

2024 International Conference on Wireless Communications Signal Processing and Networking (WiSPNET 2024)

**Chennai, India
21-23 March 2024**



**IEEE Catalog Number: CFP24D52-POD
ISBN: 979-8-3503-5085-2**

**Copyright © 2024 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP24D52-POD
ISBN (Print-On-Demand):	979-8-3503-5085-2
ISBN (Online):	979-8-3503-5084-5

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

TABLE OF CONTENTS

SMARTGOV: Strategic Management of Assets for Resilient and Transparent Government Operations	1
<i>Naman Chauhan, Pranshul Atri, Riya Tomar, Aman Kumar, Chhavi Chauhan, Kaitala Charan Kumar, E. Sophiya</i>	
Design of Textile Based Tri-Band FSS for 5G mmWave Shielding	7
<i>Dhanesh C N E, Janani M, Sasmitha A, Ramprabhu S</i>	
Optimizing Drug Discovery for Breast Cancer in a Laboratory Environment Using Machine Learning	11
<i>Gauri Borkhade, Jagendra Singh, Nitin Arvind Shelke, Kamal Upreti, Vishakha Kuwar, Mohit Tiwar</i>	
Advancing Crowd Management Through Innovative Surveillance Using YOLOv8 and ByteTrack.....	16
<i>J Cruz Antony, Ch. Leela Sri Chowdary, Nanda Prabhu B, E Murali, Albert Mayan</i>	
Minimal Energy Cluster Head Selection in LEACH for WSNs : A Sea Lion Inspired Algorithm	22
<i>Pooja K, P Dharshini Muthu Bala, Rishi Kumar, Saaral S, Gandhiraj R</i>	
Network Provisioning in SDN: Optimizing Network Resources for Enhanced Performance.....	28
<i>G D Nithin, D Yathis Kumar, S. Nithin, K S Sree Hari Nathan, R Gandhiraj</i>	
Skin Lesion Segmentation Detection Using U-Net Architecture.....	34
<i>Kamalam T, Vinoth Raj R, Srikanth Y, Venkatesh P S, Dinesh Sithik Varshan A</i>	
Identifying the Abnormalities in Retinal Images Towards the Prediction of Cardiovascular Disease Using Deep Learning.....	40
<i>Yashwin P. Prakash, Boora Siri, J. Jabez</i>	
A Comparison of Multinomial Naive Bayes and XG Boost for Sentiment Analysis and Bias Detection in Tweets	46
<i>Devadath R, Emeric C Alex, K Sreeja, S Abhishek, Anjali T</i>	
Comparative Study on Classification of Images in Compressed and Uncompressed Domains	53
<i>Ashwini K, Perla Sree Neha, S Jaiadityan</i>	
Vitamin Deficiency Detection Using Neural Networks.....	58
<i>T. Krishna Chaithanya, Jiniya Gupta, M. S. Roobini</i>	
Adaptive PCA-Based Spectral Estimation Method for MST Radar Signal Processing.....	68
<i>G. Chandraiah, P. Suresh Babu, G. Srinivasulu</i>	
Hardware Efficient FIR Filter for Signal Processing Applications.....	73
<i>Pa Saisivakumaran, S Surendhar, V Saai Miruthunjan, K. Mariammal</i>	
Performance Analysis of Microwave Photonics Assisted Joint Radar Communications	78
<i>Thupili Sri Samthan Reddy, Veluri Sai Sharan Reddy, Rama Rao Thipparaju, Uday Kumar Singh</i>	
Charge Transport in Semiconductor Heterogeneous Structure at Oxide Interface by Inserting a Functional Layer.....	83
<i>Aditi Kalsh, Sandeep Dhariwal, Vijay Kumar Lamba</i>	

MAO: An Efficient Resource Utilization of Task Scheduling in Cloud Fog Environment	87
<i>K. Anusha, Santhosh Kumar Medishetti, P. Archana, Ganesh Reddy Karri, Kuppusamy P</i>	
Performance Analysis of Non-Local Means Denoising on Medical Images and the Impact of Filter Parameter Variation	95
<i>Preena Prasad, J Anitha, Blesson Biji</i>	
GEWO: An Efficient Prioritised Task Scheduling in Cloud Fog Computing Environment	100
<i>Santhosh Kumar Medishetti, G. Swapna, K. Anusha, Ganesh Reddy Karri, Kuppusamy P</i>	
Deep Learning-Based Blockage Prediction for Intelligent Reflecting Surfaces-Aided V2X Networks	108
<i>Ritika S. Kalyanshetti, Vaishnavi Kulkarni, Manasadevi Jagannath, A. P. Yashaswi, Sahana Srikanth, Sanjeev Gurugopinath</i>	
Analysis of U-Net and Modified VGG16 Technique for Mitosis Identification in Histopathology Images	113
<i>Jithy Lijo, Saleema J. S</i>	
E-Shaped Microstrip Patch Antenna for Terahertz Wireless Application at 140 GHz.....	121
<i>Chandan Choudhury, Yatharth Agrawal, Saurabh Jha, Vaibhav Pratap Singh, T. Rama Rao</i>	
Simulation and Empirical Analysis of Retransmission Timeout Forecasting Algorithms in Multihop Wireless Links	125
<i>Joseph Auxilius Jude. M, Diniesh. V. C, Sri Yaalini. M, Sherwin San Markus. M, Sneha. A, Vimal. N. S</i>	
EBG Loaded SIW Based UWB Antenna for Dual-Band Notched Applications	132
<i>Nanda Kumar M, T Shanmuganantham</i>	
Malicious Node Detection in VANETs Via Enhanced DSR and ML	136
<i>Palaniappan An, Pranav J, Shivamanikkavasakam S, Santosh Kumar, Gandhiraj R</i>	
A Survey on Voice Cloning and Automated Video Dubbing Systems.....	143
<i>S. China Ramu, Dhruv Saxena, Vikram Mali</i>	
LightGBM: Predicting Average Localization Error Through Particle Swarm Optimization in Wireless Sensor Networks.....	148
<i>Kadir Ileri</i>	
A PLC-Based Control of Thermoelectric Module: An Experimental Investigation	152
<i>Abhilash Shrivastava, Guru Prasad Mishra</i>	
Investigation on End-To-End Congestion Control Algorithm in Multi-Hop Ad-Hoc Network.....	157
<i>M. Joseph Auxilius Jude, V. C Diniesh, A. Sneha, S. Subhika, S. Vimal Sanjeevi, M. Sri Yaalini</i>	
Lightweight Deep Learning Model for Melanoma Classification in Dermoscopy Images for Smart Healthcare.....	163
<i>Pentapati Naga Sree Charan Teja, Thunakala Bala Krishna, Ajay Kumar Reddy Poreddy, Priyanka Kokil</i>	
Gate Engineered AlGaIn/GaN HEMT to Reduce the Trapping Effects and Improve Reliability	169
<i>R. Venkateswarlu, Guru Prasad Mishra, B. Acharya</i>	
Conformal Circular Loop Antenna for Leadless Cardiac Transcatheter Pacing System	174
<i>L. Harlan, M. Susila, Sachin Kumar</i>	

Metal Surface Defect Classification Using Custom Convolutional Neural Network with Self Attention Mechanism	179
<i>Hemprasad Yashwant Patil, Harshitha. P, Monisha. S, Sahithi Chalimila</i>	
Graphene Based Dual Port Octagonal Three Element Series Feed Array Antenna for Terahertz Applications.....	184
<i>Govind Kumar Pandey, T. Rama Rao</i>	
Floor Cleaning Robot with Android-Based Voice Command.....	188
<i>V S Midhun, M Pondurai, S Vairaprakash</i>	
Design and Analysis of F Shaped Planar Inverted Antennas for High-Gain Applications	192
<i>Addetla Archana, Gosula Sirisha, Nuthanapati Sai Sathvika, V. Ayyem Pillai</i>	
Terahertz Photoconductive Antenna for Sensing and Imaging Applications.....	197
<i>Pratheep R, S S Harish, Vaishshale Rathinasamy, Sakthi Abirami B</i>	
MIoT: An IoT System for Dynamic Ocean Monitoring and Data Collection.....	201
<i>S Vysakh, S Sabarinath, Sruthy Anand, Sethuraman Rao, Maneesha Vinodini Ramesh</i>	
Enhancing Forecasting Precision in Indian Industrial Workers' Inflation: A Comparison of Advanced Machine Learning Models.....	207
<i>V Amirthavarshini, Soumyendra Singh, R Prasanna Kumar</i>	
Enhancing Underwater Image Quality with Adaptive Gamma Correction, Retinex Sharpening, and NSST Fusion	212
<i>Mausam Chouksey, Vinayagam P, Kandhan M, Kishore Kumar P</i>	
Fast R-CNN Approaches for Transforming Dental Caries Detection: An In-Depth Investigation	219
<i>Kanagamalliga S, Jayashree R, Guna R, Mausam Chouksey</i>	
Performance Evaluation of Machine Learning Cluster Metrics for Mobile Network Augmentation.....	224
<i>Iacovos Ioannou, Christophoros Christophorou, Prabagarane Nagaradjane, Vasos Vassiliou</i>	
IOT-Smart Monitoring of Pet Housing.....	231
<i>Yi-Chih Tung, Yi-Hung Lien, Li-Wei Liu, M. David Honesty B, P. Kalpana Devi</i>	
Navigating ARM-Based Application Adoption: Software Engineer's Insights on Challenges & Solutions.....	237
<i>Parth Sane</i>	
Classification and Detection of Breast Cancer Review	244
<i>Azhar Kassem Flayeh, Ali Douik, Salam Thajeal</i>	
IoT-Powered Precision Farming and Home Gardening for Seamless Monitoring, Automation and Security.....	250
<i>Darwin Nesakumar A, Deepak P, Sanjay P, Aishwarya B, Aswini R, Pavithra K N</i>	
A Novel Triple-Notched Circular-Shaped UWB Monopole Antenna for Rejecting WLAN, WiMAX and X Bands	255
<i>Atchaya. Nrug, Roja Baipothu, Uthaykumar G S, Mohan. C</i>	

Author Index