

Distinguished Research Publications

SR No.	Authors	Title of the Paper	Month Year	Source title	DOI
1	V.K., Harpale, Varsha K.; V.K., Bairagi, V. K.	An adaptive method for feature selection and extraction for classification of epileptic EEG signal in significant states	Jul-21	Journal of King Saud University - Computer and Information Sciences	10.1016/j.jksuci.2018.04.014
2	P.J., Rajput, Priti Jagatsing; S.U., Bhandari, Sheetal Umesh; G., Wadhwa, Girish	A Review on” Spintronics an Emerging Technology	Jan-22	Silicon	10.1007/s12633-021-01643-x
3	Pramod Rohidas Sonawane; Sheetal Umesh Bhandari; Rajkumar Bhimgonda Patil	Reliability and Criticality Analysis of a Large-Scale Solar Photovoltaic System Using Fault Tree Analysis Approach	44986	Sustainability	https://doi.org/10.3390/su15054609
4	P.V., Sontakke, Prakash Vijay; N.B., Chopade, Nilkanth Bhikaji	Optimized Deep Neural Model-Based Intrusion Detection and Mitigation System for Vehicular Ad-Hoc Network	Nov-22	Cybernetics and Systems	10.1080/01969722.2022.2137643
5	U., Shirode, Ujwal; R.D., Kanphade, Rajendra D.	Design and performance improvement of low power SRAM using deep submicron technology	Nov-22	Analog Integrated Circuits and Signal Processing	10.1007/s10470-022-02103-1
6	V., Mittal, Vikas; B., Ruban, Brijilal; D., Shekhawat, Deepika; M.T., Kolte, Mahesh T.; B.M., Manohar, B. Murali	Segmentation and detection of soft tissue sarcomas based on mask regional convolutional neural network	Apr-24	Multimedia Tools and Applications	10.1007/s11042-024-19003-3
7	S.D., Nagarale, S. D.; B.P., Patil, B. P.	Accelerating AI-Based Battery Management System's SOC and SOH on FPGA	Jun-23	Applied Computational Intelligence and Soft Computing	10.1155/2023/2060808
8	P.K., Rajani, P. K.; A.A., Khaparde, Arti A.; V.S., Bendre, Varsha S.; M.J., Katti, Mrs J.V.	Fraud detection and prevention by face recognition with and without mask for banking application	Apr-24	Multimedia Tools and Applications	10.1007/s11042-024-19021-1

9	A., El Jery, A.; M., Aldrdery, Moutaz; U., Shirode, Ujwal; J., Orosco, Juan; A., Elkhaleefa, Abubakr; M.A., SillanpÓ“Ó“, Mika A.; S.S., Sammen, Saad Sh; H.H., Tizkam, Hussam H.	An Efficient Investigation and Machine Learning-Based Prediction of Decolorization of Wastewater by Using Zeolite Catalyst in Electro-Fenton Reaction	Jul-23	Catalysts	10.3390/catal13071085
10	R.B., Patil, Rajkumar Bhimgonda; A., Khalkar, Arun; S., Al-Dahidi, Sameer; R.S., Pimpalkar, Rita S.; S.U., Bhandari, Sheetal Umesh; M.G., Pecht, Michael G.	A Reliability and Risk Assessment of Solar Photovoltaic Panels Using a Failure Mode and Effects Analysis Approach: A Case Study	May-24	Sustainability (Switzerland)	10.3390/su16104183
11	J.W., Lambrechts, Johannes Wynand; S., Sinha, Saurabh; K., Sengupta, Kaushik; A., Bimana, Abadahigwa; S., Kadam, Suvarna; S.U., Bhandari, Sheetal Umesh; J., du Preez, Jaco; Z., Shao, Zijian; X., Huang, Xiaolong; Z., Liu, Zheng	Intelligent Integrated Circuits and Systems for 5G/6G Telecommunications	Feb-24	IEEE Access	10.1109/ACCESS.2024.3361656
12	Dr. Jyoti S. Kulkarni, Dr. R.S. Bichkar	A Modified Technique of Hybrid Multiobjective Genetic Algorithm for Image Fusion	Sep-23	The International Arab Journal of Information Technology	10.34028/iajit/20/5/8
13	S.U., Bhandari, Sheetal Umesh; T.D., Dhamale, Triveni D.; R., Kawade, Rupali; D.N., Dhake, Dipali Nilesh; G., Wadhwa, Girish	Dielectric modulated organic thin film transistor trench biosensor for label-free detection: Modeling and simulation analysis	Nov-23	International Journal of Numerical Modelling: Electronic Networks, Devices and Fields	10.1002/jnm.3186

14	A., Thakur, Anchal; R., Dhiman, Rohit; G., Wadhwa, Girish; S.U., Bhandari, Sheetal Umesh	Parameteric optimization of SiGe S/D NT JLFET using analytical modeling to improve L-BTBT induced GIDL	Feb-24	International Journal of Numerical Modelling: Electronic Networks, Devices and Fields	10.1002/jnm.3217
15	Bhandari, S.	Autism spectrum disorder detection using parallel deep convolution neural network and generative adversarial networks	Apr-24	Traitement du Signal	https://doi.org/10.18280/ts.410208
16	V., Bharath Sreenivasulu, Vakkalakula; S.U., Bhandari, Sheetal Umesh; M., Prasad, M.; P., Mani, Prashant; S.R., Chavva, Subba Reddy; M.D., Prakash, M. Durga	Spacer engineering on multi-channel FinFET for advanced wireless applications	May-24	AEU - International Journal of Electronics and Communications	10.1016/j.aeue.2024.155298
17	T.D., Dhamale, Triveni D.; S.U., Bhandari, Sheetal Umesh	Adam teaching learning optimization enabled LeNet for autism spectrum disorder detection using brain MRI	Apr-24	Biomedical Signal Processing and Control	10.1016/j.bspc.2023.105864
18	Anjali Shrivastav, Dr. Sheetal Bhandari, Dr. Mahesh Kolte	Enhanced Hearing Aid Performance with an African Buffalo Optimization-Based Frequency Response Masking Filter	Feb-24	IIETA	https://doi.org/10.18280/ts.410104
19	A.A., Shrivastav, Anjali A.; M.T., Kolte, Mahesh T.	An optimized frequency response masking reconfigurable filter to enhance the performance of the hearing aid system	Jun-24	Multimedia Tools and Applications	10.1007/s11042-024-19491-3
20	U.S., Rawandale, Ujjwala S.; M.T., Kolte, Mahesh T.	Improving the hearing aid system using optimized variable bandwidth filter based on wolf optimization	Jul-24	Multimedia Tools and Applications	10.1007/s11042-024-19748-x
21	P.S., Topannavar, Preeti Sadanand; V.S., Bendre, Varsha S.; D.S., Khurje, Deepti S.	Accurate brain tumor classification with STN-NAM in ResNet50 using MRI	Apr-25	Bulletin of Electrical Engineering and Informatics	10.11591/eei.v14i2.8706

22	Mrunalini Bhandarkar · Basudha Dewan · Payal Bansal	An intelligent interactive voiced interface to farmers for smart agriculture	May-25	Journal of Ambient Intelligence and Humanized Computing	https://doi.org/10.1007/s12652-025-04972-6
23	M.A., Gunavathie, M. A.; U., Shirode, Ujwal; N., Rajesh, Nichenametla; V., Sudha, V.	Neural network-driven scenario prediction for adaptive routing in MANETs using expanding ring search and random early detection	Mar-25	Evolutionary Intelligence	10.1007/s12065-025-01032-y
24	P.R., Sonawane, Pramod R.; S.U., Bhandari, Sheetal Umesh; R.B., Patil, Rajkumar Bhimgonda	Reliability and criticality analysis of a large-scale solar photovoltaic system using fuzzy-fault tree analysis approach	Sep-24	Journal of King Saud University - Engineering Sciences	10.1016/j.jksues.2024.09.001
25	S., Patil, Swati; V.N., Patil, Vijay Narendranath	Design and Analysis of Slotted Microstrip Patch Array Antenna at 2.4GHz for WLAN	Oct-24	Wireless Personal Communications	10.1007/s11277-024-11430-7
26	A.K.S., Pundir, Aditya Kumar Singh; G., Wadhwa, Girish; P., Kaur, Pawandeep; P., Mani, Prashant; S.U., Bhandari, Sheetal Umesh	Comparative Analysis of Symmetrical/Asymmetrical Vertical Electrolyte-Insulated Semiconductor Tunnel FET for pH Sensor Application	Jul-24	Physica Status Solidi (A) Applications and Materials Science	10.1002/pssa.202400093
27	Dr. Ujwal R. Shirode, Dr. P.V.Sontakke, Dr. A.S.Pawar	Threat Detection Framework for IoT Devices Using Adaptive Dilated Conv-Gated Recurrent Units With Spatial and Temporal Attention-Based Residual Autoencoder	Oct-25	Transactions on Emerging Telecommunications Technologies	https://doi.org/10.1002/ett.70274
28	Prof. S M Dhawale	Enhanced microaneurysm detection in fundus images using advanced image processing and machine learning techniques	Jun-25	Journal of integrated science and Technology	10.62110/sciencein.jist.2025.v13.1154
29	P.R., Sonawane, Pramod R.; S.U., Bhandari, Sheetal Umesh; R.B., Patil, Rajkumar Bhimgonda; S., Al-Dahidi, Sameer	Comparative analysis of methods used to solve class imbalance problem in dataset for CNN-based fault diagnosis of solar photovoltaic panels	Jul-25	International Journal of Thermofluids	10.1016/j.ijft.2025.101303

30	S.K., Sharma, Sanjeev Kumar; A.A., Shrivastav, Anjali A.; J.R., Shinde, Jitesh Ramdas; A.B., Jirapure, Ashish B.; J.S., Gawai, Jyotsna S.; A., Nanthaamornphong, Aziz	Optimizing YOLOv5-powered real-time surveillance using optical communication networks	Jul-25	Journal of Optical Communications	10.1515/joc-2025-0264
31	Prof. Ajjay S Gaadhe	Design and implementation of secure cryptographic algorithms for wireless sensor networks in healthcare applications	Sep-25	Journal of Discrete Mathematical Sciences and Cryptography	https://doi.org/10.47974/JDMSC-2172
32	Mr. Kapil B. Kotangale	A Novel Hybrid Deep Learning Model Optimized by Pelican Algorithm for Robust Dysarthric Speech Classification with Multi-feature Fusion and Attention-GAN	Nov-25	Circuits, Systems, and Signal Processing	10.1007/s00034-025-03400-6
33	Dr. Ujwal R. Shirode	Optimizing Electric Vehicle Charging in Smart Grids: An IoT-Based Approach With TARNN-NO	Oct-25	Quality and Reliability Engineering International	https://doi.org/10.1002/qre.70096
34	Dr. A.S.Pawar, Dr. U.R.Shirode, Dr. P.V.Sontakke	Development of Hybrid Adaptive and Attention Network with Enhanced Optimization for Traffic Congestion Control in the IoT Environment	Nov-25	Iranian Journal of Science and Technology Transactions of Electrical Engineering	https://doi.org/10.1007/s40998-025-00949-5