Research in Social Sciences and Humanities. 7(2). pp 919-935. Kreiner, G. E., Hollensbe, E. C. & Sheep, M. L. (2009). Balancing borders and bridges: Negotiating the work-home interface via boundary work tactics. Academy of Management Journal. 52(4). pp 704-730. Machuca, M., Berbegal, J. & Alegre, I. (2016). Work-life balance and its relationship with organizational pride and job satisfaction. Journal of Managerial Psychology. 31(2). pp 586-602. Panda, A. & Sahoo, C. K. (2017). Impact of human resource interventions on work-life balance: a study on Indian IT sector. Industrial and Commercial Training. 49(7/8). pp 329-336. Poulose, S. & Sudarsan, N. (2017). Assessing the influence of work-life balance dimensions among nurses in the healthcare sector. Journal of Management Development. 36(3). pp 427-437. Saleem, A., & Abbasi, A. S. (2015). Impact of Life and Job Domain Characteristics on Work Life Balance of Textile Employees in Pakistan. Science International (Lahore). 27(3). pp 2409-2416. Scholarios, D. & Marks, A. (2004). Work-life balance and the software worker. Human Resource Management Journal. 14(2). pp 54-74. Whaley, C. J., Morrison, D. L., Payne, R. L., Fritschi, L. & Wall, T. D. (2005). Chronicity of Psychological Strain in Occupational Settings and the Accuracy of the General Health Questionnaire. Journal of Occupational Health Psychology. 10(4). pp 310-319. 	1551-1555
	Authors: Ramesh Balasubramaniam, K. Nandhini	

	<p>Paper Title: Faster Query Response for Streaming Data using Probabilistic Data Storage Model</p> <p>Abstract: Instead of focusing on making programmable changes for faster query response time our focus is on how the data is stored. In Streaming data, an efficient way to speed up delivery of results is by storing data compactly using a compressed data storage model that will be beneficial in providing real-time analytics. In this paper, a data storage model named PDSM is presented, using Probabilistic data structures which provides answers to real-time queries on data streams. PDSM is a Probabilistic Data Storage Model that stores streaming data using hash functions as the primary data mapping method for incoming stream elements. Hash functions map a data set of arbitrary size to a data set of a fixed size. So regardless of source dataset size, the PDSM has a smaller fixed storage size which proves beneficial as a storage model. PDSM uses sketches (Count-min probabilistic data structure) to record the frequency of streaming data element occurrences and filtering (Bloom Filter probabilistic data structure) to check membership of elements in a stream. PDSM is used to answer most sought-after queries, this way reducing query time on the most frequent questions. As PDSM uses Probabilistic data structures the accuracy of output results is an estimate and not 100% accurate. However, in streaming data, this is not a critical factor as all data elements in the stream are not required data, and a probabilistic estimate is a close enough answer to the query. Since storage used is minimal, this paper provides PDSM as a positive solution to faster query response time for streaming data and storage of big static datasets.</p> <p>Keywords: Faster Query Response, Hashing, Little Memory, Probabilistic data Structures, Sketching.</p>	
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	<p>Authors: MohdQadafie Ibrahim, Fairuz IzzuddinRomli, Hassan Alli</p> <p>Paper Title: An Investigation on Aesthetic Acknowledgment and Adaptation in Product Design Process among Engineering Students in Malaysian Universities</p> <p>Abstract: An ongoing issue in product design is the argument between form and function, which corresponds to the preference between the consideration of aesthetic appraisal of product shape variations and the product's utilitarian functions. Product design is an essential element in both engineering and industrial design programs but, as demonstrated by the comparison of the practices in both programs, they have very different approach of the design process. Engineering programs often emphasize more on the functional aspects during designing of a product and the aesthetic considerations are typically neglected. The primary focus of this study is to evaluate the capability of engineering students to recognize aesthetic element as product stimuli. To achieve this goal, a survey is conducted among engineering students in Malaysian universities. From the obtained survey responses, it has been concluded that most of the surveyed engineering students are able to recognise and appreciate aesthetically designed product. It is also found that they have a balanced knowledge on product design process, both aesthetically and functionally. However, as admitted by most of the respondents, aesthetic element is not being implemented during their product design process. In future research, it would be worthwhile to investigate why there is a lack of and how to encourage adaptation of aesthetic element during the product design process among engineering students.</p> <p>Keywords: Product Design, Aesthetics Element, Design Process, Design Thinking, Industrial Design Engineering.</p> <p>References:</p> <ol style="list-style-type: none"> 1. L. Sullivan, Autobiography of an Idea. New York: Dover Publications, 1956. 2. M. Baxter, Product Design. London: CRC Press, 1995. 3. P. Bloch, "Seeking the Ideal Form: Product Design and Consumer Response," J. Mark., vol. 59, no. 3, 1995. 4. H. Jiang, Understanding Senior Design Students' Product Conceptual Design Activities: A Comparison between Industrial and Engineering Design Students. PhD Thesis, National University of Singapore, Singapore, 2012. 5. G. Rasoulifar, C. Eckert and G. Prudhomme, "Supporting Communication between Product Designers and Engineering Designers in the Design Process of Branded Products: A Comparison of Three Approaches," International Journal of CoCreation in Design and the Arts, vol. 10, no. 2, pp. 135–152, 2014. 	1561-1565

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Authors:	P. Malin Bruntha, S. Dhanasekar, J. Grace Jency, S. Immanuel Alex Pandian, Prashant S Pillai, Steven Pramod T, Vaibhav Malani
Paper Title:	Performance Analysis of Certain Classifiers for Liver CT Images

Abstract: Liver is the largest internal organ and is vital for the human body's survival. It is prone to many diseases such as Liver tumor, Fibrosis, etc. In order to know the condition of the liver, the most commonly preferred method is biopsy. But since it is a very complex and complicated procedure it is being replaced by computer-aided diagnosis (CAD) where the liver is classified into various types like normal, abnormal etc. In this study, we have compared the performance of the CAD systems namely six classifiers for CT image classification. The data of 26 patients was taken into consideration and their status was confirmed by a radiologist. The images were separated into normal and abnormal based on textural features and based on these features the performance of each classifier has been evaluated for the parameters such as accuracy, specificity and sensitivity. Amongst all the classifiers we found out that the best results were obtained for k-NN with accuracy of 88.5%.

Keywords: CAD, k-NN, SVM, Textural features.

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Authors: **P. Malin Bruntha, S. Dhanasekar, K. Martin Sagayam, S. Immanuel Alex Pandian**

Paper Title: **A Modified Approach for Face Recognition using PSO and ABC Optimization**

Abstract: Face Recognition (FR) has established noteworthy attention in the recent years due to its wide applications in various fields. FR technology uses image processing algorithms for comparing and verifying the human faces. This paper proposes a FR system which employs a novel mixture of Fast Fourier Transform (FFT), Discrete Cosine Transform (DCT) and Swarm Intelligence (SI). FFT and DCT help in extracting the features efficiently. PSO and ABC are used for feature selection that finds the best solution for a given problem. Many hybrid approaches are used to overcome its weakness and more over fit for various applications. The usage of transformation techniques helps in reducing image information redundancy. Experimental results show that there is a notable reduction in the number of features and a considerable increase in the recognition rate.

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Keywords: ABC, DCT, FFT, PSO, Swarm Intelligence.

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Authors: P. Chinni Krishna, M. Venkateswara Rao, V. Ramesh Reddy

Paper Title: An IoT Based Fish Health Monitoring System In Aquaculture Farming

Abstract: The proposed work is an implanted framework for Programmed Wellbeing observing of fish cultivating. And also animals like shellfish and crabs by utilizing the different sensors to decrease the dangers. In existing works a message is send to farmer saying that requirement of water and other parameter violations and he/she used to check motor and on (or) off the motor and other parameters but now we proposed work bolsters remote observing of the fish cultivating framework dependent on Internet of Things (IOT) having Arduino Uno board and Wireless sensor network (WSN) for continuous monitoring of a fish cultivation and analysing in "Think speak" an IOT based platform and alternate sources like E-mail messages, Notifications on smart phone through applications are programmed with Arduino IDE. Goal of this original copy is to give a programmed fish cultivating observing framework accordingly sparing time, cash and intensity of the rancher and it provides alerts messages when it needed a user intervention. IOT innovations have altered ranch generation in the nation. In the fish cultivating process we utilize different sensors like pH esteem, temperature and level sensors. By utilizing these sensors all the work is mechanized and it will likewise be anything but difficult to screen the fish cultivating remotely from other area.

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Keywords: Aquaculture, Arduino Uno, Wireless sensor network (WSN), Think speak.

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4. Underwater Live Fish Recognition Using a Balance-Guaranteed Optimized Tree Phoenix X. Huang, Bastiaan J. Boom, and Robert B. Fisher
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9. Automatic Feeding Control for DenseAquaculture Fish Tanks Yousef Atoum, Steven Srivastava, and Xiaoming Liu, Member, IEEE
10. Automated Monitoring System for the Fish Farm Aquaculture Environment Jui-Ho Chen, Wen-Tsai Sung and Guo-Yan Lin.

Authors: N.Srinivasu, B.Yashaswi

Paper Title: Dynamic User Management For Secure Cloud DeDuplication Using Enhanced Checksum Approach

Abstract: Users can store their files in cloud and share data to different peoples via distributed storage systems. Duplication is the new issue in storage of multiple files with same content in distributed manner. Security related data storage is also a major concept in real world data storage in cloud environment. Traditionally different types of security related data de-duplicate approaches were introduced to detect duplicates in outsourced cloud data. But all these approaches are not supported for content based data check for duplications in cloud storage. So that in this paper, we propose Data Signature Approach (DSA) based on check sum with hashing. Hash based check sum approach worked with multiple data deduplication files based on content with different chunks while check duplicates with genetic programming (GP) features. Our approach also consist basic Secure Hash Algorithm to check duplicate chunks with hash signatures for each file with three basic component present in proposed approach. Experimental results of proposed approach with different parameters like chunk connections, time and other parameters for real time cloud based distributed environment.

<p>Keywords: Secure Cloud Deduplication, user management system, hash check sum.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Dropbox, http://www.dropbox.com/. 2. Wuala, http://www.wuala.com/. 3. Mozy, http://www.mozy.com/. 4. Google Drive, http://drive.google.com. 5. D. T. Meyer, and W. J. Bolo sky, "A study of practical deduplication," Proc. USENIX Conference on File and Storage Technologies 2011, 2011. 6. M. Dutch, "Understanding data deduplication ratios," SNIA Data Management Forum, 2008. 7. W. K. Ng, W. Wen, and H. Zhu, "Private data deduplication protocols in cloud storage," Proc. ACM SAC'12, 2012. 8. M. W. Storer, K. Greenan, D. D. E. Long, and E. L. Miller, "Secure data deduplication," Proc. StorageSS'08, 2008. 9. N. Baracaldo, E. Androulaki, J. Glider, A. Sorniotti, "Reconciling end-to-end confidentiality and data reduction in cloud storage," Proc. ACM Workshop on Cloud Computing Security, pp. 21–32, 2014. 10. P. S. S. Council, "PCI SSC data security standards overview," 2013. 11. D. Harnik, B. Pinkas, and A. Shulman-Peleg, "Side channels in cloud services, the case of deduplication in cloud storage," IEEE Security & Privacy, vol. 8, no. 6, pp. 40–47, 2010. 12. C. Wang, Z. Qin, J. Peng, and J. Wang, "A novel encryption scheme for data deduplication system," Proc. International Conference on Communications, Circuits and Systems (ICCCAS), pp. 265–269, 2010. 13. Malicious insider attacks to rise,http://news.bbc.co.uk/2/hi/7875904.stm. 14. Data theft linked to ex-employees, http://www.theaustralian.com.au/australian-it/databreathlinked-to-ex-employees/story-e6frgakx-1226572351953 15. J. R. Douceur, A. Adya, W. J. Bolosky, D. Simon, and M. Theimer, "Reclaiming space from duplicate files in a serverless distributed file system," Proc. International Conference on Distributed Computing Systems (ICDCS), pp. 617–624, 2002. 16. P. Anderson, L. Zhang, "Fast and secure laptop backups with encrypted de-duplication," Proc. USENIX LISA, 2010. 17. Z. Wilcox-O'Hearn, B. Warner, "Tahoe: the least-authority filesystem," Proc. ACM StorageSS, 2008. 18. A. Rahumed, H. C. H. Chen, Y. Tang, P. P. C. Lee, J. C. S. Lui, "A secure cloud backup system with assured deletion and version control," Proc. International Workshop on Security in Cloud Computing, 2011. 19. J. Xu, E. Chang, and J. Zhou, "Leakage-resilient client-side deduplication of encrypted data in cloud storage," ePrint, IACR, http://eprint.iacr.org/2011/538. 20. M. Bellare, S. Keelveedhi, and T. Ristenpart, "Message-locked encryption and secure deduplication," Proc. Eurocrypt 2013, LNCS 7881, pp. 296–312, 2013. Cryptology ePrint Archive, Report 2012/631, 2012. 21. S. Halevi, D. Harnik, B. Pinkas, and A. Shulman-Peleg, "Proofs of ownership in remote storage systems," Proc. ACM Conference on Computer and Communications Security, pp. 491–500, 2011. 22. M. Mulazzani, S. Schrittwieser, M. Leithner, and M. Huber, "Dark clouds on the horizon: using cloud storage as attack vector and online slack space," Proc. USENIX Conference on Security, 2011. 23. A. Juels, and B. S. Kaliski, "PORs: Proofs of retrievability for large files," Proc. ACM Conference on Computer and Communications Security, pp. 584–597, 2007. 24. G. Ateniese, R. C. Burns, R. Curtmola, J. Herring, L. Kissner, Z. Peterson, and D. Song, "Provable data possession at untrusted stores," Proc. ACM Conference on Computer and Communications Security, pp. 598–609, 2007. 25. J. Li, X. Chen, M. Li, J. Li, P. Lee, and W. Lou, "Secure deduplication with efficient and reliable convergent key management," IEEE Transactions on Parallel and Distributed Systems, Vol. 25, No. 6, 2014. 26. G.R. Blakley, and C. Meadows, "Security of Ramp schemes," Proc. CRYPTO 1985, pp. 242–268, 1985. 27. J. Li, Y. K. Li, X. Chen, P. Lee, and W. Lou, "A hybrid cloud approach for secure authorized deduplication," IEEE Transactions on Parallel and Distributed Systems, Vol. 26, No.5, pp. 1206–1216, 2015. 	1585-1588
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294.	<p>Authors: B. Murali Krishna, M. Lakshmana Kumar, M. Tanmayee, Ch. Anantha Krishna, P. Rahul Sai Charan</p> <p>Paper Title: FPGA Based Coin Recognition System</p> <p>Abstract: Coins are most widely used in regular day to day existence at different places like in banks, markets, general stores, weight machines, vending machines, and hundis in temples. People used to count the coins manually before the arrival of coin recognizing and counting systems. It takes a lot of time and may lead to errors. So, it is necessary to develop automatic coin recognition and counting systems. These systems are already available in other countries. Unlike other countries, it is difficult to detect coins in India due to variability in the coin features for same denomination. In this paper, an FPGA (Field Programmable Gate Array) based coin processing is done along with recognition and counting. OV7670 camera is interfaced with Basys 3 FPGA. A HDL code is developed for interfacing camera. The advantage of FPGA is that it provides high processing performance, flexibility and low development cost. Due to reconfigurable feature of FPGA, high resolution cameras like 2MP, 5MP can be interfaced to detect the objects with high resolution.</p> <p>Keywords: Coin, FPGA, Image processing, Verilog HDL.</p> <p>References:</p> <ol style="list-style-type: none"> 1. U. Tajane, M. Patil, S. Shahane, A. Dhulekar, Dr. S. T. Gandhe, Dr. G. M. Phade, "Deep Learning Based Indian Currency Coin Recognition", 2018 International Conference On Advances in Communication and Computing Technology (ICACCT). 2. Xingyu Pan, Laure Tougne, "Topology-Based Character Recognition Method for Coin Date Detection", International Journal of Computer and Information Engineering, Vol. 10, No. 10. 3. Suchika malik, Parveen Bajaj, Mukhwinder Kaur, " Coin Recognition System using Artificial Neural Network on Static Image Dataset", International Journal of Engineering Science and Computing, April 2017, Vol. 7, Issue No.4. 4. Keyur D. Joshi, Vedang D. Chauhan, and Brian W. Surgenor, "Real Time Recognition and Counting of Indian Currency Coins using Machine Vision: A preliminary Analysis", Proceedings of The Canadian Society for Mechanical Engineering International Congress

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Paper Title:	Wind Energy Conversion System and Solar Pv Integration
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Abstract: As the requirement of Electricity is growing day by day and is already over the assembly of Electricity whereas reserves of fossil-fuel are depleting, there's a powerful have to be compelled to shift for different sources that are renewable energy sources. Concerning this, AC small grids and their energy management of those renewable energy sources have gained a lot of importance that is mentioned during this system. The most objective of the planned system is making uninterrupted power supply to the load systems that are settled at isolated sites of remote and rural areas. The planned system in the main deals with implementation of Energy Management System (EMS) to AC small grid exploitation most outlet chase (MPPT) algorithmic rule [3]. An organized and multivariable EMS is arranged that utilizes a turbine and an electrical marvel cluster as manageable generators by changing the pitch point and consequently the move obligation cycles and a capacity framework comprising of batteries. In order to comprehend steady current, consistent voltage (IU) charging routine and increment the lifetime of batteries, the arranged EMS need being a ton of flexible with the capacity abridgement highlight. The arranged procedure is created as a web nonlinear model prognostic administration (NMPC) algorithmic standard upheld individual MPPTs of the framework. The complete designed system is modelled and simulated exploitation MATLAB/Simulink design. And also hardware implemented by Arduino based controlled design.

Keywords: Battery Management, Maximum Power Point Tracking (MPPT), Nonlinear Model Predictive Control (NMPC), Power Sharing, and Voltage Regulation.

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	<p>Authors: Anil Kumar Dubey, Mala Saraswat, Rishu Gupta</p> <p>Paper Title: SVC: Swear Words Violate The Honored Civilization</p>	
	<p>Abstract: Swear words are unexpected uncluttered that impact the people respect and honored society. During visit of capital of India, people were using swear words in aggressive manner to communicate with their spouse, Similar conditions was found in school where kids were using swear words while communicating. This condition motivated the author to investigate the use of swear words in Delhi as the most valuable city and capital of India. Applicability of swear words, either increase, decrease or remains constant. Researches showing the similar work in other geographical region: Australia, Indonesia for women and child impact. Author compute the violation of society through use of swear words in different period of time for two prominent metro cities of India: a) Capital creating the honored cultures society b) Showbiz city of Mumbai showing reality of society. That is why we conducted our study in these two high end society of metro cities Delhi and Mumbai.</p>	
	<p>Keywords: Civilization, impact, Swear Words, Violation, Society.</p>	
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	<p>Authors: P.Vedavalli, K.Krishnaveni, J.K.R.Sastray</p> <p>Paper Title: Securing Data Transmission Using DES For Smart Home Monitoring System</p>	
	<p>Abstract: In the modern age and digital era the data security is increasing demand. Most of the researchers and scientists around the world are discovering measures to provide data security for data transmission without any loss of data or theft of data. The whole of cryptography deals with the methods and algorithms used for the data transmission without causing any attacks on them. Her using a 56-bit keyword and 64-bit message to transmit the data from the transmitter to the receiver. In this project, the controller will take care about transmission of various devices data. The devices data should be encrypted and that data should be stored in the cloud .56-bit key is generated along with 64-bit message that will be decrypted by the authorised person In this paper, the technique for secure data transmission while maintaining the authenticity and integrity of the message. The data encryption at the transmitter and the data decryption at the receiver is done successfully and the plaintext is retrieved without any errors.</p>	
297.	<p>Keywords: IoT, Encryption, Decryption, and Cryptography.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Harshali D. Zodpe, Prakash W.Wani, "Design and Implementation of Algorithm for DES Cryptanalysis" 2012 IEEE. 2. Mrs. Mukta Sharma#, Dr. R B Garg, Professor*, Ms. Surbhi Dwivedi, "Comparative Analysis of NPN Algorithm & DES Algorithm", 2014 IEEE 3. Luminița Scripcariu1, Petre-Daniel Mătăsaru1, Felix Diaconu1, "Extended DES Algorithm to Galois Fields", 2017 IEEE 4. Wuling Ren, Zhiqian Miao "A Hybrid Encryption Algorithm Based on DES and RSA in Bluetooth Communication "2010 IEEE 5. Walid Y. Zibdeh and Mustafa M. Matalgah, " An Optimized Encryption Framework based on the Modified-DES Algorithm: A Trade-Off between Security and Throughput in Wireless Channels" 2012 IEEE 6. ZhouYingbing, LI Yongzhen, "The Design and Implementation of a Symmetric Encryption Algorithm Based on DES" 2014 IEEE 7. Iqra Hussain1, Mukesh Chandra Negi2, Nitin Pandey3" A Secure IoT-Based Power Plant Control using RSA and DES Encryption Techniques in Data Link Layer" 2017 IEEE 8. Li Jie, Lv Yuxiang, Sun Huafang, Shan Weiwei (Corresponding author), "A Power Analysis Resistant DES Cryptographic Algorithm 	1605-1608

	<p>and its Hardware Design”2012 IEEE 9. @Available https://ccm.net/contents/134-introduction-to-encryption-with-des 10. @Available https://www.iusmentis.com/technology</p>		
	<p>Authors: Manish Kumar Soni, Sandeep Singh</p> <p>Paper Title: Statistical Interpretation of Marble Dust and Alccofine for Soil Stabilization</p>		
298.	<p>Abstract: This research paper pacts about the investigational study on the stabilization of soil with marble dust and Alccofine. Soil stabilization is a procedure to serve a soil to sustain, modify or expand the execution of soil. Marble dust is made from trimming and smoothening of marble stone and is one of the industry produced waste material. Alccofine is new initiation, micro fine material of particle size much finer than other hydraulic materials like cement, flyash, silica etc. being manufactured in India. Marble dust and Alccofine is added in varying percentages to the soil sample. Basic properties of soil like Atterberg limit, Specific gravity, Gradation analysis, CBR, UCS and compaction were performed on the samples.</p> <p>Keywords: Bearing capacity, UCS, CBR, Stabilization.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Parte Shyam Singh and Yadav R.K, “Effect of Marble Dust on Engineering Characteristics of Black Cotton Soil”, International Journal of Emerging Trends in Engineering and Development Issue 4, Vol.5 (Aug.-Sep. 2014), 104-111. 2. Sachin N. Bhavsar and Ankit J. Patel “Analysis of Clayey Soil Using Waste Material”. International Journal for Innovative Research in Science & Technology (IJIRST). ISSN: 2349 – 6010, Volume 01, Issue 06, November 2014. 3. Muthu Kumar and Tamilarasan V S, “Experimental Study on Expansive Soil with Marble Powder”, International Journal of Engineering Trends and Technology, Volume 22 Number 11 (April 2015) 504- 507. 4. Ravi Shankar Mishra and Brajesh Mishra, “Improvement in Characteristics of Expansive Soil by Using Quarry Waste and Its Comparison with Other Materials like Cement and Lime Being Used for Soil Improvement - A Comparative Study”, International Journal of Innovative Research in Science, Engineering and Technology, Vol. 4, Issue 8, August 2015, 7416- 7431. 5. Chayan Gupta and Dr. Ravi Kumar Sharma, “Influence of Marble Dust, Fly Ash and Beas Sand on Sub Grade Characteristics of Expansive Soil”, IOSR Journal of Mechanical and Civil Engineering, International Conference on Advances in Engineering & Technology – 2014, pp 13-18. 6. Vinay Agrawal and Mohit Gupta “Expansive soil stabilization using marble dust”. International journal of earth sciences and engineering (IJESE). ISSN 0974- 5904, Volume 04, No 06 SPL, October 2011, pp 59-62. 7. Akshaya Kumar Sabat and Radhikesh P. Nanda, “Effect of marble dust on strength and durability of Rice husk ash stabilised expansive soil”, International Journal Of Civil And Structural Engineering, Volume 1, No 4, 2011, 939-948. 	1609-1613	
299.	<p>Authors: T. Rajendra Prasad, K. Rama Krishna, K. V. Sharma</p> <p>Paper Title: The Experimental Investigation and Comparison of Thermal Conductivities of Cobalt and Silica Nano fluids in Glycerol Water Mixture as Base fluid</p>	<p>Abstract: The present work is intended to bring out the comparison between the enhancements of thermal conductivities of cobalt and silica nanofluids. A nanofluid is a dispersion of solid nano-sized particles in a carrier liquid called basefluid. The experimental study has been done on thermal conductivities of Cobalt (Co) and Silica (SiO₂) nanofluids in Glycerol-Water (GW) mixture as basefluid. The average particle size of Cobalt nanoparticles was 80nm and that of SiO₂is 50nm. The initiation of the work started with the optimal mixture ratio selection of GW solutions. The selected optimal ratio of GW solution is used as basefluid for Co and SiO₂nanofluids preparation. Both nanofluids are prepared at concentrations of 0.5, 1 and 2% of nanoparticles by weight. The zeta potential test is conducted for the prepared nanofluids to ensure stability. The thermal conductivities of Co and SiO₂ nanofluids increased with nanoparticle concentration and temperature. The thermal conductivity enhancement of Co nanofluids is greater than that of SiO₂nanofluids at any given concentration and temperature.</p> <p>Keywords: Nanofluid, GW mixture, Zeta potential, Thermal conductivity.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Yimin Xuan, Qiang Li, “Heat transfer enhancement of nanofluids, International Journal of Heat and Fluid Flow”, Vol.21, 2000, pp.58-64. 2. Sarit Kumar Das, Nandy Putra, Peter Thiesen, Wilfried Roetzel, “Temperature Dependence of Thermal Conductivity Enhancement for Nanofluids”, Journal of Heat Transfer, 2003, Vol. 125, pp.567-574. 3. Sasidhar Kondaraju, Joon Sang Lee, “Two-phase numerical model for thermal conductivity and convective heat transfer in nanofluids”, Nanoscale Research Letters, 2011, Vol.6:239, 8 pages. 4. Ibrahim O. Alade, Tajudeen A. Oyehan, Idris K. Popoola, Sunday O. Olatunji, Bagudu Aliyu, “Modeling thermal conductivity enhancement of metal and metallic oxide nanofluids using support vector regression”, Advanced Powder Technology, Vol.29, Issue 1, 2018, pp.157-167. 5. Min-Sheng Liu, Mark Ching-Cheng Lin, C.Y. Tsai, Chi-Chuan Wang, “Enhancement of thermal conductivity with Cu for nanofluids using chemical reduction method”, International Journal of Heat and Mass Transfer, Vol.49, 2006, pp.3028–3033. 6. Michael Saterlie, Huseyin Sahin, Barkan Kavlicoglu, Yanming Liu, Olivia Graeve, “Particle size effects in the thermal conductivity enhancement of copper-based nanofluids”, Nanoscale Research Letters, 2011, Vol.6:217, 7 pages. 7. G. Paul, T. Pal, I. Manna, “Thermo-physical property measurement of nano-gold dispersed water based nanofluids prepared by chemical precipitation technique”, Journal of Colloid and Interface Science, Vol.349, 2010, pp. 434–437. 8. Wenwen Guo, Guoneng Li, Youqu Zheng, Cong Dong, “Measurement of the thermal conductivity of SiO₂ nanofluids with an optimized transient hot wire method”, Thermochimica Acta, Vol.661, 2018, pp. 84–97. 9. Ramin Ranjbarzadeh, Alireza Moradikazerouni, Reza Bakhtiari, Amin Asadi, Masoud Afrand, “An experimental study on stability and thermal conductivity of water/silica nanofluid: Eco-friendly production of nanoparticles”, Journal of Cleaner Production, Vol.206, 2019, pp.1089-1100. 10. Ravikanth S. Vaijha, Debendra K. Das, “Experimental determination of thermal conductivity of three nanofluids and development of new 	1614-1621

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Authors: D.Vineela Chandra, J. K. R Sastry

Paper Title: Developing Autonomous Vehicle Systems Using Machine Learning Techniques and Comparison of SVC and Naive Bayes Algorithms

Abstract: Autonomous vehicles are very famous now a days. To increase the comfort and to save time, Machine learning concepts are used to achieve autonomous driving. We initially train the vehicle manually through remote access using internet. During this training, we obtain data from sensors regarding object distance around the vehicle at every instance of time and current direction of the vehicle. Later we feed this data into machine learning algorithms and develop a classifier which predicts the directions for new sensor data using previous experience. In this paper, the effect of different algorithms on the vehicle and accuracy comparisons between those algorithms is presented.

Keywords: Autonomous vehicles, Machine learning, Ultra sonar, Object distance.

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	<p>Top Notch Sensors”, Journal Of Advanced Research In Dynamical And Control Systems,10(6 Special Issue), Pp. 1572-1578,2018.</p> <p>17. Sajana, T., Narasingarao, M.R.,”Machine Learning Techniques For Malaria Disease Diagnosis - A Review”, Journal Of Advanced Research In Dynamical And Control Systems9(Special Issue 6), Pp. 349-369,2017.</p> <p>18. Rao, K.V.S.N.R., Battula, S.K., Krishna, T.L.S.R.,”A Smart Heuristic Scanner For An Intrusion Detection System Using Two-Stage Machine Learning Techniques”, International Journal Of Advanced Intelligence Paradigms9(5-6), Pp. 519-529,2017.</p> <p>19. Ayushree, Balaji, G.N.,”Comparative Analysis Of Coherent Routing Using Machine Learning Approach In MANET”, Smart Innovation, Systems And Technologies77, Pp. 731-741,2018.</p> <p>20. Prasada Rao, C., Siva Kumar, P., Rama Sree, S., Devi, J.,”An Agile Effort Estimation Based On Story Points Using Machine Learning Techniques”, Advances In Intelligent Systems And Computing,712, Pp. 209-219,2018.</p>		
	Authors: Rahul Phonsa, Harpreet Singh Paper Title: Stabilization of Clayey Soil by using Stone Dust and Plastic Bottle Strips in Subgrades		
	<p>Abstract: The intention of this study is to enquire the utilization of waste materials like stone dust and plastic bottle fiber as a strips in the stabilization of clayey soil in the sub grade and to appraise the effects of stone dust and plastic fiber on geotechnical properties of soil. The stabilization of soil is to improves the engineering properties of fragile soil by adding stabilizer like wooden husk, stone dust, cement, fly ash, rice husk ash, lime, allcofine and plastic fiber etc. in this study the stone dust and plastic fiber are used as a stabilizer. The stone dust is a variety of solid waste material which are easily available from stone crusher and Plastic bottle are also solid waste material which are day by day increasing and not in environmental friendly hence they have to be recycled and to be used for soil stabilization .In this study ,The various percentage of stone dust is taken as 2%,4%,6%,7%,8%,10%,12%,16%,20%.After performing work on these percentages the optimum value obtained is 7% and further test like Standard Proctor and CBR is to be conducted on this optimum value. The plastic was taken 0.4%,0.8%,1.2%,1.6%,2.0%.these percentage mixed with soil sample as to explore the effects of mixing on the OMC ,MDD, and CBR properties of soil.</p>		
301.	<p>Keywords: clay soil stabilization, stone dust, plastic fiber, OMC, MDD,CBR.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Abeer Sabri Bshara, Er. Y.K. Bind, Prabhat Kumar Sinha, “ Effect Of Stone Dust On Geotechnical Properties Of Poor Soil ”International Journal Of Civil Engineering And Technology, Volume 5, Issue 4, Pp.37-47, April(2014) 2. Naman Agarwal, “Design Of Stone Dust Stabilized Road ”, International Journal Of Civil Engineering And Technology , Volume 6, Issue 5, May (2015). 3. Sabat ,A.K (2012) “ A Study On Some Geotechnical Properties Of Lime Stabilized Expansive Soil Quarry Dust Mixes .International Journal Of Engineering Trends In Engineering And Development ,Vol.1,Issue 2, 42-49. 4. Y. Ramakrishna Reddy, T. Ram Prasanna Reddy ,“Stabilization Of Soil By Using Waste Fiber Materials ” International Journal Of Advanced Technology And Innovative Research , Vol 8, Issue 15,October-2016. 5. Soosan, TG And Sridharam, A and Jose, Bt Abd Abharam, BM (2005) Utilization Of Quarry Dust To Improve Geotechnical Properties Of Soils In Highways Construction Geotechnical Testing Journal, 28(4). Pp. 391-400. 6. Jaswinder Singh, Vinod Kumar Sonthwal, Jasvir S Rattan, “ Review On Improvement Of Engineering Properties Of Soil Using Waste Plastic Bottles Strips (Polyethylene Terephthalate)” ,International Jopurnal Of Emerging Technologies, Volume8, Issue Date 01/04/2017. 7. Devarshish Kushwah, Mukesh Pandey , Rakesh Gupta, “Review Study Of Soil Behavior Mix With Waste Plastic.” “ International Journal Of Engineering Research And Application,Vol 7,Issue 9(Part-3)September 2017. 8. Satyam Tiwari, Nisheet Tiwari – “ Soil Stabilization Using Waste Fiber Materials” International Journal Of Innovative Technology And Research Volume No 4,Issue No3 ,April- May 2016,2927-2930. 9. Choudhary, A.K, Jha J.N And Gill,K.S, “A Study On CBR Behavior Of Waste Plastic Strips Reinforced Soil”. Emirates Journal For Engg. Res., Vol.15, Issue No 1, Pp.51 57 ,(2010). 10. IS: 2720- Part 3-1980, Bureau Of Indian Standards New Delhi, Feb (1981). Determination Of Specific Gravity Of Soil Solids. 11. IS: 2720- Part 16-1987, Bureau Of Indian Standards New Delhi, May (1988). Laboratory Determination Of CBR Value. 12. IS: 2720- Part 7-1980, Bureau Of Indian Standards New Delhi, dec (1980).laboratory method for standard proctor test. 	1627-1629	
302.	Authors: Omkar Ghaisas, Irfan Siddavatam, Ashwini Dalvi, Faruk Kazi Paper Title: Simulation of Anonymity Network Model	<p>Abstract: In order to protect privacy a user might want to be anonymous over internet. Tor is most used network when it comes to achieving internet anonymity. But Tor network itself is not secure. If tor network gets compromised then anonymity of Tor client will get compromised which means ip address of user’s computer will be noted at Website interface. Hence we have proposed a model which gives advance anonymity to the Tor client. The model consists of three components Local Host, Remote Terminal and Target Website. Due to inclusion of Remote Terminal even though Tor gets compromised only ip address of Remote Terminal gets noted at the website interface. Hence user’s ip address is never noted at web interface or user is anonymous. This paper provides simulation tests on anonymity model using shadow. In Simulation Results we have graphs which show different relationships between Benchmark parameter which are throughput, goodput, ticks, control overhead and retransmission overhead.</p> <p>Keywords: Internet Anonymity, Tor, Shadow, Privacy.</p> <p>References:</p> <ol style="list-style-type: none"> 1. R. Dingledine, N. Mathewson, and P. Syverson, “Tor : the second-generation onion router,” in Proceedings of the 13th Usenix Security Symposium, August 2014. 2. R. Koch, M. Golling and G. D. Rodosek, “How Anonymous Is the Tor Network? A Long-Term Black-Box Investigation,” in Computer , vol. 49, no. 3, pp. 42-49, Mar. 2016. 3. “Did the FBI Pay a University to Attack Tor Users?,” Tor Blog , 11-Nov-2018. [Online]. Available: https://blog.torproject.org/blog/did 	1630-1635

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Authors:	G. Joselin Retna Kumar, Sheikh Mohammed Afzal, A. John Pravin
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Paper Title:	Industrial Internet of Things Based Programmable Logic Controller
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Abstract: The proposed design of a customized PLC includes a compact setup which is an integral part of industrial automation and to control various batch processes. The design takes into account, a wireless communication channel between the PLC and the supervisory server system, which is achieved by embedding a wireless module into the PLC setup. The designed setup also eliminates the hassle of long, multi-loop wiring which can be inconvenient to troubleshoot specific problem and to take corrective action instantly. By utilizing the wireless communication achieved by integrating an ESP8266 module. It is easier to connect with the process in a much simpler manner. The most important feature is that data that is transmitted can be uploaded into a Cloud Storage, with a secure server connection. The process data from the PLC is uploaded onto the server and can be monitored by the personnel supervising the plant operation. The data which is accessed over the server includes the field monitoring points relevant to the particular process. Conclusions: Wireless communication between the supervisory server system and the PLC is possible and the field monitoring points can be monitored via the Cloud Server.

303. Keywords: Automation, Programmable Logic Controller, SCADA, Wireless Technology.

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Authors:	Abburu Anusha, K.S.L.Monika, M.Anudeep, K.Subrahmanyam
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Paper Title:	Advanced Rich Web Applications Using Model View Controller
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Abstract: In earlier days network users preferred normal e-mail messages. Over period HTML emerged, and graphically enhanced Web came into sight. However, HTML has limits. HTML can create only static and plain web pages but in the recent times customers are expecting more for the better visualization of the web pages which uses the graphics. To solve this we are developing the rich internet applications which are simple web applications that provide the better user interactivity and richness to interface for desktop applications. However, there are complexity and difficulty in designing by using the existing tools. So, to overcome this MVC (model view controller) rich internet applications are developed with the extra features to make the web pages even richer in look and provide better visualization for the web applications.

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Keywords: Rich Internet Application, model view controller.

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Authors:	A.Cathreen Graciamary, M.Chidambaram
Paper Title:	Investigation of Risks in Reengineering Process Using Grey Wolf Optimization Algorithm

Abstract: One among the principal challenges in software frameworks construction in current days will be quality and functionality. The concept of forecasting the quality of a software product from the higher-level formulation explanation is not the fresh strategy. Software Reengineering is the process of maintaining the software to suit the requirements provided by the user. There will be lot of risks associated with the process of Reengineering. Especially the process of Reengineering encounters the quality and functionality risks. This means that while performing the process of Reengineering failure to maintain the quality and functionality of original system. The utilization of soft computing intelligence strategies to evaluate the risks is the freshly researched area. The term "risk" in developing the conclusions will be customarily utilized in replicate ambiguity which might be considered probabilistically. Here in to analyze the risks involved in the process of Reengineering nature inspired Grey Wolf optimization Techniques is used. By employing the Grey wolf optimization techniques in evaluation of risks in the process of reengineering, searches effectively and identifies the quality risks effectively rather than functionality risks. Though Grey Wolf Optimization algorithm techniques have very good exploration techniques its performance in analyzing the risks associated with functionality risks in reengineering will be little be lower when compared with risks associated with quality risks. Experimental results demonstrated that evaluation of quality risks associated in the process of reengineering process is exceptionally well.

Keywords: Reengineering, Legacy Systems, Quality Risks, Functionality Risks, Meta Heuristics, Grey Wolf Technique.

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Authors:	Mohammad Rashid Hussain, Mohammed Abdul Khaleel, Khalid Mohiuddin
Paper Title:	Document-oriented Management System: Structuring Documents of an Academic Program for Accreditation

Abstract: This paper is first part of salami slicing publication. It presents the initial part of documents and evidence (DOVE) management system of an academic program which is offered in a university environment. The second part will present the entire system for managing program documents and supports its accreditation process. This study describes a development process of documents structuring with the goal of converting manual documents to automated system. The significance of the proposed system is to structure documents required for the program accreditation. It is a very complex process to organize all the required documents into a repository and responding users' query. It is more complex when structuring scan documents and warehousing them for future access. For developing the DOVE database, different levels of the program hierarchy has to be considered. It has been structured adopting both rational and hierarchical model. Accreditation requirements is focused in designing the system. For the initial part, DOVE is structured for the first three stages of the proposed system. It structures approximately 6900 documents from the multi-levels of the program constituency. The result shows a perfect naming convention to each document using indexing techniques.

Keywords: Document-oriented database; documents structuring; document management system; program accreditation; academic institution.

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Authors:	S. Bamini, M. Saraswathi, B. Vijayalakshmi, A. Vadivel
Paper Title:	Fuzzy M-open and Fuzzy M-closed Mappings in Šostak's Fuzzy Topological Spaces

Abstract: We introduce and investigate some new classes of mappings called fuzzy **M**-open map and fuzzy **M**-closed map to the fuzzy topological spaces in Šostak's sense. Also, some of their fundamental properties are studied. Moreover, we investigate the relationships between fuzzy open, fuzzy Θ -semiopen, fuzzy Θ -open, fuzzy δ -semiopen, fuzzy δ -preopen, fuzzy a -open, fuzzy **M**-open, fuzzy **e**-open and fuzzy e^* -open mappings.

Keywords: fuzzy open, fuzzy Θ -semiopen, fuzzy Θ -open, fuzzy δ -semiopen, fuzzy δ -preopen, fuzzy a -open, fuzzy **M**-open, fuzzy **e**-open and fuzzy e^* -open mappings.

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1661-1668

Authors: K Meenambika, C V Seshaiyah, N Sivamani**Paper Title:** On Square Binormal and square n-binormal Operators

Abstract: In this paper, a new class of operator called square binormal and square n-binormal are introduced. The objective of this paper is to study conditions on B which imply square binormal[sqBN] and square n-binormal[sqnBN]. A result is proved stating that every binormal operator is square binormal and an example is given stating that the converse is not true. It is also proved that square n-binormal operator and n-isometry operators are independent classes.

Keywords: Hilbertspace, Normaloperator, Binormaloperator, Isometry operator.

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- Anuradha Gupta et al. 2016 Skew n-normal composition and weighted composition operators on $L^2(\mu)$ *International Journal of Pure and Applied Mathematics* 107 pp 625-634.

1669-1672

Authors: B.Santosh manoj kumar, M.V.K.Prasad, K.Sripath Roy

	<p>Paper Title: University Campus Number Plate logging System</p> <p>Abstract: Automatic number plate Recognition is an image processing with OpenCV technology .The main objective is to design an efficient automatic authorized number plate identification system. This system is implemented on the entrance for security control of the University Campus. The developed system primarily detects the moving vehicle at the entrance and then captures the vehicle number plate image. Vehicle number plate region is extracted using the image and video segmentation in an image. Optical character Recognition technique is used for the character recognition. The resulting data is then used to store on a database so as to come up with the specific information like the vehicles number plate time taken and frequency of the data. This system is implemented and simulated by using the technologies like OpenCV, Tensorflow, mongoDB and its performance is tested on real images and videos. It is observed from the experiment that the developed system successfully detects and recognizes the vehicle number plate on real images and videos.</p> <p>Keywords: Tesseract-OCR, Image processing with OpenCV, Tensorflow, mongoDB.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Systems(ICCAS). 17-20 Oct. 2018. 2. Thanh-Nga Nguyen, Duc-Dung, A New Convolutional Architecture for vietnamese car plate Recognition. IEEE International Conference on Knowledge and Systems Engineering(KSE) 1-3 Nov. 2018. 3. Sanghyeop Lee, Keumyoung Son, Hyuntae, Jangskik Park. Car plate recognition based on CNN using embedded system with GPU.IEEE International Conference on Human System Interations(HSI).17-19 July 2017. 4. Sanghyeop Lee, Keum-young Son, Byung-Woo Yoon, Jangskik Park. Video Based License Plate Recognition of Moving Vehicles Using Convolutional Neural Network. IEEE International Conference on Control, Automation and 5. Yoshihiro Shima. Extraction of number plate images based on image category classification using deep learning.2016 IEEE International Symposium on Robotics and Intelligent Sensors(IRIS) 17-20 Dec. 2016. 6. Zied Selmi, Mohamed Ben Halima, Adel M. Alimi. Deep Learning System for Automatic License Plate Detection and Recognition.2017 14th IAPR International Conference on Document Analysis and Recognition (ICDAR). 9-5 Nov. 2017. 7. Palaiahnakote Shivakumara, Dongqi Tnag, Maryam Asadzadehkalijahi, Tong Lu, Umapada Pal, Mohammad Hossein Anisi. CNN-RNN based method for license plate recognition. CAAI Transactions on Intelligence Technology (volume: 3, Issue:3 ,9 2018). page(s): 169-175 29 November 2018. 8. Yuje Liu, He Haung . Car plate character recognition using a convolutional neural network with shared hidden layers. IEEE 2015 Chinese Automation Congress(CAC). 27-29 Nov. 2015. 9. Jie Liu , Xin Li, Hao Zhang, Chengcheng Liu, Lei Dou, Lei Ju. An Implementation of Number Plate Recognition without segmentation Using Convolutional Neural Network. 2017 IEEE 19th International Conference on High Performance Computing and Communications, IEEE 15th International Conference on Smart city, IEEE 3rd International Conference on Data Science and Systems (HPCC/ SmartCity/ DSS). 18-20 Dec. 2017. 10 SaquibNadeem Hashmi, Siddhant Khandelwal, Kaustubkmr. Automatic license plate Recognition. https://github.com/Deevolution/APR. Feb 4, 2018 - Apr 8, 2019. 	
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310.	<p>Authors: Dhilsath Fathima M, Hariharan R, Leena Christy M, S. Ebenazer Roselin</p> <p>Paper Title: Diagnosis of Acute Myocardial Infarction using Random Forest classifier through SPECT</p> <p>Abstract: Acute Myocardial Infarction (MI) is a severe heart disease which is caused by abruptly reduced blood supply in coronary arteries due to prolonged ischemia condition. It is a type of irreversible necrosis of cardiac muscles, so need to predict this Acute MI in early stages of cardiac ischemia. This paper presents a new computer- aided diagnosis system (CAD) for the early prediction of Acute Myocardial infarction(MI) based on the machine learning algorithms using Myocardial perfusion single photon emission computed tomography(SPECT) images. Myocardial perfusion SPECT image database containing processed SPECT images collected from the 267 patients at cardiac rest study and cardiac stress study to examine the heart blood supply. This processed data are trained using random forest learning algorithm and a result of this proposed model is compared with other six machine learning algorithms. Eight Performance metrics of machine learning are used to evaluate the output of this proposed model. This CAD system helps to evaluate the presence of MI in the cardiac SPECT images, reduce the diagnosis cost due to automation learning and save the life of the cardiac patients.</p> <p>Keywords: Acute Myocardial Infarction, Myocardial perfusion SPECT, Machine learning, Medical image analysis, Random Forest Algorithm.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Emelia J. Benjamin et al, MD, "Heart Disease and Stroke Statistics—2017 Update" in HHS Public Access, Jan 2017. 2. Maria Lyra and Agapi Ploussi, "Filtering in SPECT Image Reconstruction," International Journal of Biomedical Imaging, vol. 2011, Article ID 693795, 14 pages, 2011. 3. Madsen MT "Enhancement of SPECT images by Fourier filtering the projection image set" Jounal of nuclear medicine ,april 1985. 4. R. D. Beach et al., "A neural network adaptive approach to decomposition of patient stereo-infrared tracking data for motion using asymmetric median filters during cardiac SPECT imaging," IEEE Symposium Conference Record Nuclear Science 2004., Rome, 2004, pp. 4146-4150. 5. Ciechowski M. (2011) Support Vector Machine Approach to Cardiac SPECT Diagnosis. In: Aggarwal J.K., Barneva R.P., Brimkov V.E., Koroutchev K.N., Korutcheva E.R. (eds) Combinatorial Image Analysis. IWCIA 2011. Lecture Notes in Computer Science, vol 6636. Springer, Berlin, Heidelberg. 6. P. Padilla, J. M. Górriz, J. Ramírez, E. W. Lang, R. Chaves, F. Segovia, M. López, D. Salas-González, I. Alvarez Neurosci LetT" Analysis of SPECT brain images for the diagnosis of Alzheimer's disease based on NMF for feature extraction". 2010 Aug 2; 479(3): 192–196. doi: 10.1016/j.neulet.2010.05.047 	1678-1682

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	<p>Authors: S. Praveen Kumar, A. Sahithi Choudary</p> <p>Paper Title: An Innovative Model-Based Approach for Credit Card Fraud Detection Using Predictive Analysis and Logical Regression</p>	
	<p>Abstract: The development of information technology and advancements in communication channels has resulted in increasing fraud throughout the world and immense monetary losses. The objective of fraud detection frameworks is to check each exchange for the likelihood of being false and to recognize fraudulent ones as fast as possible after the fraudster has started to execute a fraudulent transaction, paying little mind to the prevention mechanisms. For this purpose, we utilize a steady foolproof 5 stage verification model with, predictive analysis, logistic regression, outlier model, custom rule management and global profiling. A predictive (LVQ) algorithm alongside logistic regression would improve credit card fraud detection. The benchmark Kaggle dataset is used. The outcomes portray a convincing decrease in credit card frauds.</p>	
	<p>Keywords: Credit card fraud detection, Logistic regression, Classification, Kaggle.</p>	
311.	<p>References:</p> <ol style="list-style-type: none"> Credit card frauds and measures to detect and prevent them, International Journal of Marketing, Financial Services & Management Research ISSN 2277- 3622 Vol.2, No. 3, March (2013). Bruno Buonaguidi. (n.d.). Credit card fraud: What you need to know. Author. Retrieved From Https://nilsonreport.com/upload/pdf/Credit_card_fraud_what_you_need_to_know.pdf Phua, C., Lee, V., Smith, K. and Gayler, R., 2005. A Comprehensive Survey of Data Mining-based Fraud Detection Research., Artificial Intelligence Review. Raghavendra Patidar, Lokesh Sharma, June 2011, Credit Card Fraud Detection Using a Neural Network. Y. Sahin, E. Duman, Detecting Credit Card Fraud by ANN and Logistic Regression. Ogwueleka, F.N.; and Enyeama H.C. (2009). Credit card fraud detection using artificial neural networks with a rule-based component. The IUP Journal of Science and Technology, 5(1), 40-47. Altman, E. I., Marco, G., & Varetto, F. Corporate distress diagnosis comparisons using linear discriminant analysis and neural networks. Journal of Banking and Finance, 18(3), 505–529, 1994. Flitman A.M. Towards analysing student failures: neural networks compared with regression analysis and multiple discriminant analysis. Computers & Operations Research, Volume 24, Issue 4, 367-377, 1997. Logistic regression [Web log post]. (n.d.). Retrieved from https://www.statisticssolutions.com/what-is-logistic-regression/ Sahin, Y., & Duman, E. (2011). Detecting credit card fraud by ANN and logistic regression. 2011 International Symposium on Innovations in Intelligent Systems and Applications. Salastas, J. (2011, August 24). Implementation of Competitive Learning Networks for WEKA [Web log post]. Retrieved from https://jsalatas.ictpro.gr/implementation-of-competitive-learning-networks-for-weka/ Le, J. (n.d.). A Tour of The Top 10 Algorithms for Machine Learning Newbies [Web log post]. Retrieved from https://www.kdnuggets.com/2018/02/tour-top-10-algorithms-machine-learning-newbies.html#2 Andrea Dal Pozzolo, Olivier Caelen, Reid A. Johnson and Gianluca Bontempi. Calibrating Probability with Undersampling for Unbalanced Classification. In Symposium on Computational Intelligence and Data Mining (CIDM), IEEE, 2015 Dal Pozzolo, Andrea; Caelen, Olivier; Le Borgne, Yann-Aël; Waterschoot, Serge; Bontempi, Gianluca. Learned lessons in credit card fraud detection from a practitioner perspective, Expert systems with applications,41,10,4915-4928,2014, Pergamon Dal Pozzolo, Andrea; Boracchi, Giacomo; Caelen, Olivier; Alippi, Cesare; Bontempi, Gianluca. Credit card fraud detection: a realistic modelling and a novel learning strategy, IEEE transactions on neural networks and learning systems,29,8,3784-3797,2018,IEEE. Carcillo, Fabrizio; Dal Pozzolo, Andrea; Le Borgne, Yann-Aël; Caelen, Olivier; Mazzer, Yannis; Bontempi, Gianluca. Scarff: a scalable framework for streaming credit card fraud detection with Spark, Information fusion,41, 182-194,2018,Elsevier Carcillo, Fabrizio; Le Borgne, Yann-Aël; Caelen, Olivier; Bontempi, Gianluca. Streaming active learning strategies for real-life credit card fraud detection: assessment and visualization, International Journal of Data Science and Analytics, 5,4,285-300,2018, Springer International Publishing Glenn, E. (2016, February 5). Fine-tuning Fraud Prevention with Granular Business Rules [Web log post]. Retrieved from https://www.iovation.com/blog/customizing-online-fraud-prevention-with-business-rules Data Mining [Web log post]. (n.d.). Retrieved from https://en.wikipedia.org/wiki/Portal:Data_mining Logistic regression [Web log post]. (n.d.). Retrieved from http://sheepshoot.com/Logistic_regression Brownlee, J. (2016, March 23). Gradient Descent For Machine Learning [Web log post]. Retrieved from https://machinelearningmastery.com/gradient-descent-for-machine-learning/ Radial basis function [Web log post]. (n.d.). Retrieved from https://en.wikipedia.org/wiki/Radial_basis_function_network. 	1683-1688
	<p>Authors: Neha Singhal, Usha Sakthivel, Pethuru Raj</p> <p>Paper Title: Efficient Microservices Discovery and Selection Based on QoS Ontology a Data Mining Approach</p>	
	<p>Abstract: Microservices is emerging as a revolutionary and modern solution in the recent software era. Microservices is also based on web services but it could be implemented as an independent feature to perform a specific task with its own database. In the growing field of e-commerce, when user aim to find microservice meeting to their dynamic business requirement is becoming a big challenge and emerging as a problem. This problem occurs, because the number of related service is increasing day by day in the repository and selection of the appropriate and quality service is a main challenge. In order to solve this problem, in this paper we propose a QoS ontology semantic annotation approach with reducing the difficulty of appropriate service discovery and selection as per user dynamic requirement using association rules and K-means clustering techniques.</p>	

<p>Keywords: QoS, ontology, Microservices, k-means, Association rules.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Eyhab Al-Masri" QoS-Aware IIoT Microservices Architecture" 2018 IEEE International Conference on Industrial Internet (ICII), DOI 10.1109/ICII.2018.00030,2018 2. Mohammad Javad Kargar, Alireza Hanifizade" Automation of Regression test in Microservice Architecture" 2018 4th International Conference on Web Research (ICWR) 978-1-5386-5364-7 3. Fernando H. L. Buzato, Alfredo Goldman, Daniel Batista" Efficient Resources Utilization by Different Microservices Deployment Models" 978-1-5386-7659-2/18 ©2018 IEEE 4. Wilhelm Hasselbring, Guido Steinacker" Microservice Architectures for Scalability, Agility and Reliability in E-Commerce" 2017 IEEE International Conference on Software Architecture Workshops DOI 10.1109/ICSAW.2017.11 5. Sara Hassan, Nour Ali, Rami Bahsoon" Microservice Ambients: An Architectural Meta-modelling Approach for Microservice Granularity" 2017 IEEE International Conference on Software Architecture DOI 10.1109/ICSA.2017.32 6. Genc Mazlami, J'urgen Cito, Philipp Leitner" Extraction of Microservices from Monolithic Software Architectures" 2017 IEEE 24th International Conference on Web Services DOI 10.1109/ICWS.2017.61 7. Shanshan Li" Understanding Quality Attributes in Microservice Architecture" 2017 24th Asia-Pacific Software Engineering Conference Workshops DOI 10.1109/APSECW.2017.33 8. XiaoDong Liu, SongHao Jiang, XiaoFang Zhao, Yan Jin" A Shortest-Response-Time Assured Microservices Selection Framework" DOI 10.1109/ISPA/IUCC.2017.00192 9. Christof Fetzer" Building Critical Applications Using Microservices" 1540-7993 © 2016 IEEE 10. Neha Singhal, Usha Sakthivel, Pethuru Raj" RESTful Web Services Composition & Performance Evaluation with Different Databases" 2017 International Conference on Electrical, Electronics, Communication, Computer and Optimization Techniques (ICEECCOT) 978-1-5386-2361-9,vol 191,new york,USA:springer,2009,pp:1-14 11. X-s yang," harmony search as a metaheuristic algorithm" in music -inspired harmony search algorithm 12. Eyhab Al-Masri" QoS-Aware IIoT Microservices Architecture" 2018 IEEE International Conference on Industrial Internet (ICII) DOI 10.1109/ICII.2018.00030 13. Y. Gao,J.Na, B.Zhang,L.Yang and Q. Gong"optimal web service selection using dymaic programming"in proc.11th IEEE sym.comput.commun.jun 2006,pp365-370. 14. C.Wan,C.Ullrich,L. Chen,R. HUANG,J. Luo and Z.Shi,"on solving QoS aware service selection problem with service composition." In proc7th int conf. grid cooperative computing,oct 2008pp.467-474. 15. M.Jaeger,G.Muhl, and S. Golze,"QoS –Aware composition of web services: a look at selection algorithm,"in proc IEEEint conf web services,jul 2005,pp807-808 16. Y.Yang,S.Tang,Y.Xu,W.Zhang, and L.Fang"an approach to QoS aware service selection in dynamic web service composition" in proc 3rd int conf.jun 2007,pp18-23. 17. P.Rodriguez-Mier,M.Muñientes,M.Luma,"automatic web service composition with aheuristic based search algorithm," in proc IEEEint conf web service ,2011,pp 81-88. 18. A.Klein, F. ishikawa, and S. honiden"efficient heuristic approach with improved time complexity for QoS aware service composition , " in proc IEEE int conf. web service ,jul2011,pp436-443. 19. Y.Yu,H.Ma, and M.zhang" a genetic programming approach to distributed QoS-aware web service composition" in proc.IEEEcongr. evol.comput, jul 2014,pp.1840-1846. 20. W.Yunwm,"application of chaos ant colony algorithm in web service composition based on QoS",in proc. Int.forum inf technol.appl.,vol2,may 2009,pp 225-227. 21. Q.Wu and Q. zhu,"transectional and QoS awaredynamic service composition based on ant colony optimization,"future gener comput syst,vol29, no 5,pp 1112-1119,2013. 22. A.Klein,f.ishikawa, and s honiden,"efficient huristic approach with improved time complexity for QoS aware service composition",in proc IEEE int conf. web service ,jul2011,pp 436-443 23. Y.Li and T.wen,"an approach for QoS guaranteed web service composition based on a win win strategy,"in proc,IEEE 19 th int conf on web service jun 2012,pp 628-630. 	1689-1695
<p>Authors: K. Siva Nageswararao, Venkataramaiah. M, Challa Madhavi Latha</p> <p>Paper Title: Panel data Fixed Effect Model for Profitability Determinants: Referencing to S&P BSE Sensex</p>	
<p>Abstract: The present paper investigates the effect of profitability for the securities listed on S&P BSE Sensex index. The considered parameters for this analysis are size of the firm, return on assets, inventory turnover ratio, asset turnover ratio, liquidity and retained earnings. The time serioes data of 30 companies registered on the S&P BSE Sensex has been used for the period of 10 years starting from March 2007 to March 2017. The Hausman test and Wald test has been used to find the most suitable type of panel data model. Moreover, the fixed effect panel data model is also used for the purpose. Descriptive statistics like Karl Pearson's coefficient of correlation, Regression Analysis have been applied as statistical tools. The results have confirmed that the profitability has positive effect on liquidity and return on assets. The size, inventory turnover ratio, debt equity ratio, asset turnover ratio, retained earnings ratio and return on assets are found to be negative effect with dependent vaitable, i.e profitability.</p>	
<p>Keywords: Fixed effects, Profitability, S&P BSE Sensex, Bombay Stock Exchange, Ratio analysis.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Al-JafariMohamed Khaled & Hazem A Samman (2015), Determinants of Profitability: Evidence from Industrial Companies Listed on Muscat Securities Market, Review of European Studies, Vol. 7, No. 11, https://doi.org/10.5539/res.v7n11p303. 2. Baltagi, B., (2008)., Econometric Analysis of Panel Data., John Wiley & Sons. 3. Barros, C. R., & Mascarenhas, M. J. (2005). Technical and allocative efficiency in a chain of small hotels, International Journal of Hospitality Management, Vol. 24(3), 415 to 436. 4. Bhunia, A. (2010)., A Study of Liquidity Trends on Private Sector Steel Companies in India, Asian Journal of Management Research, Vol. (6), pp. 1- 620. 5. Chen, H. M., & Tseng, C. H. (2005)., The performance of marketing alliances between the tourism industry and credit card issuing banks in Taiwan, Tourism Management, 26(1), 15e24. 	1696-1700

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Authors: **J. Neelima, Kalpana. Koneru**

Paper Title: **Assessing the role of Organizational Culture in determining the Employee Performance – Empirical Evidence from Indian Pharmaceutical Sector**

Abstract: This research study is emphasized to understand the impact of organizational culture over the employee performance in the Indian pharmaceutical industry. The researcher considered that the independent variables such as the visions of the organization, values of the organization and the practices of the organization. Further the researcher assumed that the employee motivation is the mediating factor of this study which may effect the employees performance in the organization. Researcher applied convenience sampling method and collected the data from the selected pharma companies located in Hyderabad city.

Keywords: Employee Engagement; Vision; Values; Practices; Employee Motivation; Employee Performance.

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1701-1707

Authors: **Ch.Hymavathi, Kalpana.Koneru**

Paper Title: **Investors Perception towards Indian Commodity Market: An Empirical Analysis with reference to Amaravathi Region of Andhra Pradesh**

Abstract: The present study is focused to assess the factors that affect the purchase intentions among the commodity market customers in India. Based on the review of literature, the study considered the several factors such as, perceptions, awareness and attitude have drastic effect over generating the purchase intentions among the Indian commodity market investors. The researcher applied SLRA technique to analyse the data and the implications of the study is presented.

1708-1714

Keywords: Attitude, Awareness, Indian commodity market, Perceptions, Purchase Intentions.

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	<p>Authors: A Sai Manideep, P. Srinivasa Reddy, M Siva Koti Reddy</p> <p>Paper Title: Consumers' Perception on Purchase of Wellness Products: An Empirical Analysis</p>	
	<p>Abstract: The key focus of the paper is to examine the key factors by which consumers intention to purchase wellness (organic) products and as well as to assess the perception of the consumer by hypothesizing the association of purchase intention and consumer demographic attributes. A survey was adapted to analysis the objective of the study with 670 as the sample size, determined by convenience sampling method. Chi-Square test was adapted to test the association of dependence relation between study components. It is found that consumer's perception has a dependent association with attributes such as health, safety, environmental conscious towards consumption of wellness products with educational qualification of the consumers and product quality doesn't have any dependent association. Based on the test results opinion of the was expressed and proposed managerial implication and scope for further study.</p>	
	<p>Keywords: Wellness Products, Health, Safety, Environment Concern, Quality.</p>	
316.	<p>References:</p> <ol style="list-style-type: none"> Fotopoulos, C. and Krystallis, A. (2002), "Organic product avoidance: reasons for rejection and potential buyers' identification in a countrywide survey", British Food Journal, Vol. 104 Nos 3/5, pp. 233-60 Vindigni, G., Janssen, M. A., & Jager, W. (2002). Organic food consumption: a multi-theoretical framework of consumer decision making. British Food Journal,104(8), 624-642. Goldman, S. M., & Goldman, S. M. (2014). Case study The wellness prescription. https://doi.org/10.1108/07363761111101985 Leelayouthayotin, L. (2004). Factors influencing online purchase intention : The case of health food consumers in Thailand. McHugh, M. L. (2013). The Chi-square test of independence. <i>Biochimia Medica</i>, 23(2), 143–149. Nina Michaelidou, L. M. H. (2008). The Role of Health Consciousness, Food Safety Concern and Ethical Identity on Attitudes and Intentions towards Organic Food Dr. <i>International Journal of Consumer Studies</i>, 32, 163–170. Prentice, C., Chen, J., & Wang, X. (2019). The influence of product and personal attributes on organic food marketing. <i>Journal of Retailing and Consumer Services</i>, 46(November 2017), 70–78. https://doi.org/10.1016/j.jretconser.2017.10.020 Weber, T., Baier, K., & Willers, C. (2015). Sustainable (green) Food and Purchase Intention – An Analysis of Influence Factors, 5(4), 311–313. Wee, C. S. (2014). Consumers Perception , Purchase Intention and Actual Purchase Behavior of Organic Food Products. <i>Interactive and Business Economics</i>, 3(2), 378–397. Williams, P. R. D., and J.K. Hammit. (2001). Perceived risks of conventional and organic produce: pesticides, pathogens, and natural toxins. <i>Risk Analysis</i>, 21, 319–330. 	1715-1719
	<p>Authors: M.Sivakoti Reddy, N. Venkateswarlu</p> <p>Paper Title: Customer Relationship Management Practices and their impact over Customer Purchase Decisions: A Study on the selected Private Sector Banks Housing Finance Schemes</p>	
	<p>Abstract: This paper is aimed to understand the customer relationship management practices followed by the private sector banks in India. In the existing excessive competition, how the banks are surviving with the implementation of CRM practices to retain the existing customers and to attract the new customers. Review of literature facilitated to understand the current CRM trends of private banks, hence the researcher found that the factors such as inter-personal communication, accessibility, convenience and customer experience are the considerable factors of effective CRM practices and the author attempted to test the impact of concerned independent variables impact over the intention to attain the housing finance in the private banks. Further it has been tested the impact of intention to attain the housing finance to take a purchase decision of housing finance. There are 575 samples drawn from the different private sector banks in the state of Andhra Pradesh. The data is analyzed by using simple linear regression analysis. The results evidenced for the existence of CRM practices in the private sector banks and necessary recommendations are provided to the banking sector with this study.</p>	
317.	<p>Keywords: Customer Relationship; CRM Practices; Inter-Personal Communication; Accessibility; Convenience; Customer Experience; Employee Motivation; Employee Performance.</p> <p>References:</p> <ol style="list-style-type: none"> Anthony B. Sanders, Barriers to homeownership and housing quality: The impact of the international mortgage market, <i>Journal of Housing Economics</i>, 14(3), 2005, 147-152. Naik D.D, Housing Finance Pamphlet 163, Commerce Publication, Bombay, 1981. pp.1, 12, 15 and 18. J.P. Sah selected papers. up. Cit, 2011. Manorama Year Book, with a special feature on 50 years of Indian freedom and Democracy and development, 32nd year of publication, 1997, pp. 600. Krishnamachari S M, Mobilisation of Finance for Rural Housing, Yojana Publication Division, New Delhi, 26 1980, 16-18. 	1720-1728

	<p>5. Satyanarayana C P, Housing rural poor and their living conditions, Gain Publishing House, Delhi, 1987, 15.</p> <p>6. India year Book, Director. Publication Division, Ministry of information and Broadcasting, Government of India publication, New Delhi, 1988-89, 597.</p> <p>7. Andra C. Ghent and Michael T. Owyang., Is housing the business cycle? Evidence from US cities, Journal of Urban Economics, 67(3), 2010, 336-35.</p> <p>8. Despande, Cheap and healthy house for the middle classes in India - United Book Corporation, Pune, 1975, 1-10.</p> <p>9. Rangwala S.C., —Town Planning R.C. Patell, Charotar Book Stall, 1998, 51- 61.</p>	
	<p>Authors: M. Ramu, M. Siva Koti Reddy</p> <p>Paper Title: The Connection between Capital Structure and Profitability</p>	
318.	<p>Abstract: Capital structure choice is the key one since the viability of an undertaking is fast influenced by such choice. The gainful choice and utilization of capital is one of the key pieces of the affiliations' fiscal procedure. In like way, strong idea and thought should be given while picking capital structure choice. The inspiration driving this examination is to get some information about the connection between capital structure and good position of ten recorded Indian relationship over the span of the last multi year time range from 2010 to 2018. The eventual outcomes of the examination may control associations, advance managers and system organizers to portray better arrangement choices to the degree the capital structure is concerned.</p> <p>Keywords: Capital structure, Profitability, Debt, Equity, Return on Equity.</p>	1729-1732
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319.	<p>Authors: K. Sri Rama Murthy, S. Sudhakar Babu, Venkata Ramesh Mamilla</p> <p>Paper Title: Influence of Tamarind Seed oil methyl esters and Diesel Blends as fuel in a Stationary Diesel Engine</p> <p>Abstract: From the aim of consideration of the universal protection and the interest for long-run provides of standard diesel fuels, it becomes essential to develop alternative fuels as good as with standard fuels. To exchange traditional diesel, biodiesel is a safe alternative fuel. The Transesterification process is adopted to prepare the tamarind seed oil methyl esters. In the current study the effects of performance, emissions and combustion characteristics has been investigated in a single cylinder four stroke vertical diesel engine for 20%, 40%, 60%, 80% and 100% by volume tamarind seed oil methyl esters mixed to diesel. From experimental results, it is determined that there is decline in brake thermal efficiency and raise in the brake specific fuel consumption by application of the blends of tamarind seed biodiesel in the diesel engine, owing to the smaller calorific value of the tamarind seed biodiesel and its blends. However, the tamarind seed biodiesel notably reduced the emissions such as carbon monoxide, hydrocarbons and smoke density, while the nitrogen oxide emissions are increased. The engines combustion analyses showed that adding tamarind seed biodiesel and its blends to the base diesel fuel reduced the peak cylinder pressure. These results showed that the tamarind seed biodiesel could be commissioned as an alternative fuel in the engine exclusive of any engine alterations.</p> <p>Keywords: Alternative fuel, Combustion, Diesel engine, Emissions, Performance, Tamarind seed oil methyl ester, Transesterification.</p> <p>References:</p> <ol style="list-style-type: none"> A. Rajalingam, S. P. Jani, A. Senthil Kumar and M. Adam Khan. (2016). Production methods of biodiesel, <i>Journal of Chemical and Pharmaceutical Research</i>, 8(3),170-173. J.S.Gitay, Dr.G.R.Selokar.(2017). Critical analysis & Performance Evaluation of Diesel engine using Bio diesel, <i>International Research Journal of Engineering and Technology</i>, 4(8). Amruth. E., Dr.R.Suresh, Yathish.K.V..(2013). Production of Simarouba BioDiesel using mixed base catalyst and its Performace studies on CI Engines., <i>IJERT</i>, 2(5), 25-30. N. Venkateswara Rao, M. V. S. Murali Krishna, P. V. K. Murthy. (2013). Comparative Studies On Exhaust Emissions And Combustion Characteristics Of Tobacco Seed Oil In Crude Form And Biodiesel Form In Direct Injection Diesel Engine, <i>International Journal of Mechanical and Production Engineering Research and Development</i>, 3(4), 129-142. Thiyagarajan Subramanian, Edwin Geo Varuvel, Saravanan Ganapathy, S. Vedharaj, R. Vallinayagam. (2018). Role of fuel additives on reduction of NO_x emission from a diesel engine powered by camphor oil biofuel, <i>Environmental Science and Pollution Research</i>, Springer-Verlag GmbH Germany, part of Springer Nature 2018. M. Vijay Kumar, A. VeereshBabu, P. Ravi Kumar, S. Sudhakara Reddy. (2018). Experimental investigation of the combustion characteristics of Mahua oil biodiesel-diesel blend using a DI diesel engine modified with EGR and nozzle hole orifice diameter, <i>Biofuel Research Journal</i> 19 (2018), 863-871. G Lakshmi Narayana Rao, S. Sampath, K Rajagopal.(2008). Experimental Studies on the Combustion and Emission Characteristics of a Diesel Engine Fuelled with Used Cooking Oil Methyl Ester and its Diesel Blends, <i>International Journal of Mechanical and Mechatronics Engineering</i>, 2(1). Dharmendra Yadav, Nitin Shrivastava, Vipin Shrivastava. (2012). Experimental Investigation of Performance Parameters of Single cylinder four stroke Diesel Engine operating on Neem Oil Biodiesel and its Blends, <i>IJMERR</i>. A P Sathiyanaganam, K Vijayaraj, C G Saravanan. (2012). Biodiesel Production from Waste Pork Lard and an Experimental Investigation of its use as an Alternate fuel in a Diesel Engine, <i>IJMERR</i>, 1(3). 	1733-1737

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	<p>Authors: Mohammad Abdul Raqeem</p> <p>Paper Title: Analysis of Various PAPR Reduction Techniques in OFDM System</p>	
	<p>Abstract: ORTHOGONAL Division Multiplexing (OFDM) is a modern transmission technique used widely in many digital communications. It utilizes multiple carriers that are modulated simultaneously. Though they overlap, owing to the orthogonality of sub-carriers they can be demodulated using correct time windowing at the receiver. OFDM is very effective against inter symbol interference and frequency selective fading providing high spectral efficiency. The major drawback of this system which reduces its efficiency is the distortion of the signal caused at the High Power Amplifier (HPA) of a transmitter called as Peak-to-Average-Ratio (PAPR). In this paper we are going to analyze various techniques used to reduce the PAPR in OFDM system. Simulations are used to analyze the efficiency of the techniques used which signifies Weighted OFDM to be providing much better PAPR reduction and a better Bit Error Rate (BER).</p> <p>Keywords: OFDM, PAPR, Clipping OFDM, Weighted OFDM, Partial Transmit Scheme (PTS), BER, SNR.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Seema Kushwah et al., “A PAPR Reduction Scheme using Modified Weighted OFDM,” International Journal of Digital Application & Contemporary Research, Volume 5, Issue 6, January 2017. 2. Veena Gopinath.“Weighted OFDM for PAPR Reduction,”International Journal of Advanced Research in Electronics and Communication Engineering (IJARECE) Volume 4, Issue 7, July 2015. 3. C.Kayalvizhi & C.Paranthiran.“A Weighted OFDM Signal Scheme for Peak to Average Power Ratio Reduction Of OFDM Signals,”International Journal of Innovative Research in Computer and Communication Engineering Vol.2, Special Issue 1, March 2014. 4. Sonu Pal et al.,“PAPR Reduction in Weighted OFDM system and it’s BER Analysis,” IJDACR,Vol. 5, Issue 6, January 2017. 5. Rajesh et al.,“Weighted Mean Scheme for PAPR Reduction of OFDM Signals,” IJCSMC,Vol. 3, Issue. 5, May 2014, pg.562 – 566. 6. H. Ochiai and H. Imai, “Performance analysis of deliberately clipped OFDM signals”, IEEE Trans. on Communications, vol. 50, no. 1, pp. 89-101, Jan. 2002 7. L. J. Cimini Jr. and N. R. Sollenberger, “Peak-to-average power ratio reduction of an OFDM signal using partial transmit sequences”, IEEE Communications Letters, vol. 4, no. 3, pp. 8688, Mar. 2000. 8. L. Yang, R. S. Chen, Y. M. Siu and K. K. Soo, “PAPR reduction of an OFDM signal by use of PTS with low computational complexity”, IEEE Trans. on Broadcasting, vol. 52, no. 1, pp. 83-86, 2006 9. J.Armstrong, Peak-to-Average Power Reduction for OFDM by Repeated Clipping and Frequency Domain Filtering, in Electronics Letters,vol. 38, no. 5, 28th February 2002. 10. Chang Eon Shin et al., “A Weighted OFDM Signal Scheme for PAPR Reduction of OFDM Signals,”IEEE Transactions on Vehicular Technology, vol. 62, no. 3, March 2013. 11. Dr.S.P.Vimal¹, M.Kasiselvanathan² and U.Saravanakumar³“A New SLM and PTS Schemes ForPAPR Reduction In OFDM systems,” International Journal of Advanced Research in computer and communication engineering; vol. 2, issue 11, November 2013. 12. Kaur, P., Singh, R.: ‘Complementary cumulative distribution function for performance analysis of OFDM signal’, IOSR J. Electron. Commun. Eng. (IOSRJECE), 2012. 	
320.		1738-1742
	<p>Authors: G. Poorani, G.Nivedhitha, S.Padmavathi</p> <p>Paper Title: Estimation and Analysis of Highway Traffic</p>	
	<p>Abstract: Based on multivariate analysis, that directly counts and classifies vehicles. a number of the present algorithms are inaccurate in poor quality videos and additionally fail to extract the reliable options. Here, we tend to propose a regression formula, that is helpful even once the vehicle resolution is low and when there are severe occlusions. In our planned formula, there are 2 contributions, First, to observe the foreground segments, a deformation technique is developed, that contain unclassified vehicles. throughout the deformation method, there's some vehicle distortion, that is caused by foreshortening impact. A projective transformation and estimating and applying the heterogeneous mesh grid to scale back the vehicle distortion. Second, for every of the foreground segments, a group of low-level options is extracted and a cascaded regression approach is developed to count and classify the vehicles. Our planned regression primarily based formula are sturdy and correct, even in poor quality videos.</p> <p>Keywords: Warping method, projective transformation, a nonuniform mesh grid, cascaded regression.</p> <p>References:</p> <ol style="list-style-type: none"> 1. N. Buch, S. A. Velastin, and J. Orwell, “A review of pc vision techniques for the analysis of urban traffic,” IEEE Trans. Intell. Transp. Syst., vol. 12, no. 3, pp. 920–939, Sep. 2011. 2. J. Lou, T. Tan, W. Hu, H. Yang, and S. J. Maybank, “3-D model- based mostly vehicle trailing,” IEEE Trans. Image method., vol. 14, 	1743-1747

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Paper Title:	Spam Email Classification Using Machine Learning Algorithms
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Abstract: Email is a standout amongst the most secure vehicle for online correspondence and exchanging information or messages through the web. A congesting increment in fame, the quantity of spontaneous information has additionally expanded quickly. To channel information, diverse methodologies exist which consequently identify and expel these indefensible messages. As spam messages are making bother everybody, Machine Learning Techniques now days used to consequently channel the spam email in an effective rate. This paper audits the execution of support vector machines, decision trees and logistic regression on Spam Email information. These three algorithms were tried on an ongoing dataset, where the dimensionality of spam messages were more than 5000 and SVM performed best when utilizing linear kernel. Logistic Regression and SVM's had worthy test execution regarding accuracy and speed. Be that as it may, SVM's had strikingly more accuracy.

Keywords: Spam Email, decision trees, logistic regression, support vector machines.

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 13. Source for dataset <https://www.kaggle.com/>.

Authors:	Prof. P. Subba Rao, V. Geetanjali, N. Durga Naga Lakshmi
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Paper Title:	Performance Comparison of Optimised Qpsk Modulator with MsK Modulator in Vhdl
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Abstract: Quadrature PSK (QPSK) modulation is a prevalent and well spread digital modulation technique. QPSK Modulator was implemented using the CORDIC algorithm with reduction in area and delay than other conventional QPSK modulators. The main problem encountered with QPSK modulator is that phase continuity is not maintained. This problem is removed in another modulation technique called Minimum Shift Keying (MSK). The performance comparison between CORDIC based QPSK modulator and MSK modulator is done which led to the enhancement of some parameters such as area and delay which decide the performance of modulator. The design of both of these modulation techniques were implemented using Xilinx ISE software version 14.5 in VHDL using the Spartan 3E starter kit device.

1753-1756

323.

Keywords: CORDIC, cosine, Minimum Shift Keying, Quadrature PSK, sine.

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Paper Title:

A Novel H-Shaped Reconfigurable Patch Antenna For IoT And Wireless Applications

Abstract: In this paper proposed a novel H shaped patch antenna for IoT and wireless applications. The H-shaped patch antenna is designed to operate at 1GHz, 2.4GHz, 10GHz and 18Ghz which is used for space communication. To achieve re-configurability pin diode is placed between H-shape patch and feed line. which acts as a switch to change the operating band from one frequency to another frequency. The projected antenna is apt for UWB spectrum communication. The patch is designed on FR4 epoxy substrate.

Keywords: Reconfigurable antenna, UWB antenna, IoT.

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Authors: Sanam Nagendram, K. Ramchand H Rao

Paper Title: Parametric Estimation of Various Protocols for Routing In Manets

Abstract: In Wireless communications, recent advances for MANETs (Mobile Ad-Hoc Networks) are rapidly growing which are widely used in several areas such as military, disaster recovery process etc. MANETs are the combination of nodes that moves from one place to other place. In MANETs, Routing protocols are classified into different types; they are unicasting and multicasting routing. In general protocols are defined as the step by step procedure used to find the correct path. Protocols for routing play a vital role in preventing routing attacks. This paper presents the parametric estimation of various protocols that are used for routing such as AODV (Ad-hoc On-demand Distance Vector), DSR (Dynamic Source Routing), and DSDV (Destination Sequence Distance Vector) protocols in MANETs. Further various optimization techniques can help us to find the shortest path.

Keywords: AODV, DSR, DSDV, MANETs.

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Authors: K. Usha, Sathyabama V, Sathya Preetha R, Supriya S, Tarrani S

Paper Title: Analysis of Five Level Cascaded H- Bridge Multilevel Inverter using PV Systems

Abstract: The construction of a Cascaded H-bridge multilevel inverter is done by connecting a set of single full bridge inverter in series. An attempt is made to perform a detailed analysis on five-level Cascaded H-bridge Multilevel Inverter (CHMLI)utilizing three modulation techniques namely Equal Phaseshift method,Phase opposition disposition method,Alternate Phase Opposition disposition method.The Total Harmonic Distortion (THD) % and circuits complexity of the three PWM techniques were compared using MATLAB/SIMULINK software.

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	<p>Keywords: Multilevel Inverter, Pulse Width Modulation, Equal Phaseshift, Phase disposition, Phase opposition Disposition, Alternate Phase Opposition Disposition, Total Harmonic Distortion, Photovoltaic systems.</p> <p>References:</p> <ol style="list-style-type: none"> 1. José Rodríguez, Jih-Sheng Lai, and Fang Zheng Peng, "Multilevel inverters: A Survey of topologies, controls, and applications," IEEE Transaction on Industrial Electronics, vol. 49, no. 4, pp. 724–738, August 2002. 2. Mariusz Malinowski, K. Gopakumar, Jose Rodriguez, and Marcelo A. Pérez, "A survey on cascaded multilevel inverters," IEEE Transaction on Industrial Electronics, Vol. 57, no. 7, pp. 2197–2206, July 2010. 3. Tengfei Wang and Yongqiang Zhu, "Analysis and Comparison of Multicarrier PWM Schemes Applied in H-bridge Cascaded Multi-level Inverters", 5th IEEE Conference on Industrial Electronics and Applications, June 2010. 4. Y. Ounejjar and K. Al-Haddad, "A novel high energetic efficiency multilevel topology with reduced impact on supply network," in Proceedings of IEEE 34th Annual Conference. Industrial Electronics. (IECON), 2008, pp. 489–494. 	
	<p>Authors: Atmaja Raman, Harsh Varddhan Singh, Abhishek Jaiswal, Rajyashree</p> <p>Paper Title: Survival Analysis of Hepatocellular Carcinoma</p>	
	<p>Abstract: This paper performs the survival analysis for Hepatocellular carcinoma using two different algorithms-Random Forest model and Extreme Gradient Boosting (XGBoost) model. The models were used to perform binary classification. The patients were classified into two classes based on survival time > 10 months and <= 10 months. Results showed that the classification accuracy and misclassification rate of the random forest model was 0.66 and 0.34 respectively. The classification accuracy and misclassification rate of Extreme gradient boost model 0.61 and 0.39 respectively. The Random forest model performed better during testing.</p> <p>Keywords: Survival Analysis, Hepatocellular carcinoma, Random forest, Extreme Gradient Boosting.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Parkin DM. "Global cancer statistics in the year 2000" Lancet Oncology 2001;2:533–543. 2. Poon D, Anderson BO, Chen LT et al. Management of hepatocellular carcinoma in Asia: Consensus statement from the Asian Oncology Summit 2009. Lancet Oncol 2009;10:1111–1118. 3. El-Serag HB, Rudolph KL. "Hepatocellular carcinoma: epidemiology and molecular carcinogenesis". Gastroenterology. 2007 Jun;132(7):2557-76 4. Bruix J, Gores, G.J. & Mazzaferro, V. Hepatocellular carcinoma: clinical frontiers and perspectives. Gut 63, 844–855 (2014). 5. Blum H. Hepatocellular carcinoma: therapy and prevention. World J Gastroenterol 2005;11:7391-7400. 6. Aravalli RN, Steer CJ, Cressman EN (2008) Molecular mechanisms of <ol style="list-style-type: none"> a. hepatocellular carcinoma. Hepatology 48:2047–2063. doi: 10.1002/hep.22580 7. Cai ZQ, Si SB, Chen C, Zhao Y, Ma YY, Wang L, Geng ZM. "Analysis of prognostic factors for survival after hepatectomy for hepatocellular carcinoma based on Bayesian network". PLoS ONE 10(3): e0120805, March 2015 8. Hung WT, Lee KT, Wang SC, Ho WH, Chang SC, Wang JJ, et al. (2012) Artificial neural network model for predicting 5-year mortality after surgery for hepatocellular carcinoma and performance comparison with logistic regression model: A nationwide Taiwan database study. In Proceedings of the Third International Conference on Innovations in Bio-Inspired Computing and Applications.IEEE: 241–245 9. Mazzaferro V, Llovet JM, Miceli R, et al. "Predicting survival after liver transplantation in patients with hepatocellular carcinoma beyond Milan criteria: a retrospective, exploratory analysis". Lancet Oncol 2009;10:35–43. 10. Chen CM, Hsu CY, Chiu H W, Rao HH. "Prediction of survival in patients with liver cancer using artificial neural networks and classification and regression trees". 7th Natural Computation International Conference, Shanghai. Piscataway, IEEE: 811–815(2011). 11. A. Statnikov, L. Wang, C.F. Aliferis, A comprehensive comparison of random forests and support vector machines for microarray-based cancer classification, BMC Bioinformatics 9 (319) (2008) 1–10. 12. D. Chen, K. Xing, D. Henson, L. Sheng, A. Schwartz and X. Cheng, Developing prognostic systems of cancer patients by ensemble clustering, Journal of Biomedicine and Biotechnology 2009 (2009), 632786 13. Mustapha, I. B., and F. Saeed. 2016. "Bioactive Molecule Prediction Using Extreme Gradient Boosting." Molecules 21(8):1–12. doi:10.3390/molecules21080983. 14. L. Breiman, Random forests, Machine Learning 45(1) (2001), 5–32. 	
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	<p>Authors: G. L. Anand Babu, B. Srinivasu</p> <p>Paper Title: A Conceptual Based Approach in Text Mining: Techniques and Applications</p>	
	<p>Abstract: In increasing the development and application of digital data in various fields, the discovery of knowledge and the extraction of texts show great consideration for the most useful information and knowledge. The main concern is the application of appropriate schemes and activities to analyze text documents from a large volume of data. For decision making and future expectations, we use different methods and tools to undermine the text and determine the appropriate information. To improve speed and reduce the time and effort required to extract valuable information, correct and correct methods for extracting text must be applied. The article presents precisely on the evaluation of text mining techniques and their applications in different fields of life.</p> <p>Keywords: Text Mining, Classification, Clustering, Summarization, Information Extraction, Information Retrieval.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Juan Jose Garcia Adeva and Rafael Calvo, "Mining Text with Pimiento", University of Sydney. 2. Rashmi Agrawal, Mridula Batra, "A Detailed Study on Text Mining Techniques", IJSCE, ISSN: 2231-2307, Vol. 2, Issue-6, January 2013. 3. Vallikannu Ramanathan, T. Meyyappan "Survey of Text Mining", International Conference on Technology and Business and 	
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	<p>Authors: Rashmi Sharma , Inder Singh , Deepak Bharadwaj , Manish Prateek</p> <p>Paper Title: Incorporating Forgetting Mechanism in Q-learning Algorithm for Locomotion of Bipedal Walking Robot</p>	
329.	<p>Abstract: A walking bipedal is a kind of humanoid which resembles human. Bipedal are programmed for some specific tasks. The work studied biped walking with ZMP to control balance mechanism using reinforcement learning(RL). The proposed forgetting Q-learning algorithm helps the bipedal to learn to walk without any prior knowledge of dynamics model of the system. In this work, the study is carried out to examine improvement to reinforcement learning(RL) algorithm in order to successfully relate with the continuously changing environment. The bipedal navigation is studied by implementing forgetting mechanism in the traditional Q-learning algorithm. Simulations were performed on each of the six joints of both legs of bipedal to evaluate the feasibility study of the proposed algorithm. The optimal policy for navigation was evaluated. Incorporating forgetting mechanism improves the learning time of the RL agent to a certain extent in a dynamic environment. The learning architecture was developed to solve complex control problems. It uses different modules that consists of simple controllers with RL forgetting Q-learning algorithm.</p> <p>Keywords: Bipedal, Reinforcement Learning, Q-Learning Algorithm, Walking Robot, Optimal Policy, Forgetting Mechanism.</p> <p>References:</p> <ol style="list-style-type: none"> 1. G. de Santos, E. Garoia, R. Ponticelli, and M. Armada, "Minimizing Energy Consumption in Hexapod Robots," Advanced Robotics, vol. 23, pp.681-704, 2009. 2. E. Burkus and P. Odry, "Autonomous Hexapod Walker Robot "Szabadka(ka)"," Acta Polytechnica Hungarica, vol. 5, pp. 69-85, 2008. 3. J. Iovine, "Hexapod Walker Robot," Poptronics, vol. 2, pp. 42-46, 2001. 4. L. Skrbá, L. Reveret, F. Hetrov, M. -P. Cani and C. O'Sullivan, "Animating Quadrupeds: Methods and Applications," Computer Graphics Forum, vol. 28, pp. 1541-1560, 2009. 5. T. Yaginuma, T. Takesima, E. Shimizu, M. Ito and J. 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Authors:	Amairullah Khan Lodhi, M. S. S. Rukmini, Syed Abdulsattar
Paper Title:	Energy-Efficient Routing Protocol Based on Mobile Sink Node in Wireless Sensor Networks
<p>Abstract: Wireless networks be comprise of spatially spread independent sensor node linked with each other for maintaining and detecting the environmental as well as physical states of the given application. The batteries of these sensor nodes are outfitted with limited energy to work as a source of energy. Hence, efficient energy utilization is a significant challenge in these types of networks, which are equipped with batteries having limited power storage capacities. Thus, routing techniques with energy efficiency are needed in corporate operations of WSN to provide the connectivity and data transmission in a network with minimum energy consumption. So, routing protocols are one of the key considerable factors to minimize the consumption of energy and lifetime elaboration of the network. Thus, this work gives the development of routing protocol with efficient energy to elaborate systems lifetime by selecting a proper route with the consideration of “reactively the status of an intermediate node”. Proposed protocol “reactively the status of an intermediate node” computes the route finding metric based on current energy condition of an intermediate node. To offer a complete understanding of energy-aware routing, protocols are developed for WSN and superimpose the path for forthcoming investigation; in this paper, the feat of “energy-aware routing protocol based on residual status” is analyzed in detail. Based on performance parameters analyzed such as delivery of the packet, the lifetime of the network, and delay (end to end); through NS2 simulator, the result shows proposed system performs better than the present protocols in terms of systems lifetime as well as other metrics considered.</p>	
<p>Keywords: Efficient Energy, WSN, Route Discovery Time, Delay, Packet Loss.</p>	
<p>References:</p>	
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Authors:	N. Thirupathi Rao, Debnath Bhattacharyya, Tai-hoon Kim
Paper Title:	Design and Development of OMPS Game
<p>Abstract: The current Model “Online Multiplayer Strategy Game” is an online multiplayer strategy game which is developed as a web application. Each player starts the game as the leader of a small undeveloped village, surrounded by undeveloped resource fields. Creating military units will allow them to attack a person or defend</p>	

	<p>from enemy attacks. Players can join as a team. Allies may trade resources through trade market or send reinforcements when others are being attacked. An alliance can win the game by destroying the enemy alliance completely. The main motive of the game is to gather resources with villagers, developing village by constructing new buildings, creating as many troops as you can and destroying the enemy alliance with your alliance. The current Model is developed using mean stack. A standard java stack called MEAN is used for designing and building the dynamic web pages. Also the same software is used for MongoDB and other sources etc., The current work sparks the player's creativity, develops problem solving skills, and improves one's planning, management and foresight. The game is portable and can be accessed from anywhere.</p> <p>Keywords: Online game, multiplayer's, villagers, strategy and game.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Getting MEAN with Mongo, Express, Angular, and Node -Book by Simon Holmes. [Accessed on 10-12-2018] 2. Mean Web development book by Amos Q.Haviv. [Accessed on 10-12-2018] 3. https://www.mongodb.org. [Accessed on 10-12-2018] 4. https://www.nodejs.org [Accessed on 12-12-2018] 5. https://npmjs.com/ [Accessed on 11-12-2018] 6. http://www.tutorialspoint.com [Accessed on 05-12-2018] 7. http://www.javatpoint.com [Accessed on 05-12-2018] 8. http://http://android-developers.blogspot.in [Accessed on 05-12-2018] 9. https://design.google.com [Accessed on 05-12-2018] 10. https://www.google.com/design/spec/material-design [Accessed on 15-12-2018] 11. https://www.youtube.com/watch?v=upgjCMHGpwo [Accessed on 15-12-2018] 12. https://www.youtube.com/watch?v=EMiU8zACVgA [Accessed on 15-12-2018] 13. https://blog.jetbrains.com/webstorm/2014/01/getting-started-with-node-js-in-webstorm/. [Accessed on 15-12-2018] 	1793-1797
<p>Authors: Haida Umiera Hashim, Melor Md Yunus, Harwati Hashim</p> <p>Paper Title: '3-Minutes Pitching with Flip Grid': An Antidote of Innovation for Speaking Anxiety</p> <p>Abstract: Globalisation has increases the need for us to speak a common language. One of the most used international language is English language. More and more people are focusing on enhancing their English Language skills, especially communication skills as it will give them the necessary edge in education and employment. It is to be considered as crucial and essential to develop good communication skills to express opinions, feelings and thoughts. Students, especially those in tertiary institutions have realised the importance of mastering English language yet still unable to conquer the skills of communicating in English language. Hence, it is believed that the practice of speaking routine intervention in the classroom as an innovation will be able to be one of the antidotes in combatting the issue of speaking anxiety among learners. A qualitative study is conducted involving twenty-two undergraduate students of English for Communication Course at a local public university. The findings have found out that the routine of 3-minutes pitching with the help of an application called FlipGrid in combination with face to face classroom is helpful in the run towards making learners to be good in communication skills. The findings have gathered that this innovation has helped learners to develop self-confidence and to combat speaking anxiety. Further recommendations and suggestions are discussed in this study.</p>		
<p>Keywords: Innovation, Communication Skills, ESL Learning, Speaking Anxiety, 3-Minutes Pitching.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Hashim, H. U., Yunus, M. M., & Hashim, H. (2018). BITESIZE LEARNING: WHATSAPP STATUS FOR ENGLISH COMMUNICATION SKILLS. EDUINNOVATION, 8. 2. Hussin, S. (2007). Creating a bigger ZPD by extending learning process via online forum. 3. Kim, D., Ruecker, D., & Kim, D. J. (2019). Mobile assisted language learning experiences. In Computer-Assisted Language Learning: Concepts, Methodologies, Tools, and Applications (pp. 1059-1077). IGI Global. 4. Kukulska-Hulme, A. (2018). Mobile-assisted language learning [Revised and updated version]. 5. Omar, H., Embi, M. A., & Yunus, M. M. (2012). Learners' use of communication strategies in an online discussion via Facebook. Procedia-Social and Behavioral Sciences, 64, 535-544. 6. Thirusanku, J., & Yunus, M. M. (2014). Status of English in Malaysia. Asian Social Science, 10(14), 254. 7. Yunus, M., Hashim, H., Fatihah, N., Jaafar, M., Hazli, M. Z., & Zairidan, N. I. (2018). ESL Learners' Acceptance Towards the Use of Technology in Enhancing Writing Skills, 10(May), 1712–1718. 8. Yunus, M. M., Salehi, H., & Chenzi, C. (2012). Integrating social networking tools into ESL writing classroom: Strengths and weaknesses. English Language Teaching, 5(8), 42-48. 9. Yunus, M. M. (2018). Innovation in Education and Language Learning in 21st century. Journal of Sustainable Development Education and Research, 2(1), 33-34. 10. Sabri, U., & Qin, T. Y. (2014). Communication apprehension among Nilai College students. Advances in Language and Literary Studies, 5(5), 46-49. 	1798-1801	
<p>Authors: Y. Nithish, D. Sreekar Varma, L. Pavan Koundinya, B. Sekahr Babu</p> <p>Paper Title: Smart Garbage Monitoring System using Ultra Sonic Sensor and Node MCU</p> <p>Abstract: Waste oversaw economy will be a standout amongst the exceptional issues that the globe confronts in any case of the case about formed or Creating country, the way issue inside the waste management is that those junk bin's In the open spots gets overflowed great ahead in the recent past the beginning of the cleaning methodology. It thus prompts Different dangers for example, terrible smell & offensiveness to that spot which might make those root reason for spread from claiming Different illnesses. Will evade every last bit such perilous</p>		

circumstances and look after government funded cleanliness and wellbeing this worth of effort may be mounted around a sensible trash framework. That fundamental subject of the worth of effort is to create an sensible canny trash following framework for An right waste administration. The Trash can is equipped with the ultrasonic sensor and a Node MCU micro controller. The ultrasonic sensor attached to the bin will check the status of the bin, that is whether the bin is full or not. The whole system is connected to the Wi-Fi router nearby using the Node MCU and Arduino IDE, once the ultrasonic sensor detects that the level of the bin as full, the level of the trash can is displayed on the webpage thereby intimating the local authorities to empty the bin. Thus, the system can help in increasing overall productivity and cleanliness. To facilitate the entire system a website is developed which is equipped with three core modules such as Data monitoring, Data viewing and Data analysis. Each module facilitates the entire system to operate.

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Keywords: Node MCU, Ultra Sonic and level sensor, Wi-fi.

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Authors: S.K. Manju bargavi

Paper Title: Efficient algorithm for Packet Transmission in Wireless Ad-hoc Network

Abstract: An Ad hoc wireless incorporate is decentralized what is coming to one to its state of thing of functionality and availability to users. Routers that are of object of observant networks or secure points are further available for wireless expedient networks. Mobile Adhoc NETwork (MANET) receive issues savor fire in belly authority as the nodes are express and suffers from big money losses. The users in the join have attain to announcement in an isolated manner. Since there is no approach approximately user achieves and quality of gain to message, there is valuable need for warranty to be provided as part of the design. This complimentary is direct the energy factual wireless communication. In this field associate quantity ERCIM mutually PNCC algorithmic bully for wireless ad hoc network [25]. The concern used guarantees to construct a reliable topology with consider to basic principle or departure of single network node whereas transferring impression from supply to destination. The show of the PNCC algorithmic intimidate has been conferred in relations of things is energy consumption and packet propagation ratio. The PNCC expeditiously manages energy consumption scanty than the reveal NCC algorithm rule; too packet travail ratio is greater by about 0.06 to 0.34 than the recite NCC algorithm. The results conferred everywhere this freebie confirmation that the period time of the nodes improves by the agency of the pNCC algorithm.

Keywords: Component, Interference, MANET, Packet, pNCC, Receiver-Centric.

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Authors:	Roszaharah Yaacob, Chok Dong Ooi, Seng Chun Hoo, Hadi Ibrahim, Helmi Hadi, Nik Fakhruddin Nik Hassan
Paper Title:	Classification of Crease Features from Interdigital and Hypothenar Regions of Palmpprint Image for Race Identification using Convolutional Neural Network

Abstract: In this paper, we investigate the feasibility of crease features from interdigital and hypothenar regions of palmpprint image to identify race of individual. The classification is done by means of deep learning architecture known as convolutional neural network (CNN). In this research, two square region of interests (ROIs) have been used, corresponding to interdigital and hypothenar regions, as the input data for the CNN classifier. Three sizes of input data have been used. Experiments to select suitable CNN parameters have also been carried out. These parameters are the number of training epoch, activation function, and data augmentation. Results obtained through a four-fold cross validation have shown that variation of input data size would deviate computational complexity and classification performance of the CNN classifier. Besides that, fine tuning on CNN parameters and data augmentation could induce positive effect on classification.

Keywords: Artificial intelligent, biometrics, convolutional neural network, identification, machine learning, palmpprint, race identification.

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Authors: Abirami G, Revathi Venkataraman

Paper Title: Attribute Based Access Control with Trust Calculation (ABAC-T) for decision policies of health care in Pervasive Environment

Abstract: Attribute Based Access Control (ABAC) provides a high degree of security in access control mechanisms. Since ABAC is a fine-grained access control, it is being used wider in network security. In this paper, we have proposed an ABAC to emphasize access mechanism in pervasive computing for providing authorization to access resources which is in dynamic. The pervasive computing provides contextual information that is used as one of the attributes in ABAC to improve protection in a specific context. Moreover, ABAC is working based on the rich set of attributes to make an authorization decision more effective. To improve more on secured access privilege of users, the trust is included as one of the attributes in a subject that, provides access control in the dynamic environment. Due to the inclusion of trust, it provides flexibility and scalability in enforcing security policy. To provide access privilege to the user in a time-critical situation the trust value is calculated.

Keywords: Attribute Based Access Control, Pervasive computing, Trust, Ubiquitous.

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Paper Title: Clustering Protocols in Underwater Wireless Sensor Networks: A Communication Approach Overview

Abstract: Underwater Wireless Sensor Networks (UWSNs) reveal a diverse range of applications among varied networks where sensors are deployed for exploring resourceful activities such as tactical surveillance, ocean monitoring, offshore analysis, oceanographic data collection and instrument observing. All these activities are based on the number of sensors deployed in ocean for data collection and communication. Naturally, underwater medium through which the data transmits from source to destination i.e. network is volatile. Despite, sensing and transmitting over a selective range in UWSNs signifies to be challenging with relevance to limited bandwidth, long propagation delay and severe multipath fading. This research explicitly defines the recent proposed routing protocols in terms of clustering techniques. In addition, the research work revealed the summary of clustering protocols in UWSNs together suggesting future research exploration in the field of underwater environments.

Keywords: UWSNs, Sensors, Clustering, Routing Protocols, Underwater Communications.

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338.	<p>Authors: Graphical User Interface Testing Using GUITAR and Hadoop Unit</p> <p>Paper Title: Sumit Kumar, Nitin</p> <p>Abstract: The testing of the graphical user interface is very complicated and time-consuming job. The complexity of the task came into existence when small changes are introduced in the software, and there is the need for regression testing. The most appropriate way to test the software for the possible states of GUI rather than relying on the randomly generated test suites. This paper focuses on reducing the time consumption of the testing the GUI using the hadoop environment with the help of event flow graph, and test cases generated using the guitar testing tool. From the result it can be observed that there is an exponential growth in the number of test cases as the length of the test sequence containing the events is increased. As the experimental setup defined in our study, two virtual machine with hadoopunit. As in the testing we can execute only one test case at time so here two test cases can be executed concurrently. The maximum speedup that can be achieved is always less than 2.0 but we are successful in reducing the time to approximately half as the speedup achieved is 1.96.</p> <p>Keywords: Graphical User Interface, Regression Testing, hadoop, hadoopunit.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Ananthanarayanan, G., Malhotra, G., Balakrishnan, M., & Sarangi, S. R. (2013). Amdahl's law in the era of process variation. International Journal of High Performance Systems Architecture, 4(4), 218. https://doi.org/10.1504/IJHPSA.2013.058984 2. Artzi, S., Dolby, J., Jensen, S. H., Møller, A., & Tip, F. (2011). A framework for automated testing of javascript web applications. In Proceeding of the 33rd international conference on Software engineering - ICSE '11 (p. 571). New York, New York, USA: ACM Press. https://doi.org/10.1145/1985793.1985871 3. Artzi, S., Kiezun, A., Dolby, J., Tip, F., Dig, D., Paradkar, A., & Ernst, M. D. (2010). Finding Bugs in Web Applications Using Dynamic Test Generation and Explicit-State Model Checking. IEEE Transactions on Software Engineering, 36(4), 474–494. https://doi.org/10.1109/TSE.2010.31 4. Ashkenas, J., & others. (n.d.). CoffeeScript, 2010. URL Http://coffeescript.org. 5. Cao, Z., Lin, J., Wan, C., Song, Y., Taylor, G., & Li, M. (2017). Hadoop-based framework for big data analysis of synchronised harmonics in active distribution network. IET Generation, Transmission & Distribution, 11(16), 3930–3937. https://doi.org/10.1049/iet-gtd.2016.1723 6. Choi, W., Necula, G., & Sen, K. (2013). Guided GUI testing of android apps with minimal restart and approximate learning. In Proceedings of the 2013 ACM SIGPLAN international conference on Object oriented programming systems languages & applications - OOPSLA '13 (pp. 623–640). New York, New York, USA: ACM Press. https://doi.org/10.1145/2509136.2509552 7. Chu, C.-T., Kim, S. K., Lin, Y.-A., Yu, Y., Bradski, G., Olukotun, K., & Ng, A. Y. (2007). Map-reduce for machine learning on multicore. In Advances in neural information processing systems (pp. 281–288). 8. Goardrich, M. H., & Rogers, M. P. (2011). Smart smartphone development. In Proceedings of the 42nd ACM technical symposium on Computer science education - SIGCSE '11 (p. 607). New York, New York, USA: ACM Press. https://doi.org/10.1145/1953163.1953330 9. Gustafson, J. L. (1988). Reevaluating Amdahl's law. Communications of the ACM, 31(5), 532–533. https://doi.org/10.1145/42411.42415 10. Hackner, D. R., & Memon, A. M. (2008). Test case generator for GUITAR. In Companion of the 13th international conference on Software engineering - ICSE Companion '08 (p. 959). New York, New York, USA: ACM Press. https://doi.org/10.1145/1370175.1370207 	1828-1834

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Paper Title: Transient Analysis of Interrupted Secondary Users With the Provision of Finite Buffer

Abstract: This paper investigates the provision of buffer mechanism impact for interrupted secondary users using analytical finite time dependent queuing model. The main focus of the research area in Cognitive Radio Networks(CRN) is the spectrum access management of the secondary users along with interrupted secondary users, because the secondary users play key role for getting maximum revenue of service providers with opportunistic spectrum access. During the transmission period of secondary users, the handoffs occurred due to primary user arrivals when all channels are busy. The primary users arrival rate, the state of all channels busy are fluctuated from time to time. In this paper, to resolve these timely varying problems with a two fold. (i) provision of buffer for the interrupted secondary users (ii) transition analysis is carried out to identify transition behavior of interrupted secondary users. For achieving these objectives, the CRN transmission process modeled as multi channel with finite buffer queueing model and differential equations are derived. Important performance metrics are evaluated based on these derived equations and numerical illustration is carried out. The analytical results presented as tables and graphs and conclusions are drawn.

Keywords: Cognitive radio networks, M/M/C/K, queue length, throughput, blocking probability.

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Authors: Manoj Kumar Gupta

Paper Title: Frequency Based Indexing Technique for Pattern Matching

Abstract: Database management systems (DBMSs) play vital role in storing and managing the structured data in various application domains. Databases are queried by the users and the applications many times to access the stored data in different formats by using various search conditions. To improve the performance of the search operations, indexes are generally used by the DBMS. At present, almost all commercially available database management systems, performs full table scan (i.e. linear search) to answer the queries based on the LIKE '%...%' search even if the table is indexed based on the column being searched for. Although a number of indexing techniques have been proposed in the literature, but there is no index provided by the commercial RDBMS to efficiently answer the queries based on the LIKE '%...%' search. In order to improve the performance of the queries based on LIKE '%...%' operator (or pattern matching), a new indexing technique based on the frequency count of each character in the text is proposed in this paper. The proposed scheme is based on frequency count of each character in the string and the frequency is represented using B-Tree data structure. The proposed indexing technique is an attempt to answer the queries based on the LIKE '%...%' search without requiring full table scan which is shown through the empirical evaluation of the proposed scheme.

Keywords: Frequency Based Indexing Technique, Pattern Matching, LIKE Operator, B-Tree Index, Database Management System (DBMS).

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Paper Title: **Power efficient 5G Wireless Networks based on Self-Organized Utility Function**

Abstract: The problem of power control in uplink transmission for 5G wireless networks is studied in detail in this research paper, and an optimal technique in which power control in uplink direction is proposed using a Utility function in turn it can be treated as a self-organized technique. It is necessary that wireless networks of next generation must handle both multimedia and data services which may be real time or non-real time in an efficient way to achieve optimal data rates to all users. By using optimal power control scheme and also rate control schemes system resources can be utilized efficiently. With the help of Utility function based on economic theory the efficient power control algorithm is being developed. The solution of Utility function for control of uplink power is derived by Lagrangian equation method. It can also be proved that the self-organizing utility function can be best used to achieve the optimal uplink power control scheme and the unique results are obtained which in turn depend on the different user environment. Numerical results of the algorithm presented here also show that optimal power control scheme is achieved using self-organized utility function.

Keywords: power control, 5G networks, utility function, self-organized network (SON), Lagrangian equation.

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Authors: **Muralikrishnan Gopalakrishnan, Nalin Kant Mohanty**

Paper Title: **Performance Analysis of Modified Shunt Active Line Conditioner (MSALC) Using Notch Adaptive Filter**

Abstract: The paper proposes a 3- Ph 3- wire Modified Shunt active line conditioner (MSALC) incorporating the features of notch adaptive filter for non-sinusoidal PCC voltages. The theory behind the design of MSALC is instantaneous power theory for the excellent compensation characteristics. Notch Adaptive Filter (NAF) employed with its principal features to handle the unbalanced as well as distorted PCC voltages. Using Notch adaptive filter significant with MSALC is tested from the simulation results of Matlab/SimPower System tool environment by injecting anti-harmonic current of loads even though under non-sinusoidal voltage conditions.

Keywords: Point of Common Coupled, Modified Shunt Active Line Conditioner, Notch Adaptive Filter, Instantaneous Power theory.

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	<table border="1"> <tr> <td>Authors:</td><td>Akalya Paranthaman, Papanasam Esakki</td></tr> <tr> <td>Paper Title:</td><td>Design and Simulation of Thin Body Silicon Carbide MOSFET with Buried Oxide</td></tr> </table>	Authors:	Akalya Paranthaman, Papanasam Esakki	Paper Title:	Design and Simulation of Thin Body Silicon Carbide MOSFET with Buried Oxide	
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Paper Title:	Design and Simulation of Thin Body Silicon Carbide MOSFET with Buried Oxide					
	<p>Abstract: Silicon carbide as a wide band gap semiconductor with attractive electrical and thermo physical properties has found its applications in high temperature, high power and radhard environment. However, silicon carbide MOS devices suffer from higher density of interface states than similarly oxidized silicon/SiO₂ interface. Improving the interface and electrical characteristics of silicon carbide MIS/MOS structure suitable for the above said applications is the current focus of the researcher. In this work, thin body silicon carbide MOSFET with buried oxide has been designed using TCAD and its electrical characteristics has been analyzed. Comparison of drain, transfer and capacitance voltage characteristics with conventional silicon carbide MOSFET reveals that thin body with buried oxide has improved the performance of MOSFET with higher gate capacitance, higher drive current and gain than conventional structure. Proposed SiC MOSFET with buried oxide exhibit higher gain with stable threshold voltage as the thickness of the body increases. Further, the proposed device exhibit higher field effect mobility than conventional MOSFET.</p>					
	<p>Keywords: Buried oxide; MOSFET; Silicon carbide; TCAD;</p>					
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	<table border="1"> <tr> <td>Authors:</td><td>Chava Venkatesh, Vankeswaram Ramanjaneyulu, Komma Hemanth Kumar Reddy, Chereddy Sonali Sri Durga, Polu Sathish</td></tr> <tr> <td>Paper Title:</td><td>A Pilot Strength Studies on Granite Powder and Silica Fume Based Concrete</td></tr> </table>	Authors:	Chava Venkatesh, Vankeswaram Ramanjaneyulu, Komma Hemanth Kumar Reddy, Chereddy Sonali Sri Durga, Polu Sathish	Paper Title:	A Pilot Strength Studies on Granite Powder and Silica Fume Based Concrete	
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Paper Title:	A Pilot Strength Studies on Granite Powder and Silica Fume Based Concrete					
	<p>Abstract: The current work focused on utilization of granite powder as a mineral admixture in concrete. Granite stones are highly precious natural resource, which are used in construction industries. While crushing or cutting of granite stones more than half of the granite wasted in the form of granite dust or powder. Utilization of large amount of granite powder (GP) in concrete as replacement to the cement can control the pollution due to cement industries. The current work granite powder was replaced by cement with 0% to 20% with interval of 5%. Based on the results, the optimum replacement of granite powder was 15% and which is kept as constant. Silica fume (SF) used as a ternary mineral in current mix and it is replaced by cement was 0% to 8% with interval of 2%. The optimum replacement of silica fume in granite powder concrete was 6%. The presence of higher content of calcium and silica in mix helps to develop C-S-H gel formation; this is reason for enhancement of mechanical properties in present concrete mixes.</p>					
	<p>Keywords: Granite Powder, Silica Fume, Compressive Strength, C-S-H gel, Split Tensile Strength.</p>					
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345.	<p>Authors: K.Usha, S.Manasa, R.Priyadharshini</p> <p>Paper Title: Design and Implementation of Reduced DC-link Capacitance using Voltage Compensation Technique for a Solar PV Module</p>	
	<p>Abstract: The bulkiness of the DC link capacitor is a very critical matter of concern, in the solar power harnessing circuit. An alternative method to reduce this bulk capacitor is necessary to reduce the overall cost of the system and the ripple content in the circuit, without affecting the overall efficiency of the system. In this paper, a methodology is proposed in which a voltage compensator is integrated with the DC bus line to accomplish the reduction in the DC link capacitance for a solar PV module.</p> <p>Keywords: DC Link Capacitor, Voltage Compensator, Capacitor Reduction.</p> <p>References:</p> <ol style="list-style-type: none"> Kumar Swaraj, Abhimanyu Mohapatra and Sudhansu Sekhar Sahoo, "Combining PV MPPT algorithm based on temperature measurement with a PV cooling system" in International conference on Signal Processing, Communication, Power and Embedded System (SCOPES)-2016. Xin Cao, Qing-Chang Zhong and Wen-Long Ming, "Ripple Eliminator to Smooth DC-Bus Voltage and Reduce the Total Capacitance Required" in IEEE transactions on industrial electronics-2013. B. G. Gu, and K. Nam, "A DC-link capacitor minimization method through direct capacitor current control," IEEE Trans. on Industry Applications, vol. 42, no. 2, pp. 573-581, Mar./Apr., 2006. S. Li, B. Ozpineci and L. M. Tolbert, "Evaluation of a current source active power filter to reduce the DC bus capacitor in a hybrid electric vehicle traction drive," in Proc. of IEEE 2009 Applied Power Electronics Conference, 2009, pp. 1185-1190. H. Yoo and S. K. Sul, "A new circuit design and control to reduce input harmonic current for a three-phase AC machine drive system having a very small DC-link capacitor," in Proc. of IEEE 2010 Applied Power Electronics Conference, 2010, pp. 611-618 R. Wang, F. Wang, D. Boroyevich and P. Ning, "A high power density single phase PWM rectifier with active ripple storage," in Proc. of IEEE 2010 Energy Conversion Congress and Expo, 2010, pp. 1378-1383. P. T. Krein and R. S. Balog, "Cost-effective hundred-year life for single-phase inverters and rectifiers in solar and LED lighting applications based on minimum capacitance requirements and a ripple power port," in Proc. of IEEE 2009 Applied Power Electronics Conference, 2009, pp. 620-625. D. C. Hamill and P. T. Krein, "A 'zero' ripple technique applicable to any DC converter", in Proc. of IEEE Power Electron. Spec. Conf., 1999, pp. 1165-1171. Huai Wang, Member, Henry Shu-Hung Chung and Wenchao Liu," Use of a Series Voltage Compensator for Reduction of the DC-Link Capacitance in a Capacitor-Supported System", IEEE Transactions on Power Electronics, Vol. 29, No. 3, March 2014. 	1882-1885
346.	<p>Authors: A. Richard, p. Krithika</p> <p>Paper Title: An Experimental Investigation Of Self-Healing Property On Ecc With Pp And Pva Fibers Using Bacteria Under Different Exposure</p> <p>Abstract: This study focuses to develop the self-healing property of Engineered Cementitious Composites</p>	

(ECC) with Polypropylene (PP) and Poly Vinyl Alcohol (PVA) fibres with Bacteria. Self-healing property of ECC based on Calcium Acetate precipitation induced through bacterial activity has been investigated in this project. This technique is highly desirable because the mineral precipitation induced, result and discussion are natural and pollution free. ECC specimen containing *Bacillus subtilis* were pre-cracked at 7 days. The conclusion on the mechanical properties and durability properties of ECC due to the mixing of bacteria is also discussed. Scanning electron microscope (SEM) is used to document the role of bacteria in microbiologically made mineral precipitation. The Bacterial ECC increase in mechanical and durability properties than the normal ECC, it also gives more workability when it is replaced with 10%, 20% and 30% of bacteria in water content with polypropylene fibre and polyvinyl alcohol fibre. It shows that PVA fibres give better performance compared to PP fibres and self-healing takes place under different exposures of the ECC specimens.

Keywords: Self-Healing, Engineered cementitious composites (ECC), Polyvinyl alcohol (PVA), Polypropylene (PP), Sodium Hydroxide (NaOH), Sodium sulphate (Na₂SO₄).

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Paper Title:

Inflow Forecasting Analysis for Nagarjunasagar Dam Andhra Pradesh using Time series Statistical models

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Abstract: Krishna river based dams are an important part of socio economic growth of Andhra Pradesh. Nagarjuna sagar dam is one of them. Historically it has been providing unprecedented value to Andhra Pradesh. Analysis of this dam's history like patterns of water inflow, outflow, capacity of dam at various times is performed here. This detailed analysis provides deeper insight for last fifteen year's of dam data. Seasonal trends in data show how the water is used, and with what pattern dam inflow occurs. Also, auto correlation of various dam variables is calculated to improve forecasting models. Additionally, here data is cleaned, outliers are handled, and missing values are filled. This pretreatment of data leads to better analytical perspectives from data. Such analytical study is helpful in prediction of future trends related to this reservoir.

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Keywords: Nagarjuna Sagar Dam, Water inflow and outflow, Dam Capacity, Data Analysis.

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Authors: Subham Chauhan, Swarnim Gupta, Nipun Tank

Paper Title: Cluster Analysis of Trees for Fauna

Abstract: Nowadays, many problems are arising due to large scale deforestation and soil erosion. Instead of leaving the land uncultivated, it can be used in a beneficial way by growing beneficial plants. Different species of plants require different climatic conditions for optimum growth. So, clustering of plants can be beneficial such that plants will get an adequate amount of nutrients. By clustering the plants, the appropriate land can be found in which surplus amount can be grown easily. Different plants need different types of nutrients from the soil and also, the groundwater level of all areas isn't the same. Hence, there is a need to identify the right area of land for cultivation. This will not only be advantageous for humans and animals but also, it will help improve the environment of the area. Afforestation will help improve the water cycle, reduce soil erosion and other such issues. The report will consist of trees grouped in clusters of different species. This could be done by data mining, and the clustering algorithm is a particular data mining concept. Cluster analysis is a method in which clusters are formed based on common characteristics i.e. elements in the same cluster are analogous to each other than those in other clusters. R language could be used for clustering trees and plants of a particular area. It is free software for statistical computing and graphics.

Keywords: Cluster Analysis, Data mining, Land Utilization, R tool.

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Authors: S.Rama Mani,Akshaya.A.P ,Aiswarya.R ,Ramyasri. M ,Vinisha.J

Paper Title: Secure Deduplication for Cloud Storage by Encrypting Cipher Text Using Aes Algorithm

Abstract: Data play a important role in every part of our life. Because processed information is obtained only from the processed data. Those data are gathered from various users and stored in a cloud storage. Cloud is a new technology that is developed to reduce the storage area and cost of storage. Users having same data share a common storage area and that data can be fetched whenever needed. These data's are encrypted and stored as cipher text to avoid data threat. The number of users and the data stored in cloud is increasing exponentially day by day. The only way to reduce the cloud storage is data deduplication, elimination of repeated data in cloud. The data deduplication becomes more and more a necessity for cloud storage providers. To make it more secured the data is encrypted with Advanced Encryption Standard (AES) key.

Keywords: Cloud Computing and cloud platform, Data Privacy, Data Security, Models of Cloud Computing.

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	<p>Authors: Charanjeet Singh, Tripat Deep Singh</p> <p>Paper Title: Evaluation of 3 Level Multifactor Authentication Model based on Click-GPass Graphical Password Scheme</p>	
	<p>Abstract: In insecure cloud environment an efficient and robust authentication system can boost security especially when critical data access or financial transactions are to be carried. Usage of single factor authentication (SFA) schemes proves to be inefficient and insufficient in such applications. The security in cloud environment can be boosted by using authentication mechanism that incorporates multiple factors for verifying the user's identity. To meet this need, we propose a multi-level and multifactor authentication scheme called 3 Level Multifactor Authentication (3L-MFA) that incorporates knowledge based factors and Out of Band (OOB) authentication. The scheme uses a novel graphical password based authentication scheme called Click-GPass (Clickable Graphical Password) at its third level of authentication that is not only user friendly but also secure. The proposed study is based on a premise that when multiple levels and multiple factors are incorporated in an authentication scheme it not only becomes difficult to break but also resistant to different forms of attacks. The security analysis of the proposed system was carried out in terms of password guessing, shoulder surfing attacks. Several different factors of usability were also analyzed. Feedback on usability features of scheme was also gathered from user by the mean of questionnaire. The results of empirical study for 3L-MFA and Click-GPass scheme proved that scheme is efficient both in terms of usability and security.</p>	
	<p>Keywords: Click based graphical password, Multifactor authentication, Out of band, OTP, Security and Usability.</p>	
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	Authors: Sreekumar P. Pillai, Radharamanan T. Madhukumar S.D. Paper Title: An Experiment to Improve Expert Judgment Software Estimation through Work Breakdown Structure	
	<p>Abstract: Software Project Managers are often faced with the dilemma of estimating the cost and duration of new projects and enhancement requests. The software industry is relatively new, and surveys conclude that software size and effort estimation is a challenge and needs research solutions. In the last three decades, research has come up with a substantial amount of analysis and study resulting in a variety of software estimation models. Recently, with the onset of Machine Learning and AI related technologies, numerous models have been evidenced that provides better technical accuracy to the problem of software estimation. At the same time, research still evidences that Estimation based on Expert Judgment remains the most widely used methodology. While estimating smaller units of work as in an enhancement or maintenance project is less error-prone, previous research does not report enough accuracy. The objective of this research is to bring a structure to the EJ methodology and bring in consistency and accuracy to an otherwise human-centered and intuition led approach. We employed a lean and straightforward work break down (WBS) to each of the enhancement requests that were put up to a support team for estimation purposes. We evidence that our approach of employing this work-breakdown can bring in two-fold improvement to the estimation process while using expert judgment. This approach also ensures a stable estimation process as evidenced through experiments using Statistical Process Control techniques. We applied our methodology to one of the projects in an IT organization and collected data from two years of operations. Comparing our results with other previous studies, we were able to reduce the error to 25% of the value of this metric, while more than doubling the accuracy of predictionat PRED(25).</p> <p>Keywords: Effort Estimation, Effort Variation, Quality Control Charts, Schedule Estimation, Schedule Variation, Process Maturity Analysis, Software Maintenance Projects, Statistical Process Control.</p> <p>References:</p> <ol style="list-style-type: none"> 1. M. Jorgensen, "Contrasting ideal and realistic conditions as a means to improve judgment-based software development effortestimation,"Information and Software Technology, vol. 53, no. 12, pp. 1382–1390,2010. 2. S. E. Koutbi, A.Ildri, and A. Abran, "Systematic Mapping Study ofDealing with Error in Software Development Effort Estimation,"201642th Euromicro Conference on Software Engineering and Advanced Applications (SEAA), no. 2, pp. 140–147, 2016. 3. B. Kitchenham, S. L. Pfleeger, B. McColl, and S. 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351.	Authors: Prasad A.Y, R. Balakrishna	

352.	<p>Paper Title: Optimized Energy Efficient Routing Protocol for MANET using Fuzzy score based clustering algorithm</p> <p>Abstract: The MANET mainly consists of a mobile or sensor node that transfers data through the cluster heads to the base station. In this paper, the main approach is to improve the network's lifetime because they have inbuilt non-rechargeable batteries and die in the network cycle. Firstly we discuss about the cluster and how a cluster is formed. Then we will see that there are some flaws in the LEACH model to overcome that we use the extended model or approach called the FSBCA model wherein the most important feature is, it considers the Expected Residual Energy (ERE) and distributes the workload evenly. And also the fuzzy member function factor is considered wherein the numbers of nodes dead in network are less compared to the LEACH model. This paper deals with the fuzzy score based clustering algorithm with an energy predication extension to increase network lifetime. Later at the end we see that in the stimulated results the approached model i.e. concentrated algorithms has more efficiency than the other algorithms. This is a basic approach in which it is for the stationary nodes in the MANET'S which can be later accomplished to a larger-scale Mobile Ad-hoc network.</p> <p>Keywords: Fuzzy Logic, LEACH, Lifetime of network, MANET, Residual Energy.</p> <p>References:</p> <ol style="list-style-type: none"> Li, Xu, et al. Optimized multicast routing algorithm based on the tree structure in MANETs, China Communications, 11(2), 90–99, 2014. Jain, Aaditya, and Bala Buksh. Solutions for Secure Routing in Mobile Ad Hoc Network (MANET): A Survey, Imperial Journal of Interdisciplinary Research, 2(4), 2016. Sarkar, Sajal, and Raja Datta. 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Balakrishna, Prolong the lifetime of the MANET based on Genetic algorithm and simulated annealing optimization, International Journal of Research in Electronics and Computer Engineering (IJRECE), ISSN: 2348-2281, Vol. 6 Issues. 3-PP 2252-2257, July-September, 2018 Quality of Service (QoS) Provisions in Wireless Sensor Networks and Related Challenges by Bhaskar Bhuyan1, NityanandaSarma, AvijitKar, Rajib Mall, Scientific Research, (October 2010). Pooja L. Popat ,Maulik D. Trivedi, Optimization of cluster Head Selection Technique in LEACH Protocol, International Journal of Computer Application (2250-1797), Volume 5– No. 4, June2015. JyotiRathi, M S Dagar, Improving LEACH Protocol in Wireless Sensor Networks, IJSETR, ISSN: 2278- 7798 Volume 5, Issue 5, May 2016. 	1921-1927
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	Authors: Jyostna Devi Bodapati, N. Veeranjaneyulu
	Paper Title: Facial Emotion Recognition Using Deep Cnn Based Features
	<p>Abstract: The objective of emotion recognition is identifying emotions of a human. The emotion can be captured either from face or from verbal communication. In this work we focus on identifying human emotion from facial expressions. Facial emotion recognition is one of the useful task and can be used as a base for many real-time applications. It can be used as a part of many interesting and useful applications like Monitoring security, treating patients in medical field, marketing research, E-learning etc;. We humans can easily identify the emotion of other humans without any effort. Automatic detection of emotion of a human face is important due to its use in real-time applications. The recent advance in GPU has taken many applications like face recognition, hand written digit recognition and object recognition to the next level. Especially the pretrained CNN based features better represent the images. Pretrained CNN features represent the most discriminative features and hence allows for better performance. Feature representation plays a major role on the performance of any machine learning algorithm. After observing unbelievable performance with deep learning models, we propose to</p>

<p>use the deep convolutional features to better represent the given image instead of using the traditional handcrafted features. The downside of the deep learning models is that they require large datasets to obtain better performance. To leverage the use of deep learning models without the requirement of large datasets is to use pre-trained models. For feature extraction pre-trained Convolutional Neural Networks model (VGG16) is used and the concept of Deep Neural Networks model is used for classification. To show the performance of the proposed model, Extended Cohn-Kanade (CK+) benchmark dataset is used for the experimental studies. Based on the experimental results we claim that these unsupervised features better represent the images compared the handcrafted features.</p> <p>Keywords: Facial Emotion Recognition, CNN, RBF kernels, Extended Cohn-Kanade, Multi-class SVM.</p> <p>References:</p> <ol style="list-style-type: none"> Farahani, Fatemeh Shahrabi, Mansour Sheikhan, and Ali Farrokhi. "A fuzzy approach for facial emotion recognition." 2013 13th Iranian Conference on Fuzzy Systems (IFSC). IEEE, 2013 Oh, Byung-Hun, and Kwang-Seok Hong. "A study on facial components detection method for face-based emotion recognition." 2014 International Conference on Audio, Language and Image Processing. IEEE, 2014 Reney, Dolly, and Neeta Tripathi. "An Efficient Method to Face and Emotion Detection." 2015 Fifth International Conference on Communication Systems and Network Technologies. IEEE, 2015. N. Cristiana, T. Shawe, An Introduction to Support Vector Machine, Cambridge University Press, 2000. Pantic, Maja, and Leon JM Rothkrantz. "Toward an affect-sensitive multimodal human-computer interaction" Proceedings of the IEEE 91.9 (2003): 1370-1390. Adeyanju, Ibrahim A., Elijah O. Omidiora, and Omobolaji F. Oyedokun. "Performance evaluation of different support vector machine kernels for face emotion recognition." 2015 SAI Intelligent Systems Conference (IntelliSys). IEEE, 2015. Liu, Mengyi, et al. "Combining multiple kernel methods on riemannian manifold for emotion recognition in the wild." Proceedings of the 16th International Conference on multimodal interaction. ACM, 2014. Salunke, Vibha V., and C. G. Patil. "A New Approach for Automatic Face Emotion Recognition and Classification Based on Deep Networks." 2017 International Conference on Computing, Communication, Control and Automation (ICCUBEA). IEEE, 2017. Lee, Hyeon-Jung, and Kwang-Seok Hong. "A study on emotion recognition method and its application using face image." 2017 International Conference on Information and Communication Technology Convergence (ICTC). IEEE, 2017. Gao, Yongsheng, et al. "Facial expression recognition from line-based caricatures." IEEE Transactions on Systems, Man, and Cybernetics-Part A: Systems and Humans 33.3 (2003): 407-412. Noh, Sungkyu, et al. "Feature-adaptive motion energy analysis for facial expression recognition." International Symposium on Visual Computing. Springer, Berlin, Heidelberg, 2007. Bashyal, Shishir, and Ganesh K. Venayagamoorthy. "Recognition of facial expressions using Gabor wavelets and learning vector quantization." Engineering Applications of Artificial Intelligence 21.7 (2008): 1056-1064. Siddiqi, Muhammad Hameed, et al. "Depth camera-based facial expression recognition system using multilayer scheme." IETE Technical Review 31.4 (2014): 277-286. P. Lucey, J. F. Cohn, T. Kanade, J. Saragih, Z. Ambadar, and I. Matthews, "The extended cohn-kanade dataset (ck+): A complete dataset for action unit and emotion-specified expression," in Computer Vision and Pattern Recognition Workshops (CVPRW), 2010 IEEE Computer Society Conference on. IEEE, 2010, pp. 94–101. Johnson, Justin, Andrej Karpathy, and Li Fei-Fei. "Densecap: Fully convolutional localization networks for dense captioning." Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition. 2016. Zhao, Guoying, and Matti Pietikäinen. "Boosted multi-resolution spatiotemporal descriptors for facial expression recognition." Pattern recognition letters 30.12 (2009): 1117-1127. Zhang, Ligang, Dian Tjondronegoro, and Vinod Chandran. "Random Gabor based templates for facial expression recognition in images with facial occlusion." Neurocomputing 145 (2014): 451-464. Krizhevsky, Alex, Ilya Sutskever, and Geoffrey E. Hinton. "Imagenet classification with deep convolutional neural networks." Advances in neural information processing systems. 2012. Johnson, Justin, Andrej Karpathy, and Li Fei-Fei. "Densecap: Fully convolutional localization networks for dense captioning." Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition. 2016. 	1928-1931
<p>Authors: Nandoori Srikanth, Muktyala Siva Ganga Prasad</p> <p>Paper Title: Malicious Node Identification In Energy Efficient Trust Node Based Routing Protocol (M-Eetrp) For Lifetime Improvement In Wsn</p> <p>Abstract: Uneven Deployment of sensor nodes, Irregular terrains, energy limitations, malicious attacks, and interfered wireless links, are the key parameters which degrades the performance of WSN. To improve lifetime of the network sensor nodes are driven into sleep states, once they complete their sensing task. Irregular Terrains like military areas, plateaus suffers with uneven deployment of sensor nodes, and malicious attacks. Mobile node based data gathering is the efficient technique for lifetime maximization in WSN fixed up in irregular terrains like plateaus and also to avoid security based issues. The mobile node based data gathering techniques also suffer from energy limitations of mobile nodes. This paper explores an effective method of utilizing energy resources of mobile nodes without any malicious attacks by proposing "Malicious node identification in energy efficient trust node based routing protocol". Malicious node identification is the key parameter in WSN to make the network more energy efficient. This Protocol gives better results compared with existing algorithms with the Improvement of Network lifetime by 67% and energy consumption as 30%.</p>	1932-1935
<p>Keywords: WSN, Data aggregation, Trust Node, malicious node, Built in Self-Test.</p> <p>References:</p> <ol style="list-style-type: none"> L F. Akyildiz, T. Melodia, and K. R. Chowdhury,: 'A survey on wireless multimedia sensor networks', Computer Netw. (ElseVier), Mar. 2007, 51, (4), pp. 921-960. Mhatre and C. Rosenberg, 'Design guidelines for wireless sensor networks communication: clustering and aggregation', Elsevier Ad Hoc Networks, Jan. 2004, 2, (1), pp. 45-63. Awwad, Samer A. B. and Ng, Chee Kyun and Noordin, Nor Kamariah and A. Rasid, Mohd Fadlee (2011) 'Cluster based routing protocol 	

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Authors:	Kavati Srinivas, A.V. Prabu, Kandi Sambasivarao
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Paper Title:	A Real Time Prototype Model for Enhancing the Security Features in the ATM Units
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Abstract: Nowadays people prefer ATM more than banks for money transactions like withdrawal, deposit and money transfer. It has become the most important aspect of financial issues. The development rate of ATM units is exponentially high as a result of their multi practical uses. With the increase in the number of ATM, the thefts occurred also are increasing. The banking sectors had already secured from the thefts related to software. But ATM must be secured from physical attacks. The proposed framework which can provide better security to the ATM units which are happened by the physical attacks. By integrating the MEMS and PIR sensor to the micro controller unit. When irrelevant things happened to the ATM unit, the tilt angle of the MEMS sensor vary immediately it sends signals to the microcontroller unit. The microcontroller which was interrupted by the sensor it does the concurrent things like shutting the entryway, passing the information to the higher officials, nearby police station using GSM. The alert buzzers are activated for warnings. Here PIR sensor attached to the micro controller unit it allows only one person inside the ATM why because sometimes a group of people can damage the ATM to steal the money.

Keywords: MEMS sensor, PIR sensor, Microcontroller unit, GSM, GPS, DC Motor.

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Authors:	Vishvanath N.kanthe, Shirish V.Deo, Meena Murmu
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Paper Title:	Effect of Fly Ash and Rice Husk Ash as Partial Replacement of Cement on Packing Density and Properties of Cement
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Abstract: The ordinary Portland cement (OPC) production increasing worldwide and it is necessary to reduced CO2 generation. It needs to increase the blended cement by addition of supplementary cementitious material such as industrial and agricultural byproduct. The effect of Fly Ash (FA) and Rice Husk Ash (RHA) as partial substitute of OPC on the properties of cement paste and packing density were describes in this research paper. The cement was replaced by 5% to 30% FA and RHA for double blended cement paste. And for triple blended cement paste replaced by 15% to 40% of FA and RHA combination were used. The particle packing density, void ratio, water film thickness and all general properties of cement test were conducted. The result shows that an increase in strength and particle packing density of triple blend cement paste with a lower void ratio. Hence, by using such industrial and agricultural byproducts in the triple blend were useful for reduces the consumption of OPC and making the sustainable concrete.

Keywords: Cement, Packing density, Fly Ash, Rice Husk Ash.

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Authors: Faizan Ahmad Wani, R. Ramasubramani

Paper Title: All-In-One about a Momentous Review Study on Manufactured-Sand as Fine Aggregate in Concretes

Abstract: Natural river sand (NRS) has been in use as fine aggregate in various types of concrete and mortar works and as the demand for concrete based products is rising due to the exponential infrastructure growth globally it is needed that more fine aggregate be produced, causing detrimental effects on the environment because of the excessive sand quarrying to produce the required quantum. The environmental concern has forced various State Governments to impose restrictions on NRS quarrying; further the excessive, illegal and seasonal NRS quarrying has caused a steep hike in NRS prices. Researchers have been taking efforts to find an alternative to NRS as a replacement of fine aggregate in conventional concrete and M-sand (Manufactured sand) has surfaced as a viable alternative. The parent source of M-sand is the abundant lithological reserve (rock) of the earth's crust and it is produced by crushing these rocks as per a grade of requirement to act as a partial or full replacement of NRS in concrete and mortar works. M-sand production process gives control over the quality, quantity, form, quarrying and crushing methods, it also checks onto the unwanted organic and soluble compounds, which are generally expected to be along with NRS, thus helping to maintain end product quality. M-sand characteristic properties have significant effects on compressive strength, flexural strength, impact resistance, abrasion resistance, permeability, workability etc. all these have been discussed in this paper. One of the major issues with production of M-sand was the excess of fines produced, which was disposed off at high prices initially but now with advancements in M-sand technology the fines have been used as supplementary cementitious material in M-sand concrete and mortar works. This study delineates the effects M-sand and fines on concrete, various special concretes and on mortars. Their performance in association to various parameters of strength and other durability properties is presented in a detailed manner.

Keywords: Concrete, Fines, M-Sand, Natural river sand, Replacement of fine aggregate.

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Authors: S.Sharmila, N.Dinesh Babu , J.R.Nishanth, R.Nivethika

Paper Title: Automated Road Control System Using Arduino

Abstract: In the emerging world of technology, almost everything has been changed into automation. The technology in everyday activities has advantages as well as disadvantages. Vehicles results can be Increased number of in heavy traffic and accidents which cause huge loss. Our ideology will decrease the loss caused due to traffic and provides a way for the emergency vehicle. The main advantage of our project is the traffic can be cleared when the ambulance coming from a certain distance apart. By using controller and Wi-Fi module, we enable an alarm which denotes the public to move aside. The transmitter module in the ambulance sends and updates the current location of it to the cloud. The respective pole is activated according to the shortest path to the hospital for the ambulance. The alarm has been attached in every poles where the traffic is very high. The sound of the alarm will get off when the ambulance passed the pole. It results in the speedy and safe travel of the ambulance.

Keywords: GPS, ESP8266, Node MCU, TCP protocoll.

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Authors: S. Swapna , K.Siddappa Naidu

Paper Title: Characteristic Analysis of PFC using DC-DC Boost Converter Fed BLDCM

Abstract: This paper design and evaluate the DC to DC boost converter for speed control of brushless direct current electric motor (BLDCM) using variable direct current (DC) voltage, which is carrying out in discontinuous conduction mode (DICM) by adaptive neuro fuzzy interference system (ANFIS) controller for improving the power quality issues such as obtaining the unity power factor at AC mains along with reduction of THD (total harmonic distortion). The newly designed converter is simulated and verified in Matlab/simulink environment. The obtained simulation output is matched by hardware result by developing a proposed converter in prototype model.

Keywords: BLDC electric motor, Boost-DICM converter and Adaptive neuro fuzzy interference system.

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Authors: Resmi R, V Vanitha

Paper Title: Design and Analysis of Brushless Doubly Fed Induction Machine with 2/6 pole configuration

Abstract: In the recent years, generation of electricity with the help of renewable energy sources has gained more importance because of the minimal environmental impacts. Brushless Doubly Fed Induction Machine (BDFIM) is one of the upcoming machines that can be used in wind power generation, especially in offshore wind farms due to the lack of brushes and slip rings which make the system maintenance free. High torque ripple due to the complex structure of BDFIM is the major problem which prevents commercialization of the machine. In this paper, 3.5 kW Brushless Doubly Fed Induction Machine (BDFIM) is designed for 2/6 pole configuration. The analysis is carried out for all modes of operation of BDFIM using ANSYS MAXWELL software, which is an effective tool to design and analyze electrical machines. The different modes of operation are simple induction mode, cascade induction mode and synchronous mode. With the advancement in technologies, the superiority of BDFM over the conventional machines will be proved soon and in few years, these machines will be used in most of the applications.

Keywords: Brushless Doubly Fed Induction Machine (BDFIM), simple induction mode, cascade induction mode, synchronous mode.

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	<p>Authors: Amarpreet Singh, Sandeep Singh, Gurpreet Singh</p> <p>Paper Title: Lightweight Ciphers for Internet of things: A Survey</p>	
	<p>Abstract: Resource Constrained devices such as embedded system, Internet of Things based network and its applications areas are becoming a part of human's life. These networks comprises of intelligent nodes interacting with each other in a significant way offering plenty of services. These networks are still having various vulnerabilities and which in turn requires a lot of security measures. Basically, Internet of Things (IoT) system suffers from various attacks and hence some appropriate solution is required for the protection. There are some security challenges that need to be addressed which could be followed for the design of Secure IoT system. The paper presents a comprehensive survey of 33 symmetric lightweight ciphers with original implementations on 0.09μm, 0.13μm, 0.18μm, 0.25μm and 0.35μm technologies used in constrained environments with the different metrics.</p> <p>Keywords: WSN, RFID, Gate Equivalency, Constrained Devices.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Mohd BJ, Hayajneh T, Vasilakos AV. A survey on lightweight block ciphers for low-resource devices: Comparative study and open issues. Journal of Network and Computer Applications. 2015 Dec 1;58:73-93. 2. William Stallings, Lawrie Brown "Computer Security, Principles and Practice". 2010 edition 3. Hatzivassilis G, Fysarakis K, Papaefstathiou I, Manifavas C. A review of lightweight block ciphers. Journal of Cryptographic Engineering. 2018;1-44. 4. Lim CH, Korkishko T. mCrypton—a lightweight block cipher for security of low-cost RFID tags and sensors. International Workshop on Information Security Applications 2005 Aug 22 (pp. 243-258). 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Authors:	S. Kannaki, S. Jaganathan , S.Panneerselvam, C.Prasath, L.Feroz Ali, T.Vignesh	
Paper Title:	Design and Modeling of Automatic Packing System for Atta Kneader	
<p>Abstract: This paper presents automation of packing system for Atta kneader. In production industries, Packaging is one of the important operations. The main aspect is to automate the packing system of Atta Kneader with wooden box and closing using power screw. The purpose of study is to replace manual handling of Atta Kneader to fully automatic as manual handling is time consuming and requires more man power. The Raspberry pi 3 is used to control the entire system. Proximity sensor and Force sensor are used to detect the presence of Atta Kneader and to check the weight. The motor, Robot arm, Mechanical gripper, rollers and pneumatic fasteners are used to automate the packing system. An experimental prototype is done to automate the packing system completely. The advantage is it decreases production time and increases product rate. About 80% of the packaging is completely automatic without human intervention.</p>		
<p>Keywords: Robot arm, Atta kneader, Wooden and Cardboard, Pneumatic Fasteners.</p>		
<p>References:</p>		
<p>362. 1. “Automated Packing System –A System Engineering Approach” by Paul F. Whelan, Bruce G. Batchelor in The Institute of Electrical and Electronics Engineers on September 1996 suggested geometric packer and heuristic packerA geometric packer (GP), based upon the principles of mathematical morphology and which takes an arbitrary shape in a given orientation and puts the shape into place, in that orientation (Whelan and Batchelor 1991). (b) An heuristic packer (HP), which is concerned with the ordering and alignment of shapes prior to applying them to the geometric packer. This component also deals with other general considerations, such as the conflicts in problem constraints and the measurement of packing performance.</p> <p>2. “A Depth Sensor to control Pick And Place Robots For Fruit Packaging” by Pavel Dzitac, Abdul Md Mazid in The Institute of Electrical and Electronics Engineers on March 2013 suggested automatic packing can be done using pick and place robots.</p> <p>3. “PLC Controlled Low Cost Automatic Packing Machine” by Shashank Lingappa M, Vijayavithal Bongale, Seerajendra in International Journal of Advanced Mechanical Engineering suggested automatic packing of different sized products based on PLC.</p> <p>4. “The automatic packaging machine design based on reconfigurable theory” by Zhihui Liu, Mengqi Li, Zhigang Chen, Zhiwei Lin, Xuemin Liu in International Conference on Consumer Electronics, Communications and Networks (CECNet).</p> <p>5. “Automated material handling system using pick and place Robotic arm & Image processing” by Deepak L Rajnor, A.S.Bhide in International Journal For Scientific research and development on 2014 suggested using of robot arm controlled by servo motors and image processing done by web camera.</p>	<p>1982-1986</p>	

Authors:	T.G.N.C.Vamsi Krishna, S.V.Surendhar,Mirza Mahaboob Baig,Atif Zakaria
Paper Title:	Comparision of Seismic Analysis of a Residential Structure between Normal RCC, Shear Wall Columns
<p>Abstract: In high raised structures, mostly columns are preferred with either Normal RCC Columns or Steel Columns. In India, most probably RCC columns only used because it depends on the availability of materials, workmanship and RCC Columns occupies more space in high raised structures due to the large dimensions but it controls the large deflections of the structure due to an earthquake. Steel Columns occupied less space and it can also give more strength than RCC Columns but the availability of material is less because steel consumption in India very low compared with other foreign countries and due to the earthquake large deformations occurred in steel columns. For controlling or eliminating these problems shear wall columns are better in High Raised Structures. Shear wall columns stronger than the RCC Columns, it can increase usable floor area in the structure and also it can decrease the deflections than the RCC Columns. Considered a geometrical irregularity of residential structure (G+18 Storey) in the seismic zone-III, Medium type of soil condition. Analyse the structure with Linear and Non-linear Dynamic analysis in various types of columns they are Normal RCC, Shear wall Columns by ETAB Software. Due to an analysis of these structures compare the Storey displacements, Storey drifts, Base shears, Response Spectrum curve, Time History curve, Self-weight, Time period of the structure.</p>	

363.	<p>From these above parameters conclude that shear wall type of columns most suitable in all possible conditions.</p> <p>Keywords: RCC Columns, Shear Wall Columns, Deflections, Self-weight, Time period of the structure.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Swetha K.S and Akhil P.A, "Effect of Openings in Shear Wall," International Research Journal of Engineering and Technology, vol. 04, issue 5, pp. 1601-06, 2017. 2. Ashok Kankuntla, PrakarshSangave and ReshmaChavan, "Effects of Openings in Shear Wall," IOSR Journal of Mechanical and Civil Engineering, vol. 13, issue 1 Ver. II, pp.01-06, 2016. 3. HimaleeRahangdale and S.R.Satone, "Design and Analysis of Multi-storeyed Building with Effect of Shear Wall," International Journal of Engineering Research and Applications, vol. 3, issue 3, pp.223-232, 2013. 4. M. Hosseini, M. Farookh, and H. Hosseini, "Seismic Analysis of High Rise Building with L Shape Shear Walls at the Centre Core and Corners with Opening," International Journal of Engineering Trends and Technology, vol. 49, no. 5, pp. 317–329, 2017. 5. P. S. Kumbhare, A. C. Saoji, "Effectiveness of Changing Reinforced Concrete Shear Wall Location on Multi-storeyed Building," International Journal of Engineering Research and Applications, vol. 2, issue 5, pp.1072-1076, 2012. 6. "Fig 6: Shear Walls – Solid, with Openings, Coupled," The Constructor, 04-Sep-2018. [Online]. Available: https://theconstructor.org/structural-engng/shear-wall-types-efficiency/6820/. 7. IS: 875, Part- I, II, III "Code of practice for design load (other than earthquake) for buildings and structures" Bureau of Indian Standards, New Delhi, 2015. 8. IS 456:2000, "Code of practice for Plain Reinforced concrete," Bureau of Indian Standards, New Delhi. 9. IS 800:2007, "Code of practice for General Construction in Steel," Bureau of Indian Standards, New Delhi. 10. IS 1893:2016, "Criteria for Earthquake Resistant Design of Structures," Bureau of Indian Standards, New Delhi. 11. IS 13920:2016, "Ductile Design and Detailing of Reinforced Concrete Structures Subjected to Seismic Forces," Bureau of Indian Standards, New Delhi. 	1987-1992
364.	<p>Authors: Manoj Ashok Wakchaure, S.S. Sane</p> <p>Paper Title: IM_LR: An approach for Direct and Indirect Discrimination Prevention</p> <p>Abstract: Discrimination and privacy preservation are major challenges of data mining. Technique based on impact minimization to prevent discrimination has been reported in the literature. The technique computes fitness of generated frequent rules based on their antecedent, a pre-defined threshold and discrimination measure 'elift' to modify discriminating rules. This paper deals with a method called 'IMLR'. IMLR computes fitness of generated frequent rules based on their antecedent (attributes on left hand side of the rule) as well as consequences (class label on right hand side of the rule), a pre-defined threshold and offers selection of desired discrimination measures such as 'elift', 'slift', 'olift' etc. to modify discriminating rules. Experimentation results carried out using two well-known datasets 'Adult' and 'German' show that IMLR when used with certain discrimination measure provides better results in terms of various performance parameters such as DDPD, DDPP, IDPD, IDPP, Missed cost and Ghost cost when compared with reported technique.</p> <p>Keywords: Data Quality, Direct and indirect discrimination, Discrimination measures.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Sara Hajian and Josep Domingo-Ferrer A Methodology for Direct and Indirect Discrimination Prevention in Data Mining, Data Mining and Knowledge Discovery, vol. 25, no. 7, pp. 1445-1459, 2013 2. R. Agrawal and R. Srikant, Fast Algorithms for Mining Association Rules in Large Databases, Proc. 20th Intl Conf. Very Large Data Bases, pp. 487-499, 1994. 3. V. Verykios and A. Gkoulalas- Divanis, A Survey of Association Rule Hiding Methods for Privacy, PrivacyPreserving Data Mining, Models and Algorithms, C.C. Aggarwal and P.S. Yu, Springer, 2008. 4. D. Pedreschi, S. Ruggieri, and F. Turini, Measuring Discrimination in Socially-Sensitive Decision Records, Proc. Ninth SIAM Data Mining Conf. (SDM 09), pp.581-592, 2009. 5. F. Kamiran and T. Calders, Classification without Discrimination, Proc. IEEE Second Intl Conf. Computer, Control and Comm.(IC4 09), 2009. 6. T. Calders and S. Verwer, Three Naive Bayes Approaches for Discrimination-Free Classification, Data Mining and Knowledge Discovery, vol. 21, no. 2, pp. 277-292, 2010. 7. F. Kamiran and T. Calders, Classification with no Discrimination, by Preferential Sampling, Proc. 19th Machine Learning Conf. Belgium and The Netherlands,2010. 8. D. Pedreschi, S. Ruggieri, and F. Turini, "DiscriminationAware Data Mining," Proc. 14th ACM Int'l Conf. Knowledge Discovery and Data Mining (KDD '08), pp. 560-568, 2008. 9. F. Kamiran, A. Karim, and X. Zhang. Decision theory for discrimination-aware classification. In In ICDM 2012, pp. 924929. IEEE Computer Society, 2012. 10. Hajian, S., Domingo-Ferrer, J. & Martínez-Ballesté, A. (2011b). Rule protection for indirect discrimination prevention in data mining. Modeling Decisions for Artificial Intelligence-MDAI 2011, Lecture Notes in Computer Science 6820, pp. 211-222. 11. Hajian, S., Domingo-Ferrer, J. & Martínez-Ballesté, A. (2011a). Discrimination prevention in data mining for intrusion and crime detection. Proc. of the IEEE Symposium on Computational Intelligence in Cyber Security (CICS 2011), pp. 47-54. IEEE. 12. Pedreschi, D., Ruggieri, S., Turini, F., Integrating induction and deduction for finding evidence of discrimination. , Proc. of the 12th ACM International Conference on Artificial Intelligence and Law (ICAIL 2009), pp. 157-166. ACM.,2009b. 13. Manoj Ashok Wakchaure ,Prof.Dr.ShirishSane,"Discrimination Prevention by Different Measures in Direct Rule Protection Algorithm",IJETAE Exploring Research and Innovation 2015. 14. Kamiran, F., Calders, T. & Pechenizkiy, M. (2010). Discrimination aware decision tree learning. Proc. of the IEEE International Conference on Data Mining (ICDM 2010), pp. 869-874. ICDM. 15. Newman, D. J., Hettich, S., Blake, S. L. & Merz, C.J. (1998). UCI Repository of Machine Learning Databases. http://archive.ics.uci.edu/ml. 16. Parliament of the United Kingdom. (1975). Sex Discrimination Act.http://www.opsi.gov.uk/acts/acts1975/ PDF/ukpga 19750065 en.pdf. 17. Parliament of the United Kingdom. (1976). Race Relations Act. http://www.statutelaw.gov.uk/content.aspx?activeTextDocId=2059995. 18. B. Gao and B. Berendt. Visual data mining for higher-level patterns: Discriminationaware data mining and beyond. In Proc. of Belgian 	1993-2001

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	<p>Authors: N. Leela Krishna Sai, M. Parthasarathy, RayamSumanth, R. Saktivel</p> <p>Paper Title: Design of PLL with VCO of 40MHz-1 4GHz Ultra low phase noise-120dBc/Hz very low RMS Jitter<180aS</p>	
	<p>Abstract: This paper presents the design of Phase Locked Loop(PLL) with Voltage Controlled Oscillator(VCO) of 40Mhz—1.4GHz, ultra-low phase noise -120dBc/Hz, very low Root Mean Squared(RMS) Jitter <180aS by using 180-nm CMOS technology through Cadence Virtuoso Environment. In this paper, comparison between VCO designed with PMOS load ring VCO and Current starved VCO is shown. PMOS load ring VCO has an average power dissipation of 29.31 uW and with an oscillating frequency of 820 MHz. While Current Starved VCO has an average power dissipation of 20uW and with oscillating frequency of 1.17GHz. Phase Frequency divider(PFD) is made of resettable D–flipflops which uses a different structure rather than the conventional one with lower transistor count. PFD along with charge pump is used to reduce finite phase errors. Asynchronous frequency divider circuit is used with new structure of D–flipflop in which area and power dissipation reduces by 41.66% and 58.4%. The total average power dissipation and RMS Jitter of PLL with PMOS load ring VCO designed is 13.68 mW and 1.87as respectively and PLL with current starved VCO is 8.68mW and 31.24zs respectively. By varying control voltage of VCO from 0.4V to 1.6V, the tuning range from 28.2MHz-1.66GHz is attained.</p>	
	<p>Keywords: Current starved VCO, Frequency divider, Phase locked loop (PLL), Root Mean Square(RMS) Jitter, Voltage Controlled Oscillator (VCO).</p>	
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	<p>Authors: R. Jaganraj, R. Velu</p> <p>Paper Title: Robust Fault Diagnosis for Fixed Wing Aircraft Fault Tolerant Flight Control System</p>	
	<p>Abstract: Fault Tolerant Flight Control (FTFC) system and Fault Detection and Identification system (FDI) are used to isolate the aircraft fault and recover its operation during the fault occurrence. FTFC and FDI uses either actuator feedback or desired performance monitoring method to estimate fault source. These methods are limited with the fault source identification. FTFC and FDI have limitation in identification of the fault source. FTFC and FDI needs to be revisited with respect to the identification of fault source. This paper presents the design and implementation of FTFC based on a robust model reference fault detection and identification system (MRFDI) for fixed-wing aircraft. The proposed method demonstrates the identification of actuator fault, measurement error in instrument and presence of uncontrolled disturbance. The proposed method combines the actuator feedback with aircraft parameter to distinguish faults in actuator, instrument and deviation due to uncontrolled motion of the aircraft. A typical aircraft mathematical model of the aircraft is simulated with developed FTFC embedded with MRFDI. The fault is injected to simulate actuator fault, feedback instrument fault and uncontrolled motion to observe the performance of FTFC. Results reveals that proposed FTFC method is distinguishing different fault sources among them and recovering aircraft from fault occurrence.</p>	
	<p>Keywords: Model Reference Fault detection and identification system, Fault tolerant flight control, fault</p>	

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Authors: Merlin freedaj, Arathi Krishna, K. Saravana Raja Mohan

Paper Title: Experimental Studies on Hybrid Concrete Composites with Steel Synthetic and Natural Fibers

Abstract: For investigating the effect of addition of hybrid fibers in different proportions in concrete 6 different mix proportions with fibers of different volume fractions are added to concrete. Hybrid fiber reinforced concrete with composition of steel, synthetic and natural fiber. Here three different type fibers are added to achieve better concrete strength compare to conventional concrete. The cubes of 100 x 100 x 100 mm size and cylinders of 100mm diameter and 200mm length were cast for compressive and split tensile test respectively. Disc of size 200mm diameter and 100mm height was cast for impact test. After confirming the characteristic compressive strength from optimum values were selected and tested for flexure on beam specimens of size 100 x 150 x 1200mm. Test results shows that the addition of these fibers increases the compressive strength, split tensile strength, impact resistance and flexural properties of structure.

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Keywords: micro steel fibers, polypropylene fiber, coconut fiber, hybridcomposition.

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	Paper Title: Improve the Integrity of Data Using Hashing Algorithms	
2. Abstract: Now a day with the invention of new technologies communication of information is very fast and quickly sending of information even for long distances is made easy in the world. But this online communication had brought much vulnerability like authenticity and integrity of data. Though there are many cryptographic ciphers, they are vulnerable to different types of attacks. In this paper, the authors focus on different types of attacks and how authenticity and integrity of data is lost. The different algorithms that are used to maintain the authenticity and integrity of data and the comparative study on different algorithms with their vulnerability are considered. The main focus is done with respect to hashing techniques.		
Keywords: MD5, SHA, Message Digest, Hash value, Hashing.		
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	Authors: Puspanjali Mohapatra, Baldev Panda, Samikshya Swain	
	Paper Title: Enhancing Histopathological Breast Cancer Image Classification using Deep Learning	
Abstract: In this paper we have conducted experimental analysis in predicting IDC (Invasive Ductal Carcinoma) as well as well as Malignant and Benign tumors from textual and histopathology image datasets. The analysis commences with the conventional machine learning algorithms on the text dataset and upgrades to deep learning while dealing with histopathology images. The machine learning algorithms like Logistic Regression, SVM, KNN, Decision tree are applied on the datasets to compare the accuracy among them. The model giving the best accuracy is decided through Feature extraction techniques like PCA and LDA leading to an improvement in accuracy. When dealing with large datasets consisting of high-resolution images, the machine learning algorithms don't perform well. Deep learning has the ability to handle such complex situations which include high-dimensional matrix multiplications. Various architectures of CNN were applied and the model with the high generalization accuracy and minimal complexity is selected. The histopathology images are given as input to the CNN network as training models and then finally classified as having IDC or Malignancy. The best model is selected after varying the number of hidden layers and then applied to the dataset for final classification.		
Keywords: Breast cancer, IDC, Histopathology Images, Machine Learning, Logistic Regression, SVM, KNN, Random Forest, Deep Learning, CNN.		
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<p>Authors: Jayasudha.K, Mohan.G.Kabadi</p>	
<p>Paper Title: Surgical Simulation of Blood Flow in Human Soft Tissues</p>	
<p>Abstract: Virtual reality with surgery simulation has emerged is an interesting field of research in many surgical procedures likes planning, training and evaluation. To perform realistic and real time simulation of soft tissues on human skin is a challenging task. The need for real time surgical simulation requires clinical operations to be performed on human skin such as insertion of scalpel, cutting and bleeding. The popular approach to simulate bleeding is (CFD) computation fluid dynamics that has much more computational complexity. This paper mainly focuses on simulation of blood flow as a single blood spot in human soft tissues when a cut is being made with a surgical scalpel. The proposed framework uses Delaunay triangulation approach to simulate multiple layers of skin. Deformation of soft tissues is achieved using vtkDeformPointSet () function. All these works are carried out in real time that not only reduces computational cost but also reduces topological complexity of soft tissues.</p>	
<p>Keywords: Cutting, Deformation, layers, Soft Tissues, Simulation, Scalpel.</p>	
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"Realistic Deformation and Removal of Soft Tissues Modeling for the Simulation of Virtual Surgery", <i>International Journal of Pharmaceutical Sciences and Research</i> [in press].</p>	2033-2038
<p>Authors: Bhargavi Peddireddy, Ch. Anuradha, P.S.R. Chandra Murthy</p> <p>Paper Title: An Approach for Mining Frequent Item sets from Tuple-evolving Data Streams</p>	
<p>Abstract: Today, data streaming applications consider every incoming transaction as a new tuple. Most of the applications allows the tuples revision inside the streams over the time. This kind of revision in data streaming application gives new and hidden knowledge, also brings new challenges to the tasks. One of the issue is, frequent itemsets may become to infrequent and viceversa . To address this issue,We design efficient data structures to maintain stream data, information and candidate information of evolving tuples. We propose an algorithm that combines effective data structures that derives frequent itemsets over the tuple evolving data streams.</p>	
<p>Keywords: data streams, SlideTree, HashTable, tuple-evolving data streams.</p> <p>References:</p> <p>1. A. Ceglar and J. F. Roddick. Association mining. <i>ACM Comput. Surv.</i>, 38, July 2006.</p> <p>2. A. Moga, I. Botan, and N. Tatbul. Upstream: storage-centric load management for streaming applications with update semantics. <i>VLDB Journal</i>, 20(6):867-892, 2011.</p> <p>3. B. Babcock, S. Babu, M. Datar, R. Motwani, and J. Widom. Models and issues in data stream systems. In <i>PODS</i>, pages 1–16, 2002.</p> <p>4. B. Mozafari, H. Thakkar, and C. Zaniolo. Verifying and mining frequent patterns from large windows over data streams. In <i>ICDE</i>, pages 179–188, 2008.</p> <p>5. C. Zhang, F. Masseglia, and X. Zhang. Modeling and clustering users with evolving profiles in usage streams. In <i>TIME</i>, pages 133–140, 2012.</p> <p>6. C. Zhang, F. Masseglia, and Y. Lechevallier. Abs: The anti-bouncing model for usage data streams. In <i>IEEE ICDM</i>, pages 1169–1174, 2010.</p>	2039-2045

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Authors:	T. Vijaya Kumar , MD Abid Ali, B. Gunasekhar, K.Rajasekhar Reddy, Md. Mustafa
Paper Title:	Experimental Investigation on Mechanical Properties of Palmyra Long Fibre Reinforced Composites

Abstract: Polymers reinforced with synthetic fibers such as glass, polyester, acrylic, nylon, rayon, acetate, orlon, Kevlar bear high mechanical properties compared to natural fibres, but their adverse effects, such as peak initial costs, chemical reactivity with other materials and not suitable for some (non-efficient) structural forms, reduce demand. We are now switching gears from synthetic to natural fibers as the natural fibers are being overplayed over synthetic fibres. Here we focus primarily on testing mechanical properties such as tensile and bending. The specimens must be cut in accordance with the dimensions specified by the ASTM machine standards. The material properties and variation of the materials can be studied by changing the percentage volume composition of the fiber to the resin. The weighted ratios are taken as 40:60, 30:70, 20:80, 10:90 as the basis for making a composite. In the present work, we use the 235 * 165 * 5 dimensional mold in mm with natural fiber for reinforcement as a Palmyra fiber. To make the composite, the other materials such as Epoxy Resin(LY556) and hardener(HY951) must be added. Resin may also be called PMC(Polymer Matrix Composite). It is possible to resolve the tensile and bending properties of various composites and to draw a comparison of properties between the composites.

Keywords: natural fibre, PMC(Polymer Matrix Composites), bend test, flexural test.

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Authors:	Siamala Devi S, Anto S
Paper Title:	An Intelligent Health Care System Based On K-NN Algorithm to Monitor and Alert Patient Health Condition
Abstract:	Health is one of the essential abilities that a human need to go on with his life. That is the fundamental

reason that the healthcare provided to human must be offered in abundant methods. Health of an individual can be guaranteed if health monitoring parameters and the medical assistance being given legitimately. The latest methodologies includes the web and the sensors regularly known as the Internet of Things (IoT), which enables the overall ways to deal with the medicinal services based on framework advancements. This directed the health care management system to adopt a constant methodology which supplies certain details relevant to patient monitoring system. Absence of well-planned therapeutic medications elevates the death rates worldwide. These can be closed out through standard health care mechanisms. A better health monitoring system is proposed which relies on sensors. These sensors are used to get the body temperature along with heart rate and tell the specialist or the staff about the condition of the patient. The task utilizes KNN (K-Nearest Neighbors) calculation to anticipate the state of the sufferer to keep them from going into further awful state. KNN is one of the basic but important classification algorithms in Machine Learning. At the point when the terrible state of the patient is detected, it sends mail to the doctor in most crisis circumstance or else in different cases it continues refreshing the detected values in the created web page. The framework additionally incorporates a buzzer beeping situation, where the beeping happens when the medical attendant must be advised to notify the state of the patient. Though, the past frameworks created did not do the foreseeing part, which assumes the most significant job in dealing with the patient. Thus, the proposed system result in the task brings about taking the best conceivable measure in helping the patients to improve their circumstance

Keywords: Health Care, IoT, Machine learning, KNN, Emergency.

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Authors: Govinda Rao Locharla, Revathi Pogiri

Paper Title: Hardware Accelerator Design Approach for CNN-based Low Power Applications

Abstract: Field Programmable Gate Array (FPGA) based CNN accelerator is getting popular due to its high performance at lower power requirements. Since the convolution process requires the huge number of the multiply and accumulate (MAC) operations it costs more amount of area and power. In this paper, a generalized pipelined architecture for the CNN model is reported and the functionality of the key elements is quantitatively presented. This pipelined architecture employs the limited number of functional units and schedules the operation over the more number of clock cycles. This pipelined approach helps in achieving lesser hardware complexity, therefore, lesser power and area requirements at the cost of speed. The architecture presented in this paper can be customized for given CNN model by configuring Image size, Kernel sizes, Kernel buffer, pooling and activation type, etc. Finally, the hardware requirements of CNN architecture for LeNet-5 is reported as a case study and analyzed.

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Keywords: ASIC, CNN, FPGA, GPU, LeNet, MAC.

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Authors:	Y. Suresh Kumar, N. Seshagiri Rao, B. V. Appa Rao
Paper Title:	On The Dynamical Behaviour of Three Species Food Chain Model with Time Delay

Abstract: A three species model in an ecosystem involving a mutualist interaction among two species and a predator is considered across an autonomous system of intrigro-ordinary delay differential equations. Due to the gestation of the predator, the delay term is proposed to the predator functional response in the model equations. The delay length is estimated how far the stability of the interior equilibrium continues to hold, if the interior equilibrium point is asymptotically stable with no delay term is under consideration. Further the local and global stabilities are discussed by perturbed method and a suitable Lyapunov technique. Also observed the increasing delay can cause a bifurcation of the stable equilibrium into periodic solutions. Finally, the numerical solutions are compared with theoretical results of the model at the end.

Keywords: Delay, Equilibrium points, Local and global stability, Lyapunov technique, Mutual species, Numerical simulations , Predator.

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Authors: **Borigorla Venu, L.S. Raju**

Paper Title: **Influence of Tool Geometry and Effects of Plunge Depth in Friction Stir Welding Of AA2014**

Abstract: Friction stir welding (FSW) is a noteworthy technique this is used to fabricate the joints which are difficult to join by fusion welding methods and it gives fabulous results compare to Conventional Welding. In FSW process parameters such as Tool Rotation speed, Traverse speed, Axial Force, Plunge Depth and Tilt angle and tool geometry plays a vital role to obtain the defect free welds, towards this achievement the tool shape, especially the shoulder and pin structure design plays a crucial role. In this paper, equations are made using the MATLAB to find out the geometry of the shoulder and pin changes based on the thickness of the welding plate. This makes it possible to produce specific tool dimensions, by using these equations, a tool was developed. Similarly, the experiments were conducted by varying the plunge depth and correlated the results of microstructure, mechanical properties and fracture features.

Keywords: Tool Design; Plunge Depth; Defects; MATLAB, properties.

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Authors: **Dhanamjayulu C, Vrishank Panchal, Falguni Joshi, Anandita Narayan**

Paper Title: **Design of Object Sorting and Lift Automation System**

Abstract: Presently globalization is an essential issue, it is the fundamental that ventures investigate strategies for improving mechanization and profitability to get more prominent aggressiveness. In such manner Material Sorting and Lift Automation is an innovation that guarantees to be exceptionally valuable for any sort of assembling association. In this paper a framework is built which consists of conveyor and lift system using arduino. Sensors will be fitted on the conveyor belt to sort articles of different sizes or colors. Then the automatic lift will lift them to respective floors for storage and the sliding mechanism will push the articles to their respective storage. Despite the claims of high quality from good workmanship by humans, automated systems typically perform the process with less variability than human workers, resulting in greater control and consistency of product quality.

Keywords: arduino, lift automation, sorting, ultrasonic sensor.

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Authors: Simran Agrawal, Avinash J. Agrawal

Paper Title: Accuracy improvement of short and long answer grading systems using machine learning

3. **Abstract:** Grading of student answers with the help of language processing techniques has been a defacto standard for automatic marking systems. These systems generally do not take into consideration the errors which might have been introduced by the previous grading systems in order to incrementally improve the grading performance of the system itself. In this paper, we propose a machine learning based algorithm which uses Q-Learning and synset based language processing in order to incrementally improve the automatic grading accuracy for the both short and long answer texts. Usually systems have higher accuracy for short answer matching, but when the same system is applied to long answers then the accuracy reduces drastically. But the proposed algorithm works very well for both long and short answer grading due to its incremental nature, which allows the system to be used for any kind of automatic grading system. The proposed system provides atleast 10% higher grading accuracy when compared with its non-machine learning counterparts.

Keywords: Grading, language, processing, short, long, accuracy.

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Authors: A. Srinath, KomatiPalli Umamaheswara Rao, Paladugu R P, Y. Kalyan Chakravarthy

Paper Title: Design & Optimization of Rehabilitation Exoskeleton device for Indian Amputees

Abstract: In the modern day scenario of medical robotics, one of the major problem where 16% of people suffering with problems is with the human gait. Replacement of lower limb is burdensome to the middle and lower class people as it includes huge amount of money. Especially the disorders caused to lower limbs might be a hectic challenge to cure the problem for the doctors as well as physiotherapists. Considering this issue as a challenge, this paper depicts a model exoskeleton for lower limb motion by imbibing the concepts of advanced

	<p>Mechatronics. The created model supports the patient in all aspects of human gait effectively and efficiently. The dynamic analysis was performed by the software MS Adams and the Kinematic analysis was obtained with DH algorithm using MAT Lab. With rapid advancements in the field of engineering and technology, sensors like position, displacement and speed were employed for automating the exoskeleton model. This plays a vital role in supporting the patients to recover instantly from lower extremity disorders.</p> <p>Keywords: Exoskeleton, Lower-limb Exoskeleton, rehabilitation, walking, wearable, kinematic Analysis, dynamic Analysis.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Singla, Ashish, Saurav Dhand, Ashwin Dhawad, and Gurvinder S. Virk. "Toward Human-Powered Lower Limb Exoskeletons: A Review." In <i>Harmony Search and Nature Inspired Optimization Algorithms</i>, pp. 783-795. Springer, Singapore, 2019. 2. Spada, Stefania, Lidia Ghibaudo, Chiara Carnazzo, Massimo Di Pardo, Divyaksh Subhash Chander, Laura Gastaldi, and Maria Pia Cavatorta. "Physical and virtual assessment of a passive exoskeleton." In <i>Congress of the International Ergonomics Association</i>, pp. 247-257. Springer, Cham, 2018. 3. Damsgaard M, Rasmussen J, Christensen ST, Surma E, de Zee M (2006) Analysis of musculoskeletal systems in the AnyBody Modeling System. <i>Simul Model Pract Theory</i> 14:1100–1111 4. Chander DS, Cavatorta MP (2018) Multi-directional one-handed strength assessments using AnyBody Modeling Systems. <i>Appl. Ergon</i> 67:225–236 5. Rasmussen J, De Zee M, Damsgaard M, Christensen ST, Marek C, Siebertz K (2005) A general method for scaling musculo-skeletal models. In: 2005 international symposium on computer simulation in biomechanics, vol 3 6. X. Zhang, Z. Xiang, Q. Lin, and Q. Zhou, "The design and development of a lower limbs rehabilitation exoskeleton suit," ICME International Conference on Complex Medical Engineering, 2013, pp. 307–312. 7. J. Chen, X. Zhang, and R. Li, "A novel design approach for lower limb rehabilitation training robot," IEEE International Conference on Automation Science and Engineering (CASE), 2013, pp. 554–557. 8. Kumar, G. N. S. and A. Srinath. 2018. "An Ergonomical condition's of Pedestrians on Accelerating Moving Walkway: A People Mover System." <i>International Journal of Mechanical and Production Engineering Research and Development</i> 8 (Special Issue 7): 1376-1381. www.scopus.com. 9. Xinyi, Zhang, Wang Haoping, Tian Yang, Wang Zefeng, and Peyrodie Laurent. "Modeling, simulation & control of human lower extremity exoskeleton." In 2015 34th Chinese Control Conference (CCC), pp. 6066-6071. IEEE, 2015. 10. Kumar, Gurram Narendra Santosh, and A. Srinath. "Exploration of Accelerating Moving Walkway for Futuristic Transport System in Congested and Traffical Areas." (2018): 616-624. 11. Rama Chandra Manohar, K., S. Upendar, V. Durgesh, B. Sandeep, K. S. K. Mallik, G. N. S. Kumar, and S. H. Ahammad. 2018. "Modeling and Analysis of Kaplan Turbine Blade using CFD." <i>International Journal of Engineering and Technology(UAE)</i> 7 (3.12 Special Issue 12): 1086-1089. www.scopus.com 12. Copilusi, Cristian, Marco Ceccarelli, and Giuseppe Carbone. "Design and numerical characterization of a new leg exoskeleton for motion assistance." <i>Robotica</i> 33, no. 5 (2015): 1147-1162. 13. Wong, Z. Y., A. J. Ishak, S. A. Ahmad, and Y. Z. Chong. "Mechanical analysis of wearable lower limb exoskeleton for rehabilitation." <i>Journal of Engineering Science and Technology</i> (2014): 107-114. 14. Yang, C.J.; Zhang, J.F.; Chen, Y.; Dong, Y.M.; and Zhang, Y. (2008) A review of exoskeleton-type systems and their key technologies. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i>, 222(8), 1599-1612. 15. Daniel, V.C. (2009) Development of the Production Process of PPAM. Master Thesis, Public University of Navarre, Pamplona, Spain. 16. Dr. S. S. Rao, A. G. Pranav Chand, C. J. S . V. Gopichand and D. G. R. K. Prasad (2016) Home Automation system for Divyang Persons International Journal of control theory and applications, 9(2), 1229-1234. 	2088-2094
380.	<p>Authors: Ravinder N, Vineetha Tirumalasetty, Smruthi Dabbiru, and Sivaji Pasupuleti</p> <p>Paper Title: Examining Domestic Power Consumption using SAX Algorithm</p> <p>Abstract: Besides, the large overall firms over the globe have down to earth involvement in crucial city assurance and rational utilization of imperativeness. Need the essential of abuse imperativeness in a very practical methodology is that the need for making countries like the Asian nation and China. The improvement of reasonable structure meters gave North American nation access to a no small measure of imperativeness usage learning. This data given by reasonable meters may be used quickly to supply encounters into imperativeness conservation measures and exercises. Different imperativeness spread firms harness this learning and procure surprising results concerning the customer's usage plan. They then when acting examination envisions the solicitation and use of customers. This examination causes them to settle on a decision the duty at the sole inspiration driving your time. The associations endeavor to beat the bottleneck in capital hypothesis cost of learning. Further, handle extensive data for layout time, and examination may be a moderate methodology and is not adequately quick to reinforce period picking. Our venture shows a 'Business Intelligence mechanical assembly's that use Apache Hadoop to manage the regular issues rapidly. Taking the advantages of this gadget, imperativeness scattering firms will reduce the endeavor by abuse bunch hardware that runs R Tool. The usage of appropriated preparing gadgets conjointly reduces the time break broadly to change time allotment discernment and to pick. This gadget also will reduce carbon impression and unmistakably related issues in imperativeness flow together with loses and wrongdoing. Later on, this equivalent examination may be done on different utility resources like gas and courses utilized in calming organization time impediments.</p> <p>Keywords: Power, Consumption, SAX Algorithm, Time Series.</p> <p>References:</p> <ol style="list-style-type: none"> 1. G. O. Young, "Synthetic structure of industrial plastics (Book style with paper title and editor)," in <i>Plastics</i>, 2nd ed. vol. 3, J. Peters, Ed. New York: McGraw-Hill, 1964, pp. 15–64. 2. W.-K. Chen, <i>Linear Networks and Systems</i> (Book style). Belmont, CA: Wadsworth, 1993, pp. 123–135. 	2095-2101

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Authors:	A.G. Mironov, I.V. Rudenko, O.I Vaganova, Z. V. Smirnova, O.B. Shustova, I.S. Vinnikova
Paper Title:	Professional Education of Students in College

Abstract: Changes taking place both in society and in the field of education are forcing educational institutions to look for new ways to teach modern graduates. One of these ways is the improvement of professional education. This is especially important for college students. In the article, the authors highlight the role and essence of modern professional education, as well as the authors' definition of the concept of "professional education", emphasize how it differs from traditional education in its features. The level of preparation of future graduates as a whole depends on the literacy of its construction. The purpose of the work is to build a model of professional education of students which can be applied in Russian colleges. In the article, the authors cite a study that reveals a survey of students of Nizhny Novgorod colleges, which showed insufficient satisfaction with their professional education in the colleges of the city of Nizhny Novgorod. The received data served as the basis for developing a model of professional education for students. We developed a number of activities on its basis to expand professional education activities and improve student training.

Keywords: professional education, graduates, college, students, model of professional education.

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Authors:	Varuna Lakshmi G, Gunarani G I
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Paper Title:	Enhancing Thermal and Lighting Quality with Modeling Software
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Abstract: Concrete is a major construction material which absorbs and emits heat from the Sun. To compensate this, more cooling load is required and window blinds. This draws more electricity which in turn depletes the natural resources on a greater scale. Our study is to balance between the lighting and cooling load by analyzing the effects of two different window to wall ratios through Designbuilder. A residential space in Chennai, Tamil Nadu, India is chosen for the study. All details (materials used, thermal transmittance of these materials, climatic condition including ambient temperature and number of summer days, orientation of structure and window to wall ratios, number of occupants, purpose of building etc.) regarding the structure and the temperature of the city is fed in and the analyses are run. The software gives us an idea on the thermal and lighting characteristics of the 3D model of the structure created in it. This can be viewed in both daily and monthly intervals. Also the analyses give us information on paramount parameters of conserving energy. We compare the results between the two window to wall ratios. With this we suggest ways which bring us far from exploiting fossil fuels thus conserving energy in the ways possible. The conclusion of this study is illustrated later section in this paper.

Keywords: thermal comfort, lighting quality, window to wall ratio, thermal properties, heat gain.

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Authors:	Naziya Shaik, Priyanka Sanikommu, Suhasini Sodagudi
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Paper Title:	Designed Methodologies to Recognize Credit Card Deceptions with Machine and Deep Learning Techniques
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Abstract: It is well heard and invisible problem of different kinds of deceptions happening with the rise of ecommerce technology developments. Specifically, such problems need to be addressed and controlled. This paper presents various implementation techniques that are necessary for identifying irregularities in the usage of card systems. The ultimate outcome is to identify the finances loss anomaly. In view of the current state of art, the problem is considered to address with machine and deep learning methods. To eradicate fraudulence, it is proposed to apply random forest, SVM of machine learning techniques and CNN deep learning method. The

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comparative analysis of the proposed methods is discussed in the paper. The performance study of the proposed techniques is also covered.

Keywords: Card systems, deceptions, irregularities, machine learning.

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Authors: Manish Chauhan, Sumit Kalra, Harpreet Singh

Paper Title: Stabilization of Clayey Soil Using Lime and Plastic Fiber in Sub Grades

Abstract: Soil is the basic and most commonly used material in civil engineering. Soil is used in building, highways, bricks, bridges; road rail tracks and is responsible for the stability of the structure. There are various kinds of soil available on earth; the soil is distinguished as per the material properties, size, composition, and various textures. The clay soil is a type of soil having a fine-grained natural rock that integrates one or more clay minerals with traces of metal oxides and organic matter. According to the composition of the material, the clay also has a variety of features. It is slow, fast, and difficult to accelerate and is utilized for something with fine particle size. In this research, soil stabilization is carried out to achieve the engineering properties of soil for subgrades construction. Waste plastic bottles are used in the construction of subgrade to reduce the landfill and utilize raw waste material in reinforcing the soil. Therefore, we have tried to stabilize the clay soil with the different percentages of quick lime (2%, 4%, 5%, 6%, 8%, 10%, 12%). The tests such as Maximum Dry density (MDD), California Bearing Ratio (CBR) at various percentages of plastic strips have been performed to determine the strength of the clay soil. Also, the swelling index of clay soil and the microscopic test is also performed to analyze the change in the engineering properties of soil.

Keywords: Clay soil, Lime, Plastic material.

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Authors:	M. Sita Rama Murthy, K.Srinivasa Rao, V.Ravindranath, P.Srinivasa Rao
Paper Title:	Transient Analysis of K-node Tandem Forked Queuing Model with Bulk Arrivals Having Load Dependent Service Rates

Abstract: In this paper a K-node series and parallel queuing model with load dependent service rates is introduced and analysed. It is assumed that the customers arrive to the initial queue in batches and wait for service. After completing the service at first service station they may join any one of the (K-1) parallel queues which are connected to first queue in series and exit from the system after getting service. Here it is assumed that the arrival and service completions follow Poisson processes and service rates depend on number of customers in the queue connected to it. Using difference-differential equations the joint probability function of number of customers in each queue is derived. The system performance measures such as average number of customers, waiting time of customer, variation of number of customers in each queue, throughput of each service station, utilization of each server are derived explicitly. The sensitivity of the model is analysed through numerical illustration and observed that the performance measures are significantly influenced by state dependent service rates. This model also includes the earlier models as particular cases for specific values of the parameters. This model is useful in analysing the practical situations such as communication networks, production process and cargo handling.

Keywords: Bulk arrivals, forked queuing model, Load dependent service rates, Performance of system, Poisson Process, Tandem queue.

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	Authors: Douglas Emmanuel Ikiomoye, Rotimi-Williams Bello, Domor Mienye Ibomoije	
	Paper Title: Random Multiple Access Scheme Protocol	
	<p>Abstract: This paper considers random access protocol, which is part of multiple access scheme protocol. It focuses on carrying out a background research of the Aloha and CSMA family in terms of performance, throughput and offered load. Furthermore, the paper presents, compares and discusses the measurements result obtained in Aloha's and CSMA's family in terms of throughput and offered load using Matrix Laboratory, C++ and QualNet simulator.</p> <p>Keywords: Aloha, CSMA, MAC, QualNet, Simulation.</p>	
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	<p>Authors: Mohan Kubendrian, Nishal Pradhan</p> <p>Paper Title: Recommendation System: A Literature Survey</p>	
	<p>Abstract: Recommendation systems aim at identifying the best products and contents that suits the preference of a user. It has become increasingly popular in a number of areas, like recommending books, news articles, movies, music, commercial products, restaurants, web pages, and many more. Retail companies and e-commerce sites take full advantage of recommender systems in order to boost their profit margins by boosting sales or rather leverage the data that are provided to them. To improve performance and accuracy for a more specialized recommendation for each customer, there has been a lot of research on developing hybrid recommendation systems instead of improving collaborative or content-based methods alone. Hybrid systems club together both content-based and collaborative based methods. LightFM, a hybrid model, has been proven to be the most effective when it comes to recommendation systems. This makes it interesting to study the effectiveness of LightFM compared to other existing models. In this study, we provide a literature survey of the existing recommendation systems, with our focus based on LightFM which is used for implicit feedback and user-item cold start problems.</p> <p>Keywords: Collaborative Filtering, Content-Based Filtering, Explicit Feedback, Hybrid Filtering, Implicit Feedback, LightFM.</p> <p>References:</p> <ol style="list-style-type: none"> Choi, K., Yoo, D., Kim, G., & Suh, Y. (2012). A hybrid online-product recommendation system: Combining implicit rating-based collaborative filtering and sequential pattern analysis. <i>Electronic Commerce Research and Applications</i>, 11(4), 309-317. Núñez-Valdés, E. R., Lovelle, J. M. C., Martínez, O. S., García-Díaz, V., De Pablos, P. O., & Marín, C. E. M. (2012). Implicit feedback techniques on recommender systems applied to electronic books. <i>Computers in Human Behavior</i>, 28(4), 1186-1193. Burke, R. (2002). Hybrid recommender systems: Survey and experiments. <i>User modeling and user-adapted interaction</i>, 12(4), 331-370. F. Ricci, L. Rokach, B. Shapira and P.B. Kantor, <i>Recommender Systems Handbook</i>, Springer, 2011. Bobadilla, J., Ortega, F., Hernando, A., & Gutiérrez, A. (2013). Recommender systems survey. <i>Knowledge-based systems</i>, 46, 109-132. Adomavicius, G., & Tuzhilin, A. (2005). Toward the next generation of recommender systems: A survey of the state-of-the-art and possible extensions. <i>IEEE Transactions on Knowledge & Data Engineering</i>, (6), 734-749. Salter, J., & Antonopoulos, N. (2006). CinemaScreen recommender agent: combining collaborative and content-based filtering. <i>IEEE Intelligent Systems</i>, 21(1), 35-41. Porcel, C., Tejeda-Lorente, A., Martínez, M. A., & Herrera-Viedma, E. (2012). A hybrid recommender system for the selective dissemination of research resources in a technology transfer office. <i>Information Sciences</i>, 184(1), 1-19. Herlocker, J. L., Konstan, J. A., Terveen, L. G., & Riedl, J. T. (2004). Evaluating collaborative filtering recommender systems. <i>ACM Transactions on Information Systems (TOIS)</i>, 22(1), 5-53. Candillier, L., Meyer, F., & Bouillé, M. (2007, July). Comparing state-of-the-art collaborative filtering systems. In <i>International Workshop on Machine Learning and Data Mining in Pattern Recognition</i> (pp. 548-562). Springer, Berlin, Heidelberg. Su, X., & Khoshgoftaar, T. M. (2009). A survey of collaborative filtering techniques. <i>Advances in artificial intelligence</i>, 2009. Bobadilla, J., Hernando, A., Ortega, F., & Bernal, J. (2011). A framework for collaborative filtering recommender systems. <i>Expert Systems with Applications</i>, 38(12), 14609-14623. Bobadilla, J., Hernando, A., Ortega, F., & Gutiérrez, A. (2012). Collaborative filtering based on significances. <i>Information Sciences</i>, 185(1), 1-17. Schafer, J. B., Frankowski, D., Herlocker, J., & Sen, S. (2007). Collaborative filtering recommender systems. In <i>The adaptive web</i> (pp. 291-324). Springer, Berlin, Heidelberg. www.medium.com Vozalis, M. G., & Margaritis, K. G. (2007). Using SVD and demographic data for the enhancement of generalized collaborative filtering. <i>Information Sciences</i>, 177(15), 3017-3037. Barragáns-Martínez, A. B., Costa-Montenegro, E., Burguillo, J. C., Rey-López, M., Mikic-Fonte, F. A., & Peleteiro, A. (2010). A hybrid content-based and item-based collaborative filtering approach to recommend TV programs enhanced with singular value decomposition. <i>Information Sciences</i>, 180(22), 4290-4311. Gao, L., & Li, C. (2008, October). Hybrid personalized recommended model based on genetic algorithm. In <i>Wireless Communications</i>, 	

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Authors: **M. Jafar Sathick Ali, Jayakumar Kaliappan, R. Lokeshkumar**

Paper Title: **Patient Health Informatics System using Cloud computing and IoT**

Abstract: With the development in technology, health care is developing both in its technicality as well as in its organization. In present day, the patient data storage is of our greatest concern, as it has to be convenient for the doctor to access at the time of emergency. The most important properties of the patient informatics are - it should be accessible by the doctors to check the medical history of the patients in order to suggest any prescription, it should be accessible to the patient medical informatics even when the patient is unconscious, should be compatible and spontaneous to any updates in the data, all this data should be stored at a centralized pool or storage, also latency and response time should be less with high performance and accuracy. With all these specifications in concern, there comes a need to develop a system which has huge storage (cloud) which is accessible from any hospital, an immediate collector (storage) of sensor data which takes in the updates at sensor, actuators--things level (Edge) as well as at network level (Fog). This system therefore has high performance due to reduced latency and response time with an authorized access and security to the patient informatics.

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Keywords: Cloud Storage, Patient data, Fingerprint sensor, Edge, Fog.

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Authors: **Jaya Krishna Akella, Kireeti Sarvardhapu, Sai Krishna****Paper Title:** **Investigation of Saw Devices with Buffer Layer on Si Substrates**

Abstract: This paper presents on Investigation of behavior of buffer layer on the Conventional SAW devices and their dispersion characteristics. The Conventional SAW devices designed on non-piezoelectric substrate with buffer layer exhibit different characteristics. The SAW device has the arrangement of Patterned ZnO/IDT/AlN/Si and AlN/ZnO as the buffer layer and their corresponding analysis are done by 2D Finite element model Simulation. Different Characteristics such as temperature dispersion and Phase velocities with respect to varying a buffer layer height are taken and mentioned which produces optimal results are proposed in the paper.

Keywords: SAW/BAW, IDT, TCF, FEM.**References:**

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2166-2169**389.****Authors:** **Tulasi Jami, M. Satya Sai Ram****Paper Title:** **Edge-Fed Square Truncated Circularly Polarized Antenna For Wireless LAN Communication And Medical Applications**

Abstract: An edge fed square truncated antenna is designed for wireless LAN and medical communication applications. The designed antenna is providing circular polarization (CP) at dual operating bands of 5.8GHz and 9.2GHz respectively. The circular polarization is achieved by controlling the current distribution over the patch and the truncated corner improved the axial ratio of antenna. The designed antenna is fabricated on FR4 substrate with permittivity 4.4 and height of 1.6 mm. A peak realized gain of 7.5dB at 5.8GHz and 6.4dB at 9.2GHz is obtained from current model. The simulation of proposed antenna model is designed with CST-microwave studio-based Antenna Magus Tool and the measured results analyzed with anritsu combinational analyzer in anechoic chamber.

Keywords: A Circular Polarization, Edge-Fed, WLAN.

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2170-2174**390.****Authors:****J. Jayasurya, R. Seenu, M. Jagannath****Paper Title:****Vehicle Classification and Distance Estimation using Support Vector Machine**

4. **Abstract:** While driving a vehicle, the driver must pay attention to the environment around the vehicle. If the driving period increases, the driver loses his attention that would eventually lead to road accident. There are literatures which address the prevention of road accidents by considering several factors like environmental conditions, traffic density, psychological nature of the driver, etc. Among the factors, the detection of vehicle in front is considered as one of the road safety measures. In this paper, the datasets are collected from GTI vehicle image database and KITTI vision benchmark suite. The algorithm is developed for vehicle classification and the distance estimation by employing a conventional computer vision technique called Histogram of Oriented Gradients (HOG), combined with a machine learning algorithm called Support Vector Machine (SVM). The proposed algorithm could be implemented on autonomous vehicle system to assist the driver effectively and also reduce the vehicle collision.

Keywords: Vehicle Collision; Automatic Guided Vehicle; Histogram of Oriented Gradients; Support Vector Machine.

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	Authors: G. Joga Rao, D.V.N. Ananth, P.Kiran Kumar, P.RamReddy Paper Title: Performance Enhancement of PMBL DC Motor Drive by Multi-Carrier Modulation Technique		
	<p>Abstract: Vital importance of this work is to enhance the performance of the Permanent magnet brushless DC motors (PMBLDC or simply BLDC) with help of Multicarrier modulation technique on multilevel inverter. BLDC Motors are extensively used in electrical drives as they are more high efficiency, responds dynamically, reliable and free maintenance. This scheme is an efficient replacement for the orthodox method. The modelling of this planned drive system is designed and simulated by using the MATLAB/ Simulink software. This software based results portray an effective control in the motor, and an enhanced drive performance.</p> <p>Keywords: PMBLDC Motor, Multicarrier modulation, Multilevel Inverter, Electromagnetic torque, MATLAB/Simulink.</p>		
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393.	Authors: Kalaichelvi V, Manimozhi K, Meenakshi P, Manikandan H, Swaminathan S Paper Title: A New Robust Method of Hiding Text for Secure Data Transfer Based On Secret Key and Hash Function	<p>Abstract: There are many steganographic algorithms which are reliable to send messages confidentially to the other end. But every algorithm has a loop hole which is used to retrieve the message back. To overcome this issue, this paper introduces the concept of hash function in steganography. To achieve this, it recommends only the use of colour images. First retrieving the LSB's of the blue pixel, getting a 32 bit input from the user, these two values are considered as the secret key. The secret message which is to be hidden is also obtained from the user and converted to ASCII byte stream. A Hash function is performed between the blue pixel value and the 32 bit secret key. This gives the hash byte stream as output. This is equal to the length of the secret message in bits. An XOR operation is performed between the ASCII byte stream of the secret message and the hash byte stream. This results in pseudo byte stream. Each bit of the pseudo byte stream is replaced in LSB's of the blue pixel to obtain stego-image. On the receiver's side the receiver should know the 32 bit secret key and the message length. Once it is known, the image to be encrypted is selected, 32 bit secret key and the message length is entered. The same process hash process is done and the output byte stream is converted from their ASCII value and the secret</p>	2184-2187

message is displayed to the receiver. If the receiver enters a wrong secret key he will never know the secret message and since the hash function is used, it is impossible to trackback the algorithm. The .png format offers lossless compression and thus rendering a safe transmission of the secret message. Thus, the function is safe, secure, reliable, simple and cost effective.

Keywords: Hash Function, LSB, Cipher, Secret Key.

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Authors:	Naveen Kumar Gupta, Sujit Kumar Verma
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Paper Title:	"Effects of Ceo/H2o Nano Fluid Application on Thermal Performance of Mesh Wick Heat Pipe"
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Abstract: In the present investigation, CeO/H2O nanofluid has been used as a working fluid in the heat pipe. The effects of CeO/H2O nanofluid application in heat pipe for a wide range of power input (50-150 watts), and inclination angles (0°, 15°, 30°, 45°, 60°, 75° & 90° with the horizontal) have been analyzed. Authors noticed 20.5% reduction in thermal resistance and 15.3% enhancement in thermal efficiency of the heat pipe as compared to water. Maximum thermal efficiency (66.5%) of heat pipe obtained at 150 watts and 1.0 vol. % of nanofluid in a horizontal position. Investigation shows that a 30° inclination angle is the most favourable angle for the enhancement in thermal performance of heat pipe.

Keywords: Heat pipe, Nanofluids, Thermal resistance, Thermal conductivity.

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Authors:	N. K. Kund
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Paper Title:	Experimental Studies on Effects of Jet Reynolds Number on Thermal Performances with Striking Water Jets
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Abstract: strenuous experiments are conducted to investigate the effects of jet Reynolds number on heat dispersal over flat plate concerning constant heat flux of 6.25 W.cm-2. Aimed at that four different jet Reynolds numbers of 800, 1600, 2400 and 3200 are picked, above and beyond, jet flow rate and nozzle diameter of 30 lph and 5 mm, respectively. As anticipated, it is witnessed that the temperature upsurges in radial course. Additionally, the witnessed temperature distribution is axisymmetric. Furthermore, it discloses that the temperature decreases with jet Reynolds number. In addition, the witnessed temperature variation is more or less

linear. Similarly, it also unveils that the Nusselt number declines along radial route. The witnessed Nusselt number distribution is axisymmetric on top. Additionally, it also divulges that the Nusselt number upsurges with jet Reynolds number. The witnessed Nusselt number variation is more or less linear as well. However, the jet Reynolds number of 2400 bids medium and ideal cooling performances.

Keywords: Jet Reynolds Number, Water Jet, Flat Plate, Thermal, Cooling.

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Authors: Mohan Babu.C, B.Sivakumar, Sridhar C S

Paper Title: Efficient and Automatic Area Network Adjustment of Capacity and Coverage for Improvement of Homogeneous Cellular Network Using Femto Cells Technology

5. **Abstract:** Due to increasing number of users in mobile cellular networks, demands of networks have been growing around the global and also due to larger number network distributors and deployment of more mobile cellular networks, the demands of capacity, coverage and cost are increasing. The major problem with having more networks within small area networks is interference between networks and coverage. These problems are more in urban areas due to its densely populated areas and connectivity issues. In recent technologies, the heterogeneous and homogeneous wireless cellular networks have become dominant networks for minimization of problems said above. To address these issues, Modified Homogeneous Cellular Network (MHCN) and Heterogeneous Cellular Network (HTCN) are designed, evaluated and compared in terms of throughput, network coverage and capacity of networks for different ranges and between various nodes. The both networks use Femtocells and these cells are deployed around 30 with 6 base stations (BS). The combination of MHCN and HTCN are known as Multi-Hop Heterogeneous Cellular Network and it consists of femtocells place irregular within specified area for low power BS to have a communications between mobile nodes and BS through single or multi hops. Initially the coverage and capacity are investigated by using downlink MHCN's and under the situation of Rayleigh fading channels, an capacity expression is derived by splitting the cell into femto and macro cells for the first time. Later on the effect of the density and transmitter power and also SINR are analyzed on the capacity by MHCN and the scenario is analyzed for the same cells under conditions of infrastructure area and Ad-HoC area which are direct and through hops communications. Finally, simulated results in NS3 and numerical values are conducted and validated to various data packets.

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Keywords: Femtocells, Macro cells, Coverage, Capacity, MHCN, MTCN, NS3, Mobile Communication, relaying.

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	<p>Authors: A Daveedu Raju, Ch Gaayathre, G Leela Deepthi, K Madhuri, D Maheswari</p> <p>Paper Title: Prediction of Students' Performance for a Multi Class Problem Using Naïve Bayes Classifier</p>	
	<p>Abstract: Many engineering colleges in India are competing with one another to improve the standards of the college by providing best education to the students. The major marking sign among the various criteria is the pass percentage of the students. Sometimes the college management is miffed by stack holders such as parents, other professional bodies, alumni due to the pressure impounded on the students to get the best pass percentage. The proposed paper uses the traditional, but powerful naive Bayes classifier for forecast the student performance, that in turn help the faculty and management to take appropriate movements. The data is collected from the students of 4 year bachelor degree programs of Computer Science and Electronics programs. The data preprocessed for missing value imputation and attribute subset selection. The Bayes classifier model is built by the preprocessed data. The model is tested for check of accuracy and that provided satisfactory results on unknown class label forecasting or prediction, although the features are assumed to be independent as norms of Bayes' theorem. This helps the teachers and all the stakeholders of the academic institutions that lead to know the performance of the students and to give them the knowledge based on their performance. Further the students and the stakeholders can take corrective actions against the students, whose result is dissatisfactory and it helps to improve their result.</p>	
	<p>Keywords: Naïve Bayes classifier, prediction preprocessing, student performance.</p>	
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397.		2209-2214
	<p>Authors: G. Vijayababu, D. Haritha, R. Satya Prasad</p> <p>Paper Title: An Effective Utilization of Bastion Host Services in Cloud Environment</p>	
	<p>Abstract: Now a days the cloud computing offers huge benefits, security issues are major concerns that setback from enjoying the full range of advantages it offers. Bastion Host is specifically designed for network security that is placed on the network perimeter which provides protection in the form of patches, authentication, encryption, and eliminates unnecessary software and services and is a well-known concept. This paper discusses Bastion Host services, types and bastion host in a cloud environment AWS. The Priority Queue method for effective utilization of services is proposed and the results are promising in terms of improving throughput and resource utilization.</p>	
	<p>Keywords: AWS, Bastion Host, DMZ, VPC.</p>	2215-2220
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	<p>Authors: Pravesh Kumar Sharma, Amanpreet Tangri, Shalika Mehta</p>	

	Paper Title: Model Testing Of Reinforced Soil Slope with Flexible Facing	
399.	<p>Abstract: Soil nailing is a cost-effective way to reinforce soil, including inserting a threaded rod into a naturally unstable slope to increase overall stability or to enter the cutting ramp during top-down excavation. Retained soil, resistant reinforcements and exterior facing are the main elements of the soil nail formation. Their composite interaction is used to measure the efficiency of the soil nail structure in terms of deformation and strength. Even though international regulations deal with the possibility of using rigid or flexible exterior facing, the effects of stiffness are not adequately studied and estimated. Therefore, the aim of this paper is to test the strength of different materials such as HDPE hexagonal slope protection geonet, strata base biaxial polypropylene geonet, HDPE drainage geonet, expanded metal mesh utilized for flexible facing. The experiments are carried out with four nails positioned in horizontal as well as in vertical position in the soil model prepared in Chandigarh University Campus. From the experiment, it is observed that the expanded metal mesh material performs well among other material with maximum stress of 80 Kg/cm². Also, a comparison of maximum stress between flexible facing (with & without facing) and flexible facing with rigid facing is performed. It is being analyzed that the rigid facing has tolerated maximum stress about 98 Kg/cm² compared to soil slope with flexible facing and soil slope without facing.</p> <p>Keywords: Soil nailing, physical model, pressure dial gauge, steel bar, flex sensor, digital multi-meter, electric switch, pressure hydraulic jack (bottle jack).</p> <p>References:</p> <ol style="list-style-type: none"> Cao, L. C., Fu, X., Wang, Z. J., Zhou, Y. Y., Liu, F. C., & Zhang, J. J. (2018). 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	Authors: Olga S. Prichina, Viktor D. Orekhov, Yulia V. Evdokimova, Olesya G. Kukharenko, Marina V. Kovshova	
	Paper Title: Evolution of Key Factors and Growth Potential of Human Capital	
	<p>Abstract: This study is aimed to identify and generalize the understanding of the influence of various factors on human capital as a driver of society's socioeconomic development. Structural and quantitative characteristics of this part of the system of human activities are provided in detail. Based on the systematic approach, the authors propose a conceptual model of human capital and the main factors, which influence it. Factors and growth potential of human capital in various periods of history have been identified and studied. The authors propose a dialectic model of evolution for the influence of various factors on human capital growth. The influence of humanity's expanding knowledge on the growth of gross domestic product and the evolution of human capital has been presented. It has been shown that education has a key impact on human capital growth in accordance with the exponential law of years spent on education. Quantitative data on the evolution of the influence of literacy, education and science on human capital growth and prospects of further growth have been provided. In the course of the study, the authors formed a dynamic conceptual model of human capital growth, with the influence of key factors and potential substantiated on a quantitative basis. The novelty of this study is associated with the integral system-based quantitative consideration of labor with human capital as its structural core. The study results can</p>	

be used for strategic planning and the formation of long-term human capital development programs.

Keywords: human capital, economic pace, labor, science, education, knowledge, GDP, R&D, innovation.

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Authors: A.A. Anarbayev, R. Khegay, R. Spabekova, G.Sh. Omashova, Zh.E. Khusanov, N.A. Anarbayev

Paper Title: Investigation of the Process of Lithium Chloride Extraction from Brine of the Salt Lakes of the Aral Sea Region

Abstract: The purpose of the research is to create a technology for processing hydromineral raw material into products of lithium salts and rare earth elements, as well as to develop a highly efficient technology for production of lithium, lithium compounds and rare earth elements of the Aral region. The chemical and mineralogical composition of the hydromineral raw material of the Aral region lakes has been studied by the method of precipitation. The conditions for obtainment of lithium concentrates have been studied. The conditions for lithium minerals concentration and production of concentrates for lithium chloride extraction have been investigated. Purification of lithium concentrates off ions of calcium and magnesium, as well as effective methods of lithium precipitation in the form of lithium carbonate have been studied. The extraction methods for processing lithium-containing sediments and sorption methods of lithium extraction from brines have been investigated. Water-salt systems for the directed search of effective methods for obtainment of lithium salts from brine and sediments of salt lakes have been studied.

Keywords: hydromineral raw material, salt solution, sludge, lithium chloride, rare earth elements.

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Authors: N.A. Khripach, F.A. Shustrov, V.G. Chirkin, I.A. Papkin, R.V. Stukolkin

Paper Title: Hybrid Energy Storage Devices for Rapid Charge Stations of Electric Vehicles

Abstract: Insufficient development of infrastructure of electric vehicles is one of major constraining factors in attempts to their wider application. The main bottleneck is the development of extensive network of charging stations aiming at practical and economically reasonable operation of electric vehicles similar to that for conventional vehicles with internal combustion engines. Most activities devoted to adaptation of existing or development of new infrastructure facilities are related with the necessity to borrow significant funds for capital construction which has detrimental effect on their investment attraction. This promotes searching for alternative solutions including those related with the use of existing infrastructure vehicle facilities and electrical networks. This work discusses integration of fast charge stations into low intensive power supply system of petrol filling stations by means of hybrid energy storage devices based on lithium-ion batteries and supercapacitors. The flowchart of hybrid energy storage device and general principles of its operation are described in details.

Keywords: hybrid energy storage, lithium-ion batteries, supercapacitors, ultracapacitors, electric vehicle, fast charging station, petrol station.

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	<p>Authors: Georgii Venediktovich Gogrichiani, Anatoly Timofeevich Osyaev</p> <p>Paper Title: Control Valve Retaining Laminar Flow</p>	
	<p>6. Abstract: The issues of reduction of power consumption are important for any industry, including railway transport. They are solved by numerous approaches where solutions related with decrease in energy loss in transmission channels are the most important. This article describes approach to decrease losses in pipelines upon transmission of compressed air by a new design of control valve characterized by lower losses of compressed air from compressor. This peculiarity makes it possible to maintain lower pressure at compressor outlet, thus decreasing energy consumption for its operation.</p> <p>Keywords: control valve, pipeline, gas flow rate, passage, flow coefficient, linear drive.</p> <p>References:</p> <ol style="list-style-type: none"> 1. J. F. Blackburn, G. Reethof, J. L. Shearer. Fluid power control. Cambridge: Technology Press, 1959. 2. Gerts E.V., Gogrichiani G.V., Shipilin A.V. Rezul'taty raschytov na ETsVM parametrov nestatsionarnogo gazovogo potoka v truboprovode s mestnymi soprotivleniyami [Computer-aided predictions of parameters of nonstationary gas flow in pipeline with local resistances]. In: Pnevmatika i gidravlika. Moscow: Mashinostroenie, 2011, pp. 93–97. 3. Alekseev A.K., Makushin S.A. Issledovanie dinamicheskikh kharakteristik drossel'nykh shaib v pul'siruyushchem potoke [Studying dynamic properties of throttle plates in pulsating flow]. In: Pnevmatika i gidravlika. Moscow: Mashinostroenie, 2010, pp. 189–196. 4. Gogrichiani G.V., Motorina L.V., Shipilin A.V. Metodika raschytov nestatsionarnogo gazovogo potoka v sisteme s drossel'noi shaiboi [Prediction of nonstationary gas flow in system with throttle plate]. In: Pnevmatika i hidravlika, Issue 7. Moscow: Mashinostroenie, 2010, pp. 97–102. 5. Rabinovich E.Z. Gidravlika [Hydraulics]. Moscow: Nedra, 2012. 6. Gogrichiani G.V. Metod raschytov parametrov gaza pri perekhodakh ot odnovremennogo nestatsionarnogo techeniya k dvumernomu i obratno [Predictions of gas parameters upon transitions from one-dimensional nonstationary flow to two-dimensional flow and reverse]. In: Pnevmatika i hidravlika, Issue 5. Moscow: Mashinostroenie, 2012, pp. 115–118. 7. Sato H. The stability and transition of a two-dimensional jet. Journal of Fluid Mechanics, 1960, vol. 7, pp. 53–80. 8. Schaedel H. Theoretische Untersuchungen an homogenen übertragungseitengender Fluidik 1. Teil. – Frequenz, 1969, vol. 12, pp. 350–358. 9. Hougen J.O., Martin O.R., Walsh R.A. Dynamics of Pneumatic Transmission Lag. Control Engineering, 2012, vol. 9, pp. 114–117. 10. Funk J.E., Robe J.R. Transients in pneumatic transmission lines subjected to large pressure changes. Internat. J.Mech. Sciences, 2010, vol. 12 (3), pp. 245–257. 	
403.		2245-2247
	<p>Authors: N.V. Volkova, T.V. Khalilova, A.I. Dudochnikov, L.S. Leontieva, L.F. Gaynullina</p> <p>Paper Title: Correlation Between the Electoral System Democratization and the Electoral Activity</p> <p>Abstract: The article presents a research of electoral process in Russia and the process of its democratization. The research object is presidential election campaigns in Russia from 1991 till 2018. The research is based on the hypothesis that simplified process of nominating candidates for the position of the Russian President must result in their number growing. This, in turn, must increase attendance of voters. That is, democratization of electoral process must positively influence the implementation of both the passive and active electoral rights by the citizens. To check the hypothesis, three indicators of electoral process were measured, analyzed and compared. The number of signatures necessary for registering candidates for the position of the Russian President reflects the level of electoral process democratization. The number of nominated and registered candidates characterizes the passive electoral right. Attendance of voters at presidential elections reflects implementation of the active right to elect. The key research results were obtained based on the Russian laws and analysis of their content, summarization and comparison of statistical data on elections, and their retrospective analysis. As a result, it was found how administrative regulation of elections influences implementation of the active passive and electoral rights by the citizens. This served as the basis for giving recommendations on improving the electoral process in the Russian Federation.</p> <p>Keywords: democracy, elections, electoral system, electoral behavior, electoral activity.</p> <p>References:</p> <ol style="list-style-type: none"> 1. M. Duverger. Political Parties. New Jersey: John Wiley & Sons, 1959. 2. A. Lijphart. Democracy in Plural Societies: A Comparative Exploration. London: Yale University Press, 1977. 3. G. Sartori. The Theory of Democracy Revisited. New Jersey: CQ Press, 1987. 4. T.J. Allen Exit to the right? Comparing far right voters and abstainers in Western Europe. Electoral Studies, 2017, Vol. 50, pp. 103–115. 5. M.A. Bekafigo, A. McBride. Who tweets about politics? Political participation of Twitter users during the 2011 gubernatorial elections. Social Science Computer Review, 2013, Vol. 31(5), pp. 625–643. 6. L. Obholzer, T.D. William. An online electoral connection? How electoral systems condition representatives social media use. European Union Politics, 2016, Vol. 17(3), pp. 387–407. 7. M.V. Khubutia. Free elections: the key myth of modern democracy. SISP, 2012, Vol. 8, p. 12. 8. R.W. Frank, F.M. Coma. How election dynamics shape perceptions of electoral integrity. Electoral Studies, 2017, Vol. 48(2), pp. 153–165. 9. M. Schelker. The elasticity of voter turnout: Investing 85 cents per voter to increase voter turnout by 4 percent. Electoral Studies, 2017, 	2248-2253

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Authors:	Zinaida Petrovna Zamaraeva, Ksenia Andreevna Voronova, Konstantin Anatolievich Antipyev, Galina Aleksandrovna Telegina, Larisa Ivanovna Starovojtova
Paper Title:	Assessment of Socio-Contractual Relations as a Mechanism for Overcoming Poverty in Modern Russian Families (Based on Sociological Studies Conducted in the Perm Krai)

Abstract: Poverty is one of the most sensitive problems that Russian society has encountered. Household income has been falling since 2015, especially in the regions, thereby affecting families and their budgets. The social security system offers new technologies that are focused, first and foremost, on families with children and allows maintaining them by activating their resources. These technologies include a social contract. The signing of social contracts with families in the Russian regions began in 2013 and has become widespread in the Perm Krai. It became possible to analyze the efficiency of socio-contractual relations only recently because it was necessary to monitor the relevant data for several years in order to make substantiated conclusions. Based on the data of an empirical study, the authors study poor families who joined the social contract system.

Keywords: poverty, family, social contract, reduction of poverty, income level, poverty level, welfare state.

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Authors: Aakunuri Manjula, G. Narsimha

Paper Title: An Effective Soil Classification and Prediction of Crop Yield Using Spatial Big Data

Abstract: (Please read carefully abstract of the template). The precise and prompt spatial categorization of the soil varieties and the forecast of crop yield rooted in the spatial big data have emerged as significant factors for the realistic purposes. In this regard, the spatially explicit crop-type information may be fruitfully utilized so as to evaluate the crop areas for a host of monitoring and decision-making applications like the crop insurance, land rental, supply-chain logistics, and the financial market forecasting. The underlying motive behind the current investigation is to effectively describe a modified support vector machine (MSVM) technique to effectively classify the soil type. The recommended crop and crop yield forecast is solely dependent on the soil type. In this regard, it is highly essential for the effective farm management to have appropriate output forecast in accordance with the amalgamation of several factors having a corresponding impact. In the document, three key functions like the big data decrease, soil categorization, and the crop recommendation including output forecast are performed. As a matter of fact, the crop changes from one farm to another on the basis of the planting dates, diversity, soil environment and the crop organization. With the result, it becomes indispensable to have an effective determination on the category of soil to be used. In the paper, the input is represented by the big data. The category of soil is ascertained by means of the procedure of the map reduce framework. The map reduction, in turn, is effectively attained with the help of the kernel principle component analysis (KPCA). Incidentally, the map reduction involves two key procedures such as the mapper and reducer. While the soil category is decided in the mapper side, the investigating procedure occurs in reducer side. Further, the innovative technique takes due consideration of the recommendation and output forecast of the crop, by elegantly employing an Optimal Artificial Neural Network classifier (OANN). In the document, the crop is recommended and the output forecast is carried out for the future years.

Keywords: Soil, Crop Yield prediction, spatial big data, MSVM, KPCA, OANN and Map reduction.

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	Paper Title: Generation Of Control Signals As A Function Of System Internal Parameters	
	<p>Abstract: Conditions of generation of control signals by gas systems are very important in some cases depending on system internal parameters such as: pipeline passage, properties of valves, their response rates, friction loss in pipelines, etc. This work proposes a new approach based on physico-mathematical models and arrangement of signal transmission in gas systems which makes it possible to improve quality of processed signals by determination of influence of system internal parameters.</p> <p>Keywords: system parameter; control signals; optimum correlations; physico-mathematical models.</p> <p>References:</p> <ol style="list-style-type: none"> 1. A.I. Buravlyov, B.I. Dotsenko, I.E. Kazakov, "Upravlenie tekhnicheskim sostoyaniem dinamicheskikh system" [Management of technical state of dynamic systems], Moscow, Mashinostroenie, 1995. 2. R. Molle, "Les composants hydrauliques et pneumatiques de l'automatique", Dunod, Paris, 1967. 3. V.M. Ordyntsev, Yu.I. Shendler, "Avtomaticheskoe regulirovanie tekhnologicheskikh protsessov" [Automatic control of technological processes], Mashgiz, Moscow, 1960. 4. J. E. Funk, D. J. Wood, S. P. Chao, "The transient response of orifices and very short lines", Journal of Basic Engineering, 94(2), pp. 483-489, 1972. 5. A. Linford, "Practical fluidic applications", Fluid power internat, 32(370), 2011. 6. M. Ott, "Stromungsverstarker und Sensoren. Berechnungsmethoden und Anwendung", Ohlydr und pneum, 11, 2012. 7. H. Topfer, M. Rochstrom, "Verhalten und Dimensionierung pneumatischer Übertragungsleitungen", Messen, Steuern, Regeln, 11, pp. 373-380, 2009. 8. I.M. Sobol', "Metod Monte-Karlo: Populyarnye lektsii po matematike" [Monte Carlo method. Popular lectures in mathematics], Nauka, Moscow, 1985. 9. S.M. Funkel'shtein, "Kharakteristiki impul'snogo truboprovoda kak elementa sistemy avtomaticheskogo regulirovaniya. Avtomatizatsiya proizvodstvennykh protsessov" [Properties of impulse pipeline as constituent of automatic control system. Automation of manufacturing process]. Nauka, 3,pp. 5-8, 2011. 10. H.M. Schaedel, "The DC – equivalent circuit of Fluidic Line Brachings", Fluidic Quarterly, 4(2), pp. 32-42, 2012. 	2273-2276
407.	Authors: Boris Einikhovich Gliuzberg, Oleg Aleksandrovich Suslov, Alexander Vladimirovich Savin, Petr Ivanovich Dydyshko	
	Paper Title: Application of Simulation Techniques Aimed at Determination of Motion Speed Along Rails with Combinations of Railroad Switches	
	<p>Abstract: This article discusses predictions of motion of railroad underframes along the rails with combinations of railroad switches obtained by models based on "Universal mechanism" software. The predictions are compared with experimental results used for verification of the models and computation of motion kinematics. Recommendations are given on determination of motion speeds along combinations of railroad switches.</p> <p>Keywords: combinations of railroad switches, simulation of motion, verification of models, comparison of predictions and tests, kinematic computation, determination of speeds.</p> <p>References:</p> <ol style="list-style-type: none"> 1. D.Yu. Pogorelov, "Komp'yuternoe modelirovaniye dinamiki rel'sovykh ekipazhei" [Computer aided simulation of dynamics of railroad underframes], Rostov-on-Don, Proceedings, International congress "Mechanics and tribology of transporation systems–2003", in two volumes, Vol. 2, 2003, pp. 226-232. 2. G.S. Mikh'alenko, D.Yu. Pogorelov, V.A. Simonov, "Sovershenstvovaniye dinamicheskikh kachestv podvizhnogo sostava zheleznykh dorog sredstvami komp'yuternogo modelirovaniya" [Improvement of dynamic properties of railroad rolling stock using computer aided simulation], Tyazheloe mashinostroenie, 12, 2003, pp. 2-6. 3. B.E. Glyuzberg, "Skorosti dvizheniya po kombinatsiyam strelochnykh perevodov" [Motion speeds across combinations of railroad switches], Russian University of Transport, Moscow, Sovremennye problemy sovershenstvovaniya raboty zheleznodorozhnoho transporta: Collection of research works, 2014, pp. 3-9. 	2277-2281

	Authors: Boris Einikhovich Gliuzberg, Aleksandr Iakovlevich Kogan, Mikhail Ivanovich Titarenko	
	Paper Title: Allowable Speeds Along Railroad Switches Upon Their Various Layouts	
	<p>Abstract: This article presents data on experimental verifications of predicted speeds along combination of railroad switches. Criteria of motion kinematics, strength, stress-strain behavior, wheel stability on rail, impact on passengers within the limits of switches used for speed determination are given including their values obtained by direct tests on route. Recommendations are given with regard to experimental predictions of speeds along combinations of railroad switches in railroad yard necks.</p> <p>Keywords: railroad switches, motion speeds, combination of railroad switches, criteria of speed determination, test results.</p>	
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	Authors: K. Sripath Roy, K. Harish, G. Chethan Sai, D. Indu, G. V. S. Ajith Kumar	
	Paper Title: Map Dashboard for Local Pollution and Weather Monitoring using Internet of Things	
	<p>Abstract: Pollution, a most significant issue that concerns the health of environment. This scenario differs from place to place where we have lot of trees and parks. Temperature, humidity and pollution are changing at a dangerous phenomenon which is detrimental to human life. It is becoming a global phenomenon not confined to towns and cities alone. The data available for evaluation of pollution is centralized now. Centralized data cannot give true and correct picture of situation. Hence, accurate conclusions cannot be drawn. To obtain decentralized data, a local solution we had proposed a local monitoring system which can give unambiguous renderings of temperature, humidity and pollution. This type of communication in between devices can be done with the help of IoT. This data can be stored for analytics which can be viewed using dashboards. Here, we are interfacing a temperature, humidity sensor and pollution sensor with NodeMCU to extract the decentralized data. This data is used to perform analytics in dashboards of an open-source platform Thing board and visualize using maps.</p> <p>Keywords: IoT, centralized, decentralized, open-source, dashboard, temperature, humidity, pollution, NodeMCU, Things board.</p>	
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	<p>Authors: O.V. Ryzhenkov, A.V. Kurshakov, A.V. Ryzhenkov, M.R. Dasaev, S.V. Grigoriev</p> <p>Paper Title: On Intensification of Heat Exchange in Steam Condensers Made of Stainless Steel and Brass</p>	
	<p>Abstract: This work highlights continuous increase in capacities of thermal and nuclear power plants (TPP and NPP), as well as current retrofitting of generating facilities, which evidences increased demand for steam condensers. The most popular approaches to increase efficiency of TPP and NPP condensers are described. Experimental condensers were fabricated of brass and stainless steel in as-delivered state, and with functional surface modified by surfactants. The influence of conversion of film condensation to dropwise condensation on heat exchange efficiency in condenser is described evidencing that surfactants on functional surfaces of condensers provide increase in wetting contact angle which in its turn leads to increase in coefficient of heat transfer in condenser and its overall efficiency.</p> <p>Keywords: thermal power plant, nuclear power plant, steam condenser, intensification of heat exchange, coefficient of heat transfer, hydrophobicity, contact angle, surfactants.</p>	
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412.	<p>Authors: A.B. Tkhabisimov, A.F. Mednikov, M.R. Dasaev, G.V. Kachalin, O.S. Zilova</p> <p>Paper Title: Solid Particle Erosion Resistance of Protective Ion-Plasma Coating Formed on Full-Scale Objects Based on Modern Additive Technologies</p> <p>Abstract: This paper presents the results of the research concerning solid particle erosion resistance of protective ion-plasma coating formed on experimental samples and compressor rotating blades of an energy gas turbine installation (full-scale objects). The coating was made using selective laser melting of titanium powder based on Ti-6Al-4V. The main characteristics (composition, hardness, structure) of the obtained titanium alloy, as well as of the considered chromium carbide-based coating (composition, hardness, structure, thickness) are considered. The work also presents a comparison of the results of solid particle erosion tests on experimental</p>	2295-2302

samples and material of coated and uncoated blades carried out under conditions close to real operating conditions. It has been established that the application of the proposed coating on the obtained full-scale object allows for at least two times longer duration of the incubation-transition period and reduces the steady-state rate of solid particle erosion. The obtained effect extends both to the concave and convex sides of the test blade with a specific difference their wear during metallographic studies.

Keywords: additive technologies, blades, compressor, experimental test, metallography, protective coating, samples, solid particle erosion.

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Paper Title: The Social Theater as a Means to Prepare Disabled Children for Effective Social Functioning

Abstract: The socialization of disabled children is aggravated by their life conditions and obligatory limitations of social experience. The pedagogical technology of the social theater enables to intensify social adaptation of disabled children. Acting on behalf of a character who possesses particular social and psychological features, developing relationships with the character, comprehending cause-effect connections in his behavior and changing roles freely, a disabled child not only has an opportunity to enrich the scope of emotions and social experience but also to establish dialogic relations with culture, society and, eventually, with oneself.

Keywords: dialogue, disabled child, game, role, social theater, socialization, theatrical miniature.

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Paper Title: Scientific and Technical Substantiation of the Bypass Roads Arrangement Around Populated Localities by Monitoring the Traffic Flow Intensity

Abstract: The article substantiates traffic organization of transit road transport bypassing the populated locality by redistribution of traffic flows considering the transport characteristic of the Republic of Adygea, as well as assesses transport infrastructure for effective use of transport corridors in order to fully integrate into the transport network of the South of Russia. The main station of the load area is the city of Maikop, and a section of the Caucasian Federal Highway (approach road to the city of Maikop) to the intersection with Maikop - Ust-Labinsk - Korenovsk highway. The analysis of traffic intensity was carried out for three categories of vehicles. The constructed traffic flow distribution chart in the connections and intersections of city roads and streets allowed revealing the dynamics of changes in the number of road transport in the urban road network. Given the intensity of car and truck traffics in the city main street, it was proposed to build a bypass road around the city. The preliminary monitoring of traffic flows at the approach roads and town exits served an optimization solution to arrange bypass roads around populated localities. This proposal was based on the study of the intensity of transit passenger and freight transport towards the Caucasian Federal Highway through the housing space of the city of Maikop. According to the undertaken study of traffic intensity by mode of transport on linear sections and at transport nodes, a traffic flow chart was built that allowed determining the intensity of traffic flows by individual aggregated links on the road and street sections, as well as on adjacent roads.

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Keywords: autoroad, city bypass, road construction, road network, road safety, the incidence of road accidents, traffic flow intensity, transit transport.

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Authors:

Svetlana Sergeevna Nosova, Pulat Fazilovich Askerov, Emmakade Rabadanovich Rabadanov, Lyudmila Eduardovna Dubanovich, Victoria Nikolaevna Voronina

Paper Title:

The Role of Digital Infrastructure in the Digital Transformation of the Modern Russian Economy

Abstract: This paper explores some of the key theoretical-methodological foundations of the development of the digital economy based on modern information and communications (digital) infrastructure. In the present climate of globalization, no nation can adequately develop socially and economically without employing digital technology: the development in countries that ignore is doomed to be imperfect. By interacting with each other and penetrating production, digital technologies ensure the dynamic development of the economy and society. Digital objects form digital infrastructure, which is the foundation of the digital economy. The authors prove that the digital economy model brings about the need for infrastructural reliability, required to ease and speed up the reproduction process. The paper substantiates the need for closer interaction between the scientific community, business sector, and government. It describes the role of knowledge, innovations market, and innovation growth areas from the perspective of the choice of priority areas for the development of the

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digital economy. The authors consider international organizational, scientific, technical, and technological forecasts and trends in the context of national development with a view to identifying the determinants of competitiveness and fostering competitive advantage for the Russian economy. The key focus is on ensuring economic growth based on the development of high-tech digital infrastructure.

Keywords: digital economy, digital infrastructure, digital technology, digitization of the economy, risks.

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Paper Title: Reputation Re-Construction and Its Influence on Competitiveness of Nigerian Firms

Abstract: In this paper, we attempt to analyze how organizational competitiveness of selected manufacturing firms in Nigeria can be boosted through reputation re-construction. By analyzing recorded responses gathered through semi-structured, open-ended interviews, three main themes are developed using qualitative content analysis of transcribed responses given by 21 randomly selected managers of 7 manufacturing companies in Nigeria. The themes point to organizational needs and reputation re-designing as vital ingredients needed for growth and stability of business to provide competitiveness. Inter-coder reliability (using Cohen kappa method) of 81% between two coders ensured sufficient trustworthiness for the study. It is suggested that for manufacturing firms to effectively contribute to economic development, the organization must carefully focus on the main themes herewith developed.

Keywords: Competition, image, manufacturing, organization.

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Paper Title: Evaluation of the Service Life of Non-Ballast Track Based on Calculation and Test

Abstract: Unique tests of non-ballast track amounting to 1.1 bln tons gross of the tonnage have been completed on the JSC VNIZHT Test Loop near Scherbinka railway station. The calculation and experimental method for evaluation of service life of non-ballast track installed on a high-speed line is presented, based on the results of tests carried out on the Test Loop. Taking into account operation conditions on a high-speed line – 176,6 kN axle load at the speed of 300 km/h and working capacity 30 mio. tons gross, the tonnage amounts to 2270.4 mio. tons gross or 75.7 years of service.

Keywords: Axle load,Non-ballast track, Service life, Working capacity, Speed.

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	<p>Authors: Svetlana Jurievna Starodumova, Lubov Borisovna Situdikova</p> <p>Paper Title: Technology of Inheritance Management in Societies</p>	
	<p>Abstract: The article deals with the in-depth analysis of ownership right as a result of inheritance of shares, equities (interests), rights of participation in a legal entity or its management in Russian corporate legal entities. The attention is drawn to the recent changes in Russian civil legislation on the new legal entity created for the purpose of managing the hereditary property – the hereditary fund, as well as the hereditary contract, as an alternative to the creation of the said fund. The transition of citizens' right to participation and management of the legal entity as a kind of corporate property rights is emphasized. Discussion issues concern legal foundations of shares when both property and non-property rights are transferred in the line with inheritance; considerations of observance and correlation of interests of legal persons and heirs in the process of shares inheritance are also studied. Certain proposals have been made to improve the civil legislation on the grounds of formal legal, comparative and other methods of research.</p> <p>Keywords: share, equity, right of participation, right of management, corporate rights, inheritance, corporate legal entities, hereditary fund, hereditary contract.</p> <p>References:</p> <ol style="list-style-type: none"> Afanasyeva E.G., Vaipan V.A., Gabov V.A., etc. Corporate Law: study-book in 2 volumes, vol. 1, ed. Shytkina I.S. Moscow: Statut, 2017. Andreyev, V.K., Laptev, V.A. Corporate Law in modern Russia: monography. (2rd ed.). Moscow: Prospect, 2017. Kirillova, E.A. Issues of legal regulation of shares inheritance in notary practices. Russian Justice, 2015, vol. 4, pp: 5-7. Eidinova, E.B. Inheritance by law and by will: extracts from the book. Notary Practices Bulletin, 2010, 6. Gorina, A., Taglina, V. The right of the State on escheated shares. Joint Stock Gazette, 2010, 1-2 (71). Limansky, G.S., Inheritance legal relations: methodological and pragmatic problems. Russian Academy of Law. Moscow: Yurist, 2006. Smirnova, Yu.V. Civil Law guarantees of the right of inheritance. Notary, 2012, vol. 4, pp. 28-32. Soldatenko, S.A. Inheritance of property in commercial circulation (Candidate's Dissertation). St. Petersburg, 2009. Ivanova, A.Yu. On some problems of shares inheritance in notary practices. Property considerations in the Russian Federation, 2013, vol. 3, pp. 83-86. Rudenko, E.Yu., Saenko, D.G. Relevant problems of shares inheritance. Power of Law, 2016, vol. 3, pp. 102-108. Letuta, T.V. Entering inheritance as the ground for arising of participants' rights in economic company. Lex russica, 2016, vol. 9, pp. 146-154. Makarova, O.A. Inheritance of "business under way": how the inheritance fund handles shares. Russian laws: experience, analysis, practices, 2018, vol. 4, pp. 37-42. Situdikova L., Starodumova S., Volkova M. Corporate legal entities in the civil law of the Russian Federation, Economic and Social Development Book of Proceedings, 2018, pp: 715-721. Situdikova, L.B., Starodumova, S.J., Volkova, M.A. Aspects of transactions by business entities in civil legislation. European Research Studies Journal, 2018, vol. XXI, iss. 4, pp. 557-566. Situdikova, L.B., Starodumova, S.Yu., Shilovskaya, A.L. The reforming of Russian civil legislation (from the general part of the civil code to the particular implementation of the norms). Economic and Social Development Book of Proceedings. Varazdin Development and Entrepreneurship Agency; Russian State Social University, 2017, pp: 894-901. 	
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	<p>Authors: Jung-Su Nam1, Young-Eun Kim2, Nam-Soon In3, SangHun Nam4</p> <p>Paper Title: 360 Vr Content Production Based On the Analysis Of The Movements In The Korean Traditional Court Dances, Cheoyongmu And Bosangmu</p>	
	<p>Abstract: Recently, virtual reality technology has been combined with performing arts to provide new performance contents. Traditional performances, one of the areas where the latest technology can be applied, have recently been reborn using VR technology. This study aims to investigate the process of obtaining 360 VR contents based on the movements of Korean traditional court dance, name-ly Cheoyongmu and Bosangmu. By analyzing the stage characteristics, movements, and storytelling of traditional performances, we determined the appropriate camera positions for the shooting. By the means of rehearsal shooting, the dancers were able to understand 360 VR shooting and the camera positions were adjusted after analyzing the recorded video. The recorded performance video was broken down into 360 VR contents and an application for experiencing 360 VR contents was created through HMD.</p> <p>Keywords: Korean Dance; Traditional Culture; Movement Analysis; Virtual Reality; 360 VR.</p> <p>References:</p> <ol style="list-style-type: none"> HTC Vive, https://www.vive.com, (2018) Oculus Rift, https://www.oculus.com, (2018) Brown A & Green T, "Virtual reality: Low-cost tools and resources for the classroom", TechTrends VOL.60, NO.5, (2016), pp:517- 	2334-2338

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Authors: Shaik Naseeruddin, Dumpy Venkateswarlu, Alamanda Sai Kumar

Paper Title: Acid Attack on Concrete

Abstract: Concrete has been employed in building and it is uncovered to the action of acidic environment for as lengthy as concrete has been used when concrete is to be employed underneath situation in which it will be uncovered to the effect of acids. "Considerations ought to be taken of these effects and appropriate precautions taken. However normally these precautions are not drastic and do no longer contain the decision and use of substances or production of concrete. The outcomes of acid on concrete can also be examined by way of thinking about the characteristics of acid that can impact concrete, the elements of specific concrete contain that might also be affected by way of these factors. The consequences of interaction of acids with concrete and sooner or later the precautions that need to be taken to avoid the undesirable overall performance of the concrete due to its interaction with acids. Concrete is uncovered to sea water is wetted with the aid of a answer of salts basically sodium chloride and magnesium sulphate. Magnesium Sulphate may attack most if no longer all of the elements of hardened Portland cement pastes especially the aluminate constituents. Chloride may reason corrosion of steel and alkaline may take part in alkali aggregate reaction. These concrete exposed with distinct cement (i.e., it need to not be affected by acid) and with non-reactive aggregates embedded with metal included through concrete of low permeability and desirable development practices have to be implemented." This paper investigates the effect of acidic curing environment on the strength(Compressive strength, Flexural strength, "Split Tensile strength) and durability of M40 grade concrete at different ages cured in water containing various percentages of Hydro chloric acid(HCL) and Sulphuric acid(H₂SO₄)."

Keywords: Acid attack on concrete, Hydro Chloric acid, Sulphuric acid, Compressive Strength, Split Tensile Strength, Flexural Strength, Durability and Weight loss.

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1. B. Madhusudhana Reddy, H. SudarsanaRao and M.P. George "EFFECT OF SULPHURIC ACID (H₂SO₄) ON BLENDED CEMENT (FLY ASH BASED) AND IT'S CONCRET" 2012 Vol. 2 (2) April-June, international journal of applied engineering and technology
2. H. SudarsanaRao , V. Venkateswara Reddy and S.G. Vaishal " EFFECTS OF ACIDITY PRESENT IN WATER ON STRENGTH AND SETTING PROPERTIES OF CONCRETE" 29th Conference on OUR WORLD IN CONCRETE & STRUCTURES: 25 - 26 August 2004, Singapore Article, international journal of impact engineering(IJIE)
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7. IS 456: 2000 Indian standard, plain and reinforced concrete code of practice, fourth revision.

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Authors: P S R CH Ravi Varma, Dumpy Venkateswarlu, Alamanda Sai Kumar

Paper Title: Deterioration of Concrete in Aggressive Environment

Abstract: This paper mainly investigates about the effect of acidic curing environment on the strength and durability of concrete which is cured in water containing different percentages of nitric acid and hydro chloric acid. For this experimental procedures M40 concrete cubes of sizes 150mmx150mmx150mm, 150mmx150mmx300mm size concrete beams and 150mmx300mm concrete cylinders are adopted to find out the compressive, flexural and tensile strength respectively. The samples are made by using mix design concrete and those samples are cured in water having the chemical concentration water having the concentration respectively of 0,2,5,8 for both Nitric acid and Hydro chloric acid by volume of water for a curing period of 7,28 and 60days.The compressive strength of the cubes which are cured in the above mentioned percentage concentration of the acid is observed as decrease with increase in the age of curing. The percentage decrease in strength increases with both percentage of acid and curing age. Thus the rate of deterioration at 60 days curing will compare with 7, 28 days. From the past research works it is clear that the tensile and flexural strength tests at

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28 days curing revealed that the strength decreased with increase in percentage concentration of acid. "For a unique curing age, both the power and mass of concrete decreases with an extend in the concentration of acid, also for a precise awareness of acid, the strength and weight of concrete decreases with curing age. A close to linear relationship exists between weight loss and loss in compressive strength.it can therefore be concluded that deterioration of concrete cured in acidic medium will increase with attention of acid and curing age. The durability decreases faster as the concrete ages. Thus, concrete structures can't stand the check of time in acidic environment except extraordinary cements are used."

Keywords: Hydro Chloric acid , Nitric acid, Compressive Strength, Split Tensile Strength, Flexural Strength, Durability and Weight loss.

References:

1. B. Madhusudhana Reddy, H. SudarsanaRao and M.P. George "EFFECT OF SULPHURIC ACID (H₂SO₄) ON BLENDED CEMENT (FLY ASH BASED) AND IT'S CONCRET" 2012 Vol. 2 (2) April-June, international journal of applied engineering and technology
2. H. SudarsanaRao , V. Venkateswara Reddy and S.G. Vaishal " EFFECTS OF ACIDITY PRESENT IN WATER ON STRENGTH AND SETTING PROPERTIES OF CONCRETE" 29th Conference on OUR WORLD IN CONCRETE & STRUCTURES: 25 - 26 August 2004, Singapore Article, international journal of impact engineering(IJIE)
3. Seyed M. Joorabchian "DURABILITY OF CONCRETE EXPOSED TO SULFURIC ACID ATTACK" Theses and dissertations 1-1-2010,international journal of civil engineering and technology(IJCET)
4. Bryant Mather "EFFECTS OF SEA WATER ON CONCRETE" MISCELLANEOUS PAPER NO. 6-690 December 1964,journal of construction division
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6. M.S. Shetty CONCRETE TECHNOLOGY Theory and Practice, international journal of research of engineering and technology(IJRET)
7. IS 456: 2000 Indian standard, plain and reinforced concrete code of practice, fourth revision .

Authors:	Kyu-Han Kim, O-Gi Kwon, Kyu-Tae Shim
Paper Title:	Analysis on the stability of rubble mound breakwater and wave overtopping phenomenon

Abstract: This study, by Physical Model Test, has reviewed the displacement of blocks and wave overtopping due to the external force change when constructing breakwater as a counter facility in the area of Nghi Son of Vietnam, where the construction of a Refinery & Petrochemical Complex is planned. The front of the breakwater is coated with two layers of RAKUNA-IV, which is concrete armor unit. 100yr Return Period Tidal Level (C.D+5.45m) and 100yr Return Period Storm Wave (Hm0: 3.7m,Tp: 11.8sec) are set for the design wave condition to take into account the influence of sea-level rise caused by global warming. The test revealed that the stability of the blocks against the occurrence of incident waves is affected by wave run-up at the front of the breakwater, wave overtopping discharge and JET flow between blocks. Also, it found that there was displacement of blocks at the crest and rear slope of the sections without any coping concrete along with local exposures of core stone. Therefore, cap concrete on the breakwater was installed to decrease wave overtopping discharge and overflow velocity, which resulted in the increase of stability of the armor unit, when Damage Parameter of Nod, which is suggested by The Rock Manual 2007 was applied and the value of EurOtop 2007 was employed as Allowable Overtopping Rate.

Keywords: Armor unit, Physical model test, Rubble mound breakwater, Stability, Wave overtopping.

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Authors: Sang-Hoon Park, Seok-Woo Hong

Paper Title: A study on multiscale wavelet analysis in recognizing earthquake-induced signals in the medium-to-short wavelength part

Abstract: Mw 9.0 Tohoku-Oki earthquake occurred in the sedimentary area between the Pacific and North American tectonic plates on March 11, 2011. There is no record of a magnitude 9.0 earthquake along Japan Trench except the Jogan earthquake on July 13, AD 869, which may be the only documented incident of similar magnitude and location to the Tohoku-Oki earthquake. Since large crustal deformations indicate mass redistribution within the solid Earth, an earthquake also affects the gravitational field that has the temporal variations reflecting the mass redistribution inside the solid Earth processes. In general, it is difficult to isolate the earthquake anomalies from other signals in the frequency domain since frequencies change spatially due to the contribution of a certain combination of frequencies and this spatial rise of the frequencies is not reflected in the spherical harmonics. In this study, the researchers use monthly GRACE gravity data and apply the multiscale wavelet analysis, based on the Abel-Poisson scale and its corresponding wavelet functions to monthly GRACE gravity data in order to extract the Tohoku-Oki earthquake-induced signals in the medium-to-short-wavelength part. As a result of this largest earthquake, there was some coseismic mass redistribution producing local geoid changes. In March 2011, the coseismic geoid decrease was detected at the northwestern part of Yamagata Prefecture, which increased consistently until February 2011. With regard to the postseismic geoid recovery, changes at the eastern part of northern Honshu near the Miyagi segment and the southern part of the Sanriku segment near the Japan Trench were predominant in August 2011. It is concluded that the geological relationship among these locations played a very important role in the Tohoku-Oki earthquake occurrence. Furthermore, the tectonic plate motion around the Japanese islands may reach a period of geological stability after August 2011.

Keywords: Abel-Poisson wavelet function; GRACE observation; Multiscale wavelet analysis; Seismic geoid variation; Tohoku-Oki earthquake.

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Authors:	P Pardhasaradhi, G Kesava Sai, D Pavan Teja, B Ganesh
Paper Title:	A Triple Band Monopole Antenna for GSM/ WI-Max/ WLAN/ X-Band and Satellite Applications

Abstract: A compacted Triple Band Monopole antenna is propounded in this paper for multiband applications. The suggested antenna is designed with dimensions of 25x40 mm² on a FR-4 material. The proposed antenna has applications in the bands 1.30-3.75 (GSM, Bluetooth, WLAN)/ 6.87-8.6 (FSS)/ 11.9-14.3 GHz (X-Band applications) and has a VSWR less than 1.2.

Keywords: Monopole antenna, compact , Triple band , WLAN , Wi-MAX.

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Authors:	G.Harika, G. Venkata subbiah, Praveen V. Naidu, K. Rohini,
Paper Title:	A Compact Octagon Shaped Patch Antenna for Terahertz Applications

Abstract: In this research article, design and simulation of a compact octagon shaped patch antenna on a low dielectric loss material Rogers RT/duroid 5880 tm which is suitable for higher frequency range were done. The designed antenna has an operating bandwidth at terahertz band frequencies which is from 0.75-10 THz. It is useful for Terahertz applications like product inspection (industry), spectroscopy (chemistry, astronomy), and material characterization (physics). The design and simulation of the proposed antenna such as radiation pattern

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and return loss was performed by Ansoft-HFSS.

Keywords: Ansoft-HFSS; Microstrip antenna; Terahertz applications; Terahertz.

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Authors: Irina Anatolievna Kiseleva, Vladimir Ivanovich Kuznetsov, Natalia Alekseevna Sadovnikova, Elena Nikolaevna Chernysheva, Irina Sergeevna Androshina

Paper Title: Mathematical Modeling of Investment Risks

10. **Abstract:** An attempt to explore the role of investment risk management has been made in this article. The main purpose of this article is to identify the key patterns that determine peculiarities of assessing business risks as the main element contributing to the achievement of the economic security of the organization, as well as to make a comparative analysis of methods for investment risk assessment and management. The methods of cognition, retrospective and documentary analysis, as well as synthesis, generalization, and systematization have been used in the article. Various risk management methods are used in the modern economic analysis. The most efficient ways to reduce risks in the context of instability of the economic and political situation in Russia are the method of scenarios and the method of analyzing hierarchies, which have been used to estimate the attractiveness of investment projects.

Keywords: model, investment, risk, risk management.

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Paper Title: The Role of E-Learning in the Implementation of Innovative Educational Technologies

Abstract: The article reveals the relevance of education reform stipulated by the global task of forming a digital economy. Modern education system involves the improvement of educational processes based on the widespread introduction of information and communication technologies (ICTs) and electronic educational resources (EERs). The definition of ICTs as a set of processes, methods and software and hardware tools integrated for the purpose of storing, collecting, displaying, using and distributing information has been proposed in the study. The EERs as defined in the study refer to the means of information, software and program support of the educational process. The results of the study allowed determining the main tasks that could be solved with modern EERs. It has been concluded that the use of the whole range of modern electronic tools and information technologies can give the maximum effect when used in combination with innovative teaching practices. Of the variety of modern innovative educational technologies, those that are currently the most promising and practically applicable ones, have been highlighted and analyzed: mass open social education; personal educational trajectories based on data analytics; flipped classroom; BYOD technique (Bring-Your-Own-Device).

Keywords: electronic educational resources, information and communication technologies, innovative educational technologies.

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	<p>Authors: A.F. Mednikov, A.B. Tkhabisimov, S.V. Sidorov, O.S. Zilova, A.A. Burmistrov</p> <p>Paper Title: On Improvement of Erosion Resistance of Titanium Parts Fabricated by 3D Printing Using DLC Coating</p>	
	<p>Abstract: This article discusses experimental studies of resistance against water droplet impact erosion of Ti–6Al–4V samples fabricated by 3D printing without and with protecting DLC (Diamond–Like–Carbon) coating produced by magnetron sputtering. Erosion tests have been carried out using unique test facilities: Erosion–M hydroimpact test rig, Moscow Power Engineering Institute, at impingement velocity of $C_{imp} = 300$ m/s with monodisperse flow of liquid and droplet diameter of $ddr = 800$ μm. The data on properties of DLC coating (elemental composition, thickness, microhardness) are given, the coatings have been formed on field samples: erosion resistant couplings made by 3D printing and simulating leading edge at periphery of rotating blades of the last stage of high-power steam turbine. The experimental and metallographic studies revealed efficiency of ion plasma DLC coatings, their application at the stage of incubation period would improve the erosion resistance of Ti–6Al–4V titanium alloy obtained using additive process by at least 1.4 times. On the basis of the obtained data, possibility of integrated application of 3D printing for fabrication of replaceable erosion resistant couplings with protecting coating on rotating blade periphery has been considered as an alternative to stellite plates widely applied as passive protection against water droplet impact erosion.</p>	
	<p>Keywords: 3D printing, DLC coating, experimental studies, metallography, replaceable couplings, rotating blades, steam turbine, water droplet impact erosion.</p>	
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Paper Title: Calculation on Yield Strain Depending on Time of Corrosion Influence

Abstract: In the design of steel structures, the main value of the steel elements in the yield strain point is taken into account in the calculations. Over time, corrosion occurs on steel structures, indicating a negative influence. When a steel element is subjected to corrosion in a particular corrosion category, its mechanical properties change. Although there are many studies in the field of change, there is no uniform formula or equation that can be used to calculate the possible change in the value on yield strain. This fact prevents the preliminary assessment that can be made as regards the possibility of continued use of the corroded steel element. The processing of experimental data is a cumulative process as different data are obtained from each test. Still a non-essential single equation or formula that has sufficient practical accuracy, it is possible to determine the influence of corrosion on a steel element in a future form. There are two basic ways that can be grouped - the original state is well known, then the future state can theoretically be predicted so-called deterministic process or this is a process that is a set of random variables - a stochastic process. I conducted a survey, collected and analyzed the available database regarding the change of values in the yield strain point. I processed values using the stochastic way and the average method. From this data processing I have compiled diagrams that show the change in values over time. I used the polynomial approximation and found the equation where the values change. I have come to the conclusion that the proposed equations are sufficiently precise and can be used in practice.

Keywords: yield strain, calculation, corrosion, influence, time.

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Authors: E.V. Aulov, V.A. Kuchumov, N.N. Shirochenko, A.M. Sokolov

Paper Title: Specificity of Electrodynamics Braking of EP20 Electric Locomotive with Asynchronous Traction Motors

11. **Abstract:** This article discusses comparative statistical data analysis of energy consumption by EP20,

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EP2K, EP1M passenger electric locomotives. On the basis of primary data, it has been established that the highest specific energy consumption is that of passenger electric locomotives with railroad trains of double-deck passenger wagons. Comparison of specific energy consumptions by EP20 and EP2K DC electric locomotives has demonstrated that the EP20 electric locomotives on flat terrain are characterized by significantly higher specific energy consumption in comparison with that of EP2K electric locomotives. Comparison of specific energy consumptions by EP20 and EP1M AC electric locomotives with single type passenger wagons has demonstrated that the EP20 electric locomotives on flat terrain are characterized by nearly the same energy consumption as that of EP1M electric locomotives. Analysis of load upon running special passenger trains for EP20 electric locomotive along Moscow–Adler line has revealed underload of electric locomotive which leads to decrease in its efficiency and, as a consequence, excessive energy consumption.

Keywords: efficiency factor, electric locomotive, electrodynamic braking, traction motor.

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Authors:	Anil Kumar Yadava, Syed Aqeel Ahmad
Paper Title:	Characterization of Indian reclaimed asphalt pavement (rap) on the basis of sources of rap and gradation characteristics of rap aggregates.

Abstract: A good road network is key for economic and social development of a country. There is about 4.2 million kilometer road network in India which ranks second in the world only after United States. It is necessary to maintain previously constructed roads along with new road construction. Both construction and maintenance of roads leading to over exploitation of resources of aggregates[1]. Most of Indian roads are bituminous surfaced pavements. Apart from depleting resources and Environmental issues, these roads are periodically resurfaced as maintenance action which intend to roads to attain a higher raised level as compared to initial level of road and adjoining properties and structures level[2]. Recycled or Reclaimed Asphalt Pavement (RAP) has increasingly been used to replace fresh or virgin materials for highway construction and maintenance as an Eco-friendly-Sustainable solution to overcome these problems. RAP can be used in different layers of Flexible and Rigid pavements[3]. In this research paper, an effort has been made to characterize the RAP on the basis of gradation characteristics of RAP aggregates and sources of RAP.

Keywords: Aggregates, Gradation, RAP, Recycling, Reclaimed, Asphalt, Pavement

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	<p>18. Specification Rural Roads (1st revision 2014) Published by the Indian Road Congress, New Delhi on behalf of the Government of India, Ministry of Rural Development.</p> <p>19. Anil Kumar Yadava, Syed Aqeel Ahmad, A Critical Review of Characterization and Performance Evaluation of Reclaimed Asphalt Pavement (RAP) in Road Construction. International Journal of Civil Engineering and Technology (IJCIET), Volume 10, Issue 01, (January 2019), pp. 1379-1389.</p> <p>20. Vivek Kumar, M.U. Rizvi, Anil Kumar Yadav, Performance Evaluation of Reclaimed Asphalt Pavement (RAP) Aggregates in Rigid Pavement: a Review. Journal of Emerging Technologies and Innovative Research (JETIR), Volume 6, Issue 01, (January 2019), (www.jetir.org).</p>	
	<p>Authors: Shivashankara S, Srinath S</p> <p>Paper Title: Palm Extraction in American Sign Language Gestures Using Segmentation and Skin Region Detection</p>	
432.	<p>Abstract: An outstanding to the revolution of science and technology, image-processing techniques are becoming very significant in an extensive range of Computer and Medical Applications. The Image Segmentation is a significant procedure of image processing operations. This research paper presents, an innovative framework, whose key aim is to achieve the extraction of Human Hand and Palm from the both plain and uniform background as well as complex and non-uniform background with various dissimilar lighting conditions of indoor and outdoor locations. Segmentation of an input gesture to extract the human hand and palm will be carried out by detecting upper body parts and face of an input gestures using Viola-Jones Algorithm and skin region detection technique. For segmentation, we will consider the 24 ASL Alphabets gestures and achieved 97.62% segmentation results. This paper also delivers the Mega Pixel-wise (5, 8, and 13 MP) average segmentation accuracy with respect to various background, location, and time of gestures captures.</p> <p>Keywords: palm extraction; segmentation; skin region detection; threshold value; viola-jones algorithm.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Shivashankara S, Srinath S. 2017. A comparative Study of Various Techniques and Outcomes of Recognizing American Sign Language: A Review. International Journal of Scientific Research Engineering & Technology. 6(9): 1013-1023. 2. Shivashankara S, Srinath S. 2017. A Review on Vision Based American Sign Language Recognition, its Techniques, and Outcomes. 7th IEEE International Conference on Communication Systems and Network Technologies. Nagpur, India. 293-297. 3. Linda G. Shapiro, George C. Stockman. 2001. Computer Vision. New Jersey: Prentice-Hall, 279-325. 4. Lauren Barghout, Lee Lawrence W. 2004. Perceptual Information Processing System. 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Authors:	Sai kumar kayam, K.Raghava Rao, srinivasakumar ch, Gurram narender, A Sreenivasa rao, sk hasane Ahmmad
Paper Title:	Efficient 1024-Point Low Power Radix-22 FFT Processor with MFFMD

Abstract: The presence of radix- 2^2 be an achievement in the structure of pipe-lined F/F/T equipment models. Afterward, radix/ 2^2 was stretched out headed for radix- 2^k . In any case, radix- 2^2 was anticipated in favour of solitary way defer input (S/D/F) structures, yet not in support of feed/forward ones which is likewise as described multi-way postpone commutator/(M/D/C). This manuscript displays the radix- 2^k feed forward (M/D/C)-F/F/T designs. In feed forward models, radix- 2^k container be utilized on behalf of any figure of equivalent examples which is an intensity of two. Moreover, mutually obliteration in recurrence (D/I/F) along with pulverization in occasion (D/I/T) disintegrations preserve be utilized. What's more, the structures can accomplish elevated throughputs, which create them appropriate for the mainly requesting submissions. Without a doubt, the projected radix- 2^k /feed/forward designs necessitate less equipment assets than corresponding input ones, additionally named multi-way defer criticism (M-D-F), whilst a few examples in similar should be prepared. Subsequently, the planned radix- 2^k feed forward models not just suggest an alluring answer in favour of flow requests, yet additionally open up another exploration line on feed forward structures.

Keywords: (MFFMD) Modified Feed-Forward Multiple Delay, Low Power, Radix-22 FFT Processor.

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434.	Authors:	MD Asdaque Hussain, Komirisetty Venkata Naga Krishna, Ramanulla Lakshmi Chandana, Velivila Krishna Chaitanya
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	<p>Paper Title: An Efficient and Smart Attendance Management System</p> <p>Abstract: Integration of radio recurrence distinguishing proof innovation and GSM innovation had indicated wide applications in the robotization of electronic frameworks. In this paper the structure of microcontroller based participation framework utilizing RFID and GSM modem has been exhibited which will consequently refresh the participation of the understudies and send the SMS to the truant's parent for the nonstop checking of the participation of his/her ward.</p> <p>Keywords: RFID, GSM, Microcontroller.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Daniel M. Dobkin and Steven M. Weigand," Environmental effects on RFID tag antennas", California: Bulis Press, 2010. 2. M. Kamaraju, "A Novel Design of Low Cost Integrate Intelligent Security System for Industrial Surveillance", International Journal of Engineering and Technology Vol.2 (6), 2010, 406-409 3. C.S.Karthikeyan&S.Murugeswar, "Anytime Anyplace-Remote Monitoring of Students Attendance Based on RFID and GSM Network", International Journal of Advanced Electrical, Electronics and Instrumentation Engineering, Vol 2, Issue 12, pp. 6154-6159. 4. V.Sivasankaran1, S. Muruganand2, Azha.Periasamy, "Advanced Embedded System Assisted GSM And RFID Based Smart School Management System", International Journal of Advanced Electrical, Electronics and Instrumentation Engineering, Vol 2, Issue 7, pp. 3124-3128. 5. AditiS.Tiwari, AniketS.Tiwari, Nikhil M.Ade, Sana.G.K.Shekikh, NileshR.Patel, and Athar Ravish Khan, "Optimized Design of Student Attendance System Using RFID", proceeding of International Conference on Machine Learning, Electrical and Mechanical Engineering (ICMLEME'2014) Jan. 8-9, 2014 Dubai (UAE), pp.134-139. 6. Arulogun O. T, and Olaniyi, O. M.(2013),"RFID-Based Students Attendance Management System ",International Journal of Scientific & Engineering Research Volume 4, Issue 2,pp 1-4. 7. http://www.seattlerobotics.org/WorkshopRobot/level1/datasheets/ATmega16.pdf. 	2426-2429
435.	<p>Authors: Sirisha Potluri, Konda Varshith</p> <p>Paper Title: Software virtualization using containers in Google cloud platform</p> <p>Abstract: Virtual machines have been the main source of deployment of production ready applications since the beginning of cloud computing, but virtualization has its negative effects on resource management, due to this operating system-level virtualization called containers are gaining popularity in recent times. Software Visualization in Cloud Computing allows the single computer server to run one or more virtual environments. It is quite similar to virtualizations but here it abstracts the software installation procedure and creates a virtual software out of it. In software virtualizations, an application will be installed which will perform the further task. One of the software is physical while others are virtual as it allows 2 or more operating system using only one computer. Docker is used to separate applications from infrastructure so we can deliver software quickly. With Docker, we can manage your infrastructure in the same ways you manage your applications. Software virtualization can be achieved through this platform. Using Docker containers software virtualization is made simple and results are provided in this paper.</p> <p>Keywords: Cloud computing, Virtualization.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Kyoung-Taek Seo, Hyun-Seo Hwang, Il-Young Moon, Oh-Young Kwon, Byeong-Jun Kim, Performance Comparison Analysis of Linux Container and Virtual Machine for Building Cloud, Advanced Science and Technology Letters Vol.66 (Networking and Communication 2014), pp.105-111. 2. David Bernstein, Containers and Cloud: From LXC to Docker to Kubernetes, IEEE Cloud Computing, Volume: 1 , Issue: 3 , Sept. 2014, Page(s): 81 – 84. 3. Bhaskar Prasad Rimal, Eunmi Choi, Ian Lumb, A Taxonomy and Survey of Cloud Computing Systems, 2009 4. ZhanibekKozhirbayev, Richard O.Sinnott, A performance comparison of container-based technologies for the Cloud, Future Generation Computer Systems, Volume 68, March 2017, Pages 175-182. 5. Muhamad Fitra Kacamarga, Bens Pardamean, Hari Wijaya, Lightweight Virtualization in Cloud Computing for Research, International Conference on Soft Computing, Intelligence Systems, and Information Technology, 2015. 6. Davide Mulfari, Maria Fazio, Antonio Celesti, Massimo Villari, Antonio Puliafito, Design of an IoT Cloud System for Container Virtualization on Smart Objects, European Conference on Service-Oriented and Cloud Computing, 2015. 7. Fazio, M., Celesti, A., Villari, M.: Design of a message-oriented middleware for cooperating clouds. In: Canal, C., Villari, M. (eds.) ESOCC 2013. CCIS, vol. 393, pp. 25–36. Springer, Heidelberg (2013) 8. Xavier, M., Neves, M., Rossi, F., Ferreto, T., Lange, T., De Rose, C.: Performance evaluation of container-based virtualization for high performance computing environments. In: 2013 21st Euromicro International Conference on Parallel, Distributed and Network-Based Processing (PDP), pp. 233–240 (2013) 9. James Turnbull James Turnbull, The Docker Book: Containerization Is the New Virtualization, 2015. 10. Jeff Nickoloff, Docker in Action, Manning Publications Co. Greenwich, 2016. 	2430-2432
	<p>Authors: C. Ramakristanaiah, P. Chenna Reddy, R. Praveen Sam</p> <p>Paper Title: Avoidance of Starvation of BE and BK Access Categories in 802.11e</p> <p>Abstract: In saturated conditions of IEEE 802.11e network, for every backoff instance, backoff counter reaches zero fast for voice and video Access Categories (ACs) and starts their transmission. Best Effort (BE), Background (BK) backoff procedures are interrupted frequently. Channel must be free to resume its backoff</p>	

procedure but it is engaged by voice and Video ACs. The ACs BE and BK are denied the services of 802.11e for a long duration. This leads to starvation of BE and BK. Since these traffics are involved in the applications like browsing, texting and background services they should not be starved. This paper propose a method which makes BE and BK are been preferably served. The method evaluates the arrival rate and service rate for video, and BE ACs. If The number of packets arriving at video AC is greater than the number packets being served by video AC, then both arrival rate service rates are balanced by improving the service rate i.e should meet the arrival flow of video AC. Service rate is depended on transmission opportunity (TXOP) limit which is the duration of transmission of AC. The extensive analysis and simulations are conducted using ns2.35 with EDCA patched. The simulation results show that almost 74% of BE and BK packets are transmitted so that the starvation is avoided.

Keywords: 802.11e, EDCA, Access category, Starvation, arrival rate, service rate, TXOP, QoS.

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Authors: **K. Sowmya, K. Monika, M. Radha, V. Vijay Kumar**

Paper Title: **Customer Review Rating Analysis Using Opinion Mining**

Abstract: The customer ratings and reviews is very important to the service providers. The customer rating will act as a feedback to the service provider. Sometimes, the customer may give the good review but he may give the bad rating to the service. So, the service provider will be in a confusion. So, we should predict the rating with the help of customer review. It can be done with the help of optional mining. We used logistic regression, Naive Bayes, SVM algorithms. We applied these algorithms on the data set containing of 1500 reviews and ratings of the customer. When we see above three algorithms logistic regression is giving 80.82% accuracy, Naive Bayes is giving 67.6% accuracy, where asSVM is giving 80.80% accuracy. When we compare the above classification algorithms accuracy logistic regression and SVM are having good accuracy and better performance.

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437.

Keywords: Opinion mining, Stop words, Reviews, Positive words, Negative words.

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Authors:	S. Sai Hemant, G. Rakesh Chowdary, T.V. Rama Krishna, P. Hari Haran, B. Raja Rajeshwari, K. Ravi Kiran
Paper Title:	Level 4 Autonomous Driving in Game Environment

Abstract: In this work we are setting up a convolutional neural network to guide and keep up vehicle speed and heading without human help. We are using GTA 5 as our entertainment condition to test our figuring. We are envisioning that our computation should wear down predominant piece of roads with way checking. Setting up a CNN is an advantage amassed task along these lines, we ran our computation on GTX 1050 4GB GPU and we similarly we accomplished low dormancy (16ms – 20ms) utilizing our calculation. We watched 20% improvement in neural network execution by utilizing our adjusted calculation and appropriately tuning required equipment.

Keywords: Artificial Intelligence, Deep learning, Machine Learning, Convolutional Neural Network.

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2448-2451

Authors:	Vishal Yadav, Divyansh Khatana, Meghna Bajoria, Nallakaruppan M.K, SawarPratap Singh
Paper Title:	Ignition Pollution Check

Abstract: In an internal combustion engine, chemical reactions occur between oxygen present in air and hydrocarbon fuel. Engine works on stoichiometric air/fuel ratio when there is the correct ratio of air such that there is no excess oxygen left after combustion but in reality, the combustion process is not perfect which leads to emission of several types of pollutants. Therefore, it is important to study and gain knowledge about how much pollution is caused by these engines so that we can develop new methods for building a better environmentally friendly engine. Although, there are many other factors which cause pollution like factories, burning crackers, burning of waste material, emission of pollutants from automobiles etc yet our main focus is on pollution from cars because of the following reason-

- The number of cars on roads is increasing day by day. Earlier travelling by car was considered a luxury but now it's a necessity as they are convenient to use, reduce travelling time and are comfortable. This is one of the reasons why the number of privately-owned cars has significantly increased. The price of a car is not very high these days and can easily be afforded by a man belonging to a middle-class family.
- Due to drastic increase in the number of cars not only our fuel like petrol and diesel is being used in excess which has led to depletion of these resources but also utilisation of these fuels has led to emission of pollutants like carbon monoxide, carbon dioxide, smoke excess.
- Level of these pollutants specially carbon dioxide CO₂ and CO has increased so much that it is unsafe in many metropolitan cities to even breathe. CO₂ in such dangerous amount can cause problems like asthma and other lung related problems.

2452-2459

This paper, aims at measuring the factors related to a car that lead to main cause of pollution. Several cars running in Vellore Institute of technology, Vellore were selected for predicting the same.

Keywords: Co2, CO.

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Authors: **B Vamsee Mohan, V. Vijaya Kumar**

Paper Title: **Face Recognition Based On Gradient Integrated Texton Matrix**

Abstract: In the literature local based methods are popular in extracting facial features. The local binary pattern (LBP) and its variants are one of the popular approaches to extract local features more significantly and precisely and they have been using in many image processing applications. The texons based methods also extract local structural information on a micro grid of 2 x 2 and they are very popular in CBIR. This paper has overcome the disadvantages of the existing texton methods by proposing gradient integrated texton matrix (GITM). This paper initially derives a gradient on facial image and then derives textons on the gradient image. The proposed gradient integrated texton matrix (GITM) defined textons by combining the textons derived in TCM and MTH and GITM has overcome the ambiguity issues of MTH in identification of textons and representation issues of minute textons and complex fusing operations of TCM. The proposed GITM represents the blob, triangle and line shapes of 2 x 2 grids and is specially intended for facial image analysis and can achieve higher face recognition rate than other local based methods. The GLCM features derived on GITM integrates the structural, edge, texture and statistical features of facial images more accurately and precisely. The proposed GITM is specially intended for facial image analysis and can express the spatial correlation of textons and can be considered as a generalized visual attribute descriptor. The proposed GITM descriptor is experimented on popular databases and the results are compared with state of art local representative based methods, the experimental results demonstrate the efficacy of the proposed method over the existing ones.

Keywords: local features; GLCM; blob; triangle; lines; structure.

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	Authors: S. Lakshmi Shireen Banu, Kothakonda Ramesh Paper Title: Seismic Response Study and Evaluation of Vibration Control of Elevated RCC Structure using Friction Damper	
	<p>Abstract: Earthquakes are the largest natural hazard in damaging the structures. The structural response control is necessary to create the safer structures against earthquakes. Vibration control systems are used to transfer the lateral loads imposed on a structure to the foundation. To reduce the dynamic response of the structures due to earthquake loading friction dampers are used. The present work deals with a 10 storey RCC building with square and rectangular columns with the square and rectangular shape of the structure was analyzed with and without friction damper in ETABS 2016. Four different cases of buildings with and without friction damper have been analyzed in ETABS 2016. The study performs response spectrum analysis and nonlinear time history analysis on these buildings. The time history data of Bhuj earthquake is used in the analysis. In the present study the effectiveness of friction damper in reducing the responses of a structure is evaluated. The responses of the structure in terms of pseudo spectral acceleration, pseudo spectral velocity and spectral displacement have been compared with and without friction damper.</p> <p>Keywords: response control, vibration control system, friction damper, response spectrum analysis, nonlinear time history analysis.</p> <p>References</p> <ol style="list-style-type: none"> 1. Vikass Patil G P et al., (2018) "Seismic Evaluation of RC Building Connected with and without Braced Friction Dampers," International Research Journal of Engineering and Technology, Volume 5, Issue 10, octomber 2018. 2. G. Pavan Raj , Dr. B. Dean Kumar (2018) " Effect Of The Position And Number Of Friction Dampers On The Seismic Response Of Un symmetric Building" International Research Journal of Engineering and Technology, Volume 05, Issue 05, May 2018 . 3. Usha K, Dr. H. R. Prabhakara (2017) "Studies on Effect Of Friction Dampers on the Seismic Performance of RC Multistory Buildings," International Research Journal of Engineering and Technology, Volume 04, Issue10, Oct - 2017. 4. Shameena Khannavar(2017) "Seismic Analysis of RC Structures Using Friction Dampers, International Journal for Research in Applied science and Engineering Technology, Volume 5,Issue 12,December 2017 . 5. A.K. Sinha (2017) "seismic protection of RC frames using friction dampers," International Journal of Civil Engineering and Technology, Volume 8, Issue 2, February 2017. 6. Jabraeil Padar (2016) "Seismic monitoring bridge decks With rotational friction dampers," Specialty Journal of Architecture and Construction, Volume2 (3): 78-91, 2016. 7. Cristiana Feliciano (2015) "Design optimization for plane structures equipped with friction dampers," Instituto Superior Tecnico, Lisboa, Portugal. 8. Jalal Mirzaei et al., (2015) "Study of Seismic Performance of Circular Friction Dampers in Steel Structures," Indian Journal of Fundamental and Applied Life Sciences, Volume 5, 2015. 9. Amir Shirkhani et al., (2014) "An investigation into the influence of friction damper device on the performance of steel moment frames" Volume 3, Issue 3, 2014. 10. Chopra, A. K. (2012). In A. K. Chopra, Dynamic of Structures Theory and Application to Earthquake Engineering 3rd. Printece Hall. 11. Abdollah V. Shoushtari, A. A. (2010). Seismic Behavior of Tall Building Structures by Friction Damper. 12. "Earthquake resistant design of structures" by S.K. Dugal. 13. "Structural dynamics theory and computation" by Mario Paz. 	
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	Authors: Natarajan Anusha, Annamalai Senthil Kumar, Raja Sudhakaran Paper Title: Validation of White Spot Syndrome Virus Infection in penaeid Shrimp of Different Geographical Regions using Electrochemical Immunosensor	
	<p>Abstract: WSSV being a major threat causing disease in the aquaculture industry is a well-known pathogen, yet there is no proper treatment found to eradicate the virus causing huge economic loss to the farmers. Being lethal and quickly replicative, the mortality occurs within 3-10 days post infection. To support the farmers on field level through detection technique, we had developed an electrochemical immunosensor for WSSV using modified GCE (glassy carbon electrode) immobilised methylene blue. In this study, we had collected shrimp samples from different geographical regions of east coast of India to validate the developed immunosensor method in comparison with other molecular methods and commercially available detection kit. The immunosensor developed is observed to be sensitive and has no controversy with other molecular methods; having the potential to be analysed on site at shrimp culture ponds. Validation of the method is done with different samples and further research is required to make it as a gadget.</p> <p>Keywords: WSSV; Immunosensor; Diagnosis; Validation.</p> <p>References:</p>	2475-2481

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Authors:	S.lakshmireenbanu, pathaushasri
Paper Title:	Study of Seismic Energy Dissipation and Effect in Multistory RCC Building with and Without Fluid Viscous Dampers

Abstract: Earthquakes are major natural hazards and can cause catastrophic damage by increasing the energy within the structural system. Such unwanted energy can be dissipated by introducing the several control systems such as passive, active, hybrid and semi active control system. The present work includes one such dissipating device namely fluid viscous damper. The aim of the work is to reduce seismic response of the structure using fluid viscous damper in ETABS2016. A 10 story structure with and without fluid viscous damper was analyzed using ETABS2016 to get the seismic response with and without fluid viscous damper. Non-linear time history, which is being calculated by fast nonlinear analysis of Bhuj earthquake data is considered for the analysis. In the present paper, dampers position and optimizing their position at the height of the structure are studied. It investigates about viscous damper systems and their effects on seismic behavior of multistory structures and determines effects of damper system position on structure height.

Keywords: Energy dissipation, Fluid viscous damper, Non-linear time history analysis, Passive control system, Seismic response control.

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- Bhawna Tyagi, B S Tyagi “Seismic Response Study of Multistoried Reinforced Concrete Building With Fluid Viscous Dampers” Volume: 05 Issue: 05 in 2018.

20. "Earthquake resistant design of structures" by S.K. Duggal.
 21. "Structural dynamics theory and computation" by Mario paz.

Authors: K.Keerthi, P.B.Chennaiah, S.Sagar Reddy

Paper Title: A Superior Control Technique in Wind Generation System under grid faults

Abstract: During disturbances, the wind energy generation apparatus are connected for stability improvement, to the grid. Distributed generation Grid failure, a major challenge particularly for PM synchronous wind turbines connected, back-to-back to converters and generator. The need of generated wind power grid integration protocol in terms of active and, reactive power control and failure travel (FRT) capacity needs to be discussed. Here a solution is presented which while fulfilling requirements of LVRT on grid failures, over voltage at dc – link suppression through improved BTB controllers, having a limit on active power, keeps the grid inverter peak current under safe limits during various asymmetric grid defect. By using the proportional and integral control loops, the inertia moment in the wind turbines will be reduced and dynamic performance can be improved. However, during the problem, the calculation time is more. Computational time is reduced by considering a proportional resonant controller and is implemented in the system, where by the active grid oscillation and dc - link voltage ripples are reduced. The validity and effectiveness of the proposed control approach were demonstrated in various conditions through simulation.

Keywords: Back to back converter, Reactive power control, Low-voltage ride-through, asymmetrical faults, symmetrical faults , voltage sag, active power control, peak current limitation.

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2486-2491

Authors: Shantanu Saurabh, Veenita Singh, Abhishek Kumar

Paper Title: Obstacle Probability Statistics of Women Empowerment

Abstract: Women Empowerment is a strategy in which women challenge the existing norms and tradition, to effectively promote their wellbeing. The participation of women in Self-Help Group (SHGs) made a significant impact on their empowerment in both social and economic aspects. This study addresses women empowerment through SHGs in Uttar Pradesh.

Keywords: Women Empowerment, Self-Help Groups (SHGs).

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	<p>Authors: Anand Kumar Rai, Shalini Agrawal, Mazhar Khaliq, Abhishek Kumar</p> <p>Paper Title: Risk Management Building Block for the Open Agile Software Development Life Cycle (OASDLC)</p>	
	<p>Abstract: The idea of OASDLC was originated specially for "Brihaspati" project and was framed keeping in mind the breaches and boundaries modelled by present Agile Software Development Life Cycle (ASDLC) models. OASDLC was further tested for attaining lower costs and efforts involved in agile project. We analysed this model and found that this model lack of risk management process. This paper proposes a unique OASDLC model incorporated with risk management building block so as to achieve a best practice for open agile software project. Proposed model is tested and validated through MATLAB fuzzy logic simulator and IBM Watson online tool.</p> <p>Keywords: Risk Management, Agile Software, SDLC.</p>	
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	<p>Authors: Pawas Kumar, Dilip Kumar, Abhishek Kumar</p> <p>Paper Title: Customers Perception ATM Services</p>	
	<p>Abstract: ATMs are electronic machines which can be operated by customer for availing various types of banking services. They are easy to operate and having various advantages for customers. ATMs perform various functions like depositing or withdrawing cash at customers will. In fact, ATMs provide 9 different types of services to their customers. It not only saves the time of customers by giving them the freedom to operate</p>	

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according to their convenience but it even lowers the work load of banks as well. State Bank of India is having one of the world's largest chain of ATM network containing around 60,000 ATMs all across India. These numbers are like double edged sword for the institution as SBI management has to put its best foot forward for delivering world class service to their customers. For example, customers have faced the problem of non-operational SBI ATMs without knowing the time up to which it will again become operational. There should be some kind of technique by which they may know by what time it will again become operational. In developing country like India where majority of population still leaves in villages and small towns, spreading awareness about ATMs is quite a challenge. A good number of customers still prefer to transact through manual mode instead of e-banking mode due to lack of required skills for operating banking services online. There is a need of creating a sense of awareness among the rural customers towards the benefits of using ATMs for financial transactions. This research exercise is a humble attempt from the side of the researcher to discuss the perception of customers regarding SBI ATMs in region I of Varanasi city.

Keywords: ATM, Financial transaction, Digital Transaction.

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 9. Kondal, K. Women Empowerment through Self Help Groups in Andhra Pradesh, India. International Research Journal of Social Sciences, 2014 pp13-16.
- Selvaraj Kesavan, E. Saravana Kumar, Abhishek Kumar & K. Vengatesan (2019) An investigation on adaptive HTTP media streaming Quality-of-Experience (QoE) and agility using cloud media services, International Journal of Computers and Applications, DOI:10.1080/1206212X.2019.1575034.

Authors:	L. Feroz Ali, N. Kuppuswamy, Babu Narayanan, Sree Hari, Swasthik Vellingiri
Paper Title:	Optimization of Process Parameters in Electrical Discharge Machining of EN 8 Steel by Using Taguchi Technique

Abstract: This current work aims at determination of the best process parameter in electric discharge machining (EDM) of EN 8 alloy steel using Taguchi Technique. Experimental study was carried out as per L9 orthogonal array of design of experiment with an intention of saving time and reduction of the experimental runs. Since this study involves the multiple-characteristics results such as material removal rate (MRR), electrode wear rate (EWR) and surface roughness. Results of Analysis of variance (ANOVA) reveal that MRR and EWR have significantly improved. Eventually authentication test was being done for better understanding the effectiveness of this planned method.

Keywords: Material removal rate, Electrode Wear Rate, Surface roughness, EN 8 Alloy Steel, Taguchi, Optimization, EDM.

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Authors:	Anjali Vijay Dagade, Shobha S. Nikam
Paper Title:	Inertial Sensors Based Road Condition Monitoring & Alternate Route Suggestion

Abstract: Nowadays maintenance of road is major problem in developing countries. Major portion of country's economy is put up for well maintenance of roads. Here the detection of pothole and bumps is done which will be useful to government authorities to maintain the road condition. Also it helps the drivers to get aware about potholes and bumps & suggest the alternate route which are without potholes and bumps using the ultrasonic sensor and GPS sensor in the smart phone. The data collected using sensor is sent to the cloud storage and heat map is generated. This would be very useful to the government bodies for maintenance purpose as well as for driver safety point of view. For displaying the road condition the android application and web application is developed and according to the data the alternate route would be suggested to driver.

Keywords: GPS Sensor, Pothole, Ultrasonic Sensor, Heat map.

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Authors:	G. Ramu, Umme Salma, Ch Dharma Raj
Paper Title:	Optimal Performance Analysis of Boost Converter fed DC Drive with Optimized PI Controller

Abstract: In this paper, an attempt has been made to highlight the importance of optimizing parameters of PI controller to control the speed of DC drive fed by the boost converter. In this paper, the designing procedure of boost converter is presented to minimize the switching losses. The effectiveness is examined in open loop and closed loop operations. The conventional DC motor and brushless DC motors speed can be controlled to a preset value by choosing the appropriate control parameters using effective algorithm. In this, the objective function formulated is based on the performance times. The stated hypothesis is verified using necessary diagrammatical and numerical results.

Keywords: Optimal boost converter; Tuning PI controller parameters; brushed DC drive; brushless DC drive; Speed control of dc drive.

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	<p>Authors: A.Praveena, S.Sridhya, K Sathish kumar, S.Venkatesh</p> <p>Paper Title: A Multi-Port Bidirectional Dc-Dc Converter for Hybrid Energy Storage System</p>	
451.	<p>Abstract: A multiport bidirectional dc-dc converter for hybrid energy storage system and dc grid applications is presented. Recently, this has paved a new way for development of many power management systems. This combination reduces cost and improves performance of the system. Designed to transfer power between energy storage system and dc bus and vice versa, thereby balancing power between the both. When power is excess in dc bus side and deficient in energy storage system, power will flow from dc bus(HV side) to energy storage side(LV side) -charging of energy storage system (buck mode). When power is deficient in high voltage side, energy flows from low voltage side-discharging of energy storage system (boost mode).</p> <p>Keywords: Multi-port bidirectional dc-dc converter, Hybrid energy storage, DC bus microgrid.</p> <p>References:</p> <ol style="list-style-type: none"> Shaojun Xie, Zhihui Ding, Cheng Wang, Chen Yang and Zhao Zhang, , “A Novel Soft-Switching Multiport Bidirectional DC–DC Converter for Hybrid Energy Storage System”, Ieee Transactions On Power Electronics, Vol. 29, No. 4, April 2014 1595. B. Fahimi and W. Jiang, “Multiport power electronic interface—concept, modeling, and design,” IEEE Trans. Power Electron., vol. 26, no. 7, pp. 1890–1900, Jul. 2011. M. A. M. Hendrix and J. L. Duarte and H. Tao, “Multiport converters for hybrid power sources,” in Proc. IEEE Power Electron. Spec. Conf., 2008, pp. 3412–3418. H. Fan, D.Xu, and C. Zhao, “A PWM plus phase-shift control bidirectional DC-DC converter,” IEEE Trans. Power Electron., vol. 19, no. 3, pp. 666– 675, May 2004. Y.Liu, Y.Qing, B. Wu, F. Zhuo, F. Long and W. Gu, “A management strategy for solar panel-battery-super capacitor hybrid energy system in solar car,” in Proc. IEEE 8th Int. Conf. Power Electron. ECCE Asia, 2011, pp.1682–1687. 	2525-2529
	<p>Authors: K. Selvakumar, S. Naveen Kumar, Shaji. K. A. Theodore</p> <p>Paper Title: A New Novel Approach for Secured Encryption Concept and Challenges with MVQQ in VANET</p>	
452.	<p>Abstract: VANET is the most growing research area in wireless communications, In VANET each vehicle can act as a node and can give correspondence among nodes and road-side base stations with a point of offering for capable and secure transport. In VANET the vehicle looks like an intelligent mobile node which is outfitted for communicating with its neighbors and distinctive vehicles within the network. This network also provides the Intelligence Transportation System (ITS) for users, ensuring operation is moving to be in a simple manner. In this paper, we propose an asymmetric encryption algorithm with emphasis on Multivariate Quadratic Quasigroups (MvQQ) algorithm, in a circumstance of VANET bounded with K-means algorithm clusters which are used for guide assortment for both Personal Best pbest and Global Best gbest. The above can be observed to be a tremendously successful and complete well evaluation of the existing methods.</p> <p>Keywords: K-means algorithm, Multivariate Quadratic Quasigroups (MvQQ), Vehicular Ad-Hoc network (VANET).</p> <p>References:</p> <ol style="list-style-type: none"> Azees, P. Vijayakumar, and L. J. Deborah, 2016. “Comprehensive survey on security services in vehicular ad-hoc networks”, IET Intell. Transp. Syst., vol. 10, no. 6, pp. 379–388. Sumra, I.A., H.B. Hasbullah, J. Manan and A. Lail, 2011. "Comparative study of security hardware modules (EDR, TPD, and TPM) in VANET", at King Saud University Riyadh. Choudhary, G.K., 2007. "Providing VANET security through position verification", MSc, Thesis, Old Dominion University. Abdalla, G.M.T., M.A. Abu-Rgheff, and S.M. Senouci, 2008. "Current trends in Vehicular Ad Hoc networks", Ubiquitous Comput. Commun. J. Rajni, M.K. and P. Singh, 2013. "An encryption algorithm to evaluate the performance of V2V communication in vanet", Int. J. Cryptography Inform. Security. Bhuvaneshwari, S., G. Divya, K.B. Kirithika and S. Nithya, 2014. "A novel approach for secured data transmission in VANET through clustering", J. Electron. Commun. Eng., 9: 23-30. Tanwar, G., G. Singh and V. Gaur, 2010. "Secured encryption-concept and challenge", Int. J. Comput. Applic., 2: 89-94. Nasrin Taherkhani and Samuel Pierre, 2016. "Centralized and Localized Data Congestion Control Strategy for Vehicular Ad Hoc Networks Using a Machine Learning Clustering Algorithm", Senior Member, IEEE transactions on Intelligent Transport Systems, Vol. 17, No. 11. Nikhil Padhye, Juergen Branke and Sanaz Mostaghim, 2009. "Empirical Comparison of MOPSO Methods - Guide Selection and Diversity Preservation". Gligoroski, D., S. Markovski and S. Knapskog, 2008. "A public key block cipher based on multivariate quadratic quasigroups" in Cornell University Library. El-Hady, M., D. Gligoroski and S.J. Knapskog, 2008. "High performance implementation of a public key block cipher-MVQQ, for FPGA Platforms" in Sci. Technol.. Ahlawat, R., K. Gupta and S.K. Pal, 2009. From MQ to MQQ cryptography: Weaknesses and new solutions. Universia Holding. Maia, R.J.M., P.S.L.M. Barreto and B.T. Oliveira, 2010. "Implementation of multivariate quadratic quasigroup for wireless sensor network", Trans. Comput. Sci. XI, 6480: 64-78. DOI: 10.1007/978-3-642- 17697-5_4. Quirino, G. and E. Moreno, 2013a. "Architectural evaluation of asymmetric algorithms in ARM processors", Int. J. Electron. Electrical Eng., 1: 39-43. DOI: 10.12720/ijeee.1.1.39-43. Quirino, G. and E. Moreno, 2013b. "Architectural evaluation of algorithms RSA, ECC and MQQ in ARM processors", Int. J. Comput. Netw. Commun., 5: 153-168. DOI: 10.5121/ijcnc.2013.5212. Rita, 2011. "The Research and Innovative Technology Administration (RITA)", coordinate the U.S. Department of Transportation's, 	2530-2534

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	Authors: R Sireesha, N V V N J Sri Lakshmi, A Sudhakar, S Meghana, V Hemanth, S. Anvesh Paper Title: Real Time Analysis of Water Monitoring System Using IOT	
	<p>Abstract: Water quality monitoring is gaining higher importance in the recent communication technology. This proposed design of the paper provides the overview of checking the quality in the real time environment with low cost maintenance. The parameters used in the design will reduce the time consummation for manual check of the samples of the water. The method used in the proposed design consists of several sensors to check the pH level, temperature, Humidity and electroconductivity to have the general check on the quality of water. The data collected from the sensors and ESP8266 microcontroller are sent to the cloud. The cloud stores the data and is visualized in the mobile application through application programming interface (API). The This system is used have the genuine check of the quality of the water and this data can be used for the future in data analytics. The quality of the water is using the Internet of Things technology for improvising the performance in this device.</p> <p>Keywords: Water quality parameters, Internet of Things, Cloud computing.</p> <p>References:</p> <ol style="list-style-type: none"> Thinagaran Perumal1, et al., "Internet of Things Enabled Water Monitoring System ", IEEE 4th Global Conference on Consumer Electronics, 2014. Perumall, et al., "Proactive architecture for Internet of Things (IoTs) management in smart homes," Consumer Electronics, IEEE, pp: 16-17, Oct. 2014. N Vijaykumar, "The real time monitoring of water quality in IOT environment", IEEE innovations in information, embedded and communication systems, 2015. Saima Maqbool, Nidhi Chandra, "Real Time Wireless Monitoring and Control of Water Systems using Zigbee 802.15.4", International Conference on Computational Intelligence and Communication Networks, 2013. Prachet Varma, et al., "IoT based water management System for a Campus", IEEE International Smart Cities Conference, 2015. Asaad Ahmed Mohammed ahmed Eltaieb, Zhang Jian Min, "Automatic Water Level Control System", International Journal of Science and Research, 2013. S.Kartakis, W. Yu, R. Akhavan, and J. A. McCann, 2016 IEEE First International Conference on Internet-of-Things Design and Implementation, 978-1-4673-9948-7/16 © 2016 IEEE . Mithaila Barabde, shruti Danve, Real Time Water Quality Monitoring System, IJIRCCE, vol 3, June 2015. A. Purohit, U.K. Gokhale, "Real Time Water Quality Measurement System based on GSM," IOSR (IOSR-JECE) Volume 9, Issue 3, Ver. V (May - Jun. 2014) . Z. Sun, C. Harold Liu, C. Bisidikia_, J. W. Branch and Bo Yang, "Mesh and Ad Hoc Communications and Networks," 2012 9th Annual IEEE Communications Society Conference on Sensor. 	
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	Authors: Srinivasan.R, Kavitha M, Shashank Reddy.D, NagaHarshitha.C Paper Title: Precision Agriculture Using Fog-Edge Computing	
	<p>Abstract: Internet of Things gives a new development in the area of farming and agriculture sector. It provides accurate solutions for the advanced problems involved in the agriculture by decreasing extra manpower. In this paper we are executing IoT based services to the agricultural sector. The main aim of this paper is to detect the insect pests in the tomato crop by using the various sensors. Now days the quality agriculture is always a strong area, where the technology based on sensors plays a vital role. Most commonly; sensors provide real time data in the field. By deploying sensors and Mapping fields farmers can start to comprehend their products in miniaturized scale. With the use of Fog computing and Wi-Fi based distance network in IoT, the pest data can be collected by the farmer in the early stages of the crop diseases via message. Fog Computing has a main aim in enlarging by bringing the cloud its required power of computation, storage and communication capabilities with respect to IoT to the edge of the network. Instead of walking down the field, the farmer today can take necessary measures to reduce the pest's population by using the automatic sprinkler mixed with pesticides by using soil moisture sensor.</p> <p>Keywords: IoT, WIFI, Fog Computing, automatic sprinkler, Soil Moisture sensor.</p> <p>References:</p> <ol style="list-style-type: none"> S.F. Mousavi, M. H. Abbas pour, M. H. Aghkhani.Acoustic Detection Possibility of Different Stages of the Confused Flour Beetle (<i>Tribolium confusum</i>) in Grain Bulks utilizing sound sensor. J.Agr.Sci. Tech. (2017) Vol.19:1551-1563 Dan Jeric Arcega Rustia, Ta-Te Lin An IoT-based Wireless Imaging and Sensor Node System for Remote Greenhouse Pest Monitoring... VOL. 58,2017. F. Fleurat-Lessard, B. Tomassini, L. Kostine, B. Fuzeau.Acoustic recognition and programmed recognizable proof of bug stages action in grain masses by clamor spectra handling through order algorithms.PS5-13-6304 Mirjana Maksimović Faculty of Electrical Engineering, University of East Sarajevo, BH, Implementation of Fog Computing in IoT-based Healthcare System.... A general overview DOI: 10.7251/JIT1702100M Ryan Krauss Combining Raspberry Pi and Arduino to frame a minimal effort, ongoing self-governing vehicle stage July 2016 DOI: 10.1109/ACC.2016.7526714 Conference: 2016 American Control Conference (ACC) Senlin Geng 1, a), Xiuqin Zhang2, b) and Wei Zhao 1, c) 1 College of Mathematics and Physics, Weinan Normal University, Weinan 714000, P.R. China 2 College of Chemistry and Material, Weinan Normal University, Weinan 714000, P.R. Recognition and investigation of the put away grain bug crawling sound. 	
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Authors: **Gopishetti Venkatesh, M. Lawanyashri, Sai Saraswathi V**

Paper Title: **DATA Mining Application towards Adverse Effects of Anti-Diabetic Drugs**

12. Abstract: Data mining applications in health care information system is the trend set and shaping the IT industries. Data mining techniques for Anti-Diabetic Drugs is a new side of application which plays a major role in health care information system. We all wanted to know how a person is been affected by the particular medicine. Usually, many researchers are trying to predict the diseases using data mining algorithms but at the same time we have to take into consideration how the drugs are affecting a particular person. It helps a doctor to analyse these results to treat them in a proper way. The implementation can be done through the predictive data mining techniques like Decision Tree Induction, J48 classifier and Naive Bayes classifier algorithms. It predicts whether there is any change that has occurred or not after having the medicine i.e., impact, it also predicts the percentage to which, it has been cured.

Keywords: Classification, diseases Diagnosis, predictive data mining, Naïve Bayes Classifier, impact.

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Authors: Y. Jeevan Nagendra Kumar, N. Kameswari Shalini, P.K. Abhilash, K. Sandeep, D. Indira

Paper Title: Prediction of Diabetes using Machine Learning

Abstract: Machine learning is an application of artificial intelligence which has proved to be a major breakthrough in the field of medical sciences to take care of healthcare sector especially in diagnosing of diseases. In recent times, various studies have shown there is a high percentage of population across the worlds who are suffering from diabetes. It is quite well-known fact that due to high content of blood sugar levels in human beings results in such a metabolic disordered disease. The rapid growth of diabetes is well known reality in today's world due to unhealthy lifestyles, processed food, lack of health awareness and proper physical exercises. It is important to note that diabetes can cause visual disturbances, pancreas malfunction, nerve damage, heart diseases, kidney damage, fatigue and lack of energy, excessive urination, gastroparesis, damaged blood vessels, foot problems, dry and cracked skin etc and few other chronic diseases. Therefore, it becomes necessary to detect and diagnose diabetes at an early stage. The proposed work in this research deals with the classification of people who are diagnosed with diabetes using Classification algorithms such as Logistic Regression (LR), Random forest, SVM, KNN, Gradient boosting (GB) and Decision tree(DT). The experiment showed that KNN algorithm gave better results than when compared with other classified algorithms. The results showed an accuracy of 85% was achieved.

Keywords: Accuracy, Classification, Data mining, Algorithms.

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Authors: Elizabeth M J, Jobin Jose, Dona Jose

Paper Title: A Fog Based Security Model For Electronic Medical Records In the Cloud Database

Abstract: Nowadays, a lot of emerging trends such as telemedicine, robotics in hospitals, computerized medical diagnosis, cybersecurity, Artificial intelligence, etc. are used to uplift the healthcare sector. Especially telemedicine services get more attention to diagnose and treat patients where health professionals use information and communication technologies for remote patient monitoring. The medical data such as CT scan, MRI reports, X-rays, Heart or Kidney transplantation videos and other health information should be available in

digital format and such type of huge multimedia big data needs to be kept in the cloud and needs to be archived. Cloud storage provides better storage capability so that customers no need to worry about their limited resources. This paper proposes a new method for securing various electronic medical records in the cloud database. This proposal mainly concentrates on how we can get data with less latency for patient monitoring and how to secure the patient's private data to overcome data breaches in the cloud server using fog computing technology. A pairing based cryptography technique such as an Elliptic Curve Diffie-Hellman key agreement protocol and a decoy technique are used to access and store data more securely along with the help of some cryptographic algorithms.

Keywords: Telemedicine, Fog Computing, Healthcare, Cybersecurity, Electronic Medical Records.

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Authors: Mrinmay Saha, Rima Halder, Anamitra Baruah , Ashish Kumar Sharma and S.Senthilmurugan

Paper Title: Implementation of Energy Saving Algorithm in Smart Home

Abstract: In India, due to the increasing population, there is always a shortage of energy. The more we consume energy the more we require energy. There is mass production of electrical energy at present but there is no full utilization of the energy which is produced. So, there is always a necessity that the power which is produced is utilized wisely and efficiently. The most upcoming technique which can be implemented to save energy is the smart grid. This has many advantages which not only helps us to manage energy but also helps us in dealing with the power theft and smart utilization of power. This paper deals with the very basic but the most important part of the smart grid. Before going to any aspect of the smart grid we are bound to know the basic building block of the smart grid, i.e., we need an energy algorithm which will allow us to proceed further for the smart grid. Energy algorithm is basically the backbone of smart grid system which allows us to manage as well as helps to reduce the total power consumed by the consumers. This paper mainly deals with the energy algorithm and a simpler way to reduce power consumption by the consumers.

Keywords: Smart Grid, Energy Algorithm, Power Consumption Levels.

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Authors:	Gudlavalleti Deepak Kumar, V.B.S. Rajesh, Jogi Giridhar, Tirumani Manoj Kumar, Amudalapalli Gangadhar
Paper Title:	Optimize the Crankshaft Specifications by Analyzing Modeled Piston, Connecting Rod and Crankshaft Assembly using Mat lab Simulink Under Dynamic Load Conditions

Abstract: Crankshaft is an automobile engine component that converts the reciprocating motion to rotational motion. Forces acting on piston transfers to the crankshaft through the connecting rod. Besides static forces, dynamic forces acting on the crankshaft causes failure and induce stresses. Dynamic forces lead to Fatigue failures, which are unpredictable in nature. Modelled system is used to obtain the optimized values of Crankshaft Diameter and Crank radius for achieving a life of infinity cycles for crankshaft. Modelled Simulink system can be used as a virtual Piston, connecting rod and Crankshaft assembly and can perform the analysis. The main objective of this project is modelling a Simulink system to optimize the specifications of crankshaft.

Keywords: Optimize, MATLAB Simulink, Life.

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10. Purnachandra Sekhar T., Kumar Raju V., Ravi Kumar V., Rao P.K.V
11. Design and coupled field analysis of solid and vented disc brake using ANSYS and MATLAB. Department of Mechanical Engineering, K.L. University, Guntur Dist, AP, India
12. Dr. G Diwakar, R Dileep, P Satya Nikhit, N H S Venkata sai, A Bala Krishna DIAGNOSIS OF GEARBOX FAULT USING ACOUSTIC SIGNAL. Mechanical Engineering Department, Koneru Lakshmaiah Educational Foundation, Vaddeswaram, Guntur, Andhra Pradesh, India.
13. Dr. Jamaleswara Kumar. P, Sai Krishna Narne, Aditya Talluri, Neeraj Yarra, Sri Ram. N DESIGN AND ANALYSIS OF WHEEL RIM WITH SPOKE PATTERNS USING DIFFERENT MATERIALS. Department of Mechanical Engineering, K L University, Guntur, India.
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	<p>15. K L University, Vaddeswaram, Andhra Pradesh. 16. Harish Panjagala, Balakrishna M, Shasikant Kushnoore, E L N Rohit Madhukar. Department of Mechanical Engineering, Koneru Lakshmaiah Educational Foundation, Vaddeswaram, Guntur, Andhra Pradesh, India – 522502.</p>	
	<p>Authors: K Swarupa, Narendra Babu Tatini , M Sai Mounika</p> <p>Paper Title: IOT Based Smart Room Controlling Using Arduino</p>	
460.	<p>Abstract: In this proposed framework Human body temperature, Light Ward Resistor (LDR) are created as sharp sensors for controlling clever room gadgets. Keen sensors get input, particularly inhabitants' data, from human body. The data can be utilized to change room Gadgets right on time as per people's wants, in assumed point causing control. This suggests the usage of PC and information development for control of home contraptions successfully. It is a computerization of the home, housework or family development. Home automation may join united control of Light, Machines, Temperature and diverse systems, to give improved solace. Comfort, imperativeness profitability and security. This is winding up progressively more standard well ordered in light of its different central focuses. This can be cultivated by neighborhood frameworks organization or wi-fi. This paper goes for organizing a fundamental home computerization application on Arduino through scrutinizing the subject of Email and the estimation for the identical has been made in python condition which is the default programming condition given by Arduino. Results exhibit the compelling utilization of proposed figuring. LEDs were used to demonstrate the trading action.</p> <p>Keywords: IOT, temperature,Arduino,LDR.</p>	2572-2575
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461.	<p>Authors: Dhivyapriya K, L. Kavisankar, Udaya Mouni Boppana, D. Nagarajan</p> <p>Paper Title: Protection Of Critical System From Botnet Based Ddos Attack using Self-Triggered Filters</p> <p>Abstract: The motivation of our project is to defend DDOS attack without degradation of network resources and bandwidth. In order to defend DDOS attack, black hole filters are placed in the network, where the inbound or outbound traffic is dropped silently. The black hole filters are invisible, while studying the network topology and can be found only by monitoring the lost packets. There is a technique called remote triggered black filter, that has the ability to discard unexceptionable traffic before it gets entered into the protected area network. But the drawback is, it is located within the premises of victim. So, sometimes the trigger itself gets nonresponsive because of too many packet flooding caused due to DDOS attack. Even if the remote triggers relocate its places in order to avoid the effects caused due to DDOS attack, still the remote triggers are vulnerable as we cannot predict the direction flow of attack packets. So, before degradation of internal network bandwidth, it is necessary to defend the DDOS attack. The triggers that are placed in the network in order to defend DDOS attack, should withstand the effects and impacts caused by DDOS attack. In order to defend DDOS attack, a self-triggered black hole filter should be placed within the control of internet service provider as they have the power to block anything and everything. The self-triggered filters in the network are placed after the proxy server. If there is an anonymity in network behavior like packet flooding, the triggers placed after the proxy server will get self-triggered.</p> <p>Keywords: DDOS attack, black hole filter, defending DDOS attack, self-triggered black hole filter, ISP.</p> <p>References:</p> <ol style="list-style-type: none"> Pektaş, A., & Acarman, T. (2017). Effective feature selection for botnet detection based on network flow analysis. Karasidis, A., Rexroad, B., & Hoeflin, D. A. (2007). Wide-Scale Botnet Detection and Characterization. HotBots, 7, 7-7. Khattak, S., Ramay, N. R., Khan, K. R., Syed, A. A., & Khayam, S. A. (2014). A taxonomy of botnet behavior, detection, and defense. IEEE communications surveys & tutorials, 16(2), 898-924. Mody, N., O'Reirdan, M., Masiello, S., & Zebek, J. (2009). Common best practices for mitigating large scale bot infections in residential networks. MAAWG. Lin, S. C., Chen, P. S., & Chang, C. C. (2014). A novel method of mining network flow to detect P2P botnets. Peer-to-Peer Networking and Applications, 7(4), 645-654. Wang, D., Savage, S., & Voelker, G. M. (2013, February). Juice: A longitudinal study of a seo campaign. In Proceedings of the NDSS 	2576-2580

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Authors: Komala C R, N. K. Srinath

Paper Title: Routing Solutions of GJIBR for Unicast and Multicasting over AODV in VANET

Abstract: VANET (Vehicular Ad hoc Network) is a kind of MANET (Mobile Ad hoc Network) in which vehicles create an ad hoc network for communication. Due to high mobility, routing in VANET is very challenging and existing routing protocols have high packet loss and delay. VANET applications require high packet delivery ratio, this problem is dealt and the routing solutions are proposed for VANET with higher packet delivery ratio compared to existing protocols. The methodology for routing adopted in GJIBR is geographic junction based routing. In additions to vehicles, junctions a special kind of node with transmitting, receiving and storing facility is added at various places which also relay the packets. Junctions are stationary and placed to improve the packet delivery ratio. The routing from vehicle to vehicle is implemented by using junctions as relays. Junctions store the packets from vehicles temporarily and decide the next vehicles to forward or relay the packet. The choice of relay decides the packet success ratio, delay and throughput. The routing solutions proposed in this research work are all about selection of relay. The relay selection must be done with criteria (i) Number of hops to destination vehicle must be less (ii) Redundant relay so that even if packet fails in one path, it can reach through another path and (iii) Relay is a must in the path to destination vehicle.

Keywords: AODV, GJIBR, MANET and VANET.

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Authors: Swetha M. S, Thungamani M

Paper Title: A Novel Approach to Secure Mysterious Location Based Routing For Manet

Abstract: MANET consists of mobile devices that interact impulsively over the air. The network is changing frequently because of the itinerant nature of its nodes. Security problem arises mainly due to nodes maintaining its capabilities and configuring by itself. In MANET biggest problem is keeping the node secure which cannot be identified easily while routing. Many proposals are made to encounter this problem but no proposal is fully able to resolve this problem. The proposed method have a strong secure mysterious location based routing (S2MLBR) protocol for MANET using optimal partitioning and trust inference model. In S2MLBR protocol, first partitions a network into sectors using optimal tug of war partition (OTW) algorithm. Then, compute the trustiness of every mobile node using the constraints received signal strength, mobility, and path loss and cooperation rate. The process of trust computation is optimized by the optimal decided trust inference (ODTI) model, which provides the trustiness of each mobile. Then selects the highest trust owned node in each sector as intermediate nodes used for data transmission, which form a non-noticeable mysterious route.

Keywords: Mobile ad-hoc network, Optimal Tug of War (OTW), Optimal Decided Trust Inference (QDTI) Strong Secure

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	<table border="1"> <tr> <td>Authors:</td><td>Nisha.R, N.Usha Bhanu</td></tr> <tr> <td>Paper Title:</td><td>Implementation of Class Based Priority Tunneling In Multi Protocol Label Switching Networks</td></tr> </table>	Authors:	Nisha.R, N.Usha Bhanu	Paper Title:	Implementation of Class Based Priority Tunneling In Multi Protocol Label Switching Networks	
Authors:	Nisha.R, N.Usha Bhanu					
Paper Title:	Implementation of Class Based Priority Tunneling In Multi Protocol Label Switching Networks					
464.	<p>Abstract: In this paper implementation of the Class Based Tunnel Selection(CBTS) in MPLS network using TE is discussed. The objective of TE in MPLS network is to alternate data path link when the network is congested. It also provides the combination of ATM's (Asynchronous Transfer Mode) TE capabilities along with CoS (Class Of Service)at layer 2.5 to reduce latency and hence speed is improved. Traffic Engineering (TE) in MPLS network using tunnel for transmission of data packets. RSVP protocol is being used for reserving bandwidth along the path from source to destination. Here a CBTS mechanism is used to reroute sensitive traffic based on the priority of the customer through tunnels. The tunnel formation along the LSP (Label Switch Path) for forwarding packets is simulated using GNS3 tool. The simulation result shows that the round trip time of tunnel1(high priority) with packet size of 8000 bytes takes 439milliseconds which is faster than tunnel2(medium priority) with packet size of 8000bytes.It also rerout sensitive traffic in real time which is used in voice and data world for transmitting information.</p> <p>13. Keywords: MPLS (Multi Protocol Label Switching, CBTS (Class Based Tunnel Selection), TE (Traffic Engineering, Tunneling, RSVP(Resource Reservation Protocol).</p> <p>References:</p> <ol style="list-style-type: none"> 1. Ines Ramadza ,Julije Ozegovic,Vesna Pekic, "Class Based Tunnel Exclusion router architecture",International conference on software,Telecommunication and computer networks,IEEE Explore sep-2015. 2. Nisha.R,Dr.N.Usha Bhanu, "Implementation of Traffic Engineering Technique in MPLS network using RSVP",International Journal on wireles communication, Vo.7,no.1,2018. 3. Vassilis Fotenios,Kostas Tsagkaris,Senior member,et.al., "Operator-friendly traffic engineering in IP/MPLS core network",vol 11,no.3,September 2014. 4. Mohammed elfaith eltyeb ahmed,Dr.Hala eldaw idris , "Implement MPLS traffic engineering over network system".Index Copernicus value:6.14.2013. 5. "Implementing MPLS VPNs over IP Tunnels",Cisco IOS XR Virtual Private Network Configuration Guide for the Cisco CRS Router. 6. Cisco system lne.2007 "MPLS traffic engineering"(online)available. 7. A. P. Bianzino, C. Chaudet, D. Rossi, and J. Rougier, "A survey of green networking research," IEEECommun. Surveys Tuts., vol. 14, no. 1, pp. 3–20, 2012. 8. N. Wang, K. Ho, G. Pavlou, and M. Howarth, "An overview of routing optimization for internet traffic engineering," IEEE Commun. Surveys Tuts., vol. 10, no. 1, pp. 36–56, 2008. 	2592-2595				

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	<p>Authors: Mohit Gaharwar, D. C. Dhubkarya</p> <p>Paper Title: Design of Stacked Triple Band Circular-Shape Textile WLAN/Bluetooth/ Hiper LAN Application</p>	
	<p>Abstract: This paper proposed a triple band stacked textile antenna on a defected ground plane for remote on-body communication. In this stacked antenna jeans & cotton substrates have been utilized as a substrate which permittivity is 1.7 & 1.6 respectively and patch has been made by copper tape. This anticipated antenna provides directivity of 3.155 dBi at 1.9 GHz and 5.309 dBi at 3.286 GHz.</p> <p>Keywords: Glass epoxy, Microstrip antenna, Gain, Radiation pattern, stacked, CST.</p>	
	<p>References:</p> <ol style="list-style-type: none"> 1. Sushil Kakkar et al. "Design and Analysis of I-Shaped Fractal Antenna for Emergency Management" IETE Journal of Research, Taylor & Francis online, pp. 104-113, Jan 2018 2. Amit A. Deshmukh, Divya Singh, Mohit Gala, "Broadband slot cut S-shaped microstrip antenna" IEEE International conference on Computing Communication Control and automation, Feb. 2017 3. Raj Kumar et al. "On the design of CPW-feed diamond shape fractal antenna for Ultra Wide Band applications" IJE Taylor Francis, Volume 98, Issue 4, 2011. 4. V K Singh, S. Dhupkariya, Naresh B., "Wearable Ultra Wide Dual Band Flexible Textile Antenna for WiMax/WLAN Application", International Journal of Wireless Personal Communications, Springer, Vol 95, Issue 2, pp.1075–1086, 2017. 5. B.L. Ooi et al. "Novel Design of Broadband Stacked Patch Antenna" IEEE Transactions on antennas and Propagation, Vol 50, No 10, pp. 1391-1395, 2002. 6. M. A. Matin et al., "Probe-Fed stacked patch antenna for wideband applications" IEEE Transactions on Antennas and Propagation, Vol 55, Issue 8, pp. 2385-2388, 2007. 7. S.Singhal et al. "Asymmetrically CPW-fed ladder-shaped fractal antenna for UWB applications" , Analog Integrated Circuits & Signal Processing, Vol 92, pp. 91-101, 2017. 8. Kalpana, V K Singh, "A Crescent Moon like Textile Antenna for C-Band Application", International Journal of Control Theory and Application, Vol 10, Issue 9, pp. 899-903, 2017. 9. R Singh, V K Singh, N K Singh "Wide Band and Miniaturized Partial Ground Plane Microstrip Antenna for X & Ku Band Applications", International Journal of Control Theory and Application, Vol 10, Issue 8, pp. 477-486, 2017. 10. D. Sun et.al. "A Broadband Proximity Coupled Stacked Microstrip Antenna with Cavity-Backed Configuration" IEEE Antenna and Wireless Propagation Letters, Vol.10, pp. 1055-1058, 2011. 11. R. Srivastava, V. K. Singh, & S. Ayub, "Comparative Analysis and Bandwidth Enhancement with Direct Coupled C Slotted Microstrip Antenna for Dual Wide Band Applications", FICTA-2015, Springer, vol. 328, pp. 449-455. 12. Singh V. K., Ali Z., Ayub S. & Singh A.K., "Bandwidth Optimization of compact Microstrip Antenna for PCS/DCS/Bluetooth Application", Open Engineering, Springer, vol. 4, Issue 3, pp. 281-286, (2014). 13. N. Singh, A. K. Singh, V. K. Singh, "Design and performance of wearable Ultra Wide Band Textile Antenna for Medical Applications", MOTL, Willey, vol. 57, Issue 7, pp-1553-1557, 2015. 14. Singh R., Singh V.K., Khanna P., "A Compact CPW-Fed Defected Ground Microstrip Antenna for Ku Band Application", Lecture Notes in Electrical Engineering, Vol 443, pp. 231-237, 2018 15. Singh N.K. et al. A Compact Slotted Textile Patch Antenna for Ultra-wide Band Application, Lecture Notes in Electrical Engineering, Vol 443, pp. 53-59, 2018. 	
465.		2596-2598
	<p>Authors: M. Venkata, Sudhakar</p> <p>Paper Title: Development of Delay Line Filtration based Dispersion Management Optical Fiber System</p>	
	<p>Abstract: Next-Generation (NG) optical transmission systems require high data rate and flexible connectivity to satisfy the bandwidth requirements of customers at lower cost. Delay line filtration (DLF) schemes are good option for deployment of cost-effective dispersion mitigation scheme in optical system due to their less complexity. The problem of signal degradation in optical single mode fiber (SMF) systems is due to SMF dispersion. The transmission capacity of optical system could be enhanced when the optical-spectrum broadening caused by optical fiber is minimized. Therefore, effective optical filtering techniques are required to enhance the transmission-distance and data rate by changing the properties of the modulator output for emerging optical SMF systems. The aim of this research work is to implement 110 km dispersion-tolerant access networks by using optical delay line filtering techniques at the transmitter.</p> <p>Keywords: Fiber, DLF, dispersion.</p>	
466.		2599-2601
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	Authors: Radha Krishna Gopidesi, V Ram Kishore Reddy, V Sai Sandeep Kumar, T Vishnu Vardhan, V Jeevan Reddy Paper Title: Effect of Cotton seed oil in Diesel Engine Performance Emission and Combustion Characteristics	
467.	<p>Abstract: In the present situation, the stipulate for energy is escalating according to the growth of population and industrial development. Here, diesel engines are contributing more in power generation due to its reliable and energy efficient phenomenon. However, continuous diminishing of diesel fuel and environmental scenario researchers are trying to find alternative energy sources like biodiesel. In present investigation used the Cotton-seed oil has opted as biodiesel in various blends B5, B10, and B15. The increasing of cotton seed oil in the blend showed an increase of NOX emissions when compared with the pure diesel operation. Here, observed the higher NOX emission for B15 when compared to the other fuel samples. The HC emissions were reduced with the increase of cotton seed oil percentage. The blend 10 showed lower CO2 emissions than the other samples. The peak cylinder pressure 68.2 bar was obtained at 366°crank angle of B10 and a higher heat release rate was found for B5 at 368°crank angle.</p> <p>Keywords: cottonseed, combustion, emission, performance.</p> <p>References:</p> <ol style="list-style-type: none"> 1. P. S. Vijaya Kumar Reddy, Radha, and N. U. Kautkar, "A Review on Nano Coatings for IC Engine Applications," <i>Int. J. Mech. Eng. Technol.</i>, vol. 8, no. 9, pp. 70–76, 2017. 2. N. Kumma, R. Krishna Gopidesi, T. Raja Rao, and K. Mohan Kumar, "Experimental Investigation on Diesel Engine Fuelled with Hythane Gas," <i>Int. J. Mech. Eng. Technol.</i>, vol. 10, no. 2, pp. 571–575, 2019. 3. P. S. Shelke, N. M. Sakhare, and S. Lahane, "Investigation of Combustion Characteristics of a Cottonseed Biodiesel Fuelled Diesel Engine," <i>Procedia Technol.</i>, vol. 25, no. Racrest, pp. 1049–1055, 2016. 4. Radha Krishna Gopidesi and P. S. R, "Review on effects of performance , emission and combustion characteristics of emulsified fuel in bifuel engine," <i>Prog. Ind. Ecol.</i>, vol. 12, no. 1–2, pp. 59–66, 2018. 5. S. R. Premkartikumar, K. Annamalai, and A. R. Pradeepkumar, "Impact of ambient air temperature and injection timing on reduction of engine out emissions of DI diesel engine operating under the influence of oxygen enriched hydrogen gas," <i>Int. J. Oil, Gas Coal Technol.</i>, vol. 9, no. 1, pp. 109–127, 2015. 6. premkartikumar S. Kautkar Nitin Uttamrao, "Production of biodiesel from refined cotton seed oil as well as its effects as fuel in diesel engine," <i>Int. J. Mech. Prod. Eng. Res. Dev.</i>, vol. 8, no. 3, p. 201886, 2018. 7. S. Suresh, D. Sinha, and S. Murugavel, "Biodiesel production from waste cotton seed oil: engine performance and emission characteristics," <i>Biofuels</i>, vol. 7, no. 6, pp. 689–698, 2016. 8. M. N. Nabi, M. M. Rahman, and M. S. Akhter, "Biodiesel from cotton seed oil and its effect on engine performance and exhaust emissions," <i>Appl. Therm. Eng.</i>, vol. 29, no. 11–12, pp. 2265–2270, 2009. 9. Radha Krishna Gopidesi, "Development of Polymer Polym Er Matrix Composites Reinforcing Reinforci With Al2Cung a," <i>Int. J. Mech. Eng. Technol.</i>, vol. 8, no. 6, pp. 190–199, 2017. 10. P. S. & N. K. Datta Sai K, Radha Krishna Gopidesi, "Effects of Water Diesel Emulsion on Diesel Engine," <i>Int. J. Mech. Prod. Eng. Res. Dev.</i>, vol. 8, no. 1, pp. 675–680, 2018. 	2602-2605
468.	<p>Authors: S. Mullaivendhan, K. Gunasekaran Paper Title: Durability Properties of Hybrid Fibers in Coconut Shell Concrete</p> <p>Abstract: Fiber reinforced concrete is one of the special concrete which enhances the inherent tensile strength of concrete itself. Coconut shell concrete (CSC) is one of the recently established lightweight concrete, to enhance its properties, this study has been taken and tried to optimize the adding hybrid fibers using 75% of steel and 25% nylon fibers in coconut shell concrete (CSC) and also in conventional concrete (CC) for comparison purpose. The maximum compressive strength was attained at volume fraction of 1% for both CC and CSC. Since durability properties of concrete such as sorptivity test, water absorption test, volume permeable voids test (VPV), rapid chloride penetration test (RCPT) for both CC and CSC were tested and reported for the optimized hybrid fibers. This study shows that the addition of hybrid steel and nylon fibers enhances the properties of both CC and CSC.</p> <p>Keywords: Hybrid fibers; Optimization; Coconut shell concrete (CSC); conventional concrete (CC); Durability; Properties.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Fuak Koksal, Osman Gencel, Burhan Unal and MuhammedYasinDurgun (2012), Durability Properties of Concrete Reinforced With Steel-Polypropylene Hybrid Fibers, <i>Science and Engineering of Composite Material</i>. 2. Mekala Bhavana and BalaKrishna Bharathi (2018), Experimental Study of Strength And Durability Properties of Hybrid Fiber Reinforced Concrete for M25 Grade, <i>International Research Journal of Engineering And Technology</i>, Vol 5, Issue 08, pp 49-56. 3. Gunasekaran. K, Kumar. P.S, LakshmiPathy. M (2011), Mechanical and Bond Properties of Coconut Shell Concrete, <i>Construction and Building Materials</i>, Vol 25, Issue 1, pp 92-98. 4. Gunasekaran. K, Annadurai. R, Kumar. P.S (2013), A Study on Some Durability Properties of Coconut Shell Aggregate Concrete, <i>Material and Structures</i>, Vol 48, pp 1254-1264. 5. Gunasekaran. K, Pennarasi. G, Soumya. S and Shruti. L (2017), All-in-one about a Momentous Review Study on Coconut Shell as Coarse Aggregate in Concrete, <i>International Journal of Civil Engineering and Technology</i>, vol. 8, pp. 1049–1060. 6. IS 12269:1987, Indian Standard Ordinary Portland Cement, 53 grade-specification. (Reaffirmed January 1999). Bureau of Indian Standard, New Delhi. 7. IS 383:2016, Indian Standard specification for coarse and fine aggregates for concrete – Specification. Third revision. January 2016, 	2606-2610

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	Authors:	Hiren Patel, Mehul C Parikh, Mahesh Pipalia
	Paper Title:	Brain Tumor Segmentation from 3D Brain MRI Using 3D Convolutional Neural Network
<p>Abstract: Magnetic Resonance Imaging (MRI) is one of the medical imaging modality that widely used by the doctors to represent the internal brain structure information digitally. There are plenty of methods available for the classification and segmentation of tumor from the brain MRI study. Brain tumor detection in the initial stage is very important for accurate and better treatment. Patient survival chances can be increased if the accurate tumor is segmented from the brain which can help doctors to treat the patient accordingly. There are a number of existing emerging machine learning algorithms contributed to this problem area. Convolutional Neural Network (CNN) is a widely used method for this type of image segmentation problems. 3D CNN is already achieving better results in this work but it takes lots of data and the time to train such very high accurate model. In this research, 3D CNN is used along with the biological structural information of the brain i.e. the brain has a symmetric structure which can be divided into two nearly equal half, information from each half can help CNN model to differentiate the abnormal tissues from the normal tissues. Using the biological information the results are improved by 10.27%. The fractal search algorithm is implemented to reduce the time complexity of the tumor segmentation process. The segmentation processing time has been reduced by 41.75% on GPU while 23.69% on CPU and improves the segmentation result by 2.76%.</p>		
<p>Keywords: Brain tumor segmentation, CNN, Fractal Search.</p>		
<p>References:</p>		
469.	2611-2617	
	Authors:	Thirumula Rao Padilam, Srinivas Malladi
	Paper Title:	Implementing Security Mechanisms for Internet of Things (IOT)
<p>Abstract: Explode of automation and cyber space which connected devices has facilitate IoT to be one of the important fields in computing , standards , technologies and platforms steer IoT ecological community are being progressed at the first pace. The work includes IoT devices, basis of IoT, and their importance in the safe</p>		
		2618-2623

operation of IoT services is presented. Due to Lack of confidentiality and integrity, in Internet of Things can cause data breach, modification of data, ddos attacks etc. this paper characterize the theoretical foundation and the IoT architecture and types of IoT services in IoT, cryptography, hardware bonding, as well as the protocols used to speak with the services so as to survey conceivable security issues and exhortation conceivable enhancements in regards to the security of IoT services.

Keywords: Automation, IoT Security, Hardware Bounding, Protocols, confidentiality and integrity, Cryptography.

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Authors: Priti Verma, Nidhi Arora

Paper Title: Emotional Intelligence in Banks-An Empirical Study

Abstract: Development of any country mainly depends upon the robust banking system. In 21st century, the technological advancements have brought a paradigm shift in the banking sector and all the banks have upgraded their technology and infrastructure. This, therefore, is no longer a distinguishing factor to provide a competitive edge to banks over their competitors. Banking sector, being service sector, cannot ignore the significance of personal people handling, interpersonal relations and communication with the customer .Today, customer retention is a big challenge. Despite dazzling infrastructure, rapid and convenience services to customer and speedy implementation of various projects; the customer retention requires skilling of employees in Emotional Intelligence as it along with its paraphernalia - emotional self-awareness, Self-regulation, controlled emotions, thoughtful thinking, empathy and Social skills, can provide further impetus to growth. The blending of technology and emotional intelligence, Intelligence Quotient and Emotional Quotient, in the Indian banking sector can lead to enhanced customer satisfaction and can facilitate the development of the banking industry as well as of the Indian economy. Hence, the paper, attempts to evaluate the connection between emotional intelligence in public sector and private sector banks.

14. Keywords: Emotional intelligence (EQ), Globalization, Scio-Emotional, Cultural, Intelligence Quotient (IQ), Performance.

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	Authors: Anumula Chandra Mouli, Talluri Kiran Datta, Vikram Sinha, Annamareddy Srinadh Paper Title: Prediction of Tool Life of a Single Point Cutting Tool under Different Metallic Coatings	
472.	Abstract: Machining tools often are subjected to varied types of machining forces which in turn produce many stresses. All such collectively effect various parameters like the tool life, deformation, Material Removal Rate, Surface finish etc. Coating of the workpiece making a composite material that exhibits properties usually, which cannot be achieved by either material if used alone. This project is aimed at enhancing the surface properties of the tool through coating combinations of Titanium Nitride and Titanium Aluminum Nitride using Physical vapor Deposition (PVD) technique. The tool's performance is verified using Taylor's Tool Life Equation under identical working conditions. The tool life is estimated using facing test and the best combination is determined. Keywords: Tool Life, Physical Vapor Deposition, Taylors Tool Life Equation. References: 1. Effect of cutting parameters on the degree of work hardening and tool life during high-speed machining of Inconel 718," pp. 483–489, 2012. 2. "Tool Wear Assessment During Machining of Inconel 718," Procedia, 2017. 3. "Structure, properties and wear performance of Nano multi layered TiAlCrSiYN/TiAlCrN coatings during machining of Ni-based aerospace superalloys," Surf. Coatings Technol., vol. 204, no. 21–22, pp. 3698–3706, 2010. 4. NPTEL Lecture on Tool Life https://www.youtube.com/watch?v=-R-fySRLa9Q 5. NPTEL Lecture on Taylor's Tool Life Equation https://www.youtube.com/watch?v=kISJkcSAjEI 6. Tool Life and Equation https://www.youtube.com/watch?v=8CV3K6k-g-&feature=youtu.be 7. J. L. Endrino, G. S. Fox-Rabinovich, and C. Gey, "Hard AlTiN, AlCrN PVD coatings for machining of austenitic stainless steel," Surf. Coatings Technol., vol. 200, no. 24, pp.6840–6845, 2006. 8. Finite Element Analysis of Single Point Cutting Tool S. H. Rathod1, Mohd. Razik 9. B. Wang, Z. Liu, Q. Yang, Investigations of yield stress, fracture toughness, and energy distribution in high speed orthogonal cutting, Int. J. Mach. Tool. Manuf. 73 (2013) 1–8. 10. R.S. Pawade, S.S. Joshi, P.K. Brahmankar, Effect of machining parameters and cutting edge geometry on surface integrity of high-speed turned Inconel 718, Int. J. Mach. Tool. Manuf. 48 (2008) 15–28. 11. Hindustan Machine Tools for Manufacturing and Design Text Book.	2628-2631
	Authors: Modepalli Kavitha, Singaraju Srinivasulu, Kancharla Savitri, P. Sameera Afroze, P. Akhil Venkata Sai, S. Asrith Paper Title: Garbage Bin Monitoring and Management System Using GSM	
473.	Abstract: Presentation of firm issue for surroundings is toxins that causes whimsicalness, insecurity, hard or disturb to condition. At Present, there are some of techniques, which may be utilized for the accumulation and administration of the waste. SENSOR and GSM innovation are not best popular propensities however moreover one of the amazing combos to apply inside the mission. Set of mindfully picked sensors to screen the status of trash receptacle. The shrewd waste receptacle comprises sensors particularly ultrasonic sensors, and dampness sensors. Waste degree is identified by ultrasonic sensor. Ultrasonic sensor will be situated inside the refuse canister at lead location, fuel sensor senses the noxious gases and dampness device feels clammy in container then that sign will be supplied to P.C miniaturized scale controller. The controller will convey sign to the purifying specialist and wants squeezing consideration. The percent-smaller scale controller will sign by methods for sending SMS. Operation of GSM innovation and those dustbins are interfaced with the fundamental structure demonstrating the status of waste in dustbin on GUI. Keywords: AT89S52-controller, GSM, Sensor, Ultrasonic Sensors. References: 1. Md. Abdulla Al Mamun, Hannan, Aini Hussain, Hassan Basri "Wireless sensor Network Prototype for solid Waste Bin Monitoring with Energy Efficient Sensing Algorithm," 16th international conference on computational Science and engineering,December 2013. 2. Md.Shafique Islam,M.A. Hannan, "An overview for Solid Waste Bin Monitoring System,"Journal of Applied Science Research,8(2):879-886,February 2012. 3. Kanchan Mahajan, Prof.J.S.Chitode "Waste Bin monitoring system using Integrated Technology",International Journal of Innovative Research in Science engineering and Technology",vol 3,Issue 7.july 2014. 4. Pavithra, "Smart trash system: An applicating using SENSOR," International and Technology , vol. 1,Issue 8 october 2014. 5. Priya B.K.,T.Lavanya,V.Samyakta Reddy "Bin That Think's," The international journal of science and technology(ISSN 2321-919x)vol 3 Issue 6,June 2015. 6. http://www.mtechlog.com 7. Myke Predkoion, programming And customizing the PIC microcontroller. 8. Electronic maker, January2016 Issue236, Vol No.21 9. Muhammad Ali Mazidi, Rolin D. Mckinlay, Danny Causy PIC Microcontroller and embedded systems. 10. EMBEDDED For You, A Research Journal on Embedded Technology, November/December 2015, Vol.9 No.6 11. Electronics for you, Volume 46, Issue 3 12. http://www.engineersgarage.com/articles/gsm-gprs-module . 13. http://www.amuroboclub.in/downloads/ebook/GSM%20MANUAL_AT%20 COMMANDS_SIM900_ATC_V1_00.PDF 14. http://www.pantechsolution.net/blog/basic-at-commands-for-sim900a-gsm-gprs-module/ 15. http://www.electrodragon.com/w/SIM908_SIM900_common_AT-Commands . 16. Garbage Collection Management System Pranjal Lokhande1, M.D.Pawar2 1PG Research student, Department Of Electronic and	2632-2636

	Authors: S.D. Kumar, Utkarsh Namdeo, Ayushmaan Samadhiya, Pranjul Mishra, K. Dinesh Krishna Paper Title: Hyper loop Transportation System	
474.	<p>Abstract: Standard ways that are being used for the transportation of commuters or any kind goods are railways, roadways, waterways, and through airways. Cost of these transportation methods are generally depends on the certain factors like distance, luxury, size, fragileness, etc. when the following factors are considered, transportation sometimes becomes very costly and unaffordable for many individuals. By keeping all the factors in mind and also some other factors like time, speed, efficiency a new mode of transportation system got invented. It was first proposed by Elon Musk in 2012 as fifth mode of transportation. He called it Hyperloop. Hyperloop is quick economical for commuters and merchandise. The idea of Hyperloop has been open sourced by musk and his company to take the ideas and further develop them. The design of Hyperloop is generally described as vacuum- tube train design. Hyperloop is a packed tube or system of tubes along which a pod will travel freely against the air resistance carrying people or goods at a high velocity while being efficient. The original version of Hyperloop is consist of less pressure tubes into which a pod travels on air bearings by linear induction motor and axial compressor through the vacuum. This high velocity transportation system is having some important characteristics that are immunity to weather, collision free, twice the speed of a plane, low power consumption, and energy storage for 24-hour operations. This system mainly goes into loops that are why it's called Hyperloop. When the early design of Hyperloop was published it described one potential design, purpose, passage and cost. According to the developed Hyperloop design, the pod will accelerate at a high velocity by making use of a liner induction motor and air bearings it will float through the tubes on supporting tracks above or below the ground to avoid any kind of disturbance. Ideally Hyperloop is very energy efficient, noiseless and self-governing compare to existing mode of transportation.</p> <p>Keywords: E.D.F jet motor, levitation, pressurized air, streamlined lift, vacuum tube.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Ahmed E. Hodaib; Samar F. Abdel Fattah, "Conceptual Design of a Hyperloop Capsule with Linear Induction Propulsion System," international journal of mechanical, aerospace, industrial, mechatronics and manufacturing engineering, Vol. 10, No. 5, May 2016, pp. 922-929. 2. Mohammed Inran, "Hyperloop Technology. The passenger transport system," International journal of engineering research online, vol. 4, issue 3, 2016, pp. 250-256. 3. Mark Sakowski, "The next Contender in High Speed Transport Elon Musks Hyperloop," Journal of undergraduate research 9, 2016, pp. 43-47. 4. N. Kayela, "Hyperloop: A fifth mode of transportation", Car Fleet no 3 (84), 2014, pp. 2-6. 5. Jeffrey C. Chin; Justin S. Gray; Scott M. Jones; Jeffrey J. Berton, "Open-Source Conceptual Sizing Models for the Hyperloop Passenger Pod," 56th AIAA/ ASCE/ AHS/ ASC Structures, Structural Dynamics, and Materials Conference; 5-9 January 2015, Kissimmee, Florida. 	2637-2641
	<p>Authors: Serhii Andreiev, Vitalii Kogutiuk, Ruslan Dymenko, Serhii Fediunin Paper Title: Problems of Development of Interdisciplinary Field of Knowledge "Public Administration and Management" in Ukraine</p> <p>Abstract: Scientific and applied problems as for development of field of knowledge and specialty "Public Administration and Management" legally implemented in Ukraine in 2015-2016 are observed in the article with using historic, logical and system approaches. It is found out that emergence of this field of knowledge is determined by active European integration policy of Ukraine's leadership, transformation of state administration system into the system of public administration based on the European principles of public administration and democratic governance. Some thoughts about object and subject sphere, interdisciplinary nature and specifics of the field of knowledge "Public Administration and Management", its links to other educational and scientific fields are substantiated. At the same time, the attention is focused on lack of a serious scientific-primarily theoretical and methodological-basis of the relevant specialty which is currently preparing specialists in the system of higher education, as the main conceptual and categorical apparatus that should promote the disclosure of content of education by this specialty is not yet established in science and education, as it is based on ideological cliches. The author defines and summarizes in several groups the main problems that accompany the process of development of field of knowledge and specialty "Public Administration and Management" in Ukraine in 2016-2018: theoretical and methodological problems, personnel problems, institutional problems, financial and economic problems, problems of ensuring the quality of education, problems related to employment of graduates are also being prognosed. It is proved the research position on expediency of filling the educational process with specialists training in the field "Public Administration and Management" with the state-administrated content that is rapidly eroded and leveled out in the relevant curricula and educational programs of higher education institutions licensed for the training of these specialists. It is stated that, while studying state as a complex social system, its authorities, mechanisms, etc., the achievements and possibilities of the field of science "State Administration" have been gradually depreciating and being unclaimed. It is grounded the proposal on the necessity for restoration of field of knowledge "State Administration" in Ukraine with a number of specialties of state-administrated orientation, with possibility of training by these specialties the applicants for higher education at its second (master's) levels.</p> <p>Keywords: Public Administration and Management.</p>	

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	<p>Authors: Varsha Singh, Nisheeth Joshi</p> <p>Paper Title: A Rule Based Approach for Anaphora Resolution</p>	
476.	<p>Abstract: In Natural Language Processing one of the challenges is how to determine which entity is referred in the discourse and how they correlate to each other? Anaphora resolution is one of the most important area in Natural Language Processing. In this paper, we present rule based approach to identify different types of anaphora and its antecedents for Hindi. We use Hidden Markov Model to POS tag the dataset and cases are used for the identification of preferred noun. At last, apply Centering algorithm for identification of pronoun and its referents. We have tested the system with 500 segments to resolve the anaphora.</p> <p>Keywords: Anaphora Resolution, Hidden Markov Model, Case Markers, Centering Algorithm.</p> <p>References:</p> <ol style="list-style-type: none"> 1. A. Ashima, K. Sukhnandan and C. M. Rajni, "Anaphora Resolution in Hindi: A Hybrid Approach", International Symposium on Intelligent Systems Technologies and Applications, Vol. 530, pp. 815-830, 2016. 2. P. 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	<p>Authors: Rati Shukla, Vikash Yadav, Parashu Ram Pal, Pankaj Pathak</p> <p>Paper Title: Machine Learning Techniques for Detecting and Predicting Breast Cancer</p>	
	<p>Abstract: Breast cancer is a syndrome that causes hues numbers of casualty every year due to ineffectiveness of proper filtering and appropriate classification methods. Breast Cancer is not one of the homogeneous diseases that differ greatly among different categories of Cancer sufferer and even within each individual tumor. Classification of cancer sufferer using Machine Learning methodologies in different class of risk criterion such as high, low and medium has led many research dimensions of life science data. Therefore, Machine Learning is one of the very use full methodologies to study and design the different class of development and prognosis of cancerous situation. Machine learning methods are very powerful and effective tool for key feature extraction and classification form complex cancerous data set. In this study, we put forward applicability of different Machine Learning classification techniques employed in the prediction and prognosis of Breast Cancer.</p> <p>Keywords: Breast Cancer, Classification, Neural Network, Support Vector Machine, Cancer Susceptibility</p> <p>References:</p>	

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	<p>Authors: Jahnavi. Ratnam, E. Raghuveera</p> <p>Paper Title: Design of a combinational circuit by optimizing EX-OR gate</p>
	<p>Abstract: Full Adder is one of the effective structural blocks and basic elements in many of the architectures available in VLSI and DSP domains. Adder is an adaptable element and it is mainly known for addition and multiplication as its principal functioning element. In VLSI it is used in ALU design, Address generation in processors, Multipliers etc... In DSP it is used for conversion, Signed addition and Signed multiplication, Transformations and Signal processing applications. So, designing of an adder in an effective manner is an essential factor. The recent circuit designing in VLSI is mainly to concentrate on power and delay reduction. In this paper a full adder is designed by optimizing XOR gate in mentor graphics 130nm and 45nm technology. Transistor count, power, delay are compared with the existing adder.</p>
	<p>Keywords: Full adder, Mentor graphics, Hybrid full adder, CMOS full adder, Novel full adder, Transistor count, Power, Delay.</p>
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Paper Title: Non-intrusive Eye Gaze Estimation from a System with Two Remote Cameras

Abstract: Eye gaze is the direction where a person is looking at. It is suitable to be used as a type of natural Human Computer Interface (HCI). Current researches use infrared or LED to locate the iris of the user to have better gaze estimation accuracy compared to researches that does not. Infrared and LED are intrusive to human eyes and might cause damage to the cornea and the retina of the eye. This research suggests a non-intrusive approach to locate the iris of the user. By using two remote cameras to capture the images of the user, a better accuracy gaze estimation system can be achieved. The system uses Haar cascade algorithms to detect the face and eye regions. The iris detection uses Hough Circle Transform algorithm to locate the position of the iris, which is critical for the gaze estimation calculation. To enable the system to track the eye and the iris location of the user in real time, the system uses CAMshift (Continuously Adaptive Meanshift) to track the eye and iris of the user. The parameters of the eye and iris are then collected and are used to calculate the gaze direction of the user. The left and right camera achieves 70.00% and 74.67% accuracy respectively. When two cameras are used to estimate the gaze direction, 88.67% accuracy is achieved. This shows that by using two cameras, the accuracy of gaze estimation is improved.

Keywords: Eye gaze, human computer interaction, iris detection, two cameras system.

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Authors: Georgyi Nickolaevich Kuleshov, Alla Andreevna Neznamova, Maria Alexandrovna Volkova, Anna Leonidovna Shilovskaya, Renata Romanovna Lenkovskaya

Paper Title: Mechanisms for the Enforcement of the Rights of Disabled People

Abstract: The process of the Russian Federation integration into the global social environment requires improving the level and quality of life of the population as established in the Constitution of

the Russian Federation and the fundamental norms of international law. In recent years, the Russian Federation shows changes, both at the federal and regional levels, in the legal regulation of social issues related to the support of various categories of the population, primarily persons with disabilities and persons with low income. The article establishes that further development of the governmental and legal regulation of social assistance to various categories of citizens, the creation of conditions for increasing the level of wages, as well as ensuring population employment are required. The aim of the article is to study and analyze the legislation of the Russian Federation on the implementation of the provisions of the Convention on the Rights of Persons with Disabilities in terms of providing an accessible and barrier-free environment. The article gives recommendations on the Russian legislation improving.

Keywords: labor, person with disabilities, physically challenged person, social integration.

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E.E. Kossov, L.A. Muginshtein, V.A. Kuchumov, D.V. Ermolenko, L.E. Kossova

	<p>Paper Title: Comparative Assessment of Effectiveness of Transport Facilities</p> <p>Abstract: Over the centuries of human civilization, the development of transport has had significant impact on progress. This influence was particularly evident in the development of water, railway, and air transportation. The method of assessing the quality of transport can be a very significant stimulus to progress. The authors propose a transport efficiency criterion as a product of efficiency factor by the productivity of transport facilities. This criterion can be determined based on the terms of reference (TOR) or technical specifications (TS). The article presents the comparative efficiency of different modes of transportation.</p> <p>15. Keywords: aircraft, assessment, criterion, diesel-electric locomotives, effectiveness, efficiency factor, life cycle, performance, ships.</p> <p>References:</p> <ol style="list-style-type: none"> 1. A.E.Brom, O.V.Belova, and A.Sissinio, "Bazovaya model' stoimostizhiznennogociklaehnergeticheskogooborudovaniya". [“The basic model of the life cycle cost of power equipment”]. Humanitarian Bulletin, vol. 10, 2013 [online]. Available: http://hmbul.bmstu.ru/catalog/econom/log/115 2. M. Babel, and M. Shkoda, "Analiz celesoobraznostimodernizaciiteplovozovserii SM42 v dvuhdizel'nomvariante s uchetomkriteriyastoimostizhiznennogocikla" [“Analysis of the feasibility of modernization of two-diesel SM42 series locomotives taking into account the life cycle cost criterion”]. Innovations and Investments, vol. 3, 2014, pp. 234-8. 3. M.Banar, and A.Ozdemir, "An evaluating of railway passenger transport in Turkey using life cycle assessment and life cycle cost methods". Transportation Research, Part D, vol. 41, 2015, pp. 88-105. 4. R.Alfter, "Low-cost and life-cycle cost. Minimierung beim Regio Sprinter". Der EisenbahnEnginieur, vol. 11, 1990, pp. 60-65. 5. D.A.Kursin, "Raschetstoimostizhiznennogociklaslozhnogomashinostroitel'nogozdelyiaprinyatiresheniya sovershenstvovaniiiproekta" [“Calculation of the life cycle cost of a complex machine-building product when deciding on the project improvement”]. Science and Education, vol. 10, 2011. [online]. Available:http://technomag.edu.ru/doc/219888 6. Yu.I.Klimenko, V.A.Perminov, and I.N.Rodionov, "EHkspluatacionnyj KPD, indikatorenergeticheskoyejeffektivnostiteplovozoviklassyihehnergoeffektivnosti" [“Operating efficiency: The indicator of energy efficiency of locomotives and classes of their energy efficiency”]. Railway Engineering, vol. 2(42), 2018, pp. 76-81. 7. "Metodikaraschetaindikatoraehnergeticheskoyejeffektivnosti (IEHEHF) teplovoza" [“The method of calculating the energy efficiency indicator (EEI) of the locomotive”]. Methodology of JSC Russian Railways of 26.12.2014, No. 516. 8. E.E.Kossov, and S.I.Sukhoparov, "Optimizaciayrezhimovrabotyteplovoznyhdizel'-generatorov" [“Optimization of operation modes of locomotive diesel generators”]. Moscow, Intext, 1999. 9. The ICCT, "The energy efficiency design index (EEDI) for new ships". [online]. Available:https://www.theicct.org/publications/energy-efficiency-design-index-eedi-new-ships 10. "Pravilatyagovyhraschetovdlyapoezdnojraboty" [“Rules of traction calculations for train operation”]. Order of JSC Russian Railways of 12.05.2016 No. 867p. 		
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	<p>Authors: P. Vijayakumar, P. D. Selvam, N. Ashokkumar, Sharmila , R. Raj Priyadarshini , M. Tamilselvi, Rajashree, R. Xiao-Zhi Gao</p> <p>Paper Title: IOT Based Wireless Smart Shoe and Energy Harvesting System</p> <p>Abstract: In today's generation many technological developments have been taking place for tracing the amount of energy generated from the surroundings. The energy production occurs through various ways (via thermal methods, mechanical vibrations and many more). These energies produced can be helpful in various ways (such as charging devices, electronic gadgets). In addition to this, features such as measurement of distance covered and the calories burnt based on the energy generated can be implemented. Hence people would have a generalized idea of their fitness levels. The main aim of the proposed prototype in this paper is to produce energy and at the same time give some additional information of the user's fitness through a mobile application. The energy harvesting is being done using piezoelectric sensors along with an IoT based pedometer app which will take the step counts in cloud as input and will display distance covered and calories burnt. The product developed is cost efficient and has widespread real time applications.</p> <p>16. Keywords: Mobile device, Pedometer, Piezoelectric sensor, Internet of Thing, Cloud, Real time application, Smart Shoe, Smart energy harvesting.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Starner, T. 1996 Human-powered wearable computing. IBM Syst. J. 1996, 35, 612–629. 2. Saha, C.R.; O'donnell, T.; Wang, N; McCloskey, P. Electromagnetic generator for harvesting energy from human motion. Sens. Actuators A Phys. 2008, 87, 248–253. 3. Kornbluh, R.D, Pehrline, R., Pei, Q, Heydt, R., Stanford, S.; Oh, S., Eckerle, J. Electroelastomers: Applications of dielectric elastomer transducers for actuation, generation, and smart structures. In Proceedings of the Smart Structures and Materials 2002: Industrial and Commercial Applications of Smart Structures Technologies, San Diego, CA, USA, 9 July 2002; pp. 254–270. 4. Ramadass, Y.K.; Chandrasekaran, A.P. A battery-less thermoelectric energy harvesting interface circuit with 35 mV startup voltage. IEEE J. Solid-State Circuits 2011, 46, 333–341. 5. Zhu, G.; Bai, P.; Chen, J.; Lin, W.Z. Power-generating shoe insole based on triboelectric Nano generators for self-powered consumer electronics. Nano Energy 2013, 2, 688–692. 6. Pozzi, M.; Zhu, M. Characterization of a rotary piezoelectric energy harvester based on plucking excitation for knee-joint wearable applications. Smart Meter. Struct. 2012, 21, 055004. 7. Yiming Liu, Student Member, IEEE, Kai Liang Ren, Heath F. Hofmann, Member, IEEE, and Qiming Zhang, Senior Member IEEE, ieee transactions on ultrasonics, ferroelectrics, and frequency control, vol. 52, no. 12, December 2005 8. Zhao, Jingjing & You, Zheng. (208). A Shoe-Embedded Piezoelectric Energy Harvester for Wearable Sensors (Basel, Switzerland). 8. 12497-12510. 10.3390/s80712497. 9. MDPI and ACS Style Hegde, N.; Bries, M.; Sazonov, E. A Comparative Review of Footwear-Based Wearable Systems. Electronics 2010, 5, 48. 10. Kim, H.S., Kim, JH. & Kim, J. Int. J. Precis. Eng. Manuf. (2011) 12: 1129. https://doi.org/10.1007/s12541-011-091-3 	2685-2689	
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	<p>Authors: Mahankali Pallavi, V.Sarada</p> <p>Paper Title: Design of Hybrid BCD Code Based Parallel Decimal Multiplie</p>	
	<p>Abstract: By using three properties of binary coded decimal (BCD) codes, BCD excess-3 code, and the overloaded decimal digit set (ODDS) code the parallel decimal multiplier is existed. In this paper Binary Coded Decimal-4221/5211 Partial Product Reduction block and normal decimal partial product tree using Overloaded Decimal Digit set (ODDS) is presented; it contains a binary Partial Product Reduction block, an unstable size Binary Coded Decimal-4221 counter block and a Binary Coded Decimal-4221/5211 partial product reduction block. These blocks were designed in Verilog language and implemented in FPGA Spartan-6.</p>	
	<p>17. Keywords: Parallel decimal multiplication, overloaded BCD representation, BCD -4221 and 5211, Radix-10 encoding.</p>	
	<p>References:</p> <ol style="list-style-type: none"> M. F. Cowlishaw, "Decimal floating-point: Algorithm for computers," in Proc. 16th IEEE Symp. Comput. Arithmetic, Jul. 2003, pp. 104–111. M. A. Erle, B. J. Hickmann, and M. J. Schulte, "Decimal floatingpoint multiplication," IEEE Trans. Comput., vol. 58, no. 7, pp. 902–916, Jul. 2009. M. A. Erle, E. M. Schwarz, and M. J. Schulte, "Decimal multiplication with efficient partial product generation," in Proc. 17th IEEE Symp. Comput. Arithmetic, Jun. 2005, pp. 21–28. A. Vazquez, E. Antelo, and J. Bruguera, "Fast radix-10 multiplication using redundant BCD codes," IEEE Trans. Comput., vol. 63, no. 8, pp. 1902–1914, Aug. 2014. T. Langand A. Nannarelli, "A radix-10 combinational multiplier," in Proc. 40th Asilomar Conf. Signals Syst. Comput., Oct. 2006, pp. 313–317. A. Svoboda, "Decimal adder with signed digit arithmetic," IEEE Trans. Comput., vol. C-18, no. 3, pp. 212–215, Mar. 1969. S. Gorgin and G. Jaberipur, "A fully redundant decimal adder and its application in parallel decimal multipliers," Microelectronics J., vol. 40, no. 10, pp. 1471–1481, Oct. 2009. R. D. Kenney, M. J. Schulte, and M. A. Erle, "High-frequency decimal multiplier," in Proc. IEEE Int. Conf. Comput. Des.: VLSI Comput. Process., Oct. 2004, pp. 26–29. T. Langand A. Nannarelli, "A radix-10 combinational multiplier," in Proc. 40th Asilomar Conf. Signals Syst. Comput., Oct. 2006, pp. 313–317. G. Jaberipur, and A. Kaivani, "Improving the speed of parallel decimal multiplication," IEEE Trans. Comput., vol. 58, no. 11, pp. 1539–1552, Nov. 2009. A. Vazquez, E. Antelo, and P. Montuschi, "A new family of highperformance parallel decimal multipliers," in Proc. 18th IEEE Symp. Comput. Arithmetic, Jun. 2007, pp. 195–204. A. Vazquez, E. Antelo, and P. Montuschi, "Improved design of high-performance parallel decimal multipliers," IEEE Trans. Comput., vol. 59, no. 5, pp. 679–693, May 2010. A. Vazquez and E. Antelo, "Multi-operand decimal addition by efficient reuse of a binary carry-save adder tree," in Proc. 44th Asilomar Conf. Signals Syst. Comput., Nov. 2010, pp. 1685–1689. X. Cui, W. Liu, W. Dong, and F. Lombardi, "A parallel decimal multiplier using hybrid binary coded decimal (BCD) codes," in Proc. 23rd IEEE Symp. Comput. Arithmetic, Jul. 2016, pp. 150–155. R. K. Richards, <i>Arithmetic Operations in Digital Computers</i>. Princeton, NJ, USA: D. Van Nostrand Company, Inc., 1955. B. Shirazi, D. Y. Y. Yun, and C. N. Zhang, "RBCD: Redundant binary coded decimal adder," IEE Proc.-Comput. Digit. Techn., vol. 136, pp. 156–160, Mar. 1989. A. Vazquez and E. Antelo, "Conditional speculative decimal addition," in Proc. 7th Conf. Real Numbers Comput., Jul. 2006, pp. 47–57. D. Radhakrishnan and A. Preethy, "Low power CMOS pass logic 4-2 compressor for high-speed multiplication," in Proc. IEEE Midwest Symp. Circuits Syst., 2000, pp. 1296–1298. W. Yeh and C. Jen, "High-speed Booth encoded parallel multiplier design," IEEE Trans. Comput., vol. 49, no. 7, pp. 692–701, Jul. 2000. 	
483.	<p>Authors: Gunwon Lee, Yunnam Jeong</p> <p>Paper Title: The Relation between Urban and Building Form, Microclimate, and the Energy Consumption of Buildings: A Structural Equation Modeling (SEM) Analysis</p>	2690-2695
	<p>Abstract: This study investigates urban design elements such as urban and building form and microclimate, which have been establish in previous research as well-known factors affecting the energy consumption of buildings, and structuralizes the relationship between these variables. In particular, it focuses on the mediating relationship between urban and building form and environmental variables and microclimate. To this end, the energy consumption of selected buildings within a radius of 500 meters of 23 Automated Weather Stations (AWS), measurement points selected by the Meteorological Office of the City of Seoul, in August of 2017 was analyzed. The study employed structural equation modelling (SEM), a method that structuralizes the relationships of different variables. The results show that there is a potential correlation among urban elements, vegetation and shade elements, and public space elements; the same is true for the relation between public space and façade elements. It was also found that microclimate plays a mediating role when urban ele-ments, public space elements, and vegetation and shade elements affect the energy consumption of buildings. This study is mea-ningful in that it contributes to the establishment of a foundation for a realistic and comprehensive plan to manage the energy consumption of buildings by summarizing and structuralizing the results of previous research.</p>	
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18. **Keywords:** Urban design, SEM (Structural equation modeling), Buildings energy consumption, Urban form and tissue, Building form and character.

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Paper Title: An Empirical Study on the Impacts of Urban Form, Architectural Elements, Microclimate and Natural Environment On Microscopic Surface Temperature

Abstract: This study is an examination of the impacts of urban form, architectural elements, microclimate, and the surrounding natural environment on the microscopic surface temperature of buildings, a major cause of urban heat island effect in summer. It applies urban form and tissue, major elements of the built environment, and green areas, a key component of the natural environment, as basic factors and microclimate as an interest variable. For this purpose, the surrounding temperatures of selected buildings in Seoul within a 500m radius of the 23 Automated Weather Stations (AWS), measurement points selected by the Meteorological Office, in August of 2017 were analyzed. The study employed hierarchical regression analysis using ordinary least squares (OLS). The results show that urban form and tissue mostly demonstrate a relationship with the microscopic surface temperature of buildings, as opposed to building form variables. It is also found that microclimatic elements such as temperature, wind speed, and humidity are relevant to microscopic surface temperature. This study is meaningful in that it sheds new light on the role of urban planning in reducing the urban heat island effect.

Keywords: Urban design, Hierarchical regression analysis, Urban heat island, Microscopic surface temperature, Urban form and tissue, Building form and envelope

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Authors:	Doo-Sung Choi, Hung-Chan Jeon, Jin-Seok Do
Paper Title:	Optimal Thermal Load Sharing Ratio of Solar Thermal Systems Based On the Application of Buildings

Abstract: This study presented a method of estimating optimal thermal load sharing ratio of solar-powered hot water supply systems through a case study of multi-unit dwellings and accommodations, of which the proportion of hot water usage was large among build-ings actually applying solar-powered hot water supply systems. The result of a comparative analysis of actual usage characteris-tics of hot water by applying the existing criteria of estimating capacity of solar-powered hot water supply systems, when the per-year sharing ratio of solar-powered hot water supply was 60%, the quantity of solar-powered heat production was about 1.1 – 1.5 times the monthly load in a certain period of time such as sum-mer; and when the annual sharing ratio of solar-powered hot water supply was 80%, the quantity of solar-powered heat produc-tion was about 1.2 – 1.7 times, which was analyzed that the system efficiency became deteriorated. The study presented a method of applying the optimal sharing ratio of solar-powered hot water supply by taking into account economic feasibility based on the result; and if the sharing ratio of solar-powered hot water supply of an existing solar-powered hot water supply system were in-creasing from 10% up to 21%, payback period of facility invest-ment cost would be shortened by one to three years. In addition, when changing solar collector area of a solar-powered hot water supply system by taking into account the optimal sharing ratio of solar-powered hot water supply as proposed by this study, the proportion of solar-powered hot water production was increasing from 17 ℓ/person•day to 47 ℓ/person•day, which would increase the proportion of solar-powered hot water production to 49%, a 15% increase on average. Thus, it was analyzed that when the solar-powered hot water production was increased, it would se-cure the economic feasibility and enhance the energy savings effect.

Keywords: Solar-powered Hot Water Supply System, Hot Water Load fraction, Optimum Distribution Ratio, Usage Characteristics, Payback Period.

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	<p>Authors: Seonguk Hong, Sangki Yoon, Seunghun Kim, Changjong Lee, Yongtaeg Lee</p> <p>Paper Title: Evaluation of the Early Age Condition of Concrete Structures Using Impact Echo Method and Ultrasonic Pulse Velocity Method</p>	
	<p>Abstract: The purpose of this study is to estimate the early age compressive strength of concrete members and the thickness of concrete column members using the ultrasonic pulse velocity method and impact echo method among nondestructive test methods. A nondestructive experiment was conducted by making 6 furniture-type specimens comprised of columns of different thickness and size and 90 specimens of 6 age variables. For concrete specimens, the design parameters were set at 16, 20, 24, 48, 72 and 120 hours at the age of 24, 30 and 40 MPa. The possibility of using the early age compressive strength and size of the concrete members as a quality control technique was confirmed based on the correlation between the compressive strength and pulse velocity in the ultrasonic pulse velocity method and impact echo method. Therefore, the validity of the nondestructive testing method as a quality control technique for concrete structures was confirmed.</p>	
487.	<p>19. Keywords: Concrete structures, Condition, Early age, Evaluation, Impact echo method, Ultrasonic pulse velocity method.</p>	
	<p>References:</p> <ol style="list-style-type: none"> Hong SU, Yoon SK, Kim SH, Lee CJ & Lee YT, “Evaluation of the early age condition of concrete members using nondestructive test method”, International Journal of ICT-aided Architecture and Civil Engineering, Vol. 5, No. 1, (2018), pp.57-62, http://dx.doi.org/10.21742/ijiace.2018.5.1.10 Hong SU, LEE YT, Kim SH &Lee CS, “Estimation of Thickness of Concrete Structures using the Impact Echo Method and Ultrasonic Pulse Velocity Method”, Architectural research. Vol.18, No.4 (2016), pp.179-184, https://dx.doi.org/10.5659/AIKAR.2016.18.4.179 Lee YT, Hong SU & Na JH, “Estimation of Slab Depth, Column Size and Rebar Location of Concrete Specimen Using Impact Echo Method”, Magazine of the Korea Institute for Structural Maintenance and Inspection. Vol.18, No. 1 (2014), pp.37-41, http://db.koreascholar.com/article.aspx?code=283611 Hong SU, Cho YS, Kim SH & Lee YT, “Estimation of compressive strength of concrete structures using the ultrasonic pulse velocity method and spectral analysis of surface wave method”, Materials Research Innovations. Vol.19, No. s2, (2015), pp.1289-1294, https://doi.org/10.1179/1432891714Z.0000000001296 Kim SB, Hong SU & Cho YS, “A Study on the Estimation of the Compressive Strength and Flaw of Concrete Structures using SASW and IE Method based on Stress Waves”, Journal of the Architectural Institute of Korea Structure & Construction. Vol.23, No.10, (2007), pp.35-42, http://www.dbpia.co.kr/Journal/ArticleDetail/NODE0090_5671 Kim DS, Park HC & Lee KM, “Nondestructive Evaluation of Concrete Members Using Impact Echo Method”, Journal of the Korea Concrete Institute. Vol.9, No.2 (1997), pp.109-119, http://www.dbpia.co.kr/Journal/ArticleDetail/NODE02284619 HodaAzari, SoheilNazarian & DerenYuan, “Assessing sensitivity of impact echo and ultrasonic surface waves methods for nondestructive evaluation of concrete structures”, Construction and Building Materials. Vol.71 (2014). pp.384-391, https://doi.org/10.1016/j.conbuildmat.2014.08.056 OskarBaggens & NilsRyden, “Systematic errors in Impact-Echo thickness estimation due to near field effects.”, NDT & E International. Vol. 69, (2015), pp.16-27, https://doi.org/10.1016/j.ndteint.2014.09.003 Chung-YueWang, Chin-LungChiu, Kun-YiTsa, Pi-KuanChen, Peng-ChiPeng & Hao-LinWang, “Inspecting the current thickness of a refractory wall inside an operational blast furnace using the impact echo method”, NDT & E International. Vol.66, (2014), pp.43-51, https://doi.org/10.1016/j.ndteint.2014.04.001 Sansalone, M. & Carino, N. J., “Impact Echo: A Method for Flaw Detection in Concrete Using Transient Stress Waves”, NBSIR 86-3452. National Technical Information Service, Springfield, Va. (1986), pp.130-173 Lee CJ, “An experimental study on early age condition of concrete members with nondestructive tests technique” Master Thesis of Hanbat National University, Daejeon, Republic of Korea. (2018). 	2728-2733
488.	<p>Authors: N. Thirupathi Rao, Debnath Bhattacharyya</p> <p>Paper Title: Applications of Artificial Intelligence and ML in Business</p> <p>Abstract: The utilization of artificial intelligence and its related techniques is going in rapid level of growth. As the technologies are upgrading from time to time, the technologies are also increasing the utilization of these techniques such that to provide the more sophisticated facilities to the users. The utilization of various applications of artificial intelligence includes face recognition, palm recognition and other applications etc. As the technology trends going, the utilization is also increasing and in the current paper, thee applications are given with a brief details. Various sectors where the current AI techniques are utilizing in a very high growth to be noted and presented in detail in the current paper. This growth has to be observed in various fields and all those areas were discussed in detail.</p> <p>20. Keywords: Artificial Intelligence, Machine Learning, Face Recognition, Smart Technologies, Business Applications, Marketing Applications And E-Commerce Applications.</p> <p>References:</p>	2734-2738

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	<table border="1"> <tr> <td>Authors:</td><td>Developing University Classroom Model For Creativity Education by Delphi Survey</td></tr> <tr> <td>Paper Title:</td><td>Hyejin Yang, Kyunghwa Lee</td></tr> </table>	Authors:	Developing University Classroom Model For Creativity Education by Delphi Survey	Paper Title:	Hyejin Yang, Kyunghwa Lee		
Authors:	Developing University Classroom Model For Creativity Education by Delphi Survey						
Paper Title:	Hyejin Yang, Kyunghwa Lee						
	<p>Abstract: The purpose of this study is to propose the university classroom model to promote the creative competence using the Delphi survey method. As a research procedure, the literature review and analysis of case study on spaces of education and working were conducted, so that the characteristics of class environment for promoting creative competence would be identified. In addition, the expert Delphi survey was carried out to propose the university classroom for creative competence. The result showed that it is necessary to establish the classroom standard for size, structure, arrangement, the color of the wall, and lighting for the university classroom for creative competence. Furthermore, autonomy, sociability, flexibility, and diversity should be implemented in the classroom environment. The creative competence the university student should improve includes flexibility, originality, sophistication, curiosity, task-commitment, and problem-solving leadership, and these elements have correlations with each other. Therefore, in establishing a university classroom encompassing these elements, the arrangement and colors shall be taken into account along with creating differentiated space depending on the study.</p>						
489.	<p>Keywords: Use about five key words or phrases in alphabetical order, Separated by Semicolon.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Csikszentmihalyi, M. (1989). Society, culture, and person: A system view of creativity. In R. J. Sternberg (Ed.), <i>The nature of creativity: Contemporary psychological perspectives</i>. New York: Cambridge University Press, 325-339. 2. Lee, K. H., Lew, K. H. (2014). <i>Creativity</i>, Seoul: Dongmansa. 3. Guilford, J. P. (1967). <i>The nature of human intelligence</i>, New York: McGraw-Hill. 4. Lee, K. H. (2014). K-ICT (Integrated Creativity Test). Seoul: Inpsyte 5. Urban, K. K. (1995). Test for creative thinking-drawing production. Lisse, The fanlists. <i>Gifted Child Quarterly</i>, 27(3). 139-144. 6. Dacey, J., & Lennon, K.(1998). <i>Understanding Creativity</i>. SF: Jossey-Bass Publishers. 7. Kristensen, T. (2004). The physical context of creativity. <i>Creativity and Innovation Management</i>, 13(2). 89-96. 8. Haner, U. E. (2005). Spaces for creativity and innovation in two established organizations. <i>Creativity and Innovation Management</i>, 14(3). 288-298. 9. Amabile, T. M., & Gryskiewicz, N. (1989). Assessing the environment for creativity: The Work Environment Inventory. Paper Presented at the annual meeting of the Society of Industrial and Organizational Psychology. Boston. 10. Isaksen, S. G., Puccio, G. J., & Treffinger, D. J. (1993). An Ecological approach to creativity research: profiling for creative problem solving. <i>Journal of Creativity Behavior</i>, 31(3), 212-226. 11. Shallcross, D. (1999). <i>Teaching creative behavior</i>. London: Prentice. 	2739-2748					
	<table border="1"> <tr> <td>Authors:</td><td>Kyungpyo Lee, Kyunghwa Lee</td></tr> <tr> <td>Paper Title:</td><td>Identification of the Content Validity of the Concept and Constructs of Invention Competency</td></tr> </table>	Authors:	Kyungpyo Lee, Kyunghwa Lee	Paper Title:	Identification of the Content Validity of the Concept and Constructs of Invention Competency	<p>Abstract: The purpose of this study was to derive and identify the constructs of the invention competency. The basic frameworks of this study were made based on literatures review in order to investigate and elicit the constructs of invention competency through FGI. And content validity was confirmed by experts of invention and creativity. In addition, a preliminary survey and subsequent main survey were done to confirm the constructs and verify its content validity. This research elicited 3 major parts- intellectual property, invention convergent creativity, invention personality and 11 components including 32 sub-factors.</p> <p>21. Keywords: Constructs of invention competency, Intellectual property, Invention convergent creativity, Invention personality. Content validity.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Choi, Y. H. (2014). <i>Research on Invention Education</i>. Seoul: Hyungseol Publishing Company. 2. Lee, K. P., & Lee, K. H. (2016). Needs and Expected Effects for Establishment of an Invention Education Institution. <i>Global Creative Leader</i>, 6(2), 49-67. 3. Kim, D. H., Choi, Y. H., Kang, K. G. (2014). Research Trends of Invention Education Based on Journals. <i>Korean Journal of Technical Education</i>, 14(2), 216-233. 4. Moon, G. J., Hwang, Y. H. (2017). What distinguishes an inventive gifted from a scientific gifted. <i>Journal of Learner-Centered Curriculum and Instruction</i>, 17(11), 357-378. 5. Lee, J., Park, K., Jin, S., An, Ryu J., Lee S., Ahn, S., & Jin, B. (2012). Understanding the characteristics of the invention gifted in order to establish the invention giftedness. <i>Journal of Gifted/Talented Education</i>, 22(3), 551-573. 6. Lee, J., Park, K., Jin, S., An, Ryu J., Lee S., Ahn, S., & Jin, B. (2013). Modeling the Conception of Giftedness in Invention Based on 	
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	Authors:	Seo-youn Hong
	Paper Title:	Extraction of Major Structural Elements for Successful Aging in Korea through Social Big Data Analysis
	<p>Abstract: This study aimed to extract key words which can predict 'health-related quality of life' and 'successful aging' among the Korean old people using social big data, and rank those key words in accuracy (Mean Decrease Accuracy (%IncMSE)) and importance (Mean Decrease Gini (IncNodePurity)) in predicting dependent variables. To analyze the data, this study applied Random Forest analysis in R-3.5.0 Version Program. It was found that the relative importance levels (Mean Decrease Gini (IncNodePurity)) of variables were as follows: hobby, preparation, education, sports, volunteer service, love, exercise, welfare, job, and medical care, etc. and, in accuracy levels in predicting successful aging (Mean Decrease Accuracy (%IncMSE)), the rank order of variables were as follows: hobby, love, recognition, sports, wel-fare, exercise, education, pension, depression, and medical care, etc. In particular, 'hobby' activities of old people showed higher importance and accuracy than those of other word, proving that it is an important variable to predict successful aging among Korean old people.</p>	
	<p>Keywords: Successful Aging, Social Big Data, Random Forest Analysis.</p>	
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	Authors:	Jongin Choi1, Junghuem Kwon2
	Paper Title:	Online Motion Synthesis for Manipulating a Virtual Ball
	<p>22. Abstract: In the real world, it takes considerable effort and extensive practice for a person who is poor at controlling a ball to become good at it. Moreover, manually synthesizing character animation for controlling a ball is arduous work, because the motion of the character must be synchronized with the ball, which moves according to the laws of physics. Therefore, this study proposes a novel method that generates the movement of a ball from motion capture data, and allows anyone to immediately become good at controlling a ball in the virtual world. Because it is difficult for a novice to control a ball, this study does not use an actual ball. Instead, motion that mimics control of a ball is captured and used. Frames and positions in which a character could interact with a ball are identified by analyzing the motion capture data, and then the movement of the ball is generated according to rules. Moreover, this study proposes a convenient method for controlling a character that controls a ball. Finally, we demonstrate the usefulness of our method through soccer ball juggling and basketball dribbling.</p> <p>23.</p>	
	<p>Keywords: Character Animation, Physics-Based Animation, Virtual Reality, Computer Graphics.</p>	
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Authors:	Seong-Ran Lee
Paper Title:	Effect of Information System Adoption to Improve Immunity Function after Curative Resection of Colorectal Cancer

Abstract: This research is to measure the effectiveness of information system adoption to improve immunity function after curative resection of colorectal cancer. The data were surveyed and interviewed by 174 people who visited general surgery at a general hospital in C province from May 10 through July 21, 2017. The chi-square test was conducted to obtain their personal information about the participants. In addition, the t-test also examined the changes of symptoms and physical habits before and after applying information system. The following are the contents derived from the data. Firstly, the mean score(39.17 ± 3.25) of physical strength after applying the advanced system significantly increased than subjects(18.62 ± 2.16) before applying the advanced

model($t=-4.72$, $p=.000$). Secondly, the average score of the practice for physical improvement in life showed a significantly higher rate after applying than before applying information system($p<.05$). Thirdly, the insomnia after curative resection of colorectal cancer by applying the information system has continued to improved by 35 percent. That is, after the surgery of the colon, the quality of sleep had improved after applying information system. Therefore, it is expected that the successful implementation of the medical information system will help to construct the foundation of advanced knowledge infrastructure in the 21st century.

Keywords: Immunity, Function, Curative resection, Mediation, Colorectal cancer.

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	Patients Early Experience of Bladder Volume Assessment Using Ultrasound Scanner, Radiation Oncology Journal 31, 1, 41-47.	
	Authors: Seong-gyu Lee1, Anna Yang2, Byung-Hoon Jeon3, Hee-dong Park4	
	Paper Title: A Structure of Scalable and Configurable Interface for Sensor and Actuator Devices in Smart Farming System	
494.	<p>Abstract: Agriculture is the most significant industry directly related to human survival. However, the reduction of the labor force according to the continuous decreasing population and aging population brings a decrease in productivity. A smart farm networking system can be an alternative solution to solve these problems. Due to lack of interoperability and scalability, however, many smart farm systems are not sufficiently suitable to be utilized in a real field and a market. This paper proposes a structure of scalable and configurable I/O module interface for the smart farm control system. The proposed smart farm interface makes easy to extend sensor-actuator interface modules which are used for interfacing between sensor-actuator and the main controller, from which the scalability and interoperability can be gained. Also, Sensor data (Digital, Analog) can be easily obtained and the actuator data (PWM, Direction, On/Off) can be controlled regardless of its interface. The interface module can be easily added on the main controller, so additional functionalities to be able to support various sensor and actuator can be easily merged. These advantages are obtained by using local Modbus protocol between the sensor-actuator interface modules and the main controller. The sensor-actuator interface module is designed to divide into two parts; one is the communication parts with the main controller, and the other is the control part for sensors and actuators. With this structure, acquiring data from sensor data and/or sending control data to the actuator can be done independently with the main controller. An operation of sensors and actuators which are connected to the sensor-actuator interface module can be asynchronously done by using shared local registers. From the proposed structure, it is possible to provide configurable interfaces with the scalability using the modular sensor-actuator interface structure under the various environments that are needed to control the smart farm system.</p> <p>24. Keywords: Smart Farm, Configurable structure, Sensor interface, Actuator control, Scalable interface, Modbus, IoT interface.</p> <p>References:</p> <ol style="list-style-type: none"> Moon Taekwhan, Kim Gunwoo, Kim Hyunsung, Oh Jungeun, Lim Jeayun, Kim Dongjin, Choi Kyungwha, IoTBased GinsengSprouts SmartfarmSystem, Proceedings of Symposium of the Korean Institute of communications and Information Sciences, 2017.6, 1133-1134 Guerbaoui, M., A. Ed-dahhak, Y. ElAfou, A. Lachhab, L. Belkoura, and B. Bouchikhi, Implementation of direct fuzzy controller in greenhouse based on labview, International journal of electrical and electronics engineering studies. (2013), Vol.1, No.1, pp1-13. M. GUERBAOUI, and A. ED-DAHHAK, and Y. EL AFOU, and A. 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	Authors: Jinyeong Um	
	Paper Title: A Extending CBS algorithm in IEEE 802.1 AVB for time critical traffics	
	<p>Abstract: In-vehicle communication technologies has been making rapid progress. Today's vehicles networks used field busses to interconnect the various electronic control devices. However, in next generation of vehicles, there is a problem of transmission order between each sensor and bandwidth requirements that exceed capacity in order to interconnect the various sensors. Thus, to cope with the increasing demand for bandwidth in the future, many studies have recently used switched Ethernet networks. Switched Ethernet networks is the most promising candidate to solve this problem, providing a wide bandwidth and unlimited connect to the number of node. IEEE 802.1 audio video bridging (AVB) protocol suite is a protocol that provides low latency and time sensitive streaming applications among switched Ethernet networks. In this paper, we propose an extended IEEE 802.1 AVB for handling control data that occur intermittently considering the characteristics of the data generated in the vehicle. By using the proposed scheme, it is possible to transmit the control data in real time, and IEEE 802.1 AVB can be used more reliably.</p>	

495.	<p>Keywords: Vehicle networks, In-car networks, Ethernet, Real-time transmission, IEEE 802.1AVB.</p> <p>References:</p> <ol style="list-style-type: none"> Shane, et al. Intra-vehicle networks: A review. <i>IEEE Transactions on Intelligent Transportation Systems</i>, 2015, 16.2: 534-545. HE, Feng; ZHAO, Lin; LI, Ershuai. Impact analysis of flow shaping in ethernet-avb/tsn and AFDX from network calculus and simulation perspective. <i>Sensors</i>, 2017, 17.5: 1181. ALDERISI, Giuliana, et al. Simulative assessments of IEEE 802.1 Ethernet AVB and time-triggered Ethernet for advanced driver assistance systems and in-car infotainment. In: <i>Vehicular Networking Conference (VNC)</i>, 2012 IEEE. IEEE, 2012. p. 187-194. IMTIAZ, Jahanzaib; JASPERNEITE, Jürgen; HAN, Lixue. A performance study of Ethernet Audio Video Bridging (AVB) for Industrial real-time communication. In: <i>Emerging Technologies & Factory Automation</i>, 2009. ETFA 2009. IEEE Conference on. IEEE, 2009. p. 1-8. MEYER, Philipp, et al. Extending IEEE 802.1 AVB with time-triggered scheduling: A simulation study of the coexistence of synchronous and asynchronous traffic. In: <i>Vehicular Networking Conference (VNC)</i>, 2013 IEEE. IEEE, 2013. p. 47-54. IMTIAZ, Jahanzaib; JASPERNEITE, Jürgen; SCHRIEGEL, Sebastian. A proposal to integrate process data communication to IEEE 802.1 Audio Video Bridging (AVB). In: <i>Emerging Technologies & Factory Automation (ETFA)</i>, 2011 IEEE 16th Conference on. IEEE, 2011. p. 1-8. CUMMINGS, Rodney, et al. Exploring use of Ethernet for in-vehicle control applications: AFDX, TTEthernet, EtherCAT, and AVB. <i>SAE International Journal of Passenger Cars-Electronic and Electrical Systems</i>, 2012, 5.2012-01-0196: 72-88. IEEE 802.1 AVB TG. IEEE 802.1 Audio NideoBridging (AVB), http://www.ieee802.org/l/pages/avbridges.html. IEEE 802.1 AVB TG. IEEE p802.1 ba - Audio Video Bridging (AVB) Systems, [online] Available: http://www.ieee802.org/l/pages/802.1ba.html. IEEE 802.1 AVB TG. IEEE p802.1as/d7.0 - timing and synchronization for time-sensitive applications in bridged local area networks, 2009, [online] Available: http://www.ieee802.org/l/pages/802.1as.html. IEEE 802.1 AVB TG. IEEE p802.1qat/d6.1 - virtual bridged local area networks-stream reservation protocol, 2009, [online] Available: http://www.ieee802.org/l/pages/802.1at.html 802.1 AVB TG. 802.1Qav - Forwarding and Queuing Enhancements for Time-Sensitive Streams, http://www.ieee802.org/l/pages/802.1av.html. PANNELL, Don. Avb-generation 2 latency improvement options. In: 802.1 AVB Group Meeting. 2011. LIM, Hyung-Taek; HERRSCHER, Daniel; CHAARI, Firas. Performance comparison of ieee 802.1 q and ieee 802.1 avb in an ethernet-based in-vehicle network. In: <i>Computing Technology and Information Management (ICCM)</i>, 2012 8th International Conference on. IEEE, 2012. p. 1-6. TUOHY, Shane, et al. Intra-vehicle networks: A review. <i>IEEE Transactions on Intelligent Transportation Systems</i>, 2015, 16.2: 534-545. CUALAIN, D. O., et al. Automotive standards-grade lane departure warning system. <i>IET Intelligent Transport Systems</i>, 2012, 6.1: 44-57. QUECK, Rene. Analysis of ethernet avb for automotive networks using network calculus. In: <i>Vehicular Electronics and Safety (ICVES)</i>, 2012 IEEE International Conference on. IEEE, 2012. p. 61-67. KIM, Yong. Very low latency packet delivery requirements and problem statements. In: <i>IEEE 802.1 AVB Task Group Interim Meeting</i>. Atlanta, GA USA, Nov 2011. 2011. 	2787-2791
	<p>Authors: P. Aleemulla Khan, N. Thirupathi Rao, Debnath Bhattacharyya</p> <p>Paper Title: Implementation of Malicious Things Detection at Public Places Using Deep Learning</p>	
496.	<p>Abstract: To provide effective security in crowded or public areas in today's world is a big challenge for us. One of the major challenges is to detect or monitor potential threats such as explosive items or bombs (Abandoned luggage items). In this paper we propose an approach for automatic detection of abandoned luggage and alerting the security alliances ,We use deep learning to train the system with a set of images, these images were given to the trained system which is going to visualize the objects in the image and calculate the distance between objects if the object is person and baggage or only baggage. If the distance is greater than a threshold distance limit then the system is going to raise an alarm for the security alliances.</p> <p>Keywords: Explosive items, Deep Learning, Security alliances.</p> <p>References:</p> <ol style="list-style-type: none"> G. O. Young, "Synthetic structure of industrial plastics (Book style with paper title and editor)," in <i>Plastics</i>, 2nd ed. vol. 3, J. Peters, Ed. New York: McGraw-Hill, 1964, pp. 15–64. Kevin Smith, Pedro Quelhas, Daniel Gatica-Perez, "Detecting Abandoned Luggage Items in a Public Space", IEEE Performance Evaluation of Tracking and Surveillance Workshop (PETS), New York, June 18, 2006, pp. 75-82. Wei Liu, Dragomir Anguelov, Dumitru Erhan, Christian Szegedy, Scott Reed, Cheng-Yang Fu, Alexander C. Berg, "SSD: Single Shot MultiBox Detector", European Conference on Computer Vision – ECCV 2016, Amsterdam, The Netherlands, October 11–14, 2016, pp. 21-37. J.R.R. Uijlings, K.E.A. van de Sande, T. Gevers, A.W.M. Smeulders, "Selective Search for Object Recognition", International Journal of Computer Vision, September 2013, Volume 104, No.2, pp. 154–171. Ren, S., He, K., Girshick, R., Sun, J. "Faster R-CNN: Towards real-time object detection with region proposal networks", International Conference on Advances in Neural Information Processing Systems 28 (NIPS 2015). Redmon, J., Divvala, S., Girshick, R., Farhadi, A., "You only look once: Unified, real-time object detection", IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2016. Ceshine Lee, A Tutorial on "Towardsdatascience.com/learning-note-single-shot-multibox-detector-with-pytorch-part-3-f0711caa65ad", July, 2017. [Last accessed on 10-4-2019] Calvin Choy, May Chung, Gherry Harahap, Meriane Natadarma, Sin Lin Wu," Surveillance System Using Abandoned Luggage Detection", An UG Thesis submitted to Man-Machine Interaction Group, Faculty of EEMCS, Delft University of Technology, July, 2007. Clark, Don, J.P. Morgan,"Benefits from Chip Change", WSJ Digits Blog Retrieved September 14, 2011. [Last accessed on 10-4-2019] O. M. Parkhi, A. Vedaldi, A. Zisserman, "Deep Face Recognition", British Machine Vision Conference, 2015. Face Recognition Database found at https://www.kairos.com/blog/60-facial-recognition-databases May 7, 2015. {Last accessed on 10-03-2019}. 	2792-2798

	<p>Authors: R.Kishore Kanna , R.Vasuki</p> <p>Paper Title: Advanced Study of ICA in EEG and Signal Acquisition using Mydaq and Lab view Application</p>	
497.	<p>Abstract: Electroencephalography is the account of electrical movement along the scalp of an individual. This enables us to gauge mind action associated with different sorts of subjective capacities. Exploratory objective of this work is to decipher and portray the EEG movement amid Pranayama breathing as for transient and spatial setting, and get two channel information utilizing MyDAQ and Labview. This work basically investigates the variety in the EEG wave design amid various phases of Pranayama just as the variety of alpha wave level in the left and right frontal, fleeting parietal and occipital areas of the cerebrum. Factual hugeness test is performed for various cycles of Pranayama to gauge the critical change in the alpha power as for pattern measures. An exertion was had to break down the effect in the cerebral electrical action among long haul and transient reflection professionals. Information was recorded for ten subjects amid three cycles of Pranayama, each cycle going on for two minutes. So as to quantify the impacts towards the finish of Pranayama, the most recent 20 seconds of EEG information were dissected in each cycle of Pranayama. The investigation uncovered that 40 % of the subjects were loose (implies increment in alpha power) just as alarm (implies increment in beta power) toward the finish of Pranayama, while 30% of the subjects demonstrated diminishing in beta power. Likewise, 10% indicated increment in beta power for just a single cycle. Subsequently, one may reason that the act of Pranayama improves unwinding and discernment, driving the professionals to a calm and solid life.</p> <p>Keywords: Electroencephalogram, Lab view, Independent Component Analysis, Data Acquisition, Artifact.</p>	2799-2806
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	Authors:	J. Lakshmi Prasanna, K.Naga Jaya Lasya, M.Sohail Abbas, S.Sushmanth
	Paper Title:	CMOS Inverter with Second Function
	<p>Abstract: In this paper, the way to deal with plan of multifunctional computerized circuits is exhibited .It depends on reception of polymorphic hardware worldview which licenses advanced circuits to display in excess of one capacity while saving a similar structure .All things considered just segments of the circuit (gates) must be multifunctional. Singular gates have normally builtin effect to the event of a few wonders summoning the capacity change (e.g. control supply level and so on.), which implies that no devotednet is required for that reason . Besides,a first total arrangement of effectively reenacted two input polymorphic inputs were considered. These logic gates demonstrate the best parameters of all the recently distributed polymorphic entryways high information impedance and low yield impedance, brief time flag spread, low power utilization and low transistor count being utilized. Extensive variety of proposed polymorphic gates (work mixes) may acquire more proficient outcomes amid synthesis. The proposed strategy we have utilized as 180 nm technology utilizing TANNER Tools.</p> <p>Keywords: TANNER, CMOS.</p>	
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499.	<ol style="list-style-type: none"> 1. F. Wanlass and C. Sah, "Nanowatt rationale utilizing field-impact metal-oxide semiconductor triodes," in 1963 IEEE International Solid-State Circuits Gathering (ISSCC). Burrow. Tech. Papers, vol. VI, Feb 1963, pp. 32– 33. 2. A. Stoica, R. Zebulum, and D. Keymeulen, "Polymorphic gadgets," in Int. Conf. on Evolvable Systems. Springer, 2001, pp. 291– 302. 3. C. Bobda, Introduction to Reconfigurable Computing: Architectures, Calculations, and Applications. Springer, 2007. 4. R. Ruzicka and V. Simek, "NAND/NOR door polymorphism in low temperature condition," in 2012 IEEE fifteenth International Symposium on Design and Diagnostics of Electronic Circuits Systems (DDECS), 2012, pp. 34– 37. 5. Z. Gajda and L. Sekanina, "On transformative union of reduced polymorphic combinational circuits," JournalofMultiple-ValuedLogicfurthermore,SoftComputing,vol.17, no. 6, pp. 607– 631, 2011. 6. A. Stoica, R. Zebulum, D. Keymeulen, and J. Lohn, "On polymorphic circuits and their structure utilizing transformative calculations," in Proc. of IASTED International Conference on Applied Informatics AI2002, Innsbruck, 2002. 7. V. Simek, J. Nevoral, A. Crha, and R. Ruzicka, "Towards configuration stream for spaceproficient execution of polymorphic circuits dependent on ambipolar segments," ElectroScope, vol. 11, no. 1, pp. 1– 10,2017. 8. R. Ruzicka, L. Sekanina, and R. Prokop, "Physical showing of polymorphicself-checkingcircuits,"inProc.ofthefourteenthIEEEInt. On-Line Testing Symposium. IEEE Computer Society, 2008, pp.31–36. 51 9. J. Nevoral, R. Růžička, and V. Mrázek, "Transformative plan of polymorphic doors utilizing ambipolar transistors," in 2016 IEEE Symposium Series on Computational Intelligence. Establishment of Electrical and Electronics Specialists, 2016, pp. 1– 8. [10].A. Mishchenko, S. Chatterjee, and R. Brayton, "DAG-mindful AIG revising:acrisptakeaganderatcombinationalrationaleblend,"in2006 43rd ACM/IEEE DesignAutomation. 	2812-2816
	Authors:	Sai Narendra L, Samuel Kiran, Naga Brahmani K. Vamsidhar E
	Paper Title:	Performance Analysis on Human Activity Detection using KNN and Random Forest
500.	<p>Abstract: Human Activity Recognition is a promising area being able to profit the human culture by making assistive types of progress so as to help old, unendingly incapacitated and besides for individuals with phenomenal prerequisites. Exact improvement insistence is attempting since human movement is amazing and exceptionally different. Making study performed around there has uncovered information tunneling algorithm are utilized for solicitation of exercises. Hybrid mining frameworks, Naive Bayes with SVM and C4.5 with Neural Network are wound up being productive in portraying the accelerometers looking at information. These datasets are having wide arrangement of occasion with many proceeds with qualities. Working up a classifier that get-together such information is as of not long ago a troublesome errand. Sporadic woods is known for accomplishing high precision all together. It's quality in social occasion broad datasets is promising. This paper proposes a sporadic timberland based course of action display for social classifying/predicting the strategy for activities. Preparing information is pre-managed to accomplish consistency. Points of reference from preparing dataset are pulled in sporadic for n tests, and n choice tree are made. Thus, an emotional choice backwoods is worked for depicting begins based accelerometers information respects. To predict unlabeled exercise</p>	2817-2821

information, total of n trees is performed. Primer takes a gander at are composed to inspect the movement confirmation limit of the model the outcomes are separated and transcendent regulated solicitation structures. It is seen that the proposed model beat the other depiction methodologies in relative examination. The sorted out social event show is restricted to perform action confirmation regarding weight lifting works out. Human Activity insistence is can be related with some reality, human-driven issues.

Keywords: KNN, Random Forests, Machine Learning.

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Paper Title: Strength Evaluation of Clay Soil Using Fly Ash and Lime

Abstract: one of the possible problems that could appear in execution projects like highway construction, mass construction, industrial and residential building construction is low strength of underneath soil. Many methods have been used to stabilize such soil but are in high demand. In this research paper lime used as modifier and binder, and fly ash, which is a by-product producing in millions of tons every year and responsible for environmental contamination is used as clay soil stabilizers. initially, several laboratory experimental tests were conducted on clay soil with various percentages of lime (0%, 2%, 4%, 6%, 8%, and 10%) by weight. the results indicate that the addition of 7% of lime gives optimum results and increase the strength of soil up to twice. in the second round of investigation, many specimens were prepared with addition of 7% lime and various percentages of fly ash (4%, 8%, 12%, 16%, and 20%) by weight on the wet side (+2% of OMC), dry side (-2% OF OMC) and optimum water content. soil specimen were tested after (7, 14, and 28) days of curing. the results indicate that, as fly ash content increasing, the unconfined compressive strength (UCS) of soil increases till an optimum point (180 Kpa) which shows around (4) times increment. time of curing has considerable impacts on soil strength. the 28 days curing brought 44.5% improvement in the UCS of clay soil. addition of fly ash and lime make the soil more durable, after 12 wetting-drying cycles, the soil still indicates 98kpa compression

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strength which is 48% more than untreated soil strength.

Keywords: Clay soil, Lime, Fly ash, Unconfined Compressive Strength.

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Authors: Giridhar Maji, Sharmistha Mandal

Paper Title: Secure and Robust Image Steganography Using a Reference Image as Key

Abstract: A new steganography scheme using a reference image is proposed with two variants. In the first kind, secret text bits are directly embedded into the cover image after encryption using a reference image. In the second variant secret text is written/printed on a white canvas and then that image containing the secret text is converted into binary (BW) image. Any image could be used as a cover image. A special reference image will act as an encryption key and it is assumed that the used reference image is known to sender and receiver apriori. For a grayscale reference image, any k LSB bit planes could be used to encode the secret binary image bits before embedding them into k LSBs of the cover image. When k=1, the dimension of the secret image becomes the same as that of the reference image and cover image. With k=2, secret binary image size could be doubled or two secret images could be hidden using two LSB bit planes of the reference image and embedding them into two LSB bits of each cover image pixel. Any reversible mechanism could be used for encoding. Here XOR operation will be used for experiments. Two distinct advantages of this generic scheme are (i) It is far more secure than other image steganography techniques as adversary may know the encoding formulae , may collect the stego image but could not get information about the reference image used and which and how many bit planes are used for encoding as there could be millions of images and many combinations of bit planes that could have been employed; (ii) As the secret text is printed and then converted into an image, it overcomes one of the main limitations of LSB image steganography, i.e. robustness to random noise. Even with corrupted Stego image, the extracted binary image becomes corrupted too but most of the secret are still readable. This scheme has lower capacity than the capacity that would have been achieved by directly embedding the secret text binary as in the first variant, but this could be overcome by using k>=2 as k=2 doubles the capacity. This whole scheme is generic and any digital media could be used as reference or cover. Experimental results demonstrate the robustness of the second variant against random noise, and standard image quality metrics such as MSE, PSNR, SSIM are evaluated and compared between the two variants.

25. Keywords: Text in image, LSB steganography, image inside image, reference image as key, secure and robust data hiding.

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Authors:	Harsh Motka, Latha Parameswaran
Paper Title:	A Vision Based Approach For Anomaly Detection In Smart Environments Using Thermal Images
26. Abstract: A process of identifying, accumulating the infrared heat radiation into a form of visible images which in turn forms a thermal images. These thermal images are useful for anomaly detection in critical applications. Infrared radiations from the objects vary from each other considering the environmental conditions. Heat maps can be generated based on the amount of heat radiation collected. Those generated heat maps can be analyzed using image processing approaches. In this paper, an attempt has been made to identify or predict possible outbreak of fire due to very high heat emission by objects using thermal images for any environment. Required features from the acquired thermal images are extracted using image processing algorithm for analyzation. Using extracted features, decision tree classification is used to detect anomaly. Experimental results show promising direction to detect anomaly towards disaster management. Using the proposed method 91% of accuracy was obtained in detecting possible fire break out.	
Keywords:	Decision Tree, Feature Extraction, Thermal Infrared Imaging.
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504.	<p>Authors: Akhilesh Singh Tomar, Anuj Prajapati, Anuj Sharma, Shubham Shrivastava</p> <p>Paper Title: CFD Analysis on the Aerodynamic Effects of Spoiler at Different Angle on Car Body</p> <p>Abstract: This paper investigates the effect of rear spoiler and the angular effect of spoiler on the aerodynamics of the vehicle. We had analyzed the vehicle for various spoiler angles for coefficient of drag. In this project we had done computational fluid dynamics analysis on a car which we had designed on SOLIDWORKS2016x 64 Edition. After which we had done CFD analysis on the designed model using ANSYS 15.0 and the module used for the analysis was FLUID FLOW (FLUENT). The aerodynamics of vehicle was analyzed at constant velocity for various spoiler angles with respect to ground. The comparison between the vehicle with spoiler and without spoiler is also done. The computational results with spoiler are compared with the experimental data. The results of the CFD analysis are somewhere very close to exact but are approximate as we had done 1000 iterations. In the analysis we used spoiler at various angle i.e. 0, 10, 20 and 30 degree. In the analysis we got the results for coefficient of drag and drag force.</p> <p>Keywords: Drag Force, Spoiler, Drag coefficient, CFD, Ansys 15.</p> <p>References:</p> <ol style="list-style-type: none"> Yogendra Kumar Vishwakarma et.al, 'Aerodynamic Improvement of car body', ISSN: 2278-0181, Vol.3 Issue 6, June-2014 AkshayParab et.al, 'Aerodynamic Analysis of a car' model using fluent Ansys 14.5, ISSN: 2349-7947, Vol 1 Issue 4,007-013 Satheesh A, 'Computational drag analysis in the under- body' for a sedan type car model, IEEE978-1-4673-6149-1. J.R Callister et.al, 'Aerodynamics of road Vehicles', W.H Hucho, SAE International, Warrensale, PA, 1998. Mohan Jagadeeshkumar M el.al, 'Effect of Vortex generators on Aerodynamics of a car: CFD Analysis', Vol. 2 Issue 1 April 2011 	2845-2848
505.	<p>Authors: Sindhu Nachiar S, Satyanarayanan K S, LakshmiPathy M</p> <p>Paper Title: Optimization of Steel Fiber in M40 Concrete with varying Aspect ratio and Volume Fraction</p> <p>Abstract: Concrete plays the major role in construction. Concrete can withstand compressive load and not in tensile load. To enhance the tensile properties steel rods are provided as reinforcement. Tensile property can also be increased by the addition of fibers. Of many fibers, a steel fiber plays the major part. Addition of steel fiber in concrete increases the tensile property. Concrete of M40 grade is used. Hooked Steel fibers of various aspect ratios (l/d) of 50, 60 and 80 and different volume fractions (Vf) of 0.5%, 1% and 2% is taken for study. The basic tests of compression, split tensile, flexure and impact strength were done. The steel fibers were optimized and were used in the shape study of compression and tension members.</p> <p>Keywords: Optimization, Steel fiber, Volume Fraction, Aspect ratio, Compression, Tensile and Flexure.</p> <p>References:</p> <ol style="list-style-type: none"> M. S. Shetty Be, "CONCRETE TECHNOLOGY THEORY AND PRACTICE Multicolour Illustrative Edition (An ISO 9001 : 2000 Company.)" IS-516, "Method of Tests for Strength of Concrete," Indian Stand., pp. 1-30, 1959. IS: 12269, "284 Ordinary Portland Cement, 53 Grade-Specification (First Revision)," Bur. Indian Stand., no. March, 2013. IS: 383, "Specification for coarse and fine aggregates from natural sources for concrete", BIS, New Delhi," 1970. S.-J. Lee, D.-Y. Yoo, D.-Y. Moon, S.-J. Lee, D.-Y. Yoo, and D.-Y. Moon, "Effects of Hooked-End Steel Fiber Geometry and Volume Fraction on the Flexural Behavior of Concrete Pedestrian Decks," Appl. Sci., vol. 9, no. 6, p. 1241, Mar. 2019. 	2849-2852

	<p>Authors: Sabir Khan, Shiv Kumar</p> <p>Paper Title: Comparative Study of Oriented and Non Oriented Fiber Reinforced Concrete</p>	
506.	<p>Abstract: Concrete is a common construction material used in world because it can take our desired shape with minimum efforts. We know concrete is strong in compression and weak in tension and concept of adding fibers to improve strength of concrete is common in world. So for improving concrete property we add spring(helical) shaped fibers of spring length 25mm and diameter 8mm and aspect ratio 3.125 and length of plane(linear) wire 100mm and diameter 1mm so aspect ratio of plane(linear) wire is 100. Now concrete was reinforced by above mentioned spring fibers in following percentage 0%, 0.5%, 1% and 1.5% by weight of cement. A total 15 cubes of standard size 150mm×150mm×150mm and 15 cylinders of 150mm diameter, 300mm height and 15 beams of 100mm×10mm×500mm were casted and tested after 28 days by compression and split tensile and two point load method respectively for checking strength of concrete in compression, tension and flexure.</p> <p>27. Keywords: Compressive strength, Flexural Strength, Helical Shaped Fiber, Oriented Fiber Reinforced Concrete, , Split Tensile Strength.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Grijaselvamani, ShanthiniDuraisamy,AbinayaSekar ,“A Review on Fiber Reinforced Concrete”,International Journal of Civil Engineering and Technology (IJCET) Volume 7, Issue 6, November-December 2016, pp. 386–392. 2. Shrikant M. Harle,“Review on the Performance of Glass Fiber Reinforced Concrete”,International Journal of Civil Engineering Research. ISSN 2278-3652 Volume 5, Number 3 (2014), pp. 281-284. 3. Job Thomas and AnandRamaswamy, “Mechanical Properties of Steel Fiber Reinforced Concrete”, Journal of Materials in Civil Engineering, Vol.19, No.5, pp. 385-392, 2007. 4. Premalatha, J. and SundaraRajan, R. “Strength Properties of High Strength Fibrous Concrete”, The Indian Concrete Journal, pp.37-41, 2007. 5. Wu Yao, Jie Li and Keru Wu, “Mechanical Properties of Hybrid Fiber-Reinforced Concrete at Low Volume Fraction”, Cement and Concrete Research, Vol.33, pp.27-30, 2003 6. Rami Haddad, H. and AhnedAsteyate, M. “Role of Synthetic Fibers in Delaying Steel Corrosion Cracks and Improving Bond with Concrete”, Canadian Journal of Civil Engineering, Vol.28, pp.787-793, 2001. 7. Nataraja, M.C., Dhang, N. and Gupta, A.P. “Steel Fiber Reinforced Concrete under Compression”, The Indian Concrete Journal, pp.353-356, 1998. 8. Kumar, V., Suman, S.D. and Mohammad Shamim, “Statistical Prediction of Compressive Strength of Steel Fibre Reinforced Concrete”, ICI Bulletin, No.60, pp.31-36, 1997. 9. ZiadBayasi and PavizSoroushian, “Effect of Steel Fiber Reinforcement on Fresh Mix Properties of Concrete”, ACI Materials Journal, Vol.89, No.4, pp.369-374, 1992. 10. Balaguru, P.N. and Shah, S.P. “Fiber Reinforced Cement Composites” McGraw Hill, In., New York, 1992. 11. Faisal Wafa, F. and Samir Ashour, A. “Mechanical Properties of High Strength Fiber Reinforced Concrete” ACI Materials Journal, Vol. 89, No. 5, pp.449-455, 1992. 12. Ganesan, N. and Ramana Murthy, “Strength and Behaviour of Confined Steel Fiber Reinforced Concrete Columns”, ACI Materials Journal, Vol.87, No.3, pp.221-227, 1990. 13. PavizSoroushian and Cha-Don Lee, “Distribution and Orientation of Fibers in Steel Fiber Reinforced Concrete”, ACI Materials Journal, Vol.87, No.5, pp.433-439, 1990. 14. Goash, S., Bhattacharya and Ray, S.P. “Tensile Strength of Steel Fiber Reinforced Concrete”, IE (I) Journal-CI, Vol.69, pp.222-227, 1989. 15. Kukreja, C.B., Kaushik, S.K., Kanchi, M.B. and Jain, O.P. “Tensile Strength of Steel Fiber Reinforced Concrete”, Indian Concrete Journal, pp.184-188, 1980 16. http://home.iitk.ac.in/ 17. http://www.wikipedia.org/ 18. http://shodhganga.inflibnet.ac.in/bitstream/10603/29847/7/07_chapter2.pdf 19. IS 456:2000 “Code of Practice for Plain and Reinforced concrete” 20. IS 516: 1959 Method of Tests for Strength of Concrete 21. IS 10262:2009 Concrete design Mix. 	2853-2864
507.	<p>Authors: Does Mandatory CSR Legislation Facilitate Earnings Management? Evidence from India</p> <p>Paper Title: Karthika.S, Rajiv Nair</p> <p>Abstract: This study examines the association between mandatory corporate social responsibility (CSR) and earnings management. The Government of India mandated all industries to spend and disclose CSR through the Indian Companies Act 2013 with effect from financial year 2014. Management has an incentive to manage reported earnings and avoid fluctuations in reported income as investors prefer firms reporting steady growth in income. We use panel data from a sample of 80 Indian non-financial companies over the period 2014 to 2017. We investigate the possibility of using unspent CSR funds for earnings management. Earnings management calculated using the coefficient of variation method is regressed against unspent CSR and control variables such as Size, Market to Book (MB), Return on Assets (ROA) and Leverage (LEV) to evaluate the effect of unspent CSR on earnings management. We expect a positive association between unspent (carried forward) CSR funds and earnings management. Our findings indicate that companies may use unspent CSR funds to manage reported earnings. This study provides evidence to policymakers and enforcement authorities that mandating CSR spending could have unintended consequences such as facilitating earnings management and thus impeding the financial transparency.</p> <p>Keywords: Corporate Social Responsibility, Earnings Management, Income smoothing, Unspent CSR.</p>	2865-2868

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Authors: Puspanjali Mohapatra, Ritesh Kumar Mohapatra, Bibhuranjan Sandhibigraha**Paper Title:** Movie Recommender System using Improvised Cuckoo Search

Abstract: Recommender system is a tool for information filtering that predicts the rating for users and items, on the basis of their likings. Movie recommendation systems provides a mechanism to classify users with similar interests. This makes it an integral part of websites and e-commerce applications. In this research article, a new recommender system has been proposed which makes use of k-means clustering by adopting cuckoo search optimization algorithm applied on the Movielens dataset. Our approach has been explained systematically, and the subsequent results have been discussed. It is also compared with the existing approaches, and the results have been analysed and interpreted.

Keywords: Recommender System, Movie, Cuckoo Search, K-mean Clustering.

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Authors: Vedant A. Bhave, Anuprit Punse, Aakanksha P. Rao, Kshamta Mathur**Paper Title:** Sustainable Energy Generation By Integration Of RES With The Grid Through An Inverter Interface

Abstract: Increasing the use of renewable sources of energy like solar and wind has become a necessity over the use of non-renewable resources, mainly due to the fear of these resources becoming scarce which will be insufficient to satisfy the needs of the ever increasing worldly population. This paper provides a method for synchronizing the renewable energy supply from solar and wind with the grid supply with phase locked loop

(PLL) technique using MATLAB software. It also includes solar and wind separate power generating system. This synchronization is required because the renewable energy sources are variable in nature, therefore grid synchronized inverters are used as an interface for synchronizing and controlling the renewable sources of energy with the grid. This is a 3-phase inverter having multiply functions and is mainly used to inject the power produced by the renewable sources into the grid. The concept of renewable energy & synchronization is demonstrated using MATLAB/Simulink software which gives the accurate results & graphs. In the recent years, the renewable energy share in the total energy production has increased substantially and has now commenced its support to the distribution grids thus reducing the dependency on the polluting power plants.

Keywords: Renewable Energy System, Solar & Wind System, Grid interfacing inverter, Synchronizm.

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Authors: Ashok Kumar Shrivastava, Sanjay Jain

Paper Title: A Novel Fog Detection Technique for Image Enhancement

Abstract: Under foggy weather conditions, images taken by digital camera suffers from contrast and color shading and debased drastically, which causes an accident on road, in sea and in air. To eradicate the number of accidents on road, in sea and in air through vision improvement in turbid weather, methodical fog eradicate technique plays significant role. But there are few algorithms that can judge whether the current scene has fog or not. The existing fog eradicating techniques only have the capability to restore a debased image. Image enhancement algorithm should be judgmental enough to decide whether it has to process the image or not. So it is important to overcome this difficulty. Our paper introduces a novel fog detection technique for image improvement. The goal of the proposed algorithms is to reduce the unnecessary overhead of the vision enhancement technique in processing of the fog free image.

Keywords: Turbid weather, Pixel value, Visibility test, Fog detection.

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Authors:	Krishnadas, Manimegalai P, Prasanna Venkatesan G K D
Paper Title:	A Performance Evaluation of Secured Hete Routing Protocol Using Meso and Ea-Heed

Abstract: WSNs have for some time been an appealing domain to the analysts and researchers due to its simplicity in distribution and upkeep. In this exploration, we target the increase of network duration that has turned into a significant problem in sensor networks. Clustered association of nodes with accumulation of information at the CH ends up one of the noteworthy intents to expand the future of the network. In this article, we propose an energy aware routing protocol for WSN. Our plan depends on the EA-HEED algorithm and Modified cat swarm optimization (MCSO) algorithm. With the qualities of EA-HEED and MCSO, our protocol can keep away from the creation of routes and offer reinforcement routes. In addition, coordinating cat swarm optimization can viably give preferable proficiency over past works. The execution assessment of our proposed method is completed as for the notable cluster based sensor network protocols, EA-HEED separately. The simulation elucidates the adequacy of our proposed work over its relatives as far as network period, average packet communications, CH selection iterations upheld by EA-HEED, and MCSO diminishes energy utilization definitely.

Keywords: Wireless sensor network (WSN), Modified CAT swarm optimization, Energy-aware clusters, Intra-cluster distance, Cluster Head (CH), Base Station (BS).

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Authors:	S. Aswini Priya, Pulidindi Venugopal
Paper Title:	Determination of Purchase Intention in Online Shopping through Consumer Decision Making Styles: An Empirical Approach

Abstract: The technological innovation is driving consumers to an online world and it is fetching value to the retailers. E-commerce market in India is growing drastically in the past recent by upgrading it to social commerce and Facebook commerce. Consumers’ shopping through online mode is growing and the revenue is increased year by year. According to Forbes 2018, E-commerce sector was enlarged to 11.4% which is high when compared with the previous year. One of the latest trend in online shopping is multi-channel retailing where it creates a positive impression in the minds of the consumer and drags them to sale point. Shopping behavior of consumers is different when they do purchase in online mode rather than in offline mode. Hence this study aims to examine the impact of decision making styles of consumers on online purchase intention among online shoppers in Vellore district. Data is collected from 240 online shoppers in Vellore district. Regression analysis using SPSS is carried out to determine the purpose. The outcome of the study revealed that shopping styles such as quality, fashion, impulsiveness, brand-loyal, hedonistic, confused with over choice, brand, and price consciousness positively influences online purchase intention of consumers. Limitations and future research is delineated and suggested.

Keywords: Facebook, Impulsiveness, Purchase intention, Price consciousness, Technological innovation.

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2893-2897

Authors:	Subhash B K, Angulakshmi A, Abhishek K, Om Prakash Kumar, Tanweer Ali
Paper Title:	A Compact Dual Band Benz Logo Antenna with Staircase Structured Ground for Millimetre Wave (MMW) Applications

Abstract: In this manuscript a novel design of an asymmetric coplanar a multiband millimeter wave (MMW) antenna is proposed with a size of $0.57\lambda_1 \times 0.41\lambda_1 \times 0.06\lambda_1$ ($5 \times 7 \times 0.8$ [mm]³), at a MMW frequency of 24.76 GHz. The proposed model consists of Benz logo shaped radiator with a staircase structured ground plane which independently controls the band at 24.76 and 37.52 GHz. The proposed model has bandwidth of about 850 MHz (23.85-24.7GHz) and 2740 MHz (36.21-38.95GHz). Acceptable gain with stable radiation patterns and high radiation efficiency are accomplished across the MMW operational bandwidths.

Keywords: Benz Logo; dual band; staircase structure; MMW.

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2898-2902

Authors: Tanveer Singh Bains, Khushpreet Singh

Paper Title: Experimental Study on Geopolymer Concrete using Fly Ash, Bagasse Ash and Metakaolin with Pet Fiber

Abstract: The continuous reduction in raw resources in the construction industry has reached the alarming stage such that the usage of waste by-products from various industries has become the necessity. Fly ash has been used in construction industry from the last decade but there is a need for more experimental studies with other material as a substitution. Polyethylene terephthalate, known as PET has been widely used for developing plastic bottles. Although it has umpteenth uses, it has serious issues of biodegradability. Hence, researchers are also trying to investigate the properties of PET fibers as construction material. This experimental work has been done to examine the fully replacement of cement in concrete with fly ash, bagasse ash and metakaolin. Total 4 mixes were prepared for this study and strength parameters were explored. Cement was replaced fully with 70% fly ash, 20% metakaolin and 10% bagasse ash. PET fibers were also added with the varying proportion of 2%, 3% and 4%. The obtained concrete mixes were tested for its compressive strength, split tensile strength and flexural strength at 7 days and 28 days. It can be concluded from the present investigation that the Geopolymer containing 3% PET fibers is more effective in strength than the other mixes.

Keywords: Bagasse Ash, Fly ash, Geopolymer Concrete, Metakaolin.

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2903-2907

Authors: J.V. Thomas Abraham, A. Nayeemulla Khan

Paper Title: Imputations of Hostile Conditions in Automatic Speaker Recognition Performance

28. **Abstract:** Automatic Speaker Recognition (ASR) is a process in which the person is identified or the claim made by the person is verified. In the last three or four decades lot of researches have been done in this field and it has evolved a lot over these period. But in a real world scenario, performances of these speaker

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recognition systems have failed in hostile conditions. Building a robust speaker recognition system is a challenging task and should address all types of distortions. In this paper, the performance of a speaker recognition system in hostile conditions is analysed and presented. Especially how the environmental noise impinges the speaker recognition system is studied using the MSR Identity toolbox. Test was conducted with clean speech signals and noisy speech signals at various SNRs. The outcome of the test clearly indicates that the accuracy of the ASRs is degraded in hostile conditions. The results may be used to come up with more robust ASR systems.

29.

30. **Keywords:** Speaker Identification/Verification, MFCC, GMM-UBM, i-Vectors, Noise speech, robust speaker recognition.

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Authors:	Optimization of Mechanical Properties of Glass Fiber Reinforced Concrete with the Combination of Rice Husk Ash
Paper Title:	Optimization of Mechanical Properties of Glass Fiber Reinforced Concrete with the Combination of Rice Husk Ash

Abstract: Concrete, one of the most universally accepted construction material, exhibits higher values of compressive strength, but the same cannot be said in terms of its tensile strength. This is the prime explanation for the setback of this construction material, to be used in place of achieving a higher tensile strength. Different endeavors have been made to improve the overall tensile strength of concrete by using diverse materials. These materials were used either as a form of replacement of its main constituents, or simply as an addition to the other constituents. Out of all such materials, the use of different types of fibers, added a definite proportion of tensile strength without actually altering the configuration of the concrete blocks to a larger extent. This research is based on the optimization of glass fibers as a replacement of the Ordinary Portland cement (OPC) along with the use of rice husk ash (RHA). The purpose of this study is to obtain a proportion of both glass fibre and rice husk ash simultaneously, in order to obtain best results for different types of tests. Moreover, with the use of glass fibre which is having a property of being crack arrester, there occurs the restriction in the growth of micro cracks, which otherwise were susceptible to be enlarged under the application of load.

Keywords: Glass Fibre, Rice Husk Ash, Cementitious material, Compressive Strength, Split tensile strength.

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	<p>Authors: Ashish Dhiman, Sandeep Singh</p> <p>Paper Title: Utilization of Assorted Rubber as Bitumen Stand – By</p>	
517.	<p>Abstract: Waste plastic and rubber occur everywhere in world and cause various environmental issues and effects. In this study we found a solution to somehow minimize this issue by using waste rubbers with bitumen to make rubber modified bitumen (RMB). The main object of this research study is to find out the results of laboratory experimental work in which virgin bitumen is mixed with different types of rubber. Various mixtures are made in this research work with different types of rubber at different proportions .Marshall samples were made of rubber modified bitumen to determine Marshall stability values. By making such mixtures it not only decrease the quantity of bitumen in bituminous mixtures but also decrease the construction cost. Various tests were performed on bitumen to determine various properties.</p> <p>Keywords: RMB, bitumen.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Alireza K., & Amir K., 2013 Rheological characteristics of SBR and NR polymer modified bitumen emulsions at average pavement temperatures, Elsevier Ltd. 2. Ramez A., et al., 2014 Physical and rheological properties of epoxidized natural rubber modified bitumens, Elsevier Ltd. 3. Al-Mansob, et al., 2015 Rheological characteristics of unaged and aged epoxidised natural rubber modified asphalt, Elsevier Ltd. 4. Sangita, et al., 2011 Effect of waste polymer modified on the properties of bituminous concrete mixes, Elsevier Ltd. 5. Khedoudja S., et al., 2015 Rheological characterization of bitumen modified with waste nitrile rubber (NBR), Elsevier Ltd. 6. Joao S., et al., 2018 A comparative life cycle assessment of hot mixes asphalt containing bituminous binder modified with waste and virgin polymers, Elsevier Ltd. 7. Vijaya Sarathy R., et al., 2015 Analysis of Properties in Bitumen andAsphalt with Partial Replacement of Rubber Tyres, International Journal Of Innovative Research & Development, Vol 4 , pp 172-176 8. S. Anjan Kumar, & A. Veeraragavam, 2010 Dynamic mechanical characterization of asphalt concrete mixes with modified asphalt binders, Elsevier Ltd. 9. Bin Yu, et al., 2014 Evaluation of plastic-rubber asphalt: Engineering property and environmental concern, Elsevier Ltd. 10. Ahmet Sertac Karakas, & Faruk Ortes, 2016 Comparative assessment of the mechanical properties of asphalt layers under the traffic and environmental conditions, Elsevier Ltd. 11. Mieczyslaw slowik, 2017 Thermorheological properties of styrene butadiene styrene copolymer modified road bitumen, Elsevier Ltd. 12. Raqiqat R., et al., 2017 Improving the aging resistance of SBS modified asphalt with the addition of highly reclaimed rubber, Elsevier Ltd. 13. Jian-Shiu Chen., et al., 2018 Evaluation of a highly modified asphalt binder for field performance, Elsevier Ltd. 14. Li Yi Ming, et al., 2017 Effect of phenolic resin on the performance of the styrene-butadiene rubber modified asphalt, Elsevier Ltd. 15. Raqiqat R., et al., 2018 Thermal analysis on the interaction among asphalt modified with SBS and different degraded tire rubber, Elsevier Ltd. 16. Hamidreza S., et al., 2018 Evaluating effectiveness of polymerized pellets mix additives on improving asphalt mix properties, Elsevier Ltd. 17. Shisong R., et al., 2018 Investigation the effects of SBR on the properties of gilsonite modified asphalt, Elsevier Ltd. 	2917-2919
	<p>Authors: T. Santhi Sri, Rajesh Varma, V VS. Hari Krishna, K. Varun Chowdary</p> <p>Paper Title: Automated Street Lighting System</p> <p>Abstract: Smart Street light is a robotized framework which automate the road. The primary point of Smart Street light is to reduce the power utilization when there are no vehicle moments on road. The Smart road light will turn to be ON when there are vehicles out and about generally the lights will be turned OFF. With improvement in technology, things are getting to be easier and simpler for everybody around the world today. Robotization is the utilization of control frameworks and information technologies to decrease the requirement for human work in the production of services and enterprises. In the extent of industrialization, robotization is a stage past mechanization, though motorization gave human operators apparatus to help the clients with the solid prerequisites of work, robotization enormously diminishes the requirement for human sensory and mental requirements also. Automation play a vital job on the world's economy and in day by day experience. Programmed frameworks are being favored over manual framework. The experimental work demonstrates programmed control of streetlights because of which control is spared to a degree. The Smart road light gives an answer for energy recusing and saving which is accomplished by detecting a moving toward vehicle utilizing the IR sensors and after that exchanging ON a block of road lights in front of the vehicle. As the vehicle moves by, the street lights turn OFF naturally. Subsequently, we save a great deal of energy. So at the point when there are no vehicles on the roadway, at that point every one of the lights stay OFF.</p> <p>Keywords: IR(infrared motion sensor),LDR(Light dependent resistor),LED(light emitting diode),HID(High intensity Discharge lamps).</p> <p>References:</p>	2920-2924

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	Authors:	Mohammad Shabaz, Shariq Rashid
	Paper Title:	SSLED: A Novel Technique to Perform Sentimental Analysis Using Lip's Expression
	<p>Abstract: The field of computer science is limitless and vast; it is no more strict to traditional computations and programming. Sentimental Analysis becomes the burning issue and with the emergence of image analysis, face detection, recognition and then to perform sentimental analysis on it becomes the major challenges to achieve. We have taken one such big challenge of performing sentimental analysis on image and thus proposed a novel methodology named SSLED in which we have stored segmented images in a repository with tags that depict surprise, sadness, anger, joy, fear, disgust, contempt and then compare the input image to them and finding the pattern and thus finding sentiments of an individuals. These images were taken during a technical and innovative event. The result describes enthusiasm, energy and sentiments of people attending such events.</p> <p>Keywords: Sentimental Analysis, Face analysis, Lips Analysis, Opinions, Emotions.</p>	
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	Authors:	B. BasaveswaraRao, SK. MeeraSharief, K. GangadharaRao, K Chandan
	Paper Title:	Maximization of Per Node Throughput for 2HR-Manets under Limited Buffer Constraint
	<p>Abstract: This paper proposes an analytical framework on the lines of Jia Liu et al for maximization of per node throughput under limited buffer constraint of two hop relay (2HR) MANETs. To achieve maximization of per node throughput through partial derivative method with necessary and sufficient conditions (NSC) based search algorithm for finding the optimal values of network control parameter, buffer size at source node and buffer size at relay node. The per node throughput is evaluated through NSC search algorithm for different values of packet generating probability, area of the MANET and node density. The numerical results illustrate the effects of different network parameters on throughput performance.</p> <p>Keywords: 2HR, Source Buffer, Relay Buffer, Node Density, Throughput.</p>	
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Authors:	Pushan Kr. Dutta , Akshay Vinayak, Simran Kumari
Paper Title:	Farmers Assistant Innovation and Resolution Web Server based plant monitoring for smart Irrigation

Abstract: In this study, we propose a simple and efficient, low-cost power controlled embedded system for smart agriculture implementing portable user-driven models for Internet of Things tools and sensors that provides agriculturists ecologically suitable means to use viable resources like pesticides and water in a regulated manner in the farming land. Our proposed work uses soil moisture sensor to sense the moisture conditions of the soil. Based on moisture sensor values, a water pump is connected to be switched on and off automatically. The proposed Farmers Assistant Innovation and Resolution system monitors the environmental aspects such as the soil temperature, moisture, amount of light the plant exposed to pH of soil using Internet of Things and then formulates the different resolution techniques for soil health monitoring and innovation approaches in plant growth. This system is more competent as an automatic irrigation system playing its role in irrigation of field. The system is also capable of removing pests if and when necessary with the aid of image processing technique. At the same time, using GSM, the Node MCU forwards message on farmers mobile about pump status. The micro controller receives the pump status, moisture condition of the soil and moisture and temperature in air or enclosed region and provides this information over a data acquisition device. The system can be utilized in varied domains by regulating the voltage necessary including mobile phone charging, access drip irrigation and also weather data monitoring and irrigation facilities.

32. Keywords: Internet of Things (IoT), agriculture, moisture, automatic irrigation, moisture sensor, temperature sensor, PH sensor, light intensity sensor.

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	Authors: B. Radhika, V R Sheshagiri Rao	
	Paper Title: Incubator Baby Parameter Sensing and Monitoring	
522.	<p>Abstract: The neonatal incubator is an apparatus that provides a closed and controlled environment for the sustenance of temperature babies. But recently, many premature babies have lost their lives due to lack of proper monitoring of the incubator that leads to accidents (leakage of gas and overheating causing short circuits and eventually, the bursting of incubators). This project deals with the cost- effective design of an embedded device that monitors certain parameters such as pulse rate of the baby, temperature, humidity, light inside the incubator. If any variations occurs in the corresponding parameters (pulse, temperature and humidity), than the parameters will control by using lights and fans inside the incubator. And the readings will continuously monitoring in LCD and sends the details to the corresponding doctor or nurse by using GSM and the baby will monitors continuously via webpage. The parents, doctors or nurse will monitor the baby from anywhere by using IOT. By continuously monitoring and controlling the parameters we will provide efficient and safe working of an incubator.</p> <p>Keywords: Raspberry pi, Temperature sensor, Humidity sensor, Heart beat sensor, Webpage, Baby incubator.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Ashish.B,“Temperature monitored IoT based smart incubator”,10.1109/I-SMAC.2017.8058400,Feb2017. 2. Sarfraz Fayaz Khan, “Health care monitoring system in internet of things (IoT) by Using RFID”, 10.1190/ICITM.2017.7917920,May2017. 3. AndreasTobola,HeikeLeutheuser,MarkusPollak,Peter Spies,ChristianHofmann,ChristianWeigand,BjoernM. Eskofier, and Georg Fischer “Self-Powered Multiparameter Health Sensor”, 10.1109/JBHI.2017.2708041,Aug2017. 4. G.S.Mudur “Rise in premature baby deaths” telegraphindia.com Sept.212017. 5. StephanieBaker,WeiXiang and lanAtkinson “Internet of Things for Smart Healthcare: Technologies, Challenges, and Opportunities”, 10.1109/ACCESS.2017.2775180,Nov2017. 6. AlexandruArchip,NicolaeBotezatu,ElenaSerban,Paul Cornelius Herghelegiu and Andrei Zala, “An IoT based system for remote patient monitoring”, 10.1109/CarpathianCC.2016.7501056,Jun2016. 7. KannanShilpa “lowcosttechnologisessavingpremature babies’ lives” bbc.com N.p, Aug.23 2013. Web. Oct 13.2016 8. Freddy Jiménez and Romina Torres, “Building an IoT- warehealthcare monitori system”, 10.1109/SCCC.2015.7416592,Nov2015. 	2945-2947
	Authors: Seema Sahai, Richa Goel, Vikas Garg, Anita Vinaik	
	Paper Title: Impact of Digitization on Impulse Buying - What Makes the Customer Bite the Bait	
	<p>Abstract: The millennials constitute majority of the world’s population and drive maximum demand for products all over the world. They believe in earning and spending their income rather than savings which is now an age old concept. Hence with the rise in disposable income producers and manufacturers are deriving huge benefits. Social media is now the future of digital technology. E-commerce has seen huge growth in the upcoming years and would continue to do so. With advancements in technology and digital media and a tech savvy generation to substantiate its use people engage in impulse purchases. With everything being available just a click away supplemented with huge variety and discounts people are very hasty in their purchases. This paper seeks to explore impulse buying behaviour, its types and why people engage in such behaviours. It seeks to examine the bait that drives consumers to purchase products and which age groups engage most in such behaviours.</p> <p>Keywords: e-Commerce, impulse buying, social media.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Staff, E. and Staff, E. (2019). Intent vs. Impulse: The Major Driving Forces of Customer Behaviour - Sokrati. [online] Sokrati. Available at: https://sokrati.com/blog/intent-vs-impulse-major-driving-forces-customer-behaviour/ [Accessed 20 Dec. 2018]. 2. Taylor & Francis. (2019). Buying impulse triggered by digital media. [online] Available at: https://www.tandfonline.com/doi/abs/10.1080/02642069.2013.719887 [Accessed 23 Dec. 2018]. 3. https://www.researchgate.net/publication/328737733_Impact_of_Social_Media_Marketing_on_Online_Impulse_Buying_Behaviour [Accessed 30 Dec. 2018]. 4. Helenkemper, M. (2019). [online] Available at: https://www.business2community.com/instagram/emotional-vs-rational-purchases-social-media-triggers-consumers-buying-decisions-01867915 [Accessed 2 Feb. 2019]. 5. Adeelar, T. (2003). Effects of media formats on emotions and impulse buying intent. [online] Thomasadelaar.nl. Available at: http://thomasadelaar.nl/pubs/adelaarj1.pdf [Accessed 5 Jan. 2019]. 6. Chen, C. (2005). Adolescents’ impulse buying: Susceptibility to interpersonal influence and fear of negative evaluation. [online] Sbp-journal.com. Available at: https://www.sbp-journal.com/index.php/sbp/article/view/2491/0 [Accessed 7 Feb. 2019]. 7. How can ecommerce stores drive impulse buying?. [online] BigCommerce. Available at: https://www.bigcommerce.com/ecommerce-answers/how-can-ecommerce-store-owners-drive-impulse-buying/ [Accessed 10 Feb. 2019]. 8. Dynamicweb.com. (2015). What is Impulse Buying and Who Does It?. [online] Available at: https://www.dynamicweb.com/resources/blog/the-impulse-for-ecommerce-pt-1-what-is-impulse-buying-and-who-does-it [Accessed 11 Feb. 2019]. 9. Suhud, U. (2017). Investigating the Impulse Buying of Young Online Shoppers. [online] Journal of Computational and Theoretical Nanoscience. Available at: https://www.researchgate.net/publication/316548331_Investigating_the_Impulse_Buying_of_Young_Online_Shoppers [Accessed 14 Feb. 2019]. 10. Dittmar, H. (1998). Buying on the Internet: Available at: https://www.researchgate.net/publication/Investigating_the_Impulse_Buying_on_the_Internet [Accessed 15 Feb. 2019]. 11. Sirhind, A. (2010). A CRITICAL REVIEW OF IN-STORE AND ONLINE IMPULSE PURCHASE BEHAVIOR. [online] 	2948-2952

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Authors:	Noor Zuriatunadhirah binti Zubir, Aizat Faiz Ramli, Hafiz Basarudin
Paper Title:	Performance Analysis of P-persistent Slotted ALOHA Protocol for Low Power IoT Applications

Abstract: Despite the synchronization requirements, Slotted ALOHA Medium Access Control MAC protocol has been successfully implemented in a low power Internet of Things (IoT) applications such as LoRaWan. Although the scheme provides an improvement compared to ALOHA, the protocol has low efficiency in terms of throughput, delay and energy consumption. By implementing a p-persistent approach with a suitable P-Threshold into a Slotted ALOHA, the probability of more than one node simultaneously transmit can be significantly reduced. It is demonstrated that p-persistent Slotted ALOHA can improve all the performances as mentioned earlier by up to by 30% compared to the standard Slotted ALOHA. The model is validated through Monte- Carlo simulations, and the optimal P-Threshold is obtained for different scenarios.

Keywords: IoT, P-Threshold Slotted ALOHA, p-persistent, Slotted ALOHA.

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Authors:	S. Sandhya Rani, K. K. Naik
Paper Title:	Analysis of Vivaldi antenna etched with the circular patch and Complementary Split Ring Resonator slot

Abstract: A Vivaldi antenna with circular patch and complementary split ring resonator (CSRR) slots etched has presented in this paper. The shape of the patch, defected ground structure, slots and feeding are considered to enhance the gain and bandwidth of proposed antenna. The triple frequency band operation over 5 GHz to 15 GHz frequency range with the return loss of -27.46, -11.23, and -13.61 dB at three operating frequencies 7.28GHz, 11.7 GHz and 14.44 GHz respectively are observed for the proposed design. The proposed Vivaldi antenna with slots can be used for satellite broadcasting applications.

Keywords: Vivaldi antenna, bandwidth enhancement.

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	Authors: M.Sudheer Kumar, Obulesu Varikunta, K.Ramakrishna	
	Paper Title: Employee Attrition and Retention Strategies in Manufacturing: An Empirical Study in Amara Raja Batteries Limited	
526.	<p>Abstract: The success or failure of an organization depends to a large extent on the caliber of the people who work there. Without the positive and creative contributions of people, organizations can not progress and prosper. Companies have realized that competitive advantage lies primarily in people and that finding and maintaining good managers and employees is a strategic necessity. The concept of employer of choice has intensified in the last decade. The employees want to work for the best employers. Becoming an employer often involves the problem of acquiring the best talent for the organization, motivating employees to improve Performance, keeping them satisfied and loyal, developing employees so that they can grow and contribute skills and, ultimately, keep employees. This article attempts to study the factors that motivate the employee to work and the retention of employees from a sample of 360 respondents based on stratified random sampling. For the study data is collected with the help of the structure questionnaire. The collected data was coded, processed and analyzed with the help of the SPSS 21 version using descriptive and inferential statistics. The main result of the study is job security, providing competitive advantages for vacations, an adequate adaptation of the person to work, offering a competitive remuneration, providing a flexible work arrangement and finally a structured orientation training to contribute significantly to reduce intention of employee turnover.</p> <p>Keywords: Competitive Pay, Employee Turnover, Flexible Work Arrangement, Job Security and Training.</p> <p>References:</p> <ol style="list-style-type: none"> Chikwe, A. (2009). The impact of employee turnover: The case of leisure, tourism and hospitality industry. Consortium Journal of Hospitality & Tourism, 14(1), 43-56. Cho, S., Woods, R., Jang, S., & Erdem, M. (2006). Measuring the impact of human resource management practices on hospitality firms' performances. International Journal of Hospitality Management, 25, 262-277. Hom, P., & Griffeth, R. (1995). Employee Turnover. Cincinnati OH : South-Western College Publishing. Jack, J., Philips, & Adele O Connell . (2008). Managing Employee Retention- A strategic accountability approach. New Delhi: Elsevier Publications. . Leon , C., & Megginson. (1977). Personnel and Human Resource Administration. In D. Richard , & Irwin Inc. Illinois: Homewood. Mahesh Kumar, J. (2004, January). Competitive Intelligence and Application of HRM. ICFAI Journal of O.B, 3(1). Michael Armstrong. (2006). A Handbook of Human Resource Management Practice: (10 ed.). New Delhi: Kogan Page India. Mitchell, T., Holton, B., & Lee, T. (2001). How to keep your best employee: developing an effective retention policy. Academy of management executive,, 15(4), 96-109. Mondy, R. (2010). Human resources management (11 ed.). Upper Saddle River. Price, J. (1977). The study of turnover. Ames : Iowa State University Press. Wayne , F., Cascio , John , W., & Boudreau. (2008). Investing in people (2 ed.). Pearson education. 	2962-2968
	Authors: P.I. Dydyshko, S.V. Olkhina, A.V. Tarasenko, D.A. Rzhanitsyn	
	Paper Title: Stabilization of Earthwork by Introducing Reinforcing Additives When Mixing Soil	
	<p>Abstract: In complicated operating conditions of railroads, it is necessary to ensure earthwork stability. The article studies earthwork stabilization methods. The specifics of exploration are represented for each method. In particular, the article considers methods for the stabilization of soil of unstable slopes of embankments on a strong footing and of recesses; embankments on swamps and weak soils; embankments on thawing permafrost soils; stabilization of embankments on thawing permafrost soils; deep reinforcement of soils.</p> <p>Keywords: railroads, earthwork, defects and deformations, slipouts and slumps of slopes, weak footing, exploration methods, soil mixing with cement and lime, mixing units.</p> <p>References:</p>	

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	<p>Authors: Joshua Sopuru, Arif Sari, Murat Akkaya</p> <p>Paper Title: Modeling A Malware Detection And Categorization System Based On Seven Network Flow-Based Features</p>	
	<p>Abstract: Although several models have been developed for detecting and categorizing malicious Android applications, most network-based frameworks utilize long lists of network features to achieve an average classification accuracy (85.09%), and precision (89.10%). Our proposed model streamlines these lists to seven network flow-based features and achieved an average classification accuracy of (93.62%), success rate (92.68%), and a false positive (0.083). Experiments were carried out to evaluate the performance of three machine learning algorithms (Naive Bayes, J48 and, Random Forest) thereby identifying the best learner(s). Different sizes of training data were also considered for different experiments in other to evaluate learning rates based on different data size. At the end of our experiments, we identified seven top network flow-based features that can be used to effectively detect and categorize android malware.</p>	
	<p>Keywords: Network flow-based features, machine learning, Android malware, malware detection and classification, malware family.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Ericsson Mobility Report, http://www.ericsson.com/res/docs/2015/ericsson-mobility-report-June-2015.pdf, Accessed Dec 2016 2. Marketing Land report, http://marketingland.com/reportable-Android-now-96-percent-smartphones-globally-119487, Accessed Dec 2016 3. Yerima, S. Y., Sezer, S., McWilliams, G., & Muttik, I. (2013, March). A new Android malware detection approach using Bayesian classification. In 2013 IEEE 27th international conference on advanced information networking and applications (AINA) (pp. 121-128). IEEE. 4. Marian Kuhnel and Ulrike Meyer, 5. detecting malware initiating traffic on a mobile device, RWTHAACHEN university, 2012 6. Skrzewski, M. (2011, June). Flow-based algorithm for malware traffic detection. In International Conference on Computer Networks (pp. 271-280). Springer, Berlin, Heidelberg. 7. Cesare, S., & Xiang, Y. (2011, November). Malware variant detection using similarity search over sets of control flow graphs. In 2011 IEEE 10th International Conference on Trust, Security and Privacy in Computing and Communications (pp. 181-189). IEEE. 8. Carrasquillo, Abimael and Maldonado, Albert E and Santos, Eric and Ortiz-Ubarri, Jos'e, Poster: Towards a framework for Network-based malware detection System, 35th IEEE Symposium on Security and Privacy, 2014 9. Z. Chen and H. Han and Q. Yan and B. Yang and L. Peng and L. Zhang and J. Li, A First Look at Android malware Traffic in First Few Minutes, Trustcom/BigDataSE/ISPA, Vol 1, p206-213, 2015 IEEE 10. Arora, Anshul, and Sateesh K. Peddoju." Minimizing Network Traffic Features for Android Mobile Malware Detection." Proceedings of the 18th International Conference on Distributed Computing and Networking. ACM, 2017 11. Karagiannis, Thomas, Konstantina Papagiannaki, and Michalis Faloutsos. BLINC: multilevel traffic classification in the dark. ACM SIGCOMM Computer Communication Review. Vol. 35. No. 4. ACM, 2005. 12. Nguyen, T. T., and Armitage, G. (2008). A survey of techniques for internet traffic classification using machine learning. IEEE Communications Surveys & Tutorials, 10(4), 56-76. 13. Bartos, Karel, Michal Sofka, and Vojtech Franc." Optimized Invariant Representation of Network Traffic for Detecting Unseen Malware Variants." USENIX Security Symposium. 2016. 14. Tracy, K. W. (2012). Mobile Application Development Experiences on Apple's iOS and Android OS. Ieee Potentials, 31(4), 30-34. 15. Gandhewar, N., & Sheikh, R. (2010). Google Android: An emerging software platform for mobile devices. International Journal on Computer Science and Engineering, 1(1), 12-17. 16. Hawthorne, M. J., & Perry, D. E. (2005, May). Software engineering education in the era of outsourcing, distributed development, and open source software: challenges and opportunities. In International Conference on Software Engineering (pp. 166-185). Springer, Berlin, Heidelberg. 	2982-2988
529.	<p>Authors: Chetan Sharma, Amit Goel , Amanpreet Tangri</p>	

	<p>Paper Title: Stabilization of Subgrade Soil by using Alccofine and Waste Bottle Plastic Strips</p> <p>Abstract: If the suitable earth is not available at the construction site, so it becomes an option to select soil stabilization. Soil stabilization is the process by which the strength and stability of a soil mass is improved and increased with the use of controlled compaction or addition of suitable stabilizing agents like cement, lime, cementitious material and waste material such as fly ash, waste plastic etc. Since the use of waste material such as chairs, bottles, polythene bags etc has been speedily increase day by day and its disposal has been creating a problem for environment concern so here is the new technique or way to reduce quantity disposing waste as well as environment effect by using plastic as soil stabilizer which cement is best material. The main objective of this review paper is to focus on stabilization of soil using plastic waste and alccofine is cementitious material to understand the behavior of soil properties.</p> <p>Keywords: Soil Stabilization, Alccofine, plastic Strips and Environment.</p> <p>References:</p> <ol style="list-style-type: none"> 1. P Manjusha, T Kulayappa, N Venkata Hussain Reddy "utilisation of waste bottle plastic strips and lime as a soil stabilizer in construction of flexible pavements " International Research Journal of Engineering & Technology(IRJET) volume: 04, Issue: 04, April 2017. 2. Tom Domino, Muhammed Ashique, "Use of plastic Bottles Strips as an admixture in the soil subgrade for Road Construction" International Research Journal of Engineering & Technology (IRJET) volume:03, Issue: 04, April- 2016. 3. Anas Ashrof, Arya Sunil, J.Dhanya, Mariamma Joseph, Meera Varghere and M.Veena, "Experimental study on soil Stabilization using raw plastic bottles" Proceeding of Indian Geotechnical Conference December 2011 Kochi Paper number H-304 4. Femeeda Muhammed Haneef, Mercy Joseph Poweth"Effect of Plastic Granules on the Properties of Soil" International Journal of Engineering Research and Applications Vol. 4, Issue 4(Version 1), April 2014. 5. Lovedeep Singh Sambyal and Neeraj Sharma, "Utilising Fly Ash and Alccofine for Efficient Soil Stabilization" International Journal of Scientific and Engineering Research. Volume: 9, Issue: 3 March 2018 6. Jeevan Singh and Neeraj Sharma, "Experimental Study on Red Soil Stabilization using Silica Fumes and Alccofine" International Journal of Scientific and Engineering Research. Volume: 9, Issue: 3, March 2018 7. Sachin Dev and Neeraj Sharma "Stabilization of Expansive Soil with Marble Dust and Alccofine" International Journal of Advanced Research in Science and Engineering, Volume: 6, Issue: 12, December 2017 8. Abhineet Godoyal, Arjun Kapoor, Prashant Garg, "Effect of Alccofine, Lime on Geotechnical properties of cohesive soil" International Journal of Creative Research Thoughts (IJCRT) vol: 06, Issue: 02, April 2018. 	2989-2995
	<p>Authors: Immandi Solomon Raju, Tammina Jnana Prasnambha, M.V.Raghavendra Reddy</p> <p>Paper Title: ANN Based 3-Phase 4-wire Shunt Active Power Filter Control Strategies for Renewable Power Generation Systems</p> <p>Abstract: Presently multi day's Renewable imperativeness age structure being the growing new distress in making office, anyway to interface it with the Grid we required high power static PWM converters which are one of the explanation behind irritation in power quality in our system. Along these lines, In this paper we are proposing another control strategy which relies upon phony neural framework speculation used in unique power channel by using this the unlimited sources are synchronized with the structure just as upgrades control quality by compensating the present sounds and unequal current made by sudden disrupting impact in weight. The topology which is used for dynamic power channel is four-leg voltage source converter. The ANN controller isn't simply improves the power quality; it similarly upgrades the full scale consonant bowing in current by smothering the music. The numerical showing of the proposed system is cleared up in the paper. The dynamic power channel is reproduced with two control technique, for instance, PI controller and ANN controller. The proliferation results and the unbelievable structure show the commonness of ANN controller over PI controller. The proposed circuit is attempted under different working condition through proliferation in MATLAB/SIMULINK and the results shows the force of the structure".</p> <p>34. Keywords: shunt Active Power Filter, Four-Leg Converters, PI Controller, ANN Controller, THD, Renewable Generation System.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Pablo. Acuna, Luis Moran, Marco Rivera, and Juan Dixon, "Improved Active Power Filter Performance for Renewable power generation Systems," IEEE Trans. Power Electron., vol. 29,no. 2, , Feb. 2014. 2. M. Aredes, J. Hafner, and K. Heumann, "Three-phase four-wire shunt active filter control strategies," IEEE Trans. Power Electron., vol. 12,no. 2, pp. 311–318, Mar. 1997. 3. S. Naidu and D. Fernandes, "Dynamic voltage restorer based on a fourlegvoltage source converter," Gener. Transm. Distrib., IET, vol. 3, no. 5,pp. 437–447, May 2009. 4. Prabhakar and M. Mishra, "Dynamic hysteresis current control to minimize switching for three-phase four-leg VSI topology to compensate nonlinear load," IEEE Trans. Power Electron., vol. 25, no. 8, pp. 1935–1942, Aug. 2010. 5. V. Khadikar, A. Chandra, and B. Singh, "Digital signal processor implementation and performance evaluation of split capacitor, four-leg and three-h-bridge-based three-phase fourwire shunt active filters," Power Electron., IET, vol. 4, no. 4, pp. 463–470, Apr. 2011. 6. F. Wang, J. Duarte, and M. Hendrix, "Grid-interfacing converter systems with enhanced voltage quality for micro grid application; concept and implementation," IEEE Trans. Power Electron., vol. 26, no. 12, pp. 3501–3513, Dec. 2011 7. X.Wei, "Study on digital pi control of current loop in active power filter," in Proc. 2010 Int. Conf. Electr. Control Eng., Jun. 2010, pp. 4287–4290. 8. R. de Araujo Ribeiro, C. de Azevedo, and R. de Sousa, "A robust adaptive control strategy of active power filters for power-factor correction, harmonic compensation, and balancing of nonlinear loads," IEEE Trans .Power Electron., vol. 27, no. 2, pp. 718–730, Feb. 2012. 9. J. Rodriguez, J. Pontt, C. Silva, P. Correa, P. Lezana, P. Cortes, and U.Ammann, "Predictive current control of a voltage source inverter,"IEEE Trans. Ind. Electron., vol. 54, no. 1, pp. 495–503, Feb. 2007. 10. P. Cortes, G. Ortiz, J. Yuz, J. Rodriguez, S. Vazquez, and L. Franquelo, "Model predictive control of an inverter with output LC filter for 	
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	Authors: R Naveen Kumar, Hari Kiran Vege, G Sreeram Paper Title: Patient Treatment Interval Used In Forecast Algorithm and Solicitations in Hospital Queuing Management		
531.	<p>15. Abstract: Now a day, Patients are growing day by day using day. This effects in overcrowded hospitals and in lack of nice patient queue management. "If required it is critical for a affected person to endure some examinations and a few checks as per the condition. Most of the patients are requested to wait a long time in queues which are unpredictable. To assist these sufferers and the hospitals to agenda their time to avoid lengthy time waiting, overcrowded hospitals a novel approach has to be brought in an high quality way. The proposal of affected person queue administration and wait time prediction both elicits an fascinating and convoluted contract as every affected person may require one of a kind phases or mission to accomplish. This proposal normally concentrates on supporting sufferers to end in-time of their treatment and this will assist the hospitals to design their consultation and remedy plan of each and every patient. This shows that the patient and the sanatorium administration are recommended in eating the time agenda in a ideal way". Moreover, there ought to be any ineffective queues and crowded places in the respective treatment task.</p> <p>16. Keywords: cloud, TPM, Random Forest, classification and regression tree.</p> <p>17.</p> <p>18. References:</p> <p>19.</p> <p>20. G. Adomavicius and A. Tuzhilin, "Toward the next generation of recommender systems: A survey of the state-of-the-art and possible extensions," IEEE Trans. Knowl. Data Eng., vol. 17, no. 6, pp. 734–749, Jun. 2005</p> <p>21. G. Adomavicius and Y. Kwon, "New recommendation techniques for multicriteria rating systems," IEEE Intell. Syst., vol. 22, no. 3, pp. 48–55, May/Jun. 2007.</p> <p>22. A Parallel Random Forest Algorithm for Big Data in a Spark Cloud Computing Environment. 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Kolla Bhana Prakash and Dorai Rangaswamy M.A. (2016), "Content Extraction of Biological Datasets Using Soft Computing Techniques", Journal of Medical Imaging and Health Informatics, American Scientific Publishers, Vol. 6, 932- 936.</p> <p>33. Kolla Bhana Prakash; Arun RajaRaman; Thingaran Perumal; Padma Kolla, "Foundations to frontiers of big data analytics", 2016 2nd International Conference on Contemporary Computing and Informatics (IC3I), pp:242-247</p> <p>34. Sreeram Gutha, G.S. anandha mala, G.V.uma, "Highly Secured Resource Monitoring in Outsourced Cloud Data Using Aggregated Cryptosystem" in the Indian Journal of Science and Technology – Indian Society for Education and Environment, India. DOI: 10.17485/ijst/2017/v10i9/106420, March 2017.</p> <p>35. Sreeram Gutha, G.S. anandha mala, G.V.uma, "Dynamic Authentication for Outsourced Data in Cloud Computing Using Enhanced Attribute-Based Encryption" in the International Journal - Australian Journal of Basic and Applied Sciences 9(20):113-121, July 2015.</p> <p>36. M Arutselvan, T V Ananthan, G Sreeram, A Perspective of Probabilistic Misbehavior Detection Scheme in Vehicular Ad-hoc Networks - International Journal of Innovative Technology and Exploring Engineering (IJITEE)-ISSN: 2278-3075, Volume-8 Issue-6, April 2019.</p>	3003-3007	
532.	Authors: K Narendra Babu, N Vijaya Kumar, T Amar Kiran Paper Title: Performance Analysis of Fuzzy Based iUPQC to Provide Grid Voltage Regulation at Critical Load Bus	<p>Abstract: This paper exhibits another association for an UPQC called interline UPQC (IUPQC). "The enhanced controller of IUPQC accommodates all functionalities of these previous ones, alongside the voltage bearing at the stack perspective transport, and now provide additionally voltage guidance at the structure viewpoint transport, like a STATCOM to the framework. the execution of the IUPQC and the UPQC was seen when filling in as UPQCs. The significant complexity between these compensators is the kind of source duplicated through the affiliation and shunt control converters. The structure, control and ability of the IUPQC are examined in this paper with the fluffy rationale controller". The productivity of the proposed arrangement has been confirmed through reenactment thinks about utilizing MATLAB/Simulink.</p> <p>Keywords: iUPQC, microgrids, power quality, static STATCOM, Fuzzy Logic.</p> <p>References:</p>	3008-3012

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Authors:	P Suguna Ratnamala, M Ramjee Sakpal, M John Sreenivasa Rao
Paper Title:	Performance Analysis of SVC and STATCOM to Enhance Power System Stability

35. **Abstract:** In a similar feeder, it will decay the power nature of intensity supply when the quality is poor at burden side which can cause “different types of gear glitch even harm gadgets. Consequently, a responsive power remuneration technique is recommended to enhance the power nature of the electric curve heater in an appropriate control framework. Both the static var compensator (SVC) and Statcom can adjust control factor and parity three stage flows at the same time. The statcom can take care of the issue of immediate condition of a SVC. And after that, a SVC can lessen control amount of the dynamic channel. At last, field estimation information in a metal processing plant were examined. Recreation results affirmed the plausibility of amending the power factor and adjusting load flows all the while utilizing the proposed technique.”

36.

Keywords: Power Quality, Reactive Power, Static Var Compensator, STATCOM, Current.

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	<p>Authors: D Ravi Kishore</p> <p>Paper Title: A Novel Technique for Fast Reacting MPPT for Soft Switching Interleaved Boost Converter in SPV System</p>	
	<p>Abstract: In this paper, a MPPT calculation for delicate exchanging adjusted Interleaved lift converter for sun oriented PV framework is proposed to diminish the exchanging misfortunes in converter. "Ordinary DC-DC converters will work at high frequencies which results in high exchanging voltage stress, high yield voltage swell and clamor. These issues break down the execution of traditional lift converters and lead to low voltage gain. To conquer the above issues, delicate exchanging changed interleaved lift converter with double coupled Inductors is utilized. Current swell at the information side is limited by parallel associated essential windings of two coupled inductors by sharing the information current. Yield voltage swell and switch voltage stress is limited by arrangement associated yield capacitors. Also, auxiliary of two coupled inductors are associated in arrangement to regenerative capacitor by a diode for boosting the information voltage from PV cluster and adjusting the essential parallel flows through coupled inductors."</p> <p>Keywords: PV System, MPPT Algorithm, DC-DC Converter, Soft Switching Interleaved Boost Converter.</p>	
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535.	<p>Authors: Harshit Singa, Ch Sai Ram, R B R Prakash, P Srinivasa Varma</p> <p>Paper Title: Fault Diagnosis and Rectification an a DFIG using Multi-Layer Perceptron Control Strategy</p> <p>Abstract: This paper presents the direct power control of a doubly fed induction generator with grid connected by using multilayer perceptron controller, A physical fault is given to analyse the grid conditions under fault. The direct power control strategy where the input variables are rotor speed, stator, reactive powers, their respective errors and these are considered as control variables. The controlled variables are the direct and quadrature axis rotor voltage". Digital simulation is carried out in MATLAB to analyse the grid conditions.</p> <p>Keywords:</p> <p>References:</p> <ol style="list-style-type: none"> B. H. Chowdhury and S. Chellapilla, "Double-fed induction generator control for variable speed wind power generator," Electr. Power Syst. Res., vol. 76, no. 4, pp. 786–800, 2006. Saiteja, K., & Prakash, R. B. R, "Power quality improvement using neuro-fuzzy based custom power devices (UPQC) in wind farm 	3023-3026

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	Authors: S Palani Kumar, K Ramesh Babu, Sd Huzaifa Ahamed Paper Title: A Novel PV/T solar Collector System with Hybrid Energy Storage Units and Solar Heaters		
536.	<p>Abstract: A hybrid photovoltaic-thermal “(PV&T) solar air heater is a system which generates both heat energy as well as electricity instantaneously. Presented paper is to controlling of interconnected photovoltaic system, super capacitor, battery. The investigated photovoltaic system consists of PV arrays, super capacitor, battery, DC-AC, DC-DC, and Z source inverter and power, to make continuous supply to grid. In instruction to create this process of work as a traditional generator to join in grid regulation. The DC bus voltage is get controlled uniformly by battery and ultra-capacitor”. If continuous active-reactive power management is enforced within the controller of the DC-AC converter that the DC bus of photovoltaic PV system and also the main network. The Air as heat eliminating fluid and the normal air flow through an upper channel and hot air coming from lower channel of the collector.</p> <p>Keywords: Z-Source inverter; photovoltaic (PV); battery; super-capacitor.</p> <p>References:</p> <ol style="list-style-type: none"> 1. AmeniKchaou, Aziz Naamane“Comparative Study of Different MPPT techniques for a Stand-alone PV System”2016. 2. Joe-Air Jiang, Yu-Li Sua, Kun-Chang Kuoa “On a hybrid MPPT control scheme to improve energy harvesting performance of traditional two-stage inverters used in photovoltaic systems”2017. 3. S. Palanikumar, Selvakumar,R. S. Sivakannan“Modern control scheme for Z-Source inverter based PV power generation systems”2018. 4. Wen long Jing, Derrick K.X. Ling, Chean Hung Lai “Hybrid Energy Storage Retrofit for Standalone Photovoltaic-Battery Residential Energy System”2017, IEEE Innovative Smart Grid Technologies - Asia (ISGT-Asia) 5. Yi Huang, Miaoisen Shen, Student Member, IEEE, Fang Z. Peng, Fellow, IEEE, and Jin Wang, Member, IEEE“Z-Source Inverter for Residential Photovoltaic Systems”2006. 6. Zhixue Zheng , Xiaoyu Wang , Yong dong Li “A Control Method for Grid-friendly Photovoltaic Systems with Hybrid Energy Storage Units”2011,4th international conference on Electric utility DRPT-IEEE. 7. A Grid Connected Photovoltaic Inverter with Battery-Super capacitor Hybrid Energy Storage(Article). 8. PV cell basics from textbook (Muhammad. H.Rashid). 	3027-3030	
537.	Authors: Jainu Karthik, Dumpa Venkateswarlu, Alamanda Sai Kumar Paper Title: Analysis and Impact of Blast Load on Structural Elements	<p>Abstract: Over the last few decades’ considerable attention has been raised on the engineering behavior of structure under the non-linear dynamic loadings like blast or impact loading. The explosions inside or near by a building leads to catastrophic damage on the building system and life. Not only the terrorist activity but also the accidental explosions like explosion of fuel tanks and LPG cylinders blast may also cause severe damage to the building structural system and leads to loss of life In general engineers design the building for the dynamic loads like earthquake and wind loadings. But in case of blast load the shock front impacts huge load on the frontal face of structural elements. Not only the shock fronts, the reflected pressure is multiples of the shock front pressure .As a result of such extreme blast loading conditions the building will fail, because the blast load act in the duration of milliseconds. So engineers and designers are worked to develop methods to analyze and design the structures resist to the blast loads. These studies enhance to understand the response of structural system subjected to blast loads. In this paper, two studies of concrete structures are presented. Both the studies focused on describing the response of the structural elements subjected to the blast load. In the first study the response in the structural elements (columns and shear walls) subjected to blast load from TNT explosion result from the terrorist activity. In the second study the comparison of response in the structural elements (columns and shear walls) which is cast with different grades of concrete are subjected to blast load from TNT explosion result from terrorist attacks. The finite element package ABAQUS was used for modelling and analyzing the elements. The analysis of the structure and structural elements subjected to blast loads require a précis in depth knowledge to understand the blast phenomenon and the non-linear dynamic response of the various structural elements. This gives a complete overview of the effects of explosion on structures.</p> <p>Keywords: Non-linear dynamic analysis, shock front, TNT explosion, Blast loading.</p> <p>References:</p> <ol style="list-style-type: none"> 1. A.K. Pandey (2006), “Non-linear response of reinforced concrete containment structures under blast loading” nuclear engineering and design 236,pp.993-1002 2. M.V. Dharaneeopathy(1995) “Effects of the stand-off distance on tall shells of different heights” . Vol.54, No.4,pp.587-595. 3. B. Patil Vijay: “Effect of Blast Load on Soft Storey Building”. Vol.3 (3) pp.456-461. 	3031-3036

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	Authors: Bilkees Abdullah and Kundan Singh	
	Paper Title: Social Support as Predictor of Student Engagement among Secondary School Students	
Abstract: Students who are not annoyed and don't attempt to do well are probably not going to accomplish reliable with their capacities. The present investigation expected to examine the impact of social support on student engagement of senior secondary school students. The respondents were students from Senior Secondary School Students of Kashmir division Jammu and Kashmir. The participants in this study include 700 senior secondary school students were selected by employed simple random sampling. Regression, correlation and t-test were applied to explore the data and the results found that significant difference was found among girls and boys of secondary school students with their social support, significant difference was found among government and private secondary school students with their social support, significant difference was found among girls and boys of secondary school students with their student engagement and also found that no significant difference was found between government and private secondary school students with their student engagement. It found that there exists significant correlation among social support and student engagement of Secondary School Students. It also found that social support had significant impact on Student Engagement of secondary school students.		
Keywords: Social Support, Student Engagement, Secondary School Students.		
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	Paper Title: Design and Analysis of Triple Band Fractal Antenna for UWB Applications	
Abstract: This paper presents the rectangular fractal antennas with triple band characteristics are proposed for Ultra-Wideband (UWB) applications. The patch is a tree-like fractal structure consisting of superposition of several rectangular patches. To improve the impedance matching, a Defected Ground Structure (DGS) is used as a ground plane. Design and study of W slots are used to etch on the patch to analyze the notch bands of UWB antenna. The substrate used for the designed antenna is a low-loss laminate of FR4 with a dielectric constant of 4.4. We optimized several parameters of W slots to get the better notch bands of Wi-Max (3.8 - 4.8 GHz) and WLAN (6.5 - 7.6 GHz). The proposed antenna gives good simulation results in terms of scattering parameters like return loss, VSWR and radiation patterns that claims to be suitable for UWB applications.		
Keywords: UWB, Fractal Shape, WLAN, Wi-Max.		

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3043-3048**539.****Authors:** **Vikneswaran Sabramani, Halim Ismail, Idayu Badilla Idris, Mohammad Rahim Kamaluddin, Balan Rathakrishna, Mohammad Amin Wani****Paper Title:** **Psychometric Properties of Revised Malaysian Bullying Questionnaire (R-MBQ)**

Abstract: Bully is considered as a serious health problem which has high potential to trigger physical and psychosocial dysfunctions among victims including serious depressive symptoms and stress. In general, bullying is defined as a set of aggressive behaviour, systematic abuse of power as well as a form of peer abuse. Currently, the incidence of bullying is widespread in Malaysia and the current research was aimed to revise and validate the Malaysian Bullying Questionnaire (R-MBQ) for the purpose of local use. This study was achieved by employing subjective and objective validation methods. The present study commenced with subjective validation methods namely content and faces validity tests. Later, the objective validity of this measure was achieved by employing a cross sectional study among 170 random sample of Malaysian National Secondary School students. The data was analysed and examined using Exploratory Factor Analyses while the internal consistency was ascertained through Cronbach's Alpha method. The findings showed that R-MBQ has two factors namely perpetrator and victim domains. The perpetrator domain shows the items are within the acceptable factor loading range of 0.46 and 0.57. Meanwhile, the victim domain comprised of items with factor loading from between 0.52 to 0.74. The Cronbach's alpha coefficients were within good range: Perpetrator Domain ($\alpha = 0.81$) and Victim Domain ($\alpha = 0.78$). The results of the validation study suggested that the R-MBQ is reliable and serves as a valid tool for assessing the bullying involvement among Malaysian adolescents. This validated tool is expected to be utilized as a screening instrument for proactive preventive steps for bully among Malaysian students.

Keywords: Adolescents, bully, public health, reliability, validity.**References:**

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Authors:	BhavaniSankar Panda,R SanjeevSuman,AHemanth,D Hemanth Kumar
Paper Title:	Model-Based Automation in Testing of Web Applications

Abstract: The contemporary computer's complete international has lots of net apps. In that running, a blog platform may be the most famous crucial technology. Net 2.0 consists of SPRING structured app that is a stateful asynchronous purchaser-server connection. It definitely is more difficult to evaluate with regard to tester this form of net apps because of the invariant dynamics of these apps. Protection measures are moreover the primary count because of the presence of broken enter thru the tester. And so we endorse away in regards to assessment of SPRING internet app with presenting stability closer to created analyze instances. A planned approach is dependent on the net crawler. Each of our suggested gadget's process will be to uncover wrongdoing related SPRING apps, which include mistake mail messages, rear choice compatibility, DOM tree settlement, in addition to broken input with stability. Deliberate method implementation contains kingdom age institution; analyze suite age institution with protecting the overall adventure produce with the crawler, age institution of balance exams by making use of proper hazard variations. Safety measures manner makes use of the number of stability mutants wherever vulnerabilities are typically being injected intentionally. Those mutants have been created maintaining that during mind their vulnerabilities. This particular app makes use of anyplace require of automation which in turn having brilliant incorrect doing finding, less manual electricity in addition to scalability.

37. Keywords: Web Application, Spring, Automation in Testing, Security Testing, Threat Modeling, Model-Based Testing, Mutation Testing, Petri nets

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Authors: Chandra Mouli K, Pannirselvam N, Vijaya Kumar D, Anitha V, M.Chaitanya Nava Kumar

Paper Title: Strength Studies On Pine Apple Fibre Concrete With Nano Silica

Abstract: This study investigates the combined effect of deploying Nano-Silica (NS) and Pine apple fibres (PF) on mechanical properties of hardened concrete. NS has been used as the partial replacement of cement by 0, 1, 2, 3, 4, 5 and 6% by weight, and Pine apple fibres are used as volume substitution by 0, 1, 2, 3, 4, 5 and 6%. In our present investigation, Pine apple fibres having 40mm length were used. Compressive strength and pulse velocity test values are determined by using various combinations of NS and PF. Nano-Silica, because of its small particle size, can modify the properties by altering the micro-structure of the concrete. A notable improvement is being noticed in the strength properties of concrete when NS is used by virtue of its high pozzolanic activity confirming the evolution of higher amount of C-S-H gel in the existence of nano-particles. The addition of NS to the concrete will improve the properties strength as well as durability to a great extent. On the other hand, the addition of pine apple fibres to the concrete results in the reduction of permeability and the improvement in the crack resistance eventually.

Keywords: Compressive strength, Crack resistance, Durability, Nano-Silica, Pineapple fibre.

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Authors:	Rajan Lakshmi, Vedala Naga Sailaja
Paper Title:	Effect of High Frequency Trading On Retail Investors – A Study in India

Abstract: The present study has been emphasized on the high frequency trading factors impact on the retail investors trading activity. The study has considered the historical time series data from the period of 1st July, 2018 to 31st Sep, 2018 of Spot market index-Nifty and index future – Banknifty. The GARCH model has been applied to know the one minute spot index-Nifty volatility impact on the other time periods and the result reveals that the five minutes banknifty volatility got influenced slightly but there no impact has been observed on the banknifty time periods of fifteen minutes, thirty minutes, one hour and one day. The high frequency trading factors impact on the retail trading activity has been examined with the primary data. The structure equation model has been framed and the result indicated that the small margin trading with less time horizon trading positions are getting influenced but at end of the day influence has been observed on the market prices. This paper is useful to the retail investors, regulators, fund managers and research academicians.

Keywords: Banknifty, factors, High frequency trading, Nifty, Retail traders and Volatility.

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