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*Curriculum Vitae*

***Dr. SALAJA. S, M.E., Ph.D.***

*Professor*

Computer Science and Engineering



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## Scopus ID: 46161690400

## Web of Science ID: AAM-8122-2020

**PROFESSIONAL PROFILE**

* Innovative teacher devoted to research and teaching.

**EDUCATION**

* **Ph. D. in Computer Science and Engineering**, Karunya University, Coimbatore, India, 2012

THESIS:*Novel Service Selection Frameworks for Pervasive Environment and its Analysis in Health Care and Social Network Services.*

* **Master of Engineering in Computer Science and Engineering**, Madurai Kamaraj University, Madurai, India, 2002

THESIS:*Job Scheduling using Hybridized Memetic Algorithm and Ant Colony Optimization.*

* **Bachelor of Engineering in Computer Science and Engineering,** University of Madras, Chennai , India, 2000

**ACADEMIC EXPERIENCE**

* **Professor, Department of Computer Science and Engineering,** School of Engineering and Technology, Karunya Institute of Technology & Sciences (Deemed University), Coimbatore, India, October 2020 to till date.
* **Associate Professor, Department of Computer Science and Engineering,** School of Engineering and Technology, Karunya Institute of Technology & Sciences (Deemed University), Coimbatore, India, July 2013 to September 2021..
* **Assistant Professor (SG), Department of Information Technology,** School of Computer Science and Technology, Karunya Institute of Technology & Sciences (Deemed University), Coimbatore, India, March 2010 to June 2013.
* **Assistant Professor, Department of Computer Science and Engineering,** School of Computer Science & Technology, Karunya Institute of Technology & Sciences (Deemed University), Coimbatore, India, June 2008 to Feb 2010.
* **Senior Lecturer, Lecturer, Department of Computer Science and Engineering,** School of Computer Science & Technology, Karunya Institute of Technology & Sciences (Deemed University), Coimbatore, India, September 2004 to May 2008.
* **Lecturer, Department of Computer Science and Engineering,** Noorul Islam College of Engineering, Manonmaniam Sundaranar University, India, Jan 2002 to Feb 2004.

**COURSES TAUGHT**

**Undergraduate**

* Theory of Computation
* Principles of Compiler Design
* Optimization Methodologies
* Intelligent Systems
* C# and .Net Programming
* Database Systems
* Computer Networks
* Parallel Computing

**Post Graduate**

* Advanced Algorithms
* Wireless Sensor Networks
* Advanced Operating Systems
* Data Mining

**RESEARCH EXPERIENCE**

**Research Student,** Department of Computer Science and Engineering, Karunya University, Coimbatore, India, 2008-2012.

**Patent (Granted)**

* “**AI System for Post-Crash Care on Road Traffic Injuries**” Inventors: Dr. R. Elijah Blessing, Dr. Salaja Silas, Mrs. Joyce Beryl Princess, Karunya Institute of Technology and Sciences, Granted.

**Patent (Published)**

* “**Intelligent Speech Assistive System for Voiceless People**” Inventors: Dr. Salaja Silas, Mrs. Joyce Beryl Princess, Dr. Getzi Jeba Leelipushpam P, Mr. Graeson Joshua Elijah, Mr. Evalt David R., Karunya Institute of Technology and Sciences, Published.

**FUNDED PROJECT (Completed)**

* **Co- Investigator: “Effective patient friendly IT enabled tool for selection of desired health care services”**, Health System Research, **ICMR**, Sanctioned. (**Amount –** ₹ **14,83,880/**-) Duration: Dec 2013 to Nov 2016
* **Co- Investigator: “Design and Development of IT Enabled Decision support tool for post crash care on road traffic injuries”,** Health System Research, **ICMR**, Sanctioned. (**Amount – ₹.15,52,691/**-) Duration: June 2018 to Feb 2022..

**RECENT REFEREED PUBLICATIONS**

**Refereed Journal Publications**

1. Isravel, D.P., Silas, S., Kathrine, J.W., Rajsingh, E.B., Andrew, J.," **Multivariate Forecasting of Network Traffic in SDN-Based Ubiquitous Healthcare System**", (2024) IEEE Open Journal of the Communications Society, 5, pp. 1537-1550. DOI: 10.1109/OJCOMS.2024.3373698 (IF =6.3).
2. Isravel, D.P., Silas, S., Kathrine, J., Rajsingh, E.B., Andrew, J., "**Enhanced multivariate singular spectrum analysis-based network traffic forecasting for real time industrial IoT applications**", (2024) IET Networks, WIley 13 (4), pp. 301-312. DOI: 10.1049/ntw2.12121 (IF =1.3).
3. Arun Raj A, S., Xavier S, B., Kathrine G, J.W., Silas, S., Andrew, J.,"**A constructive airborne-ground matrix algorithm for modern telecommunication systems**",(2024) IET Networks, Wiley, 13 (2), pp. 147-164. DOI: 10.1049/ntw2.12103 (IF =1.3).
4. Angelin, A.C., Silas, S.,"**An Improved Coverage Hole Finding System for Critical Applications based on Computational Geometric Techniques**”, (2024) Scalable Computing, 25 (1), pp. 557-563. DOI: 10.12694/scpe.v25i1.2397
5. Angelin, A.C., Silas, S.,"**Enabling edge computing-based coverage hole detection framework for lossless data tracking**”, (2024) Journal of Autonomous Intelligence, Frontier Scientific Publishing, 7 (1), DOI: 10.32629/jai.v7i1.845
6. Angelin, A.C., Silas, S.,"**A Comparative Study of Coverage Hole Detection Techniques in Wireless Sensor Networks**", (2023) Engineering Proceedings, MDPI, 59 (1), art. no. 5, DOI: 10.3390/engproc2023059005
7. Judith, A., Kathrine, G.J.W., Silas, S., J, A., "Efficient Deep Learning-Based Cyber-Attack Detection for Internet of Medical Things Devices", (2023) Engineering Proceedings, MDPI, 59 (1), art. no. 139, DOI: 10.3390/engproc2023059139
8. Renu Mary Daniel, Anitha Thomas, Elijah Blessing Rajsingh, Salaja Silas, **"A strengthened eCK secure identity based authenticated key agreement protocol based on the standard CDH assumption"**, (2023) Information and Computation, 294, art. no. 105067. DOI: 10.1016/j.ic.2023.105067. **(Elsevier Publisher) (IF=1.6)**
9. Titus Issac, Salaja Silas, Elijah Blessing Rajsingh, "**Modelling a P-System inspired multi-objective centralized heterogeneous wireless outdoor illumination**", (2023) Journal of Ambient Intelligence and Humanized Computing, 14 (3), pp. 2935 - 2950,
10. DOI: 10.1007/s12652-023-04533-9Deva Priya Isravel, Salaja Silas, Elijah Blessing Rajsingh, “**Long-term traffic flow prediction using multivariate SSA forecasting in SDN based networks**”, Pervasive and Mobile Computing, Art. No 101590, 2022, https://doi.org/10.1016/j.pmcj.2022.101590. **(Elsevier Publisher) (IF=3.453)**
11. Immanuel Johnraja Jebadurai, Getzi Jeba Leelipushpam Paulraj, Jebaveerasingh Jebadurai, Salaja Silas, "**Experimental Analysis of Filtering-Based Feature Selection Techniques for Fetal Health Classification**", (2022) Serbian Journal of Electrical Engineering, 19 (2), pp. 207 - 224, DOI: 10.2298/SJEE2202207J
12. Devapriya Isravel, Salaja Silas, Elijah Blessing Rajsingh, “**Centrality Based Congestion Detection Using Reinforcement Learning Approach for Traffic Engineering in Hybrid SDN**”, Journal of Network and Systems Management, Vol 30, Issue 1, art. no. 2, January 2022, DOI: 10.1007/s10922-021-09627-3 **(Springer Publisher) (IF=2.139)**
13. Renu Mary Daniel, Elijah Blessing Rajsingh, Salaja Silas, "**A forward secure signcryption scheme with ciphertext authentication for e-payment systems using conic curve cryptography**", Journal of King Saud University - Computer and Information Sciences, [Volume 33, Issue 1](https://www.sciencedirect.com/science/journal/13191578/33/1), January 2021, Pages 86-98, https://doi.org/10.1016/j.jksuci.2018.02.004**(Elsevier Publisher)(IF=13.473)**
14. Renu Mary Daniel, Elijah Blessing Rajsingh, Salaja Silas, “ **An efficient eCK secure identity based Two Party Authenticated Key Agreement scheme with security against active adversaries**”, (2020) Information and Computation, art. no. 104630, DOI: 10.1016/j.ic.2020.104630. **(Elsevier Publisher) (IF=0.704)**
15. Titus Issac, Salaja Silas, Elijah Blessing Rajsingh, “**Investigative prototyping a tissue P system for solving distributed task assignment problem in heterogeneous wireless sensor network**”, (2020) Journal of King Saud University - Computer and Information Sciences, DOI: 10.1016/j.jksuci.2020.06.008 **(Elsevier Publisher) (IF=13.473)**
16. Titus Issac, Salaja Silas, Elijah Blessing Rajsingh, “**Prototyping a Scalable P-system-Inspired Dynamic Task Assignment Algorithm for a Centralized Heterogeneous Wireless Sensor Network**”, (2020) Arabian Journal for Science and Engineering, Springer. DOI: 10.1007/s13369-020-04700-6 **(Springer Publisher)(IF=2.334)**
17. Deva Priya I., Vidya Priya Darcini, S., Salaja Silas, “**Improved heart disease diagnostic iot model using machine learning techniques**”, (2020) International Journal of Scientific and Technology Research, 9 (2), pp. 4442-4446.
18. Renu Mary Daniel, Elijah Blessing Rajsingh, Salaja Silas, “**An efficient eCK secure certificateless authenticated key agreement scheme with security against public key replacement attacks**”, (2019) Journal of Information Security and Applications, 47, pp. 156-172. DOI: 10.1016/j.jisa.2019.05.003. **(Elsevier Publisher)(IF=3.872)**
19. Salaja Silas, Elijah Blessing Rajsingh, "**A Novel Patient Friendly IT Enabled Framework for Selection of Desired Health Care Provider**", International Journal of Medical Engineering and Informatics, Volume 11, Issue 1, 2019, Pages 14-40. **(Inderscience Publisher) (IF = 0.364)**
20. Renu Mary Daniel, Elijah Blessing Rajsingh, Salaja Silas, "**Analysis of hierarchical identity based encryption schemes and its applicability to computing environments**", Journal of Information Security and Applications, Volume 36, October 2017, Pages 20-31, ISSN 2214-2126. **(Elsevier Publisher)(IF=3.872)**
21. Renu Mary Daniel, Elijah Blessing Rajsingh, Salaja Silas, “**Deriving Practical Applicability of Hierarchical Identity Based Encryption in Massively Multiplayer Online Role Playing Games”**, Procedia Computer Science, Elsevier, Vol 93, pp. 839-846, 2016. **(Elsevier Publisher)**
22. Salaja Silas, Elijah Blessing Rajsingh, “**Performance Analysis on algorithms for selection of desired healthcare Services**”, Perspectives in Science, Elsevier, vol. 8, pp.107-109, September 2016. **(Elsevier Publisher)**
23. Immanuel John Raja Jebadurai, Elijah Blessing Rajsingh, Getzi Jeba Leelipushpam, Salaja Silas “**EDIS: An effective method for detection and isolation of sinkhole attackes in mobile ad hoc networks**”, International Journal of Wireless and Mobile Computing, Vol 11(3), pp.171-181, 2016. **(Inderscience Publisher)**
24. Titus Issac, Salaja Silas, Elijah Blessing Rajsingh, “**Investigations on task and role assignment protocols in wireless sensor network**”, Journal of Theoretical and Applied Information Technology, vol.89 issue 1, pp.210-219, 2016.
25. Salaja Silas, Kirubakaran Ezra, Elijah Blessing Rajsingh, “**An Efficient Service Selection Framework for Pervasive Environments**”, International Journal of Wireless and Mobile Computing, Vol.6, No. 1, pp. 80 – 90, 2013. **(Inderscience Publisher)**
26. Salaja Silas, Kirubakaran Ezra, Elijah Blessing Rajsingh, “**A Novel Fault Tolerant Service Selection Framework for Pervasive Computing**”, in Journal of Human-Centric Computing and Information Sciences, vol.2, no.5, March 2012. **(Springer Publisher)(IF=5.9)**
27. Salaja Silas, Elijah Blessing Rajsingh and Kirubakaran Ezra, “**Efficient Service Selection Middleware using ELECTRE Methodology for Cloud Environments**”, Information Technology Journal, vol.11, no.7, pp.868-875, 2012.
28. Salaja Silas, Kirubakaran Ezra, Elijah Blessing Rajsingh, “**An Analysis on the Effect of Mobility and Load on Fault Tolerant Service Selection Framework for Pervasive Environments**”, European Journal of Scientific Research, vol.67, no.2, pp. 301-308, 2012.
29. Nimi P Baby, Salaja Silas, **“Study on Privacy and Security Methodologies in Cloud Storage”**, International Journal of Advanced Research in Computer Science and Software Engineering Research Volume 4, Issue 1, January 2014 ISSN: 2277 128X
30. Meenu Johnson, Salaja Silas, “**Position Aware and QoS based Service Discovery using TOPSIS for Vehicular Network**”, International Journal of Engineering Science and Technology. Vol. 5, No. 3, pp. 576 – 582, March 2013.
31. Meenu Johnson, Salaja Silas, “**Survey on Service Discovery Protocols in Vehicular Adhoc Networks**”, International Journal of Engineering Research and Technology. Vol. 2, No. 3, pp. 1-4, March 2013.
32. Hilda Lawerence, Salaja Silas, “**Efficient QoS Based Resource Scheduling using PAPRIKA Method for Cloud Computing**”, International Journal of Engineering Science and Technology. Vol.5, No.3, pp. 638-643, March 2013.
33. Geethu Mohandas, Salaja Silas, “**Scalable ALARM: Anonymous Location Aided Routing in Hostile MANETS**”, International Journal of Computer Science and Networks. Vol.2, No.2, pp. 103 -107, 2013.
34. Maheswaran R, S.G. Ponnambalam, Aravindan C, Salaja S,**“Ant Colony Optimization for single machine total weighted tardiness problem”,**in ANJAC Journal of Sciences.Vol. 2, pp.39-44, Feb 2003.

**Refereed Book Chapters**

1. Isravel, D.P., Silas, S., Rajsingh, E.B., "Traffic management of sdn/nfv-based smart 5g networks using time series analysis", (2023) Handbook of Research on Network-Enabled IoT Applications for Smart City Services,IGI Global pp. 151-173. DOI: 10.4018/979-8-3693-0744-1.ch009
2. Immanuel Johnraja Jebadurai, Getzi Jeba Leelipushpam Paulraj, Jebaveerasingh Jebadurai, and Salaja Silas. "**Network Forensics Architecture for Mitigating Attacks in Software-defined Networks**", Artificial Intelligence and Blockchain in Digital Forensics, pp. 99-116. River Publishers, 2023.
3. Deepa Devassy, Immanuel Johnraja Jebadurai, Getzi Jeba Leelipushpam Paulraj, Salaja Silas, Jebaveerasingh Jebadurai, “ **Energy-Efficient Network Routing Protocols for IoT Applications**”, EAI/Springer Innovations in Communication and Computing, pp. 15-28. 2022**(Springer Publisher)**
4. Renu Mary Daniel, Elijah Blessing Rajsingh, Salaja Silas, Sharmila Anand John Francis, “**An Efficient Provably Secure Identity-Based Authenticated Key Agreement Scheme for Intervehicular Ad Hoc Networks**”, The Cognitive Approach in Cloud Computing and Internet of Things Technologies for Surveillance Tracking Systems, Intelligent Data-Centric Systems, pp.17-36, 2020. **(Elsevier Publisher)**
5. Titus Issac, Salaja Silas, Elijah Blessing Rajsingh, “**Dynamic and static system modeling with simulation of an eco-friendly smart lighting system**”, Systems Simulation and Modeling for Cloud Computing and Big Data Applications, Advances in ubiquitous sensing applications for healthcare, pp 81-97, 2020. **(Elsevier Publisher)**
6. Titus Issac, Salaja Silas, Elijah Blessing Rajsingh, Sharmila Anand John Francis, “**Dynamic Self-Aware Task Assignment Algorithm for an Internet of Things-Based Wireless Surveillance System**”, The Cognitive Approach in Cloud Computing and Internet of Things Technologies for Surveillance Tracking Systems, Intelligent Data-Centric Systems, pp. 37-50, 2020. **(Elsevier Publisher)**
7. Deva Priya Isravel, Salaja Silas, Elijah Blessing Rajsingh, “**Reliable Surveillance Tracking System based on Software Defined Internet of Things**”, The Cognitive Approach in Cloud Computing and Internet of Things Technologies for Surveillance Tracking Systems, Intelligent Data-Centric Systems, pp. 1-16, 2020. **(Elsevier Publisher)**
8. Issac, Titus, Salaja Silas, and Elijah Blessing Rajsingh. "**Modelling a Deep Learning-Based Wireless Sensor Network Task Assignment Algorithm: An Investigative Approach.**" Deep Learning Strategies for Security Enhancement in Wireless Sensor Networks. IGI Global, 2020. 84-109.
9. Renu Mary Daniel, Elijah Blessing Rajsingh, Salaja Silas, " **An Efficient Forward Secure Authenticated Encryption Scheme with Ciphertext authentication based on Two Hard Problems**", Advances in Intelligent Systems and Computing, Vol. 645, pp. 123-133, 2018. **(Springer Verlag Publisher)**
10. Salaja Silas, Kirubakaran Ezra, Elijah Blessing Rajsingh, “**An Effective User-Driven Framework for Selection of Social Network Services**”, Computational Social Networks: Security and Privacy, Computer Communication and Networks, vol 2. pp.229-246, June 2012. **(Springer Verlag Publisher)**

**Refereed Conference Proceedings**

1. Sandra, G., Silas, S., Rajsingh, E.B., “**Applications and Approaches of Sentiment Analysis: A Current Review**” (2024) RAICS - IEEE Recent Advances in Intelligent Computational Systems. DOI: 10.1109/RAICS61201.2024.10690021
2. Sandra, G., Silas, S., Rajsingh, E.B., **“A Pragmatic Enquiry to Learn Recent Trends in Insider Threat Detection Approaches**”, (2024) Proceedings of International Conference on Circuit Power and Computing Technologies, ICCPCT 2024, pp. 1918-1923. DOI: 10.1109/ICCPCT61902.2024.10672670
3. Vijeya Sarathe, K.R.A., W Kathrine, G.J., Salaja, S., “**Dynamic Inventory Object Detection Using YOLOv8 Deep Learning Model**”,(2024) 2024 International Conference on Advances in Modern Age Technologies for Health and Engineering Science, AMATHE 2024,DOI: 10.1109/AMATHE61652.2024.10582192
4. Manaswitha, K., Issac, T., Silas, S., Terance, J.S., “**Investigation of Red Fox Algorithm for Solving Task Assignment Problem in Heterogeneous Unmanned Aerial Vehicle Swarm**”, (2024) 2024 3rd International Conference on Artificial Intelligence for Internet of Things, AIIoT 2024, DOI: 10.1109/AIIoT58432.2024.10574748
5. Johnson, N., Ewards, S.E.V., Silas, S., Kathrine, G.J.W., “ **Predictive Vehicle Maintenance using Deep Neural Networks**”, 2024) 2024 International Conference on Cognitive Robotics and Intelligent Systems, ICC - ROBINS 2024, pp. 322-326. DOI: 10.1109/ICC-ROBINS60238.2024.10533924
6. Pagadala, A.A., Silas, S., Joy, E., “**Ensemble of Vision Transformers and CNNs for Accurate Diabetic Foot Ulcer Classification**” 2024 International Conference on Cognitive Robotics and Intelligent Systems, ICC - ROBINS 2024, pp. 300-304. DOI: 10.1109/ICC-ROBINS60238.2024.10533993
7. Subhasree, A., Princess, P.J.B., Silas, S., Paulraj, G.J.L., Rajsingh, E.B., “**Detection of Microaneurysms for diabetic patients using Ensemble Method**” (2023) IET Conference Proceedings, 2023 (22), pp. 73-78. DOI: 10.1049/icp.2023.2856
8. Angelin, A.C., Silas, S., “**A Comparative Study of Coverage Hole Detection Techniques in Wireless Sensor Networks**”, (2023) Engineering Proceedings, 59 (1), DOI: 10.3390/engproc2023059005
9. Kathrine, G.J.W., Krittikka, P., Johnraja, I., Kirubakaran, S., Salaja, S., Arunkumar, K., “**Enhancing Smart Grid Security with XMSS-Based Blockchain Technology**”, (2023) 1st International Conference on Emerging Research in Computational Science, ICERCS 2023 - Proceedings. DOI: 10.1109/ICERCS57948.2023.10433959
10. Singh, A.I., Mathai, B., Silas, S., Princess, J.B., “**Real Time Sign Language Translator for Deaf and Mute**”, (2023) 1st International Conference on Emerging Research in Computational Science, ICERCS 2023 - Proceedings.DOI: 10.1109/ICERCS57948.2023.10433971
11. Elijah, G.J., Silas, S., David, B.G., Kathrine, G.J.W., “**DBSCAN\_PROMETHEE based Dynamic Medic Assigning System**”, (2023) 1st International Conference on Emerging Research in Computational Science, ICERCS 2023 - Proceedings. DOI: 10.1109/ICERCS57948.2023.10434201
12. Philip Paul Arunodhayam, T., Vadde, A.R., Kumar, T.P., Silas, S., Gandu, S.P., Harshith Kumar, C., “**Sustainable Energy Efficient Routing Protocol using Chimp algorithm and SOM for Underwater Wireless Sensor Networks**”, (2023) International Conference on Recent Advances in Science and Engineering Technology, ICRASET 2023. DOI: 10.1109/ICRASET59632.2023.10420186
13. Ocheni, J., Immanuel Johnraja, J., Leelipushpam, G.J., Kathrine, G.J.W., Silas, S., Stewart Kirubakaran, S., “**Electrocardiogram Based Authentication Scheme for Smart Home Security**”, (2023) Proceedings of the International Conference on Circuit Power and Computing Technologies, ICCPCT 2023, pp. 663-666. DOI: 10.1109/ICCPCT58313.2023.10245657
14. Marandi, M., Bertia, A., Silas, S., “**Implementing and Automating Security Scanning to a DevSecOps CI/CD Pipeline**”, 2023) 2023 World Conference on Communication and Computing, DOI: 10.1109/WCONF58270.2023.10235015
15. Amala Nikitha G., Kathrine G.Jaspher W., Christina Rajesh Duthie, Ebenezer V., Salaja Silas, "**Hybrid Cryptographic Algorithm to Secure Internet of Things**", (2023) Proceedings of the 7th International Conference on Intelligent Computing and Control Systems, ICICCS 2023, pp. 1556 - 1562, DOI: 10.1109/ICICCS56967.2023.10142709
16. Anisha Subhasree, Joyce Beryl Princess, Salaja Silas, "**Analysis and Automatic Detection of Microaneurysms in Diabetic Retinopathy using transfer learning**", (2022) 6th IEEE International Conference on Computational System and Information Technology for Sustainable Solutions, CSITSS 2022, DOI: 10.1109/CSITSS57437.2022.10026377
17. Joyce Beryl Princess P., Salaja Silas, Elijah Blessing Rajsingh, “ **Classification of Road Accidents Using SVM and KNN**”, (2021) Advances in Intelligent Systems and Computing, 1133, pp. 27-41. DOI: 10.1007/978-981-15-3514-7\_3. **(Springer)**
18. Deva Priya, I., Salaja Silas, Elijah Blessing Rajsingh, “ **Sdn-based traffic management for personalized ambient assisted living healthcare system**”, (2021) Advances in Intelligent Systems and Computing, 1167, pp. 379-388. DOI: 10.1007/978-981-15-5285-4\_38. **(Springer)**
19. Titus Issac, Salaja Silas, Elijah Blessing Rajsingh, “**System modeling and simulation of an outdoor illumination system using a multi-layer feed-forward neural network**”, (2021) Advances in Intelligent Systems and Computing, 1167, pp. 495-507. DOI: 10.100 15 2018 Luminaire aware centralized outdoor illumination scheme -a smart city perspective-1.pdf 7/978-981-15-5285-4\_49 **(Springer)**
20. Joyce Beryl Princess P., Salaja Silas, Elijah Blessing Rajsingh, “**Performance comparison of machine learning models for classification of traffic injury severity from imbalanced accident dataset**”, (2021) Advances in Intelligent Systems and Computing, 1167, pp. 361-369. DOI: 10.1007/978-981-15-5285-4\_36. **(Springer)**
21. Joyce Beryl Princess P., Salaja Silas, Elijah Blessing Rajsingh, “**Machine learning approach for identification of accident severity from accident images using hybrid features**”, (2020) 2020 International Conference for Emerging Technology,art. no. 9154079, DOI: 10.1109/INCET49848.2020.9154079
22. Vidya Priya Darcini, S., Deva Priya I., Salaja Silas, “**A Comprehensive Review on the Emerging IoT-Cloud based Technologies for Smart Healthcare**”, 2020 6th International Conference on Advanced Computing and Communication Systems, ICACCS 2020, art. no. 9074457, pp. 606-611. DOI: 10.1109/ICACCS48705.2020.9074457
23. Joyce Beryl Princess, P., Salaja Silas, Elijah Blessing Rajsingh, “ **Performance Analysis of Feature Detection and Description (FDD) Methods on Accident Images**”, (2020) Communications in Computer and Information Science, 1240 CCIS, pp. 384-396. DOI: 10.1007/978-981-15-6315-7\_32. **(Springer)**
24. Joyce Beryl Princess, P., Salaja Silas, Elijah Blessing Rajsingh, “**Performance Analysis of Edge Detection Algorithms for Object Detection in Accident Images**”, (2019) 2019 Global Conference for Advancement in Technology, DOI: 10.1109/GCAT47503.2019.8978438
25. Titus Issac, Salaja Silas, Elijah Blessing Rajsingh, “ **Investigations on PSO based task assignment algorithms for heterogeneous wireless sensor network**”, (2019) 2nd International Conference on Signal Processing and Communication, ICSPC 2019 - Proceedings, art. no. 8976850, pp. 89-93. DOI: 10.1109/ICSPC46172.2019.8976850
26. Prabakaran, P., Isravel, D.P., Salaja Silas, “**A Review of SDN-Based Next Generation Smart Networks**”, (2019) 2019 Proceedings of the 3rd International Conference on Computing and Communications Technologies, ICCCT 2019, art. no. 8824871, pp. 80-85. DOI: 10.1109/ICCCT2.2019.8824871
27. Deva Priya, I., Salaja Silas, “**Preferential Multi-Attribute Rank based Forwarding Node Selection in Software Defined Networks**”, (2019) 2019 Proceedings of the 3rd International Conference on Computing and Communications Technologies, ICCCT 2019, art. no. 8824798, pp. 73-79. DOI: 10.1109/ICCCT2.2019.8824798
28. Titus Issac, Salaja Silas, Elijah Blessing Rajsingh, “**Luminaire-aware dynamic illumination role assignment scheme for a safe and green smart city**”, (2019) 2019 Proceedings of the 3rd International Conference on Computing and Communications Technologies, ICCCT 2019, art. no. 8824914, pp. 94-98. DOI: 10.1109/ICCCT2.2019.8824914
29. Deva Priya, I., Salaja Silas, “**A Survey on Research Challenges and Applications in Empowering the SDN-Based Internet of Things**”, (2019) Advances in Intelligent Systems and Computing, 750, pp. 457-467. DOI: 10.1007/978-981-13-1882-5\_39. **(Springer)**
30. Titus Issac, Salaja Silas, Elijah Blessing Rajsingh, “**Investigations on System Modeling Simulations for Solving Heterogeneous WSN Task Assignment Problem using Multilayer Feed Forward Neural Networks**”, (2019) Materials Today: Proceedings, 24, pp. 2439-2448. DOI: 10.1016/j.matpr.2020.03.774 **(Elsevier)**
31. Titus Issac, Salaja Silas, Elijah Blessing Rajsingh , “**Luminaire Aware Centralized Outdoor Illumination Role Assignment Scheme: A Smart City Perspective**”, (2019) Advances in Intelligent Systems and Computing, 750, pp. 443-456. DOI: 10.1007/978-981-13-1882-5\_38 **(Springer)**
32. Elavarasi, R., Salaja Silas,” **Survey on job scheduling in fog computing**”, Proceedings of the International Conference on Trends in Electronics and Informatics, ICOEI 2019, 2019-April, pp. 580-583.
33. Kavitha, T., Salaja Silas, “ **A survey on energy harvesting routing protocol for WSN**”, Proceedings of the International Conference on Trends in Electronics and Informatics, ICOEI 2019, art. no. 8862780, pp. 572-575, DOI: 10.1109/ICOEI.2019.8862780
34. Thompson K. Thomas, Salaja Silas, " **An Analysis on Selection of Cloud Vendors Based on Subjective and Objective Parameters**", Proceedings of the 2nd International Conference on Inventive Systems and Control, 19-20 January 2018, Coimbatore, IEEE, ISBN: 978-1-5386-0807-4.
35. Salaja Silas, Elijah Blessing Rajsingh, Titus Issac, “**WASF - Weighted Average based Subjective Feedback System for E-Healthcare Services**”, 2nd International Conference on Next Generation Computing Technologies”, 14th – 16th October 2016.
36. Girish Neelakanta Iyer, Salaja Silas, Ganesh Neelakanta Iyer "**An optimized cloud based big data processing mechanism using selforganizing map in hadoop environments**" International conference on Green Computing and Internet of Things, October 2015, Delhi, India, IEEE ISBN: 978-1-4673-7909-0.
37. Girish Neelakanta Iyer, Salaja Silas, “**A Comprehensive Survey on Data-Intensive Computing and MapReduce Paradigm in Cloud Computing environments**”, Proceedings of Informatics and Communication Technologies for Societal Development, 2015, pp 85-93.
38. Titus.I, Elijah Blessing Rajsingh, Salaja Silas,“**E-Health Navigator: A tool for selection of desired health care services**”, Advances in Computer Science and Information Technology, Proceedings of International Academic Conference on Theoretical and Applied Aspects of Computational Science, E-Learning, Information and Communication Engineering”, Vol.2, Issue.10, October - December 2015, pp. 54-58, ISSN: 2393 9907.
39. Geethu Mohandas, Salaja Silas, “**Survey on Routing Protocols on Mobile ADHOC Networks**” IEEE International Multi Conference on Automation, Computing, Control, Communication and Compressed Sensing, 2013.
40. Salaja Silas, Kirubakaran Ezra, Elijah Blessing Rajsingh, “**Scalable and Reliable Methodology for Service Selection in Pervasive Computing**”, Proceedings of 3rd IEEE International Conference on Electronics Computer Technology, vol.1, pp. 188-191, ISBN: 978-1-4244-8678-6, 2011.
41. Salaja Silas, Kirubakaran Ezra, Elijah Blessing Rajsingh,” **An User Oriented Methodology for Social Network Service Selection**”, Proceedings of 2011 IEEE International Conference on Computational Intelligence and Computing Research, 2011.  ISBN:978-1-61284-694-1.
42. Salaja Silas and S. Durga,”**Private and Secure Service Discovery via Progressive Approach in Pervasive Environments**”, National Conference on Cryptography and Network Scurity 2009., pp 250 – 256.
43. Salaja Silas, Jobin Jose, “Image Denoising – **A Comparative Study”, Proceedings of National Conference on VLSI and Communication**,14th, 15th March 2008, pp.186-189, India.
44. Salaja S., Rachana, ”**Keyword Searches in Web Pages**”, National Conference on Advances in Computer Science and Engineering, 24th March 2007, pp.001-007, India.
45. Salaja S., Nishley E. Joseph, “**Computing Frequent Itemsets**”, National Conference on Advances in Computer Science and Engineering, 24th March 2007, pp.079-083, India.
46. Salaja S., N.D. Thamarai Selvi, “**Link Context in Classifier Based Crawlers**”, National Conference on Data Mining and Data Warehousing, 17th February 2007, India.(Presented).Salaja S., Rachana, “**Mining Customer Care Dialogs**”, National Conference on Data Mining and Data Warehousing, 17th February 2007, India.(Presented).
47. Salaja S., Nishley E. Joseph, “**An Efficient Frequent Mining**”, National Conference on Data Mining and Data Warehousing, 17th February 2007, India.(Presented).
48. Salaja S., N.D. Thamarai Selvi, “**Object Modelling from Semistructured Dynamic Web Pages**”, National Conference on Advances in Computer Science and Engineering, 24th March 2007, pp.105-110, India.
49. Salaja Blessing, "**Line Detection in Document Images**", NCSSS-2006, India.

**RESEARCH INTERESTS**

* Artificial Intelligence
* Machine Learning
* Cloud Computing
* Ubiquitous Computing
* Wireless Sensor Networks
* Software Defined Networks
* Data Analytics

**AWARDS AND HONORS**

* Received **IBM Knowledge Badge - "** **Data Science**", IBM.
* Completed **- "** **Generative AI Essentials**", Coursera
* Completed **- "** **Generative AI : Prompt Engineering**", Coursera
* Completed **- "** **Google AI Essentials**", Coursera
* "**Best Poster**", titled "Service Selection Frameworks for Pervasive and Cloud Computing", Faculty Poster Presentation Meet, Karunya University, 29th September 2017
* “**Best Researcher**” Award – Department of Information Technology, School of Computer Science and Technology, 2013.
* “**Best Research Paper**” Award – Department of Information Technology, School of Computer Science and Technology, 2012.
* Received **IBM Knowledge Badge - "** **IBM Blockchain Essentials**", IBM.
* Received **IBM Knowledge Badge - "Cloud App Developer**", IBM.
* Received **IBM Knowledge Badge - "Robots are coming! Build IoT apps with IBM Watson, Swift, and Node-RED",** IBM.
* Received **IBM Knowledge Badge, -"Bluemix Essentials"**, IBM.
* Completed, **“Architecting with Google Compute Engine**”, Google Cloud

**PROFESSIONAL SERVICE**

* Reviewer, Transactions on Network and Service Management, IEEE
* Reviewer, Computers Networks, Elsevier Publications.
* Reviewer, Human Centric Computing and Information Sciences, Springer Publications.
* Reviewer, Computers and Electrical Engineering, Elsevier Publications.
* Reviewer, Journal of Cluster Computing, Springer Publications.
* Reviewer, Journal of Super Computing, Springer Publications.
* Reviewer, Taylor and Francis Journals.
* Reviewer, International Journal of Signal and Imaging Systems Engineering, Inderscience Publishers
* Reviewer, International Journal of Cloud Computing, Inderscience Publishers,
* Reviewer, International Journal of Sensor Networks, Inderscience Publishers.
* Reviewer, International Journal of Ad Hoc and Ubiquitous Computing, Inderscience Publishers.
* Reviewer, Journal of Computer Science, Science Publications.
* Track Chair & Reviewer, International Conference on Big Data and Cloud Computing, Karunya University, 23rd March 2018.
* Resource Person, 2-Days National Level Hands-on Cloud and Fog Computing, Karunya University, 23rd to 24th February 2018.
* Resource Person, Internetworking Techniques and Framework for Next Generation Smart Environments, Two Week AICTE Sponsored Faculty Development Program, Kumaraguru College of Technology, 11th December 2017 to 24th December 2017.
* Track Chair & Reviewer, International Conference on Big Data and Cloud Computing, Karunya University, 1stApril 2017.
* Panel Member, Selection of Best Posters, Faculty Poster Presentation Meet", Karunya University, 29th September 2017.
* IBM Bluemix Trainer, IBM Bluemix Cloud Application Developer, 2016.
* Member, International Advisory Committee, “International Conference on Novell Issues and Challenges in Science and Engineering”, Noorul Islam University, July 2016.
* Resource Person, “Hands-on workshop Setting up Private Cloud”, March 2016.
* Resource Person, Colloquium on “Research Practices”, Karunya University, February, 2016.
* Resource Person, Open-Stack- Hands on Workshop, Karunya University, February, 2016.
* Convener, Two Days National Workshop on Cloud driven Application Development. 2014.
* Member, Best Project Evaluation “CSI National project contest”, 2014
* Session Co-Chair & Reviewer, International Conference on Informatics and Communication Technologies for Societal Development, 2014.
* Committee Member, Asian Conference on Membrane Computing, 2014.
* Convener, National Workshop on NS2, Karunya University, October, 2013.
* Session Chair, International Conference on Innovations in Intelligent Instrumentation, Optimization and Signal Processing, Karunya University, 2013.
* Jury, CSI Discover Thinking 2nd National CSI Student Project Contest, 2013.
* Paper review committee member for the International Conference on Language Development and Computing Methods, 2nd December 2010, India.
* Observer, JEE-Main 2014.
* Observer, JEE-Main 2013.

**PROFESSIONAL AFFILIATIONS**

* Member CSI
* Member IACSIT
* Member ISTE

**Seminars Participated**

* Delegate attended, " One Day joint workshop on Patent Filing Procedure", organized at Karunya University, 7th June, 2018.
* Delegate attended, “One Day national workshop on Internet of Things – Limitless Possibilitites”, 2nd February 2018.
* Poster Presented titled "Service Selection Frameworks for Pervasive and Cloud Computing", Faculty Poster Presentation Meet, Karunya University, 29th September 2017.
* Delegate attended, “Module Plan based on Outcome based Education", organized by KCDC, Karunya University, 14th July, 2017.
* Course Completed, IBM Cloud App Developer offered by IBM developer Works Courses, May 2017.
* Course Completed, IBM for Robots are coming! Build IoT apps with IBM Watson, Swift, and Node-RED offered by IBM developer Works Courses, May 2017.
* Delegate attended, "Application of Graph Theory in Engineering", organized at Karunya University, 28th April, 2017.
* Delegate attended, " Book Writing Workshop", organized at Karunya University, 18th March, 2017.
* Course Completed, IBM Bluemix Essentials offered by IBM developer Works Courses. October 2016.
* Delegate attended, “One day Awareness workshop on Intellectual Property Rights”, organized by Karunya University, 15th September, 2016.
* Delegate attended, “IBM Certified Cloud Application Developer”, organized by IBM, 10th – 11thAugust, 2016.
* Delegate attended, " Effective Teaching - Learning Methodology for Engineers", organized Karunya University, 28**th** June 2016.
* Delegate attended, " Work Life Balance", organized Karunya University, 7**th** November 2014.
* Delegate attended, "SLES System Administration, SLES Network Administration", 2nd to 10th May 2014.
* Delegate attended, "Question Bank Preparation Workshop", 18th to 20th May 2013.
* Delegate attended, “High performance Computing”, organized by IBM India University Relations, 28th January, 2011.
* Delegate attended, “International Conference on Language Development and Computing Methods”, organized by Department of English and Information Technology, Karunya University, 2nd& 3rd December, 2010.
* Delegate attended, ”Research Issues on Web Intelligence and Services” , organized by Department of Computer Science and Engineering, Karunya University, 24th Jan 2009.
* Delegate attended, “Challenges in Information Security”, organized by IEEE Madras Section, 19th – 20th June 2009.
* Delegate attended,” Workshop on Advanced Developer Technologies”,organized by Microsoft Corporation,25th June 2009.
* Delegate attended, "Journal Paper Writing", organized by Karunya University, 29th and 30th April 2008..
* Delegate attended,” Research Proposal Writing", organized by Karunya University, 16th and 17th November 2007.
* Delegate attended, “2 day workshop on Networking and Internet”, organized by Mepco Schlenk Engineering College, 11th and 12th February 2001.

**UNIVERSITY SERVICE**

* Coordinator, Curriculum Developement Cell, Department of Computer Sciences Technology, Karunya Institute of Technology and Sciences, India 2015 onwards.
* Research Supervisor, Karunya Institute of Technology and Sciences, September 2012 onwards.
* Member, Department Research Committee, Department of Computer Sciences Technology, Karunya Institute of Technology and Sciences, 2012 onwards.
* Coordinator, Advanced Computing Research Group, Department of Computer Sciences Technology, Karunya Institute of Technology and Sciences., 2012 onwards.
* Member, Board of Studies, Department of Computer Sciences Technology, 2007 onwards.
* Member, Industry Advisory Board, Department of Computer Sciences Technology, 2016 onwards.
* Research Coordinator, Department of Information Technology, School of Computer Science and Technology, Karunya Institute of Technology and Sciences, 2012 onwards.
* PG Project Coordinator, Department of Information Technology, School of Computer Science and Technology, Karunya Institute of Technology and Sciences, 2012 – 2015.
* Examiner, Karunya Institute of Technology and Sciences Examinations. 2007 – present.
* Mentor and Class Advisor, II MTech CSE, IT and NIE.
* VIP Hospitality Committee Member, Convocation, Karunya Institute of Technology and Sciences, 2015 - 2017.
* Member, Question Paper Scrutiny, Department of Computer Science and Engineering, Karunya Institute of Technology and Sciences.
* Coordinator, Souvenir, Mindkraft’18, Karunya Institute of Technology and Sciences.

**REFERENCES**

Available upon request.