

PUBICATIONS (Total 33 (14 International Journals (8-SCI INDEXED, 4-SCOPUS INDEXED), 19 International Conferences (13-SCOPUS INDEXED, 6-IEEE))

International Journal Papers:

1. "A Smart Crop, Irrigation System, and Fertilizer Prediction Using IoT and Machine Learning", International Journal of Global Warming (IF=0.9), (Accepted) (SCI-E INDEXED)
2. "The Effect of Plant Leaf Disease on Environment and Detection of Disease Using Convolutional Neural Network", International Journal of Global Warming (IF=0.9), (Accepted) (SCI-E INDEXED)
3. "A lightweight, efficient, and secure identity-based authentication scheme for underwater green transport systems", Annals of Telecommunications (IF=1.9), <https://doi.org/10.1007/s12243-023-00999-y>. (SCI-E INDEXED)
4. "An Integrated Deep-Learning Model for SmartWaste Classification", Environmental Monitoring and Assessment (IF=3.0). (Minor Revision) (SCI-E INDEXED)
5. "Disease Detection in Different Plants to Save Environment Using IOT, Image Processing and Machine Learning: A Review", International Journal of Global Warming (IF=0.9), 31(4), 2023, DOI: 10.1504/IJGW.2023.10057219. (SCI-E INDEXED)
6. "Optimized and load balanced clustering for wireless sensor networks to increase the lifetime of WSN using MADM approaches." Wireless Networks (IF=3.0): 1-37 (2018). (SCI INDEXED) <https://doi.org/10.1007/s11276-018-1812-2>
7. "Multiple parameter based energy balanced and optimized clustering for WSN to enhance the Lifetime using MADM Approaches", Wireless Personal Communications (IF=2.2) (2019). (SCI-E INDEXED) <https://doi.org/10.1007/s11277-019-06192-6>
8. "ESS-IBAA: Efficient, Short, and Secure ID-based Authentication Algorithm for Wireless Sensor Network", International Journal of Communication Systems (IF=1.882). (SCI/SCIE Indexed- Accepted) <https://doi.org/10.1002/dac.4764>
9. "Lifetime Maximization of Heterogeneous WSN using Fuzzy-based Clustering", Recent Advances in Computer Science and Communications (2020) 13: 1. <https://doi.org/10.2174/2666255813999200824123409> (SCOPUS Indexed Journal)
10. "MADM based Optimal Nodes Deployment for WSN with Optimal Coverage and Connectivity", IOP Conference Series: Materials Science and Engineering vol. 1020 (2021) pp: 012003. (SCOPUS Indexed Journal) doi:10.1088/1757-899X/1020/1/012003
11. "Fuzzy based hierarchical optimized approach with connectivity in WSN using multiple conflicting factors for application in the supervision of pipeline", Journal of Physics: Conference series. (SCOPUS Indexed Journal) doi:10.1088/1742-6596/1831/1/012014
12. "Optimal Tiring with Base Station Position for Wireless Sensor Network", ISSN: 0193-4120 Page No. 7593 – 7602 (TEST Engineering and management) (SCOPUS Indexed Journal)
13. "FLASH BLOCK AWARE PAGE REPLACEMENT ALGORITHM FOR NAND FLASH MEMORY", International Journal of Research and Analytical Reviews (IJRAR) Volume 6 Issue 2 May 2019 (2019). (UGC Approved, E-ISSN: 2348-1269)
14. "A STUDY ON VANET AND ITS SECURITY ISSUES", International Journal of Recent Scientific Research (IJRSFP), Vol. 10, Issue, 06(I), pp. 33298-33303, June, 2019. DOI: <http://dx.doi.org/10.24327/ijrsr.2019.1006.3646>.

International Conference Proceedings:

1. "Matrix Method for Non-Dominated Sorting and Population Selection for Next Generation in Multi-Objective Problem Solution", Proceedings of IEEE 8th International Conference

CONFLUENCE' 2018 (SCOPUS INDEXED).

DOI: [10.1109/CONFLUENCE.2018.8442879](https://doi.org/10.1109/CONFLUENCE.2018.8442879)

2. "Multi-Factor Based Energy Efficient Algorithm for Clustering and Routing in WSN", Proceedings of SPRINGER 3rd International Conference SoCTA 2018 (SCOPUS INDEXED). https://doi.org/10.1007/978-981-15-0751-9_53
3. "Energy Efficient Protocol to Supervise Over-ground Pipelines using WSN", Proceedings of 2018 3rd IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT-2018), pp 1818-1823. (IEEE) DOI: [10.1109/RTEICT42901.2018.9012422](https://doi.org/10.1109/RTEICT42901.2018.9012422)
4. "Partition Based Strategic Node Placement and Efficient Communication Method for WSN", Proceedings of 2018 3rd IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT 2018), pp 1807-1812. (IEEE) DOI: [10.1109/RTEICT42901.2018.9012336](https://doi.org/10.1109/RTEICT42901.2018.9012336)
5. "Optimized H-LEACH algorithm for clustering to improve lifetime of WSN", Proceedings of 2018 3rd IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT-2018), pp 2393-2398. (IEEE) DOI: [10.1109/RTEICT42901.2018.9012605](https://doi.org/10.1109/RTEICT42901.2018.9012605)
6. "Heterogeneous Clustering for Energy Optimization in Wireless Sensor Networks", 9th International Conference-Confluence-2019 (SCOPUS INDEXED). DOI: [10.1109/CONFLUENCE.2019.8776933](https://doi.org/10.1109/CONFLUENCE.2019.8776933)
7. "Multi-Objective Heterogeneous Clustering Approach for Efficient-Energy Optimization in WSN", 9th International Conference-CONFLUENCE' 2019 (SCOPUS INDEXED). DOI: [10.1109/CONFLUENCE.2019.8776965](https://doi.org/10.1109/CONFLUENCE.2019.8776965)
8. "Multi Parameters Based Heterogeneous Clustering Algorithm for Energy Optimization in WSN", 9th International Conference-CONFLUENCE' 2019 (SCOPUS INDEXED). DOI: [10.1109/CONFLUENCE.2019.8776966](https://doi.org/10.1109/CONFLUENCE.2019.8776966)
9. "Implementation and Analysis of 7T SRAM at Different Design Technologies", 2nd IEEE International Conference on Intelligent Sustainable Systems [ICISS 2019] (SCOPUS INDEXED). DOI: [10.1109/ISS1.2019.8908072](https://doi.org/10.1109/ISS1.2019.8908072)
10. "Mean Threshold Shortest Job Round Robin CPU Scheduling Algorithm", 2nd IEEE International Conference on Intelligent Sustainable Systems [ICISS 2019] (SCOPUS INDEXED). DOI: [10.1109/ISS1.2019.8908071](https://doi.org/10.1109/ISS1.2019.8908071)
11. "An enhanced approach for energy optimization using protocol based on multi factors", 3rd IEEE Technically Sponsored International Conference on Computing Methodologies and Communication (ICCMC 2019) (SCOPUS INDEXED). DOI: [10.1109/ICCMC.2019.8819652](https://doi.org/10.1109/ICCMC.2019.8819652)
12. "A Survey on Fundamental of Wireless Sensor Network with Various Issues in Optimization", 3rd IEEE Technically Sponsored International Conference on Computing Methodologies and Communication (ICCMC 2019) (SCOPUS INDEXED). DOI: [10.1109/ICCMC.2019.8819833](https://doi.org/10.1109/ICCMC.2019.8819833)
13. "Load Balanced Clustering protocol for lifetime enhancement of WSN", 3rd IEEE Technically Sponsored International Conference on Computing Methodologies and Communication (ICCMC 2019) (SCOPUS INDEXED). DOI: [10.1109/ICCMC.2019.8819854](https://doi.org/10.1109/ICCMC.2019.8819854)
14. "Power Optimization Algorithm for Heterogeneous WSN using Multiple Attributes", 3rd IEEE Technically Sponsored International Conference on Computing Methodologies and Communication (ICCMC 2019) (SCOPUS INDEXED). DOI: [10.1109/ICCMC.2019.8819705](https://doi.org/10.1109/ICCMC.2019.8819705)
15. "Fuzzy based Technique for Nodes Coverage with Load Balancing Data collection using Multiple Conflicting Factors", Proceedings of the Fourth International Conference on Communication and Electronics Systems (ICCES 2019) IEEE Conference Record # 45898;

IEEE Xplore ISBN: 978-1-7281-1261-9, pp: 578-583 (SCOPUS INDEXED).
DOI: [10.1109/ICCES45898.2019.9002069](https://doi.org/10.1109/ICCES45898.2019.9002069)

16. "Power Balanced Efficient Clustering Algorithm for WSN", Proceedings of the Fourth International Conference on Communication and Electronics Systems (ICCES 2019) IEEE Conference Record # 45898; IEEE Xplore ISBN: 978-1-7281-1261-9, pp: 584-588 (SCOPUS INDEXED). **DOI:** [10.1109/ICCES45898.2019.9002109](https://doi.org/10.1109/ICCES45898.2019.9002109)
17. "Relative Distance Based Fuzzy Clustering Approach for Wireless Sensor Networks". Second International Conference on Advances in Electrical, Electronic and System Engineering, 2019, IEEE. (In press)
18. "Energy Distribution based Cluster Head Selection to Enhance the Lifetime of WSN". Second International Conference on Advances in Electrical, Electronic and System Engineering, 2019, IEEE. (In press)
19. "Optimization of Data Collection process in Heterogeneous WSN using Fuzzy and Multi-Attribute based Load Balancing Approach". Second International Conference on Advances in Electrical, Electronic and System Engineering, 2019, IEEE. (In press)
20. A Comparative Study of Heuristics and Meta-Heuristic Algorithms with Issues in WSN. In: Gunjan V.K., Zurada J.M. (eds) Proceedings of International Conference on Recent Trends in Machine Learning, IoT, Smart Cities and Applications. Advances in Intelligent Systems and Computing, vol 1245. Springer, Singapore. https://doi.org/10.1007/978-981-15-7234-0_48

BOOKS

1. "SOA Security Framework Design and Implementation", 978-620-0-27913-2 (LAMBERT-2019).

PATENT

1. Patent 1: "A POWER SYSTEM DISTURBANCE CLASSIFICATION USING SUPPORT VECTOR MACHINE AND A METHOD THEREOF", REPUBLIC OF SOUTH AFRICA. Patent Granted Date: 29/06/2022
2. Patent 2: "BUILDING SECURITY SYSTEM WITH IOT SENSORS AND MACHINE LEARNING", FEDERAL REPUBLIC OF GERMANY. Date of Publication of the entry in the Patent Gazette: 09/06/2022
3. Patent 3: "AI BASED SMART GLASSES FOR IDENTIFYING SKIN DISEASE" GOVERNMENT OF INDIA Patent Granted Date: 17/08/2022
4. Patent 4: "A SYSTEM FOR MONITORING ATTENDANCE USING MULTI-AUTHENTICATION LEVELS", FEDERAL REPUBLIC OF GERMANY. Date of Publication of the entry in the Patent Gazette: 12/09/2022
5. Patent 5: "SYSTEM OF EFFECTIVE KEEPER BASED DOMINO CIRCUIT FOR LOW POWER APPLICATION" REPUBLIC OF SOUTH AFRICA. Patent Granted Date: 30/11/2022
6. Patent 6: "USER BEHAVIOUR ANALYSIS BASED ON ARTIFICIAL INTELLIGENCE SYSTEM AND METHOD THEREOF", GOVERNMENT OF INDIA. Date of Publication: 06/01/2023