

**Dr.P.MANIMEGALAI, B.E.,M.E.,Ph.D.,**

Associate Professor,  
Dept. of Biomedical Engineering,  
Karunya Institute of Technology and Sciences,  
Coimbatore – 641 114

**Email : manimegalai.vairavan@gmail.com**  
**Mobile: +91 99942 91601**



---

### **LIST OF PUBLICATIONS**

1. R. Suresh Kumar, P. Manimegalai “Near lossless image compression using parallel fractal texture identification”, Biomedical Signal Processing and Control, Vol.58, pp-1-9, January 2020.
2. Narmatha C, Manimegalai P & Manimurugan S “A Grayscale Image Hiding Encode Scheme for Secure Transmission” Current Signal Transduction Therapy, 2019, 14(2), 146-151.
3. Vijayalakshmi Yellepeddi & Manimegalai P & Sasidhar Babu Suvanam “Accurate Approach Towards Efficiency of Searching Agents in Digital Libraries Using Keywords” Journal of Medical Systems (2019) 43:164.
4. Brindha, V., T. Karthikeyan, and P. Manimegalai. "Fuzzy enhanced secure multicast routing for improving authentication in MANET." Cluster Computing (2018): 1-9.
5. S.Sathish kumar, P.Manimegalai, S.Karthik. “A rough set calibration scheme for energy effective routing protocol in mobile ad hoc networks.” Cluster Computing (2018): 1-7
6. T. Karthikeyan, Brindha, V, P. Manimegalai.” Investigation on maximizing packet delivery rate in WSN using cluster approach, Wireless personal Communications”pp-1-15, October 2018.
7. Dr.P.Manimegalai, Shine Augustine, Eldin Henry. “Estimation of physiological parameters and early prediction of cardiovascular risk from ECG and PPG signals.” pensee 76.8 (2014): 246-258.
8. Manimegalai P, Shine Augustine, Prajoona Valsalan, Shibi O. “Non invasive estimation of blood pressure using a linear regression model from the photoplethysmogram (PPG) signal”. Revista

Perspectivas em Ciência da Informação (PERSPECTIVES IN INFORMATION SCIENCE) 22.4 (2017): 191-205 ISSN: 1413-9936

9. Suresh Kumar. R, Dr.Manimegalai. P, Dr.Kamalraj, S. “Implementation of neural network with ALE for EEG signal processing” Perspectivas em Ciencia da Informacao 22.5(2017): 37-47 ISSN: 1413-9936.
10. C.Narmatha, P.Manimegalai, Dr.Manimurugan. “A lossless compression scheme for grayscale medical images using a 2-bit short technique.” Journal of Medical Imaging and Medical Informatics 7(2017): 1-7.
11. A.Mahesh, Dr.P.Manimegalai. “A Deep Belief Network for classifying IoT Data”,Revista de la facultad de Agronomia”,Vol.34.issue.1,April 2018.
12. Mohanarathinam Ayyaswamy , Kamalraj Subramaniam, and Manimegalai Perumal.” Design and Development of Steganography Using Hybrid Transform with Decomposition Based Embedding Algorithm and Hybrid Encryption Scheme” Journal of Computational and Theoretical Nanoscience. Vol. 14, 5989–5996, 2017
13. Mahesh A, Dr.P. Manimegalai,” Novel Deep-Learning Algorithms for the Internet of Things with Smart Applications – An Exploratory Study” International Journal of Engineering and Technology, 7 (4.36) (2018) 182-185.
14. P. Manimegalai, S. Soundarya, J. R. Aswath, M. Sowmiya, N. Raja Lakshmi “Automated Detection of Diabetic Retinopathy for Early Diagnosis using Exudate Images”, International Journal of Engineering and Advanced Technology (IJEAT), ISSN: 2249 – 8958, Volume-8, Issue-6S3, September 2019.
15. N. Rajalakshmi, Ramsankar.M & P. Manimegalai “An Efficient Dorsal Hand Vein Recognition Security System using Arduino and GSM Technology” International Journal of Engineering and Advanced Technology (IJEAT), ISSN: 2249 – 8958, Volume-8, Issue-6S3, September 2019.
16. Krishnadas, Manimegalai P, Prasanna Venkatesan G K D “A Performance Evaluation of Secured Hcte Routing Protocol Using Mcso and Ea-Heed” International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8 Issue-7 May, 2019.
17. M.Lakshmi, S.Bhavani, P.Manimegalai “Evaluation of Non-Invasive Measurement of Haemoglobin using PPG in Clinically Ill Pediatric Patients” International Journal of Innovative

Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8 Issue-12, October 2019.

18. M.Lakshmi, P.Manimegalai, S.Bhavani "Non-invasive haemoglobin measurement among pregnant women using photoplethysmography and machine learning" Journal of Physics 1432 (2020).
19. M.Lakshmi & P.Manimegalai,Non-invasive Estimation of Haemoglobin Level Using PCA and Artificial Neural Networks, The Open Biomedical Engineering Journal,Vol. 19, issue.13, 114-119.
20. Jerard, V. Joseph Michael, and P. Manimegalai. "Content arrangement characteristic based encryption in cloud using public auditing for data management." International Journal of Engineering & Technology 7.1.1 (2017): 30-36.
21. Muralidharan, J., and P. Manimegalai. "Current Comparison Domino based CHSK Domino Logic Technique for Rapid Progression and Low Power Alleviation." International Journal of Electrical and Computer Engineering (IJECE) 7.5 (2017): 2468-2473.
22. Mallikarjun, H. M., P. Manimegalai, and H. N. Suresh. "Machine Learning Based Classifier for Falsehood Detection." IOP Conference Series: Materials Science and Engineering. Vol. 225. No. 1. IOP Publishing, 2017.
23. Kumar, R. Suresh, and P. Manimegalai. "Denoising and Classification of EEG Signals Using Adaptive Line Enhancer in VLSI."International Journal of Applied Engineering Research 12.22 (2017): 11920-11925.
24. Narmatha, C., P. Manimegalai, and S. Manimurugan. " The Secure Lossless Compression Scheme for Grayscale Medical Images Using PBT and Modified Steganography", Journal of Advanced Research in Dynamical and Control Systems, Issue. 03-Recent Trends in Engineering and Managerial Excellence, Pp. 96-103, May 2017. ISSN:1943-023X
25. Vijayalakshmi, Y., Teena Jose, S. Sasidhar Babu, Sruthi R. Glorya Jose, and P. Manimegalai. "Blue Brain-A Massive Storage Space." Advances in Computational Sciences and Technology 10, no. 7 (2017): 2125-2136.
26. H.M. Mallikarjun, Dr.P. Manimegalai. "Machine Learning Based Epileptic Seizure Prediction Using Brain Waves." Jour of Adv Research in Dynamical & Control Systems 13(2017): 9-16.

27. P. Manimegalai and Vijayakumar Maragal Venkatamunic Govinda Rajulu. Ga. "Development of Assistive Agriculture Model Based on Cognitive Models in Artificial Intelligence" International Journal of Control Theory and Applications 10.24(2017): 403-412.
28. P. Manimegalai and Vijayakumar Govinda Rajulu. "Estimating Route and Energy Consciousness for QoS Routing in Mobile Ad Hoc Networks" International Journal of Control Theory and Applications 144.2(2017): 185-192.
29. Giby Jose, P. Manimegalai. "A Review On Object Identification" Pakistan Journal Of Biotechnology 14(2017): 156-159.
30. E. Mary Priyadarshini, P. Manimegalai, S. Chellaganeshavalli. "A High-Performance FIR Filter Architecture For Fixed And Reconfigurable Applications" Pakistan Journal Of Biotechnology 14(2017): 160-164
31. V. Brindha, P. Manimegalai. "Estimation Of Maximum Power Efficiency Using Reactive Routing In Wireless Ad Hoc Networks" Pakistan Journal Of Biotechnology 14(2017): 165-168
32. Shibi O, P. Manimegalai. "Analysis Of Hybrid Full Adder Topologies Based On Improved Drptl" Pakistan Journal Of Biotechnology 14(2017): 188-194
33. T. Karthikeya, P. Manimegalai. "Investigation On WSN Routing Protocol In IEEE802.15.4 Based Wsn Under Wormhole Attack" Pakistan Journal Of Biotechnology 14(2017): 195-199
34. Prajoona Valsalan, P. Manimegalai. "Analysis Of Area Delay Optimization Of Improved Sparse Channel Adder" Pakistan Journal Of Biotechnology 14(2017): 209-213
35. Mallika. S, M. Dharani Kumar, P. Manimegalai. "Distributed Model Predictive Control Of A Wind Farm With Clustering" Pakistan Journal Of Biotechnology 14(2017): 214-219
36. V. Shrividhya, P. Manimegalai. "Network Security In Cloud Computing" Pakistan Journal Of Biotechnology 14(2017): 220- 222
37. S. Arun Balaji, P. Manimegalai. "Development Of Feed Forward Back Propagation Neural Network With Best Fitting Models To Predict Seasonal Rice Production " Pakistan Journal Of Biotechnology 14(2017): 223-241

38. M. Udhayamoorthi, P. Manimegalai, S. Karthik. "Energy Effective Routing Scheme for Reducing Energy Utilization in Mobile Ad Hoc Networks" International Journal of Control Theory and Applications 10.33(2017): 129-136
39. R Gopinathan, P Manimegalai. "Lifespan Enhanced Energy Efficient Cluster Formation and Trusted Multipath Data Transmission for Packet Forwarding in Wireless Sensor Network" International Journal of Applied Engineering Research 12(2017): 7052-7067
40. Vijayalakshmi Yellepeddi, Neethu Natarajan, P. Manimegalai, and Suvanam Sasidhar Babu. "Study on Emerging Trends in Malware Variants." International Journal of Pure and Applied Mathematics 116.22(2017): 479-489.
41. Mallikarjun, H. M., and P. Manimegalai. "Adaptive Neuro-fuzzy Inference System for Farmers Depression Stage Prediction." International Journal of Pure and Applied Mathematics 116.24(2017): 119-129.
42. Karthikeyan, T., and P. Manimegalai. "Reliable Energy Efficient Data Gathering Approach for Wireless Sensor Networks." International Journal of Pure and Applied Mathematics 114.7(2017): 605-618.
43. Yellepeddi Vijayalakshmi, P. Manimegalai, and Suvanam Sasidhar Babu. "Classification Using Decision Tree Approach towards Information Retrieval Keywords Techniques and a Data Mining Implementation Using WEKA Data Set." International Journal of Pure and Applied Mathematics 116.22(2017): 19-29.
44. Arun, M., N. Sivasankari, PT Vanathi, and P. Manimegalai. "Analysis of Average Weight Based Centroid Localization Algorithm for Mobile Wireless Sensor Networks." Advances in Wireless and Mobile Communications 10.4(2017): 757-780
45. V Joseph Michael Jerard, P Manimegalai Vairavan. "Block-Based Diagonal Hashing Scheme With One Step Verification For Efficient Public Auditing And Data Management Of Cloud Resources" IJCTA 9.36(2016): 327-336.
46. Gopinathan, R., and P. Manimegalai. "Energy and Latency Aware Position Based Packet Forwarding Protocol for Wireless Sensor Networks." International Journal of Applied Engineering Research 11.13 (2016): 7961-7966.

47. Gopinathan, R., and P. Manimegalai. "Energy and Latency Aware Position Based Packet Forwarding Protocol for Wireless Sensor Networks." *International Journal of Applied Engineering Research* 11.13 (2016): 7961-7966.
48. Mahesh, A., and P. Manimegalai. "An efficient data processing architecture for smart environments using large scale machine learning." *IIOAB Journal, Special Issue, Emerging Technologies in Networking and Security* 7.9 (2016): 795-803.
49. Rajulu, G. Govinda, Vijayakumar Maragal Venkatamuni, and P. Manimegalai. "Development of Artificial Intelligent Skills and Techniques in Agricultural Robotics." *Indian Journal of Science and Technology* 9.45 (2016).
50. Mallikarjun, H. M., H. N. Suresh, and P. Manimegalai. "Mental state recognition by using brain waves." *Indian Journal of Science and Technology* 9.33 (2016).
51. Muralidharan, J., and P. Manimegalai. "Conceptual Improvisation on Low Power Mitigation for Domino Logic Systems using CHSK Domino Logic." *Indian Journal of Science and Technology* 9.16 (2016).
52. Mahesh, A., and P. Manimegalai. "An efficient data processing architecture for smart environments using large scale machine learning." *IIOAB Journal, Special Issue, Emerging Technologies in Networking and Security* 7.9 (2016): 795-803.
53. Muralidharan, J., and P. Manimegalai. "An Integrated Switching Technique for Minimizing Power Consumption Using MDFSD in Domino Logic System." *International Journal of Applied Engineering Research* 11.4 (2016): 2298-2304.
54. Muralidharan, J., and P. Manimegalai. "A Literature Survey and Investigation of Various High Performance Domino Logic Circuits." *ARNP Journal of Engineering and Applied Sciences* 11 (2016): 3456.
55. Gopinathan, R., and P. Manimegalai. "Energy and Latency Aware Position Based Packet Forwarding Protocol for Wireless Sensor Networks." *International Journal of Applied Engineering Research* 11.13 (2016): 7961-7966.
56. Balaji, S. Arun, and P. Manimegalai Vairavan. "Performance Evaluation of Hybrid Feed Forward Back Propagation Neural Network system for prediction of rice production in Cauvery River Basin of Tamilnadu." *Performance Evaluation* 3.8 (2016).

57. Muralidharan, J., and P. Manimegalai. "A Literature Survey and Investigation of Various High Performance Domino Logic Circuits." *ARPN Journal of Engineering and Applied Sciences* 11 (2016): 3456.
58. Prajoona Valsalan, Dr . P. Manimegalai. "Design And Analysis Of Improved Sparse Channel Adder With Optimization Of Energy Delay" *Australian Journal of Basic and Applied Sciences* 9.27(2015): 277-286.
59. S. Arun Balaji, P. Manimegalai Vairavan. "Effect Of Different Statistical Measures In Error Reduction In Feed Forward Back Propagation Neural Network (Ffbpnn) To Predict Rice Production" *International Journal of Applied Engineering Research* 10.24(2015): 44570-44578.
60. Jenifer.S Jerwin prabu.A, Dr. Manimegalai.P, Abbiramy.S.S. "Hiv-2 Reverse Transcriptase Using Chemical Similarity Process Of Reducing Viral Attack And Increasing Cd4 Counts In Hiv-Infected Patients" *International Journal of Scientific & Engineering Research* 5.12(2014): 1608-1613.
61. Jose, Giby, and P. Manimegalai. "Identification of Precise Object Among Various Objects Using Sparse Coding-A Review." *Pak. J. Biotechnol* 13: 519-522.
62. Jose, Giby, and P. Manimegalai. "Identification of Precise Object among Various Objects using Sparse Coding." *International Journal of Computer Applications* 154.10 (2016).
63. Manimegalai, P., and Suresh Kumar. "Detection and separation of EEG artifacts using wavelet tranaform", *Journal of Engineering and Applied Sciences*. Vol13.issue.11:4165-4172 June 2018.
64. T. Karthikeyan, P. Manimegalai "A cluster approach for maximizing packet delivery rate in wireless sensor network, *Journal of web engineering*, Vol.17, No.6, 2018.
65. Narmatha, C., P. Manimegalai, and S. Manimurugan "A Decode Technique of MSI for Efficient Reconstruction Process", *International Journal of Engineering & Technology*, Vol. 7, No. 3.6, Pp.110-114, 2018.

