



**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE,
GWALIOR
(Deemed University)
(Declared Under Distinct Category by Ministry of Education,
Government of India)**



**NAAC Accredited with A++ Grade
Department of Electronics Engineering**

List of SCI Papers

1. Jain, R., Thakare, V.V. and Singhal, P.K., 2024. Design and Comparative Analysis of THz Antenna through Machine Learning for 6G Connectivity. *IEEE Latin America Transactions*, 22(2), pp.82-91. **(SCI)**
2. Batham, D. and Thakare, V.V., 2024. An improved cost function-based class of service provisioning scheme for elastic optical networks. *Computer Networks*, 243, p.110283. **(SCI)**
3. Gupta, H.K. and Thakery, V.V., 2024. Tumour Detection in Fabricated Gelatin Brain Phantom Model Using Ultra Wide Band Planner Antenna. *Progress in Electromagnetics Research C*, 140. **(ESCI/Scopus)**
4. Dhakad, B. and Shrivastava, L., 2024. Machine Learning-Based Risk-Aware Congestion Control Scheme for Minimization of Information Loss in Dense VANET Environment. *Journal of Circuits, Systems and Computers*, 33(09), p.2450165. **(SCIE)**
5. Singh, M. and Shrivastava, L., 2024. Multi-objective optimized multi-path and multi-hop routing based on hybrid optimization algorithm in wireless sensor networks. *Wireless Networks*, pp.1-17. **(SCI)**
6. Tiwari, R., Sharma, R. and Dubey, R., 2024. A Modified Regression Model for Analysing the Performance of Metamaterial Antenna Using Machine Learning and Deep Learning. *Wireless Personal Communications*, 136(3), pp.1769-1789. **(SCI)**
7. Mishra, V., Singh, A.K., Nautiyal, R. and Chauhan, A., 2024. GaAs-on-insulator based vertical heterojunction tunnel FET: proposal and analysis for VLSI circuit applications. *Physica Scripta*, 99(8), p.085978. **(SCI)**
8. Dubey, P., Kanumuri, T., Vyas, R. and Jain, P.K., 2024. Anisotropic differential concavity codes for palmprint representation. *Multimedia Tools and Applications*, 83(10), pp.31001-31015. **(SCIE)**
9. Ranbeer Tyagi, Geetam Singh Tomar and Laxmi Shrivastava, "Side Searching and Object Improvement Methods for Unconstrained Face Recognition Environment", *Traitement du Signal (TS)*, International Information and Engineering Technology Association (IIETA), Vol. 41, No. 5, October, 2024, pp. 2645-2654. (SCI) <https://doi.org/10.18280/ts.410537> (Impact Factor: 1.2)
10. Jain, R., Thakare, V.V. and Singhal, P.K., 2023. Enhancing circular microstrip patch antenna performance using machine learning models. *Facta Universitatis, Series: Electronics and Energetics*, 36(4), pp.589-600. **(Scopus & ESCI)**
11. Ojha, S.S., Singhal, P.K. and Thakare, V.V., 2023. Highly efficient dual diode rectenna with an array for RF energy harvesting. *Wireless Personal Communications*, 131(4), pp.2875-2896. **(SCI)**
12. Gupta, E., Kundu, S.K., Rawat, S. and Singhal, P.K., 2023. Circularly Polarized Planar and Curve structured antenna using symmetrical crossed elliptical slots. *Wireless Personal Communications*, 128(1), pp.267-282. **(SCI)**
13. Parsediya, Deep Kishore and Singhal, Pramod Kumar. "Analysis of 5G Rotman beamforming lens antenna for higher beam angle and minimum phase error" *Frequenz*, 2023. <https://doi.org/10.1515/freq-2023-0239> **(SCI)**
14. Jain, R., Thakare, V.V. and Singhal, P.K., Employing Machine Learning Models to Predict Return Loss Precisely in 5G Antenna. **(Scopus & ESCI)**
15. Sahoo, P., Singhal, P.K. and Markam, K., 2024. Enhancing Axial Ratio Bandwidth of Dual Band Microstrip Patch Antenna for GSM Application. *IEEE Latin America Transactions*, 22(4), pp.352-360. **(SCIE)**

16. Singh, M. and Shrivastava, L., 2024. Multi-objective optimized multi-path and multi-hop routing based on hybrid optimization algorithm in wireless sensor networks. *Wireless Networks*, pp.1-17. **(SCIE)**
17. Singh, P., Mahor, V., Lakshmaiya, N., Shanker, K., Kaliappan, S., Muthukannan, M. and Rajendran, G., 2024. Prediction of groundwater contamination in an open landfill area using a novel hybrid clustering-based AI model. *Environment Protection Engineering*, 50(1). **(SCIE)**
18. Singh, P., Mahor, V. and Singh, R.M., 2024. A Novel Approach to Pollution Source Identification in Groundwater Using Hybrid Ensemble of Wavelet Neural Network (WNN) and ARIMA. *Environmental Forensics*, pp.1-13. **(SCIE)**
19. Dubey, R., Rajpoot, V., Chaturvedi, A., Dixit, A. and Maheshwari, S., 2024. Ball-bearing fault classification using comparative analysis of wavelet coefficient based on entropy measurement. *IETE Journal of Research*, 70(2), pp.1122-1132. **(SCIE)**
20. Suji, R.J., Bhadauria, S.S. and Godfrey, W.W., 2023. A survey and taxonomy of 2.5 D approaches for lung segmentation and nodule detection in CT images. *Computers in Biology and Medicine*, p.107437. **(SCI)**
21. Agarwal, A., Singhal, P.K. and Thakare, V.V., 2022. Design of miniaturized dual-polarized dipole antenna for 4G & sub-6 GHz 5G applications. *Frequenz*, 76(5-6), pp.309-315. **(SCI)**
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23. Wang, B., Lv, Y., Bhola, J., Mahor, V., Yadav, R. and Kaliyaperumal, K., 2022. Vibration compensation for railway track displacement monitoring system using biomedical image processing concept. *The Journal of Engineering*, 2022(11), pp.1076-1085. **(SCIE)**
24. Arya, V., Choubey, H., Sharma, S., Chen, T.Y. and Lee, C.C., 2022. Image enhancement and features extraction of electron microscopic images using sigmoid function and 2D-DCT. *IEEE Access*, 10, pp.76742-76751. **(SCIE)**
25. Dubey, P., Kanumuri, T. and Vyas, R., 2022. Optimal directional texture codes using multiscale bit crossover count planes for palmprint recognition. *Multimedia Tools and Applications*, 81(14), pp.20291-20310. **(SCIE)**
26. Yadav, M. and Singhal, P.K., 2021. Simultaneous Interleaver Assignment Requests Handling in Inverse Tree Interleaver Deployment Scenario for Multi-user 5G Communications. *Wireless Personal Communications*, 118(2), pp.1129-1147. **(SCI)**
27. Choubey, H. and Pandey, A., 2021. A combination of statistical parameters for the detection of epilepsy and EEG classification using ANN and KNN classifier. *Signal, Image and Video Processing*, 15(3), pp.475-483. **(SCIE)**
28. Pathak, S.K., Batham, D. and Prakash, S., 2021. Time and bandwidth aware traffic balancing in elastic optical networks—A two dimensional approach. *Optical Fiber Technology*, 64, p.102585. **(SCI)**
29. Singh, R.K., Gupta, G., Singh, T., Dubey, K. and Mehto, A., 2022. Circulate Matrix and Compression Sensing Based Multi-Level Image Encryption. *Traitement du Signal*, 39(3), p.853. **(SCIE)**
30. S.K. Pathak, Deepak Batham, and Shashi Prakash, "Time and bandwidth aware traffic balancing in elastic optical networks- A two-dimensional approach," *Optical Fiber Technology*, vol. 64, pp.102585, July 2021. DOI: <https://doi.org/10.1016/j.yofte.2021.102585>. (Elsevier, SCI, Impact Factor - 2.6).
31. Deepak Batham, S.K. Pathak, D.S. Yadav, and Shashi Prakash, "A traffic scheduling strategy based on cost function for differentiated class of service in multi-domain optical networks," *Optical Fiber Technology*, vol. 60, pp. 102337, Dec. 2020. DOI: <https://doi.org/10.1016/j.yofte.2020.102337>. (Elsevier, SCI, Impact Factor - 2.6).
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34. Singh A.;Nagar J.;Sharma S.;Kotiyal V. "A Gaussian process regression approach to predict the k-barrier coverage probability for intrusion detection in wireless sensor networks" *Expert Systems with Applications*, **Volume** 172, **Year** 2021, DOI:10.1016/j.eswa.2021.114603
35. Singh A.;Sharma S.;Singh J., "Nature-inspired algorithms for Wireless Sensor Networks: A comprehensive survey", *Computer Science Review*, **Volume** 39, **Year** 2021, DOI:10.1016/j.cosrev.2020.100342
36. A novel model to eliminate the doubly near-far problem in wireless powered communication network, *IET Communications*, **Year** 2021
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38. J. Amutha ., Sandeep Sharma ., Sanjay Kumar Sharma ., "Strategies based on various aspects of clustering in wireless sensor networks using classical, optimization and machine learning techniques: Review, taxonomy, research findings, challenges and future directions", *Computer Science Review*, **Volume** 40, **Year** 2021, DOI:10.1016/j.cosrev.2021.100376
39. J. Amutha ., Jaiprakash Nagar ., Sandeep Sharma ., "A Distributed Border Surveillance (DBS) System for Rectangular and Circular Region of Interest with Wireless Sensor Networks in Shadowed Environments", *Wireless Personal Communications*, **Volume** 117, **Year** 2021, **Pages** 2135-2155, DOI:10.1007/s11277-020-07963-2
40. Singh, A., Nagar, J., Sharma, S. and Kotiyal, V., 2021. A Gaussian process regression approach to predict the k-barrier coverage probability for intrusion detection in wireless sensor networks. *Expert Systems with Applications*, 172, p.114603., **Year** 2021 .