

2025 IEEE Wireless Antenna and Microwave Symposium (WAMS 2025)

**Chennai, India
5-8 June 2025**

Pages 1-603



**IEEE Catalog Number: CFP25BP7-POD
ISBN: 979-8-3315-2555-2**

**Copyright © 2025 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:	CFP25BP7-POD
ISBN (Print-On-Demand):	979-8-3315-2555-2
ISBN (Online):	979-8-3315-2554-5

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

Horn Antennas for Satellite Payloads: Recent Advances	1
<i>Sudhakar Rao</i>	
Parametric Analysis of Drift Tube Magnetic Field Detuning Effects on a 35 GHz Gyroklystron Amplifier	7
<i>Nazish Fatima Siddiqui, RVNR Suneel Krishna, Madan Singh Chauhan</i>	
Dual-Band Bandpass Filter Using Dual-Mode Square SIW Cavities with Controllable Center Frequencies and Bandwidths	11
<i>RVNR Suneel Krishna, Krishna Chaitanya A, S. Yuvaraj</i>	
An Improved Bandwidth and Gain Enhancement of Microstrip Patch Antenna for Advanced Wireless Communications	16
<i>B. S. S. V. Ramesh Babu, M. S. S. S. Srinivas, Reddi Rajendra Prasad, Nadimpalli Sri Vishnu Varma, Vemana Srikanth Reddy, Sk Gouse Basha</i>	
Wave Propagation Modeling in Random Environment: Study for Utilizing the Finite Element Domain Decomposition Method	21
<i>Olivér Csernyava, József Pávó, Zsolt Badics</i>	
Textile-Based Dual Band Dual Polarized Reflective Metasurface for WBAN Applications	25
<i>Varsha Kheradiya, Ganga Prasad Pandey, Arpan Desai</i>	
Compact Bandwidth-Enhanced Honeycomb Fractal Antenna for Next-Gen Wireless and Radar Applications.....	30
<i>Krishna Kumar M, Beno A, Pricilla Mary S, Balamurugan C</i>	
Graphene Based Tunable THz Micro-Strip Antenna Using Piezoelectric Substrate	35
<i>Mehar Nisha Begam B, Shalini Mishra, Ganesh Madhan M</i>	
Deciphering Single Unit Split Ring Resonator and Validation Through Machine Learning Technique	40
<i>Vinod Babu Pusuluri, A M Prasad, Naresh K. Darimireddy</i>	
Dual Polarized Vivaldi Antenna for X- Band Satellite and Radar Applications.....	44
<i>Ramyasree Golla, Suman Nelaturi</i>	
Design of Compact Symmetric Circular Antenna for Sub 6GHz Applications	48
<i>Vinod Babu Pusuluri, A M Prasad, Naresh K. Darimireddy, Mss Pavan, I S V V Yugandhar, Bala Naga Sai Ande</i>	
Adaptive Clutter Suppression for Target Detection in Through-Wall Imaging	52
<i>Suman Anand, Vineet Singh, Shailza Gotra, Dharmendra Singh</i>	
Multilayer FSS Designed with Wide Band-Notching Characteristics for Electromagnetic Shielding for X Band Applications	57
<i>Shougaijam Chinglemba Singh, Kalyan Mondal</i>	
Novel Shaped Circularly Polarized Broadband Monopole Antenna for 5G Applications.....	61
<i>Kalyan Mondal, Shougaijam Chinglembasingh, Thingbaijam Sharaju, Mohd Azharuddin, Deepak Kumar Barik</i>	

2-Bit Polarisation Rotating Metasurface Based Lens Antenna in Ku Band for SatCom Application.....	66
<i>Achuyt Bharalee, Kingkan Talukdar, Nidhi S. Bhattacharyya</i>	
Compact Multiband Filtered Antenna for UWB Applications	71
<i>Kishorbabu Bantupalli, B. Kiran Kumar</i>	
Reconfigurable Compact Antenna System with Gain Selectivity and Frequency Adaptability for Smartphone Integration	75
<i>R Akhil Karthik, Karthikeya G. S, Arpan Desai, Soundarya Venkatesan, Anudeep Bellary</i>	
Wideband High-Performance Antenna Design with Enhanced Pattern Integrity for mm-Wave 5G Smartphones Applications	79
<i>Feroz Morab, Arpan Desai, Karthikeya G. S, Yi-Fan Tsao, Heng-Tung Hsu</i>	
Wearable Dual Band EBG Antenna for Wireless Applications	83
<i>B. Premalatha, G. Srikanth, B. Kishore Babu</i>	
Identification and Spectrum Occupancy Analysis of 4G/5G Signals Using Deep Learning Techniques.....	88
<i>Kiran Rudramuni, Akhilesh M K, Ritvik S Raiker</i>	
Simulation Study on SBS and Four Wave Mixing Enabled Frequency Multiplication Based Millimeter Wave Generation	93
<i>Anu Sam, M Ganesh Madhan</i>	
Open Ended Slot Loaded Compact Dual Band-Stop Frequency Selective Surface Designed for WiFi/WiMAX/WLAN Applications.....	96
<i>Kalyan Mondal, Shougaijam Chinglemba Singh, Mohd Azharuddin, Thingbaijam Sharaju, Deepak Kumar Barik</i>	
Medical Imaging Using a Conformal, Wideband, Monopole Antenna for Breast Tumor Detection.....	101
<i>Athul O Asok, Anjitha V, Sukomal Dey</i>	
Design and Deployment of a Wideband Circular Patch Array Antenna for Millimeter Wave and 5G Applications.....	104
<i>Varikuppala Akhila, Anantha Bharathi, Gosula Ravi Shankar Reddy</i>	
Design of a Broadband Polarization Insensitive Circuit Analog Absorber for C, X and Ku- Band Applications.....	108
<i>Hemen Chamuah, Nidhi S. Bhattacharyya</i>	
Design and Analysis of Conformal Antenna for Wearable Devices	112
<i>Divya T M, Venkatesha M, Ampavathina Sowjanya, Shashikumar D</i>	
Printed Array Antenna with Metasurface Using Superstrate Technique for IOT Applications.....	117
<i>Penki Rohit, Datla Rajitha, Vemulapati Pavani, Thota Jyothi Kumari, M. Satyanarayana, K. Suresh</i>	
Enhanced Isolation Dual-Port MIMO Antenna for N77/78/79 Sub-6 GHz 5G NR Applications	122
<i>Mohd. Azharuddin, Kalyan Mondal</i>	
Design and Analysis of Ultra-Thin Narrow Band Pass Spatial Filter with Engineered Structure	125
<i>Ravi Vanamadi, Selvanayaki K</i>	
Wideband Circular Polarized Microstrip Antenna for UWB Application	130
<i>Sri Pavan Jain, Pranav Reddy Mandala, Sulakshana Chilukuri</i>	

Wideband Antipodal-Vivaldi Antenna for Multi-Frequency Approach Based Microwave Imaging.....	135
<i>Anjitha V, Kunal Gupta, Athul O Asok, Sukomal Dey</i>	
Dual Band Shared Aperture Polarization Converting Reflectarray for Independent Beamforming in C and X Bands.....	140
<i>Abhilash Gayan, Jubin Das, Nidhi S. Bhattacharyya</i>	
A 0.15 μm GaN HEMT Large Signal Statistical Modeling and Its Validation Along with High Efficiency Power Amplifier Design in L and S-Band Application	145
<i>Manishankar Prasad Gupta, Sandeep Kumar, Deepak Naik Jatoth, Pradeep Gorre, Porika Nandini, Hanjung Song</i>	
High-Gain Electrically Small Modified Antipodal Vivaldi Self-Matched Rectenna for N77/N78/N79 Sub 6 GHz 5G Narrow Dual-Band Wirelessly Powering IoT Devices.....	149
<i>Anjali Priya, Taimoor Khan</i>	
MIMO Antennas for Smart 5G Devices Using UWB Technology.....	154
<i>G Karthik Reddy, Nageswara Rao Lavuri, T. Sai Venkateswara Rao</i>	
Adaptive Beamforming for Optimizing Wireless Network Performance Using Machine Learning	159
<i>Dasaradha Arangi, Tangi Tejeswari, K Saikiran, N Seetayya, P Ramakrishna, B Srinivasarao</i>	
Development of a Machine Learning-Based Model for an Intelligent Ambulance Detection System Using CNN.....	162
<i>P. Prem Swaroop, P. Sree Gopal, U. Vijay Teja, Mohana Vamsi K., Naresh K. Darimireddy, Sujatha Mandala</i>	
Performance Study on the Intelligent Reflecting Surface Based Relay Communication Systems.....	167
<i>Guvvala Rishi, M. D. Selvaraj</i>	
Skin Cancer Detection Using Coplanar Waveguide Antenna Sensor	172
<i>Neeli Syamala, Bandi Kiran Kumar, K. Padma Raju</i>	
Optimizing Node Coverage in WSNs with Circular LEACH Clustering for Energy Efficiency	177
<i>K. Purushotham, Sandhya Rachamalla, Svs Prasad, G Karthik Reddy, Ujwala Pinnamareddy, T. Sai Venkateswara Rao</i>	
GuardianNet an IoT Solution for Enhanced Miner's Safety.....	181
<i>P Sharmila, Dr. K Anuratha, Dr. J M Nandhini, Archana B, Dharshini K, Swathy S</i>	
Design and Development of a High Gain Planar Yagi Uda Antenna.....	186
<i>Vinay Krishnan, Gowrish Basavarajappa</i>	
A Compact and High-Performance Square Slotted Patch Antenna for 5G Wireless Communication.....	190
<i>Regina S, Savita S</i>	
Leveraging Deep Learning for Accident Detection and Immediate Response System	195
<i>K. B. Anusha, Modalavalasa Divya, Modalavalasa Varalakshmi, Ponnana Seshagiri, Kola Geetha, Biddika Sunil Kumar, Arisetty Ganesh, Pidugu Pavan Kalyan</i>	
Analysis on a New Machine Learning-Based Artificial Neural Network Technique for Natural Gas Price Prediction	200
<i>K. B. Anusha, Modalavalasa Divya, Mule Ramakrishna Reddy, P. Santhi</i>	
Missing Person Tracking System Using AI.....	206
<i>Koppara Madhuri, Modalavalasa Varalakshmi, K. B Anusha, Kotni Supritha, Ippili Jaswanth, Borige Adarsh Kumar, Kandapu Abhi Ram, Muddapu Naveen</i>	

Effective Strategies for Mitigating the Gas Leakages Using IoT	212
<i>Modalavalasa Divya, Koppara Madhuri, K. B. Anusha, Katta Jathin Kumar, Sistu Lokesh, Palli Kishore Naidu, Paidi Jeeven Sai, Silla Ravi Srinivas</i>	
Fruit and Vegetable Quality Detection Using SENet and EfficientNet	218
<i>Modalavalasa Varalakshmi, Modalavalasa Divya, Koppara Madhuri, Mahesh Kumar Puri, Pakala Saisowmya, Ganta Sateesh, Boddepalli Yaswanth, Yubraj Gupta</i>	
Evaluating and Comparing Deep Learning Methods with Vision Transformers for Musical Key Assessment	224
<i>Modalavalasa Divya, K. B. Anusha, D. Venkata Reddy, Mohammed Jany Shaik</i>	
Basic Structure for Sentiment and Emotion Analysis-Based Hate Speech Recognition and Integrating of Unstructured Data on Facebook, Or Fadohs	230
<i>Maddula Ratna Mohitha, Jayavardhanarao Sahukaru, P. Vijaya Lakshmi, M. Venkata Rao</i>	
Design of Triple Band Fabric Antenna for WLAN Applications.....	235
<i>Parisa Bosebabu, P. A. Nageswara Rao</i>	
A Compact Triple Notch UWB Antenna for WBAN Applications	240
<i>Shaik Ismail, Anantha Bharathi, G. Ravi Shankar Reddy, Srilakshmi Aouthu</i>	
A Cylindrical Dielectric Resonator Based Wide Dynamic Range Displacement Sensor	244
<i>Premsai Regalla, A. V. Praveen Kumar</i>	
Application of TE ₀₁₁ + δ CDR Mode for Displacement Detection	247
<i>Premsai Regalla, A. V. Praveen Kumar</i>	
Investigation of Broadband Cross-Polarization Conversion Using Multiple Resonances on an Metasurface	250
<i>Harish, Nitesh Kashyap</i>	
A Rotman Lens Fed Antenna Array Analysis for Radar Applications	255
<i>Srujana Vahini. N, Sourabh Joshi, Shashank Kulkarni</i>	
A Graphene-Based Tunable Polarization-Insensitive Metasurface Absorber for Thz Applications	259
<i>Ajeet Singh Verma, Somak Bhattacharyya</i>	
A Switchable Wideband Absorber/Reflector Using VO ₂ Based Metasurface in Terahertz Range.....	264
<i>Soumava Biswas, Sreejita Samanta, Ajeet Singh Verma, Raghvenda Kumar Singh, Somak Bhattacharyya</i>	
A Wideband Terahertz Absorbing Metasurface with Large Tuning Range Enabled by VO ₂	269
<i>Sreejita Samanta, Soumava Biswas, Ajeet Singh Verma, Raghvenda Kumar Singh, Somak Bhattacharyya</i>	
A Pattern Reconfigurable/Diverse MIMO Antenna with Switchable Beams for Sub-6 GHz Band Applications.....	274
<i>Ajay Kumar, Yajush Rai, Anand Sharma, Tilakdhari Singh, Rajeev Gupta</i>	
A Metasurface-Based Quad BandStop Filter in L, S and C Bands Using Modified Split Ring Resonators	278
<i>Vishnu Kumar Mishra, Jyotishko Dey, Supratim Sarkar, Deepak Ram, M. Thottappan, Somak Bhattacharyya</i>	
10W GaN- Reconfigurable Multimode Power Amplifier for Multiband Transmitter Application.....	282
<i>Kumar Rajesh, Tosif Abdul Gaffar Babu, Kumar Sanjeev, Singh Sudhakar, Hanna Olaiuk</i>	

Polarization-Independent Metasurface Based Bandpass Filter in Ka-Band with High Roll-Off.....	286
<i>Mehul Kumar Sahoo, Vishnu Kumar Mishra, Biswajeet Mukherjee, Vinit Kumar, Ambati Praveen Kumar, Jolly Dhar, M. Thottappan, Somak Bhattacharyya</i>	
Pattern Reconfigurable Antenna Design Using Amc Array for Enhanced 5G Performance	290
<i>Manasa Kr, Pramod Kumar Naik, Shashi Kumar D</i>	
A Typical Neural Network-Based Automated System for Number Plate Recognition and Detection.....	295
<i>Jayavardhanarao Sahukaru, Maddula Ratna Mohitha, Rama Krishna Eluri, Karuna Kumar Valicharla</i>	
A Broadband Planar Antenna for Ultra-Wideband Applications	300
<i>Deepak Kumar Barik, Shougajam Chinglemba, Kalyan Mondal, Partha Sarathi Padhy, Sanat Kumar Patro, Mohd Azharuddin</i>	
VANET Denial of Service Attack Detection in Using Optimization and Deep Feedforward Neural Networks	305
<i>S. Simonthomas, K. Shantha Shalini</i>	
Development of a UWB Antenna for Osteosarcoma Detection Using Non-Invasive Microwave Imaging Method	311
<i>Tarun Panwar, Aryan Khanna, Manpreet Kaur, Vishal Srivastava, Asit Ranjan Mridha, Hari Shankar Singh</i>	
Design of a Circular Loop Antenna for 5G Millimeter-Wave Application Using Genetic Optimization Algorithm.....	316
<i>Muddineni Raveendra, Sreelakshmy R, Dhanya G, Sruthy R, Deepthy Mary Alex, Saam Prasanth Dheeraj Pedapalli</i>	
Design of 30W Dual Channel Driver Amplifier for ISM Band Application	321
<i>Manish Mishra, Pramod Kumar, Aditya Jain</i>	
Forecasting Quality of Water Using Leading Machine Learning Strategy	326
<i>Mohamed Sameer S, P. Kalyana Kumar, Avinash M R, Sundhareshwaran S L</i>	
Tamil Handwritten Text Recognition Using Deep Learning Technique	332
<i>Jayanthi V, Beulah Jayakumari R, Maya Eapen, Krishnaveni S, Darwin P, Lilly Sheeba S</i>	
Design and Parametric Analysis of Dual Band Slotted Volumetric Antenna Loaded with DGS for Sub-6GHz Applications.....	337
<i>Gowtham Kumar Pulluri, Ramprasad Ravula, E. Kusuma Kumari</i>	
A Wearable Dual-Band Circularly Polarized Patch Antenna for Wearable Applications	342
<i>Kamisetti Sasank, Deepak Ram, Kalyani Kandiraju, Diptiranjana Samantaray, Vikrant Kaim, Somak Bhattacharyya</i>	
Advanced Data Management in Remote Oil and Gas Environments Using Edge Computing	346
<i>K. Krishnamraju, Chaitanykumar Mapu, Sanapala Umamaheswararao, Jallu Sateesh, Muddapa Harika, Appini Asharani</i>	
On the Path Loss Modeling of Anomalous Reflector-Assisted Indoor Wireless NLOS Link	350
<i>Atli Lemma Gebreisadik, Raju Malleboina, Debdeep Sarkar</i>	
Compact Elliptic Cross-Dipole Antenna for S-Band SATCOM Array.....	354
<i>Shailendra Singh, D Vishrutha, B Navya, Jai Sharma</i>	

Context Aware Fault Tolerance Data Gathering in IoT Enabled WSN.....	359
<i>Abhinaya T, Aarthi A, Sridharan D</i>	
MOSFET Reliability Using Machine Learning.....	364
<i>Khilawan Choudhary, Manpuran Mahto, S K Datta</i>	
A Microstrip 4X4 Butler Matrix for Beamforming and Steering: Design Analysis for Sub-6 GHz Applications.....	368
<i>Amogh Joshi, Sakshi Damle, Pratik Nehere, Abhishek Deshmukh, Rashi Parteti, Akash Devmore, Saurabh Mane, Dr. Ashwin Kothari, Yogesh Solunke</i>	
Smartguard an Intelligent Wearable for Women's Safety	373
<i>Sanapala Umamaheswararao, M N V S S Kumar, Marpu Chaitanya Kumar, Kotni Krishnam Raju, B Chandra Mouli, Prudhvi Krishna</i>	
A Metasurface-Inspired Antenna in L-Band Using Defected Ground Structure (DGS).....	378
<i>Deepak Ram, Supratim Sarkar, Jyotishko Dey, Vishnu Kumar Mishra, Somak Bhattacharyya</i>	
Gap Waveguide Technology Based Slot Array Antenna at 35 GHz	382
<i>Gangolla Sreeja, Anantha Bharathi, G. Ravi Shankar Reddy</i>	
Cooperative Multi-User NOMA with Selection Combining	386
<i>Simhadri Ravishankar, M. D. Selvaraj</i>	
Wide-Band Dual Circularly Polarized Aperture Coupled ME Dipole MIMO Antenna for mm-Wave Applications.....	391
<i>Bhanushali Bhumit, Arpan Desai, Karthikeya G. S</i>	
A Metasurface Based Dual Band Stop Filter at ISM Bands for Wearable Applications.....	396
<i>Soham Banerjee, Arjab Sengupta, Vishnu Kumar Mishra, Sougata Chatterjee, Gobinda Sen, Sayan Sarkar, Ardhendu Kundu, Somak Bhattacharyya</i>	
2D and 3D Design Simulations of Diode-Type Magnetron Injection Gun for 28Ghz Gyrotron.....	399
<i>Alok Mishra, Anirban Bera, M. V. Kartikeyan</i>	
Uniform Dipole Antenna Array for Low 5G Applications	401
<i>Dr. Ch. Rajakumari, Masadi Rashmitha, Thadikamalla Rakesh, Shaik Mohammed Saliq</i>	
Design and Analysis of Microstrip Patch Array Antenna with Monopulse Feed for C-Band Radar Applications.....	406
<i>Nichanametla Neshitha, Mamindla Veda, Maila Gyanendra Sinha, Kothapelly Swaran, Bharath Kunooru, M. Kanaka Chary</i>	
Conformal Textile-Based Wearable Antenna for Onbody Wireless Communication Applications.....	410
<i>S. Salma, Bollu Sireesha, Soma Gowthami, Ramathota Ramya, Paleti Sharanya Choudary, Srirama Babji, D. Ram Sandeep</i>	
Transparent Glass Antenna for Integrated on-Display Wireless Communication Applications	415
<i>S. Salma, Kamalapuram Yuvaraju, Akumalla Sreenivasa Vardhan, Vennela Thupakula, Thiruchanoor Supriya, Tumpiri Gowtham, D. Ram Sandeep</i>	
Optimal Setting of ANN Weights Using Resilient Backpropagation Approach in a Grid Connected Solar PV System.....	420
<i>Vijaychandra Joddumahanthi, D. Vijaya Kumar, Sowjanya Nagalla, Aswini Kotla, Ravikumar K S, Vanajakshi Bammidi</i>	

Simulation of 0.34THz Backward Wave Oscillator with Cylindrical Beam and Sheet Beam.....	424
<i>Vishnu Srivastava</i>	
On the Efficiency of PCA-SVM Based Binary Skin Cancer Classification Technique.....	429
<i>Vyss Chakravarthy, Dowluru Sreeramulu, Tejomurthi Pinjala, Srinivasa Rao Sura, B. S. S. V. Ramesh Babu, A. Ravi</i>	
A Metasurface-Based Flexible Triple Bandpass Filter in ISM, IoT and Cellular 5G Wearable Applications.....	432
<i>Arjab Sengupta, Soham Banerjee, Vishnu Kumar Mishra, Sougata Chatterjee, Gobinda Sen, Sayan Sarkar, Ardhendu Kundu, Somak Bhattacharyya</i>	
Leaf-Petal Shaped Tunable Metasurface Perfect Absorber with Refractive Index Sensing Capability	436
<i>Naveen Kumar Maurya, Raji Krishna, Jayanta Ghosh, Gandreddi Lakshmi Prasanna Ashok, G. Challa Ram</i>	
Huygens' Metasurface Based Leaky Wave Antenna for K-Band Applications	441
<i>Abhishek S, Shilpa V V, Shiv Narayan, Raveendranath U. Nair</i>	
Compact Dual Band Antenna for Sub-6 Ghz and 5G Mmwave Band.....	446
<i>Pulkit Agarwal, Sudeep Baudha</i>	
Design and Performance Analysis of 29 GHz and 30 GHz Unit Cell Antennas with Array Configuration.....	450
<i>Vatsaly Thakur, Sudeep Baudha</i>	
Millimeter Wave Antenna Design and Optimized for 5 G Band Applications	455
<i>S. K. Jain, Anjana Jain, Ismail Hamza Ansari</i>	
Microstrip Dipole Antenna Design for Direction of Arrival Estimation of Signal	459
<i>P. S. Rathore, S. K. Jain, Anjana Jain, Ismail Hamzaansari</i>	
Design and Performance of a Hexagonal Ground Plane Antenna with Flower-Like Slots for Ku-Band Radar Applications	463
<i>Penmetsa Sriya, Gottumukkala Varshini, Ramesh Deshpande, B. R. Sanjeeva Reddy, Jayshree Das, B Naresh Kumar</i>	
A Miniaturized Meander Line Implantable Antenna at 1.4 GHz WMTS Band for Brain Implants and Biotelemetry Applications	467
<i>Archana Mohan, Niraj Kumar</i>	
Cartpole Balancer Using Deep Q-Network	472
<i>Pradeep Kumar Mahapatro, Pasina Yaswanth, Challa Meghana, Tamada Rushanth, Peddinti Somesh</i>	
Enhanced Health Care System with Chatbot and Voicebot Using Deep Learning	477
<i>Pradeep Kumar Mahapatro, Karakavalasa Sreedhar, Savirigana Inusha, Konkana Niteeshkumar, Ankadala Mahesh Babu, Reshi Pulla</i>	
Real-Time Gesture and Voice Control System for Device Interaction	482
<i>Dasaradha Arangi, Sagar Kumar Dibba, Killamsetty Gangotri, Baratam Venkata Manoj, Busi Akanksha, Guttu Geeth Pramodh</i>	
Finding Psychological Instability Using Machine Learning	487
<i>Dasaradha Arangi, Menda Murlidhar, Nanubolu Bhavana, Karri Reshma Priya, Tandasa Udit, Gunana Prasanna Kumar</i>	

Low Profile UWB MIMO Antenna with Band Notched Characteristics.....	491
<i>Javaid Ahmad Rather, Venkateshwar, Harshvardhan Singh, Kushmanda Saurav</i>	
Mmwave Massive MIMO HetNet Cell-Based Pilot Contamination Detection Using Meta Heuristic Deep Learning Algorithms	496
<i>Tirupathaiah Kanaparthi, Ravi Sekhar Yarrabothu</i>	
Metamaterial Based Microstrip Antenna for 5G mm-Wave Applications	502
<i>Neeli Syamala, Bandi Kiran Kumar, Kamili Jagadeesh Babu, Tathababu Addepalli, D. Praveen Kumar, S. Mastan Rao, M. Venkata Praveen, T. Gouri Kumari</i>	
Enhanced Object Identification Through Deep Learning Techniques	507
<i>Ramakrishna Pradhana, Srinivasa Rao Konni, Kovelakonda Sakunthala, Lakkoji Mounika, Nimalapuri Saikiran, Dasaradha Arangi</i>	
Motorized Wheelchair with Detachable Stem	512
<i>Srinivasan. K, Keerthana. S, Sudheeksha. T. K. J, Divya. P</i>	
Optimizing 5G Congestion Control with Machine Learning-Based Predictive Models	517
<i>Kandala Kalyana Srinivas, M. Bhagya Lakshmi, Bendalam Alekhya, Earla Nishitha, Peteti Nissy Tirzah, Sriramula Madhu</i>	
A Metasurface-Based Dual Passband Filter in L- And S- Bands for Space Communications	523
<i>Siddhant Kumar, Vishnu Kumar Mishra, Sougata Chatterjee, Somak Bhattacharyya</i>	
PSADEA-Tuned Polarization Reconfigurable STSM Antenna for RF Energy Harvesting Application	527
<i>L. Likkhitha, Y. Karthik, N. Vamsi Krishna, Bikash Ranjan Behera, Mohammed H. Alsharif</i>	
Space-Based Directed Energy Weapons: Feasibility and Challenges.....	532
<i>Latha Christie</i>	
Highly Sensitive Terahertz Metamaterial Biosensor for Early Cancer Detection and Diagnosis	537
<i>Jai T L Shyama, Meraline Selvaraj, Sreeja B S</i>	
Novel Wideband Linear-Circular Reflective Type Polarizer with Operational Band Switchability Spanning for X to Ka-Band Satellite Applications.....	542
<i>Mohammad Abdul Shukoor, Karun Rawat, Sukomal Dey</i>	
Design of a Closely Spaced-Bands Self-Diplexing Antenna Based on HMSIW Technology	547
<i>Pratyancha Prasad</i>	
A Novel Passive Intelligent Reflective Surface for Enhancing Wireless Communication in Indoor Scenario	551
<i>Rutwik P Joshi, Apurva Shekhar, Anudeep Bellary</i>	
Anomaly Detection in High-Dimensional Data Streams Using Machine Learning and Deep Learning Classifiers.....	554
<i>Chiranjeevi Jami, Kumar Sekhar Yetcherla, Thamira Pooja, Gundabala Sandhya Rani, Balaga Siva Srinivas, Pradeep Kumar Mahapatro</i>	
Sequentially Rotated-Fed Patch Array Antenna for Off-Body Communication.....	559
<i>Anurag Sahu, Ishika Gangwani, Utkarsh Gaikwad, Arvind Kumar, Neeraj Rao</i>	
Multi-Band Quad-Arm Cross Patch Antenna for Sub-Terahertz Applications	564
<i>Guthi Srinivas, P. Omsai, N. Bhavesh, M. Praveen, B. R. Sanjeeva Reddy, Naresh Kumar B</i>	

Impact of Radiation Patterns on UAV Performance Across Various Sizes - Virtual Flight Test.....	568
<i>Ashutosh Kedar, Srivani Kothidigi, Anudeep Bellary</i>	
SIW Cavity Based I-Shaped Slot Volumetric Antenna for Wideband Applications	572
<i>Ramprasad Ravula, Runa Kumari, Abdul Razak</i>	
Adaptive Metasurface with Control of Transmission and Reflection Modes Using PIN Diodes.....	577
<i>Dinesh Rano, Mohammad S. Hashmi, Sudeep Baudha</i>	
An Adaptive Hybrid-Mode GaN MMIC Power Amplifier for 5G Communication Network.....	580
<i>Kirti, Shivam Verma, Somak Bhattacharyya</i>	
A Compact Filtering Antenna for WLAN Applications	584
<i>Koushik B, Raahul L S, Natarajamani S</i>	
RBF Based Performance Model for High Dimensional Analog Designs.....	590
<i>Sita Kondamadugula, Bssv Ramesh Babu, Kalagarala Sai Manikanta, Gembali Dinesh</i>	
A Novel Dual Substrate Layer In-Band Full-Duplex Antenna with High Tx-Rx Isolation for V2X-ITS Applications.....	594
<i>Sanket Sarangi, Naresh Chandra Naik, Jogesh Chandra Dash</i>	
Oval-Shaped SSPP Low Pass Filter for Wearable RF Applications	599
<i>Jayshri Kulkarni, Karthik Kakaraparty, Neeta Talwalkar, Tathababu Addepalli, Saurav Basnet, James McCusker</i>	
An Ultra-Low Cost All-Metallic Dual Linearly Polarized Antenna Topology for 1U CubeSats.....	604
<i>Abhiram Kasyap, Karthikeya G. S, Madhwesh Bharadwaj Cv, Nandan M N, Karthik P S</i>	
Waveguide-To-Microstrip Antipodal End-Fire Antenna Design for mm-Wave Applications	609
<i>Vikas K, Arpan Desai, Varun C V, Karthikeya G. S</i>	
The Strategic Role of High-Power Microwave Directed Energy Weapons in Multi-Domain Operations	613
<i>Latha Christie</i>	
A Multiband Reflective Cross Polarization Converter	618
<i>Priyanka Das, Ameer Abbas H, Lekha P, Monish Balaji S</i>	
Automated Indoor Hydroponic Farming System Using IoT	622
<i>Gudla Sateesh Kumar, Suggu Jai Kumar, Anakapalli Tharani, Pagoti Bhaskar Lingam Naidu, Mangi Promila Reddy</i>	
Design and Simulation of a Circular Waveguide Adapter for TEM-TE ₁₁ Mode Transition.....	627
<i>Mrunal A Marihal, Sourav Biswas, Shesh Kumar, P. Raja Ramana Rao, S. K. Datta</i>	
Digital Voice Transmission Using Software-Defined Radio	632
<i>Srilakshmi Aouthu, Bharathi Anantha, D. M. K Chaitanya, Ravi Shankar Reddy Gosula, P. Bhargava, K. Swaraja, Aditya Das, Yogesh Kumar Mishra</i>	
New Aspects in Reduction of Continuous Time MIMO Interval Systems	637
<i>D. Vijaya Kumar, N. Sowjanya, P. Mallikarjuna Rao</i>	
Microstrip Patch Antenna Array for Ka-Band Downlink Satellite Communication.....	642
<i>Sudeep Baudha, Shireen Prasad, Dinesh Rano, Ravikumar Cv</i>	

Deep Learning Based Cyber-Security for IoT: Malware Detection Through Image Analysis	646
<i>G Sahitya, C Kaushik, M Sai Sahithy, G Tharuntej</i>	
Generation of Non-Diffracting Circular Airy OAM Beams Using Single Layer Metamaterial Structure	652
<i>Sarita Raj, Ravi Kant Sharma, Ashwini Sawant</i>	
Mechano-Tribological Property Forecasts in AL-BN Metal-Ceramic Composites Driven by Artificial Intelligence.....	656
<i>Sreeramulu Dowluru, Sathish Kumar Adapa, Vvsss Chakravarthy, Raghuvveer Dontikurti, Roopsandeep Bammidi, Turali Narayana</i>	
Innovative Methods for Reversible and Secure Data Hiding in Crypto Images for Communication Systems.....	661
<i>D. Nirmala, Himaja Madamanchi</i>	
Leveraging Artificial Intelligence for Early Identification of Protein Structure Variation in Human Beings.....	666
<i>I. Hemalatha, N. Yugandhar, P. S Roshan Chakravarthy, P. Teja Satwik, P. Yateesh Kumar</i>	
Biocompatible Conformal Array Antenna for Wireless Capsule Endoscopy Operating at 1.4 GHz	674
<i>Shanmugam Kumaravel, Madurakavi Karthikeyan, Nagarajan Vasugi</i>	
Focus AI: Revolutionizing Image Processing with GANs for Super-Resolution, U-Net for Background Removal, ResNet50 and LSTM for Context Aware Captioning	678
<i>Pichhikala Vinuthna, Alluri Neethika, Vutukuri N V B Manasa, Varshita Nayak, Balam Purnima Devi</i>	
Wearable E-Shaped Antenna for Medical Applications.....	683
<i>Dr. P. Satish Rama Chowdary, Dr. M. S. S. S. Srinivas, P. Srivalli, P. Deepika, P. Mukesh, Y. Shanmukha Sai</i>	
Circular Antenna Array Optimization Using Marine Predator Algorithm	688
<i>Mangaraju Tejasri, Balla Prasanth, Bantu Nithin, Gandepalli Pushpa Kiran, Chukka Ramya Madhuri Devi, Vvsss Chakravarthy</i>	
Underwater Image Enhancement Using Color Balancing and Fusion: A Case Study on Dwaraka.....	692
<i>B. V. D. S. Sekhar, K. Dharma Harshan, I. Tejas Manikanta, Ch. Pavan Kumar, K. Surya Prakash</i>	
Facile Synthesis and Microwave Absorption Performance of Paraffin Wax/Ferrite/Activated Carbon-Based Composite Within Ku-Band.....	698
<i>M. Suthar, P. K. Roy</i>	
Identification of Various Skin Tumor Forms with a Novel Microstrip Antenna Sensor.....	703
<i>Neeli Syamala, Bandi Kiran Kumar, K. Padma Raju</i>	
Evaluating Machine Learning Algorithms for Environmental Impact Prediction	708
<i>Debasish Pradhan, Shibani Subhadarshini, Neelamadhab Padhy, Pradeep Kumar Mahapatro, Dasaradha Arangi</i>	
Design and Analysis of a Compact Swastik-Slot Microstrip Patch Antenna for Ku-Band SATCOM Applications.....	713
<i>Gottumukala Varshini, Penmetsa Sriya, B Naresh Kumar, Ramesh Deshpande, B. R. Sanjeeva Reddy, Jayshree Das</i>	

Design of Planar Artificial Magnetic Conductor for Bandwidth and Gain Enhancement of Ku-Band Patch Antenna.....	717
<i>Harikrishna Paik, G V Pavan Kalyan Reddy, P Vinay Shankar Subhash Chowdary, Md Sheeba Thabasum</i>	
A Novel Cross-Coupled Substrate Integrated Waveguide Bandpass Filter for 5G Upper Band Application.....	722
<i>Govind Kumar Mishra, Hemendra Kumar Pandey, Nagendra Prasad Pathak</i>	
Metamaterial Inspired Sub-THz Antenna for High Data Rate Wireless Communication Applications	726
<i>Mohan Chandalururu, K. H Shakthi Murugan, Y. Neeraja</i>	
Compact Design of All Metal Luneburg Lens Antenna with Improved Beam Switching Features	731
<i>Padmanabha Chakraborty, Utsa Purkayastha, Siddhartha Roy, Ankita Ghatak, Koushik Dutta</i>	
Non-Invasive Muscle Performance Assessment Via mmWave Radar: A Simulation Study for Healthcare and Sports Science Applications	735
<i>Vuppala Venkata Abhinav, B Naresh Kumar, B R Sanjeeva Reddy, Ramesh Deshpande, Kandi Rishik Reddy, Banoth Dasharath</i>	
Design of a Koch Snowflake Fractal for S-Band and C-Band Applications	740
<i>Sai Harshini Behara, Vvsss Chakravarthy, Akash Kumar Gupta, Sujatha Mandala</i>	
A Flexible Wideband Antenna for Breast Cancer Detection	744
<i>Priyanka Das, Jayanth S Balan, Surya Thangaraju, Vidhyashankar R</i>	
Design and Development of an Intelligent UAV System with Obstacle Avoidance and Object Detection Using Machine Learning.....	749
<i>B. V. D. S Sekhar, Sirigineedi Satya Chaitanya, Makkena Praneeth, Yesu Durga Prasanth</i>	
Mechanically Tuned Comblined Waveguide Filter with CABW for Wireless Applications	754
<i>Tanvi Agrawal, Ananjan Basu</i>	
Yagi-Based Patch Antenna Design for 2.45 GHz Applications	758
<i>Sathish M, Smirthi V M, Shreeya R</i>	
Design and Development of Miniaturised Orbital Angular Momentum Antenna Using Uniform Circular Array for Higher Order Mode Generation	763
<i>Madhur Deo Upadhayay, Manshree Mishra</i>	
Design of E and H Shaped Patch Antenna for Next Generation 5G Applications.....	767
<i>Jayshree Das, Srinivas Guthi, Ramesh Deshpande, B. R. Sanjeeva Reddy, B Naresh Kumar, Sanjay Dubey</i>	
Design of a Metasurface Based High Gain Dual Mode Orbital Angular Momentum Transmit-Reflect Array (TRA) Antenna.....	772
<i>Sougata Chatterjee, Yashwant Gupta, Somak Bhattacharyya</i>	
Potholes Identification by Building an Smart System Using AI.....	777
<i>M Raj Kumar Naik, R Bhargav Ram, G Karthik Reddy, T Sai Venkateswararao</i>	
Comparative Study of Deep Learning Algorithms for Wi-Fi Channel State Information Based Human Activity Recognition	781
<i>Akhil B Nair, Nel Joseph John, Rohan Idiculla Abraham, Anisha Natarajan</i>	
Model-Based Design and Simulation of FMCW Radar	786
<i>Sourabh Joshi, Shashank Kulkarni</i>	

Design of Substrate Integrated Waveguide Antennas for Terahertz Imaging Applications	790
<i>Thomas V. Philip, Balamati Choudhury, Om Ranjan</i>	
Numerical Analysis on the Effect of Purcell Factor in GaN Nano Wire Lasers	795
<i>K. Arunachaleswari, M Ganesh Madhan</i>	
A Metasurface-Based Wearable Bandpass Filter in Ism and Iot Bands for Wearable Applications	799
<i>Sagnik Chakraborty, Sayak Nandi, Arjab Sengupta, Malay Ganguly, Gobinda Sen</i>	
Optimal Synthesis of Concentric Elliptical Antenna Arrays Using Evolutionary Computing Techniques.....	802
<i>T Nageswar Rao, Ch Sudharani, A Prakasa Rao</i>	
Circular Patch Filtenna with Adjustable Radiation Null	807
<i>Ashish Chandelkar, Arvind Kumar, Divya Chaturvedi</i>	
Compact RF Crossover Utilizing Orthogonal Fields for Low Loss and Improved Isolation Bandwidth	810
<i>Shrawan K Patel, Jatin Kumar, Sulakshana Chilukuri</i>	
On the Unification of Electrostatics and Magnetostatics Via Maxwell's Equations	813
<i>Eng Leong Tan</i>	
Investigation on Orthogonally Aligned Metamaterials Inspired MIMO Antenna for Ultrawideband Applications.....	816
<i>Nagaraju Kommu, Sunil Kumar Sodisetty, Kunchala Venu Gopal, Madhulatha Maddasani, Gopi Chand Bokkisam, Venkateswara Rao Manikonda</i>	
Terahertz Fingerprint Detection with Ultrahigh Sensitivity Using 1D Photonic Crystal Cavity	821
<i>Vinayak Kumar Tripathi, Nikhil Kumar C S</i>	
Penta Band Circularly Polarized Antenna for Future 6G Applications.....	826
<i>Kommu Nagaraju, Manikonda Venkateswararao, Bathula Vaishnavi, Goli Jagadeesh, Aluri Vinay Kumar, Pulle Siva Kumar, Sindhu Lakkamraju</i>	
Design of a Triode-Type Magnetron Injection Gun for 42/85/94 GHz Triple-Frequency Gyrotron	832
<i>Ravinder Beemagani, Abhishek K. Jha, Yuvaraj S., Kartikeyan M. V.</i>	
Performance Assessment of Wheat Straw-Based Eco-Friendly Microwave Absorbers with CNT Additive Enhancement	835
<i>Geetika Verma, S. Datar, K. P. Ray</i>	
Performance Analysis of LoRa Communication Under Building Obstruction Using LoRa ESP32-V3.....	839
<i>S B Gayathri, V B Varshini, S Shanmati, Sanjana A, Manigandan Muniraj, S Shoba</i>	
Design of DGS Based Stacked T-Shaped Quad Band Antenna for WLAN/WiMAX Applications	844
<i>B. Rama Rao, S. Sridhar, K. S. Chakradhar, M. Satyanaryana, D. Nataraj</i>	
High Performance Low Cost Square Microstrip Crossovers.....	850
<i>Ajay Kumar Singh, Pankaj Kumar, Kamla Prasan Ray, Bibhuti Bhushan Padhy</i>	
Simulation Studies on Thermally Tunable Metasurface Structures.....	854
<i>Aakash H, Vanniya Balan, Srijith Kanakambaran</i>	
Circularly Polarized Antenna with Enhanced RCS Reduction for ISM Band Wireless Systems	859
<i>Kairat Zhumadilov, Jawad Ahmad, Dinesh Rano, Mohammad Hashmi</i>	

Analysis of an Unequal Split Power Divider for WLAN Applications	863
<i>Priyanka Das, Mukhil Lakshmanan, Radhika P, Mani Ratnam Ts, M K Charan Aravind, Vinay Charan S</i>	
Miniature Triband Shared Aperture Circular Polarized Patch Antenna for High Temperature Air Born GNSS Application	868
<i>Sambasiva Rao Kumbha, D. R Jahagirdar, Srujana Kagita, M. V Kartikeyan</i>	
AI-Driven Quarrel Detection in Surveillance Footage	872
<i>Bendi Manideep, B. V. Ramana, Nibedan Panda, Jayavardhanarao Sahukaru, Gontu Vamsi</i>	
A Highly Efficient X-Band GaAs FET Power Amplifier for Broad-Beam Oceanography Satellite	879
<i>Kumar Harshit, Srinika Selvam, Bindu K. R., Vamsi Krishna V., Sivareddy Devireddy, Randhir Rai, A. V. G. Subramanyam, Suvarna L, Senthil Kumar V, Ramalakshmi N</i>	
RF Behavior Analysis of High-Power Millimeter-Wave Gyrotrons Using GDS V. 2024	884
<i>S Yuvaraj, Debasish Mondal, M Thumm, Mv Kartikeyan</i>	
Challenges of Learner Engagement in E-Learning Environments	889
<i>B. V. Ramana, Jayavardhanarao Sahukaru, Bendi Manideep, Madina Jayanthirao, Gontu Vamsi</i>	
Performance Analysis of LiDAR Target Detection System Under Weather and Noise Constraints.....	896
<i>S. Kavitha, M. Baskaran</i>	
Directional High Gain Antennas with Superstrate Coupled Configuration for Wifi Applications	901
<i>Arun Shaji, Sudheer Krishnan, Neema K</i>	
Age Optimal Scheduling for a Network with Relay	905
<i>Teena Mary Treesa, K. Premkumar</i>	
Study on Oam Beam Divergence	910
<i>Sampurna Dhara, Sribas Srichandan, Madhur Deo Upadhayay</i>	
A CNN-IOT Model for Suspicious Behaviour Detection of People by Surveillance Using ML and DL.....	915
<i>M. Chilakarao, N. Deshai, K. Sasi Kumar Raju, S. Sai Ganesh Reddy, T. Ashok, S. Subhash</i>	
Cost-Effective AI and IoT Based Smart System for Precision Water Management in Agriculture	920
<i>Genji Jairam, Donda Sai Siddu, Nakhilesh Samanthapudi, Prasanthi Rathnala, M. S. Pradeep Kumar Patnaik</i>	
Machine Learning Approach for a Perturbed Rectangular Patch Antenna for 11 GHz Application.....	925
<i>Ribhu Abhusan Panda, Asish Kumar Patnaik, Neelamadhab Padhy</i>	
A Low Cost Printed Monopole Antenna on a Paper Substrate for ISM Band and 5G Communication Applications	930
<i>Swarnadeep Koley, Soham Banerjee, Soham Karak, Malay Ganguly, Gobinda Sen</i>	
A Hybrid Deep Learning Framework for Heart Disease Risk Assessment	935
<i>S Rama Gopala Reddy, D Teja Praneeth Varma, B Sai Asish, Bypureddy Ramu, M Bhuvan Gopala Varma</i>	
A Novel Framework for Video Saliency Feature Detection Using Deep Learning	940
<i>M. Krishna Satya Varma, I Ramya Krishna</i>	

A Compact Two Port Triple Band MIMO Antenna for Mm-Wave Applications	945
<i>P Janardhana Reddy, G Kameswari, B. Chandrababu Naik</i>	
Comparative Analysis on Cardiovascular Disease Prediction Using Quantum Machine Learning.....	950
<i>S. Venkata Ramana, K. N. Hanumantha Rao, L. Hima Teja, V. Tarun Srinivasa Reddy</i>	
A Wearable MIMO Antenna for WBAN Applications	955
<i>Priyanka Das, Lakshita K J, Vijay Aditya S, Haritra G, Swapna S, S Lakshitha</i>	
Multiband Metasurface Based Polarization Converter for Linear and Circular Polarization Conversion.....	960
<i>S Durga Padmaja Bikkuri, Jeet Ghosh, S Nagakishore Bhavanam, Thomaskutty Mathew</i>	
Active Cell Balancing Using Buck Boost Converter for Lithium-Ion Batteries	964
<i>Aswini Kotla, D. Vijaya Kumar, Sowjanya Nagalla, Tulabandula Sravya, Vijaychandra Joddumahanthi, Majji Satish</i>	
Design and Implementation of Reconfigurable Microwave Wireless Power Transfer Systems for Small-Scale Applications.....	969
<i>A. S Mithil, Shiva Shankar B, Tuttagunta Naga Sameera, Rajesh Kumar</i>	
Design and Analysis of Compact Circular Patch Reconfigurable Antenna for Wide Band Applications.....	974
<i>Venkateswara Rao Manikonda, Balaji Thota, Mahima Swarna, Sadhik Shaik, Vasu Potluri, Amar Gopichand P</i>	
Analysis of Multiband Microstrip Leaf Patch Antenna	979
<i>Kapse Akhila, Bonala Krishnaveni, J. Nageswara Rao, Shaik Taj Mahaboob, R Ramana Reddy</i>	
A Double Band Diya Shaped Patch Antenna for C, X and Ku-Band Applications	986
<i>K. Nithingovindu, N. Jignashnarayana, J. Nageswararao, T S Mohammed Basha, R Ramana Reddy</i>	
Analysis of Double Band Fork Shape Microstrip Patch Antenna.....	993
<i>N. Lavanya, K. Mahesh Karthik, P. Manikanta, J. Nageswara Rao, R Ramana Reddy</i>	
Design and Optimization of Dual-Band Microstrip Patch Antenna for Automotive Radar and 6G Wireless Communication.....	999
<i>Farha K A, Jasmine P M, Smitha N M</i>	
Wideband Radar Cross Section Reduction Via Symmetrical Slotted Unit Cell Based Metasurface	1003
<i>Sukumar Vidhya, Madurakavi Karthikeyan</i>	
Dual Band Ingestible Antenna System for Wireless Capsule Endoscopy: Design Challenges.....	1007
<i>Vikrant Kaim, Sumon Modak, Diptiranjana Samantaray, Binod Kumar Kanaujia</i>	
Filtering Antenna for Sub 6 GHz Application	1010
<i>Ananya Parameswaran, Ashish Chandelkar, Arvind Kumar</i>	
Design and Development of Slot-Loaded Microstrip Patch Antenna for Moisture Sensor Applications.....	1014
<i>Harshan R V, Nittin S, Shiva S, Swetha M, S. Piramasubramanian, M. Ganesh Madhan</i>	
Integrating Geofencing and Real-Time Face Recognition Using Machine Learning for Smart Attendance.....	1020
<i>K. Suresh Varma, Ch. Hima Akhil Raj, K. Vamsi Krishna, A. Hari Krishnam Raju, K. Srinivas</i>	

Spoof Surface Plasmon Polariton Based Half Mode Substrate Integrated Waveguide Microwave Bandpass Filter for C and H Band Services	1026
<i>Punnam Nagaraju, Pelluri Sambaiah, M. V. Kartikeyan</i>	
Analysis of PNS Attacks on Quantum Key Distribution Protocols	1031
<i>Madhu Venkat Dasari, S Kirubakaran, A Paventhan</i>	
The Role of Environment Complexity in Exploration Strategies: A Comparative Analysis of CartPole and Lunar Lander	1037
<i>Atin Chowdhury, Piyush Joshi</i>	
A Hybrid Protocol Method Using Noise-Based Switching for Quantum Key Distribution Systems	1042
<i>Priyadarshini R, Deepika Rajan, Kirubakaran S, Paventhan A</i>	
Study of Half-Wavelength Dipole Radiation Characteristics in the Presence of Flat and Curved Plates	1048
<i>Krishna Mohan Boga, Divyabramham Kandimalla, Raja Vara Prasad Yerra</i>	
An Optimized 5G Driver Amplifier for 3.5 GHz Band with 51.37% Efficiency	1052
<i>Aijaz M. Zaidi, Ahmad Zakariya Ahmad, Karun Rawat, Binod K. Kanaujia</i>	
Procedural Environment Modeling for Path Loss Analysis in Wireless Communication for Aerial Transportation.....	1055
<i>Sharan Karthick Bl, Krishna Mohan Boga, Raja Vara Prasad Yerra</i>	
Metasurface Based Antenna Array Design with Low RCS and Stable Radiation Characteristics.....	1060
<i>Deval Kumar, Somsing Rathod, Amit Kumar Singh</i>	
A Novel MMIC Interface for RF-DACs with Integrated Bias Tee, Balun, and Quadrature Splitter for Multi-Gigabit Satellite Transmitters	1065
<i>Rahul Sharma, Alapati Venkata Sucharitha, Yogesh Prasad K R, Senthil Kumar V, Neelavathy M</i>	
Design and Performance Analysis of Slotted Vivaldi Antenna for Radar Systems	1070
<i>Sunil Joshi, Aryan Namboodiri, Kousthub Kaivar, Shushrutha K S</i>	
Design of Circularly Polarized Hexagonal Ring Microstrip Antenna for 5G Mobile Applications	1075
<i>Mekaladevi V, Natarajamani S.</i>	
Space-Time Modulated Metasurface with 1 Bit Controllable Unit Cell for 3D DOA Estimation.....	1078
<i>Anjali Mothe, Mukundan Vijay, Neeraj Rao, Arvind Kumar</i>	
Hilbert-Curve Array Sensor for Nondestructive Testing of CFRP Composites.....	1082
<i>Vimal Kumar Chaudhary, Muhammad Zubair, Jalil Ur-Rehman Kazim, Muhammad Imran, Qammer Abbasi</i>	
Wideband Compact Directional Antenna for Ground Penetrating Radar Applications	1086
<i>Arun Shaji B K, Sudheer Krishnan</i>	
A Real-Time YOLOV9-Based Approach for Precision Weed Detection in Peanut Fields	1090
<i>Cibiraj E, Alan Jeffsan A, S Shoba, Manigandan M, Krithiga R</i>	
Design of Transmissive Focusing Meta Array Using Wavefront Phase Compensation Technique for Wireless Power Transfer.....	1095
<i>Sagar Bhattacharya, Somak Bhattacharyya, M. Thottappan</i>	

Structural and Electromagnetic Characterisation of Zn-Ce Substituted Ba ₂ Y Hexaferrite for Microwave Frequency Applications	1099
<i>Brijesh Bharti, Somak Bhattacharyya, Pradip Kumar Roy</i>	
A Novel-Shaped Concentric Circular Array Plus Antenna for IoT Applications.....	1103
<i>Rajasekhar Manda, Ramprasad Ravula, Gummarekula Sattibabu</i>	
Analysis of Antenna Performance of Flexible F Shaped Antenna with a Defected Ground Structure Using Different Substrates for Biomedical Applications.....	1107
<i>Nidhi Upadhyay, Amanpreet Kaur, Arnab Pattanayak, Ashima Singh</i>	
Circularly Polarized Microstrip Patch Antenna Design for WLAN Frequency Band	1112
<i>Devansh Ramdurgekar, Shree Veer Patel, S. K. Jain</i>	
2.2 GHz Transmission Zero Embedded, Harmonically Tuned 10 W Power Amplifier	1117
<i>Nagabhushan S Deshpande, Karishma Gowda G K, Rashmi Seethur</i>	
Investigating the Effects of a Psi-Shaped Slot on a Microstrip Patch Antenna	1122
<i>Aiindrila Kole, Rounak Saha, Ritesh Nandy, Ardhendu Kundu, Sayan Sarkar</i>	
LEO Satellite Orbital Nature Considerations for the System Scheme of Transmitarray Antennas in Ground User Terminal Applications	1126
<i>Chien-Hsin An, Cheng-Liang Shih, Hsi-Tseng Chou, Siddhartha Panigrahi</i>	
Novel FSS Based Multibit Passive 8 × 8 RIS for NextGen Wireless Communication	1130
<i>Soumik Dey, Arun Muthu Ram M, Sukomal Dey</i>	
One-Dimensional Reconfigurable Holographic Metasurface Antenna for mm-Wave Beam-Steering.....	1135
<i>Piyush Kumar Mishra, Debdeep Sarkar</i>	
IntrusionCaughtEye: Smart Security System	1140
<i>Kovelakonda Sakunthala, Tangudu Srinidhi, Daram Manichandu, Andaluri Sujan, Vennela Raviteja, Thottadi Lakshmi Prasanna</i>	
Printed Inverted-F Antenna with Metasurface Superstrate for 5G/WiMax/WiFi/C-Band Applications.....	1145
<i>Ravi Kumar Arya, Akhilesh Verma, Srinivasa Nallanthighal Raghava, Junwei Dong, Shiyuan Kong, Lijuan Li</i>	
MAB-Based Rate Adaptation with Perfect and Imperfect CSI for IEEE 802.11ax WLANs	1149
<i>Sheela C S, Joy Kuri</i>	
Hybrid Waveguide Transmitarrays as Gain Enhancement Add-Ons in Traditional Antenna Array Systems for 5G FR2 Applications	1154
<i>Siddhartha Panigrahi, Hsi-Tseng Chou, Chien-Hsin An</i>	
Four-Port MIMO Antenna System with Enhanced Bandwidth for 5G mm-Wave Applications	1156
<i>Jyotibhusan Padhi, Awanish Kumar, Ajay Bhardwaj, G Shrikanth Reddy, Chow-Yen-Desmond Sim</i>	
Development of a Fingerprint Based Motor Starter System with IOT Integration for Enhanced Motorcycle and Real Time Notifications.....	1161
<i>Ananthu Poojitha, P. Ramu, Borra Anil, Drakshayani Vemula, Mundra Rama Krishna</i>	
Ultra Wideband Water Based Polarization Insensitive Angular Stable Microwave Absorber with Conformity Feature for X, Ku, K and Ka Band Application	1165
<i>Garima Tiwari, Manshree Mishra, Trivesh Kumar, Biswajeet Mukherjee</i>	

Designing of AES-128 Encryption Algorithm Using System Verilog VLSI	1170
<i>Tarun Sai Gampala, Ashok Chakravarthy Pamarthy, C Sudhakara Reddy</i>	
Conformal Dra with Conformal Fss Loading for C Band Applications	1175
<i>Manshree Mishra, Garima Tiwari, Pramod Kumar Gupta, Biswajeet Mukherjee</i>	
Ultra-Wideband (UWB) Antenna for Medical Imaging and Sensing Applications	1179
<i>Jayaraman G., Indrasen Singh, Dilip Kumar Choudhary</i>	
Design and Analysis of Serrated Step Shaped Ultrawideband Patch Antenna for Automotive Applications.....	1185
<i>M Venkateswararao, T. Anilkumar, D. Keerthi, G Nagarjuna, J Mahithkumar, K Govindaiah, Veerla Lakshmi Tulasi</i>	
Design of Inverted U-Shaped Slot Antenna for Enhanced Gain and Bandwidth Using Defected Ground Structure	1190
<i>M. S. S. S. Srinivas, Akash Kumar Gupta, Neduvali Amini Mol, Sanapala Gowtham Babu, Teki Sai Kiran, Mekala Mouli</i>	
Advances in Tumor Eradication: The Role of Radiofrequency Ablation	1195
<i>Buchaiah Amaravadi, Jayshree Das, B. R. Sanjeeva Reddy, Sanjay Dubey, Swarna Venkatesh, Ramesh Deshpande</i>	
Design of Flexible Antenna Array Using Cardboard Paper Substrate for WIFI&WLAN Applications.....	1199
<i>Vemulapati Pavani, Datla Rajitha, Penki Rohit, Thota Jyothi Kumari, K. Suresh, M. Satyanarayana</i>	
Designing a Flexible Patch Antenna for Vitals Monitoring: A Step Towards Smarter Healthcare Solutions.....	1203
<i>Chandhini Jeyashanker, Subashini J M, Jeeva J B, R. Venkatesan, Rohini Palanisamy, Pandiyarasan Veluswamy</i>	
Evaluating Noise-Induced Quality Degradation During Wireless Channel Transmission of Laparoscopic Videos.....	1208
<i>Sria Biswas, Rohini Palanisamy</i>	
A Novel Metamaterial Based Microstrip Sensor for Ultrasensitive Humidity Monitoring	1213
<i>Bhasan Siddarth, Muzammil S. K. Md, Midde Sai Sumanth Royal, Benarji K. V. Gopal Morampudi, Iqram Haider</i>	
A Low-Cost All-Metal Ka-Band Antenna Using Sheet Metal Machining.....	1218
<i>Rishi Mishra, Sivada M. S., A. R. Harish</i>	
Design and Analysis of Dual-Loop Patch Antenna with Hybrid for Self Injection Locked Sensor Application.....	1221
<i>D. Shiva Hemanth, Anantha Bharathi, G. Ravi Shankar Reddy, Srilakshmi Aouthu</i>	
Analysis on the Effect of Slots & DGS on Micro Strip Rectangular Patch Antenna.....	1226
<i>Venakata Ramana Bola, R. Ramana Reddy, Sujatha Mandala</i>	
A Multiband Leaf Shaped Slotted Antenna for S and C Band Applications.....	1232
<i>Kvms. Yashwanth, K. Bhanuprakash, B. Mounika, J. Nageswara Rao, R. Ramana Reddy</i>	
Effect of Phase Gradient and Angle of Incidence Reversal in Phase Gradient Surfaces for IRS Applications.....	1238
<i>Sylvie Rana, Yallanki Sai Sreenija, Rishi Mishra, Gul Naqvi, A. R. Harish</i>	

Triple Band Crown Shaped Slotted Microstrip Patch Antenna	1243
<i>V. Harideepak, M. Teja, C. Varshini, J. Nageswara Rao, R. Ramana Reddy</i>	
Design of Peano Curve-Inspired Frequency Selective Surface for C-Band Applications	1249
<i>Akash Kumar Gupta, P Satish Rama Chowdary, Jaume Anguera, Modali S S S Srinivas, Bssv Ramesh Babu</i>	
Performance Analysis of Modulation Techniques for Underwater Wireless Optical Communication Across Diverse Water Conditions.....	1253
<i>M Baskaran, Himaja Madamanchi, Nivethida A, Keerthana S, Lakshana S</i>	
A CPW-Fed Dual-Band Bow-Tie Slot Antenna with Integrated SRRs for Wireless Communication.....	1258
<i>Mit Shah, Pannag Agrawal, Harshal Randive, Tushar Punjabi, Vivek Pandit</i>	
Impact of Wireless Interferences on ECG Signal Quality in Wearable Cardiac Monitoring Devices	1262
<i>Reshma Karunanithi, Pandiyarasan Veluswamy, Rohini Palanisamy</i>	
A Metamaterial Inspired Miniaturized Dual Band Filtenna Array for B5G Cellular Communication.....	1267
<i>Arun Muthu Ram M, Sukomal Dey</i>	
Compact Planar Log-Periodic Antenna for Iemi Detection Application in the Sub-6 Ghz Broadband	1272
<i>Amiya Kumar Mondal, Sreenath Reddy Thummaluru, K. Premkumar</i>	
Implementation of an Enhanced RC6 Algorithm for Securing Data Using Verilog	1277
<i>E Bhavani, Md. Fareed Ahamad, Indrareddy Kurakula, Anasuri Ram Kumar, Chennoju Charan</i>	
Design and Analysis of a High Isolation Dual Element MIMO Antenna for Wireless Body Area Network Application	1283
<i>Anusuya Nandi</i>	
Canny Edge Detection for Obstacles Avoiding Vehicle Clogging and Monitoring.....	1288
<i>K. Krishnam Raju, Chaitanya Kumar Marpu, Dr. Kumar Neeraj, Y. Jaipal Reddy</i>	
Design of High Gain Vivaldi Antenna with Substrate-Integrated-Waveguide Feed at L-Band.....	1292
<i>Soham Banerjee, Sougata Chatterjee, S. Sureshkumar, Gobinda Sen, Malay Ganguly, Somak Bhattacharyya</i>	
Design and Performance Analysis of Reconfigurable Corner Reflector Antenna with Plasma Reflectors	1296
<i>Manisha Jha, Nisha Panghal, Unnati Patel, Rajesh Kumar, Surya K Pathak</i>	
Linearly Polarized Pentagonal Fractal Antenna for 5G Sub-6 GHz Applications	1300
<i>Khushbu Patel, Santanu Kumar Behera</i>	
Performance Analysis of IRS-Equipped UAV NOMA System with Two-Cell Coordination	1305
<i>Simhadri Ravishankar, K Jnana Varshitha, L Pavan Kumar</i>	
Development and Deployment of an IoT-Enabled Water Quality Monitoring System	1310
<i>Shaik Karishma, M. Basha, Sayed Asif, Shaik Naziya Bushra, Bhukya Bangaru Babu</i>	
Quality Check of Cooking Ingredients Using CSRR and ANN	1315
<i>Anitha Gopi, Amal Pramod, Elizabeth George, Alex James</i>	

An Effective Technique for Improving Satellite Photos with Low Resolution that Uses of SWT and DWT.....	1318
<i>Chaitanykumar Mapu, K. Krishnam Raju, A V Nageswararao, Appini Asharani, Krishnarao Pedada, Shaik Bhajidvali</i>	
Slotted Circular Patch Antenna for 24-28 GHz Band.....	1322
<i>Jhansi Rajeswari Athota, Amiya Kumar Mondal, Sreenath Reddy Thummaluru, M V Kartikeyan</i>	
A Circularly Polarized Quad Band Antenna for Wearable Applications	1326
<i>Lakshman Kukkadapu, Sulakshana Chilukuri, Shaik Janipasha, Shrawan K Patel</i>	
Design and Analysis of Spade and Club Shaped Slotted Patch Antenna.....	1330
<i>R. Jitesh Reddy, Venakata Ramana Bola, R. Ramana Reddy</i>	
Triple-Band Patch Antenna with Enhanced Bandwidth Using Circular and Rectangular Slots	1336
<i>Meera Prajapati, Somya Goel, Vivek Kumar Pandit, Dhaval Pujara</i>	
A Review of Wideband Antenna Technologies for UAV Communication Systems	1340
<i>Gowri Sri Sannihitha Vaddi, Saritha Vanka, Divya Sai Vittamsetti, Sindhura Ravuri</i>	
Concentric Circular Arrays Optimization Using Nature Inspired Techniques.....	1345
<i>Surarapu Jyotshnasree, Mangaraju Tejasri, Vandana Tejaswini, K Lakshmipathi Raju, Vikranth Bhateja, Vvsss Chakravarthy, Rajini Matam</i>	
A Compact Fractal Dielectric Resonator Antenna for the Microwave Imaging of Skin Cancer	1349
<i>Komalpreet Kaur, Amanpreet Kaur</i>	
An Inverted U-Shaped Dielectric Resonator Antenna for Microwave Imaging of Skin Cancer Detection	1354
<i>Amandeep Dhull, Amanpreet Kaur</i>	
Complementary Polygon Slot-Based Tunable Metasurface Perfect Absorber with High Tunability	1359
<i>Naveen Kumar Maurya, Raji Krishna, G. Challa Ram, S. Yuvaraj, Jagannath Malik, Sugumaran Subramanian</i>	
A Data-Driven Approach for Metasurface Design Using Conditional Generative Adversarial Network (cGAN).....	1364
<i>Jogendra Singh, Karunesh Srivastava, Rajan Agrahari</i>	
Quad-Port MIMO Antenna for Automotive Applications	1368
<i>Jahnvi Gadam, D. Ramakrishna</i>	
A Metasurface Integrated Wide Bandwidth High Gain Patch Antenna for X-Band Applications.....	1373
<i>Kamisetti Sasank, Deepak Ram, Kalyani Kandiraju, Diptiranjana Samantaray, Vikrant Kaim, Somak Bhattacharyya</i>	
Triple Band Metamaterial Inspired Antenna for Future Terahertz.....	1377
<i>Y. Geetha, Svs Prasad, T. Vijetha, B. Anusha, R. Ajay Kumar, K. Akhita</i>	
Design and Analysis of MIMO Antenna with Modified Two W Shaped Slots for 5G Application.....	1381
<i>Birendra Kumar Pandey, Monika Mathur</i>	
Safepath: Empowering the Visually Impaired with Voice Based Navigation.....	1386
<i>Sai Kiran Nimalapuri, Balivada Venkata Sharmila, Jami Pravallika, Datti Deepak, A. V. L Srikar</i>	

Invisible Data Protection in Digital Media Using Steganography Techniques.....	1391
<i>A Harshini, B Teja Sree, G Sivani, B Tejaswi, B Manasa</i>	
Ensemble Learning for Solar Flare Intensity Prediction: Enhancing Accuracy and Efficiency with Xgboost and Gradient Boosting	1396
<i>K. Lakshmipathi Raju, M. Chilakarao, S. Venkata Sai Tanooj, N. Surendra, S J Hemanth, Md. Imran</i>	
Circular Antenna Array Optimization Using MSGOA - Constrained Null Pattern Synthesis	1401
<i>E. V. S. D. N. S. L. K. Srikala, M. Vamshi Krishna, M. Murali, Mamidi Rajeswari, Balla Sudha Jahnavi</i>	
Design and Analysis of Two Element Circular Patch Antenna for Wireless Applications	1406
<i>M. S. S. S. Srinivas, Akash Kumar Gupta, M. Gowthami, Y. Narayanaswami Naidu, Sk. Rehemath Jani, Vvs. Likhith</i>	
Comparative Study of Different Structures of Wilkinson Power Divider	1411
<i>Shailendra Singh, M. V. Kartikeyan, Ramesh Patel, Viswanadham Ch</i>	
Frequency Selective Surface Integrated Filtering Horn Antenna	1416
<i>M. Chithra, Kannadassan Dhanaraj</i>	
Design of X-Band Transmit & Ka-Band Reflect Frequency Selective Surface for Deep Space Applications.....	1420
<i>Neelavathy M., Neha Agrawal, B Pavan Kumar, C Sriharsha, Avg Subramanyam, V Senthil Kumar, Yogesh Kumar Choukikar</i>	
Capabilities of Terahertz Technology in Porosity Estimation of Pharmaceutical Tablets.....	1424
<i>A. Mercy Latha, Rishi Ranjan</i>	
Real-Time Bus Tracking Using LoRa Technology.....	1428
<i>Yerramsetti Raghavi, Vvsss Chakravarthy, Rajana Sravya Sri, Sujanth Narayan K G, Reddyboina Lingarao, Vurukooti Vivek</i>	
Deep Learning Based Symbol Detection in NLOS Ultraviolet Communication with Imperfect Channel State Information.....	1433
<i>Kamal Garg, Paawan Sharma</i>	
Recent Developments on Reflectarray Antennas for NanoSats at Anywaves	1438
<i>Nelson J. G. Fonseca, Michele Del Mastro, Gautier Mazingue, Maxime Romier, Nicolas Capet</i>	
Shallow Convolutional Neural Network for Defect Classification in Composite Materials Using Terahertz Images	1442
<i>A. Mercy Latha, S. Tanuja, Ram Likhith, Rishi Ranjan, S. Vinson Joshua</i>	
Microstrip Patch Leaky Wave Antenna with CSRR and DGS for 5G Millimeter Wave Communication with Beam Scanning	1446
<i>Pritha Gayathri K, Safana Amala Yazhini, T Shanmuganantham</i>	
Vehicle Classification in Motorized Traffic Analysis Using CNN	1451
<i>N. Navya, M. Sowmya, M Prathyusha, K. Indi Bhargavi, P. Keerthana</i>	
Single Layered Linearly Polarized Antenna for 5G Base Station Applications.....	1456
<i>Sujay S, K. Elakshmi Narayanan, K Vishnu Varshan, Shibi Santhosh V, Mekaladevi V</i>	

Experimental Study on Diffusion Bonding of OFHC Cu for Vacuum Tube Applications	1461
<i>Santosh Kumar, H S Karthik, K Santhosh Kumar, N Venkaiah, M V Karthikeyen, S K Datta</i>	
Design and Development of a Compact Antenna for 5.9GHz V2X Applications	1465
<i>Abhishek Tiwari, Parth Bhaiya, Alaqmar Karampurwala, Rahul Manohar O, Paresh Sagar, Arpan Shah</i>	
Design and Analysis of Metamaterial Absorber for Wireless Sensor Applications	1469
<i>Srilakshmi Aouthu, Bharathi Anantha, Ravi Shankar Reddy Gosula, K. Swaraja, Narra Dhanalakshmi, A. Pranay Kumar, V. Ronith, B. Naveen</i>	
Metamaterial-Inspired Split Ring Resonator Based Proximity Sensor.....	1474
<i>Anju Sebastian, P V Aswathi, Ajith Ramachandran, V P Joseph, Jolly Andrews</i>	
QMSIW-Based Slot Antenna for Tumor Sensing Applications in Breast Phantoms	1479
<i>Jeevesh Pathak, Khushi Chaourasia, Arvind Kumar, Neeraj Rao, A. S. Gandhi</i>	
Performance Analysis of Cooperative NOMA with MRC	1484
<i>Ravva Vinay Kumar, Keerthana Kandasamy, M. D. Selvaraj</i>	
Terahertz Antenna for Medical, Astronomy and Defence Development	1488
<i>Dipanjan Dutta, T. Shanmuganantham</i>	
RF Bandpass Filter with Reconfigurable In-Band Notches.....	1492
<i>Nalin Preetham Lakkakula, Rama Krishna Dasari</i>	
Analysis of Circular Antenna Array Using Machine Learning Technique	1496
<i>Donakonda Venkat Babu, Durbadal Mandal, Satish Kumar, Ankush Kumar Singh</i>	
X-Band Surveillance Radar System for Aerial Targets Detection	1500
<i>Ishaan Kedar, Nijas C. M., Ashutosh Kedar</i>	
Radiation Hardening Performance of a Single-Ended-To-Differential Amplifier in SiGe Bi-CMOS Process for Space Receiver Systems	1504
<i>Hruday Kumar Reddy Mudireddy, Deepak Singh Nagarkoti, Abinash Gaya, Jagannath Malik</i>	
Space Debris Size Estimation Using Ellipsoidal Target Model.....	1508
<i>Vaidhyanathan Anbalagan, Kishna Mohan Boga, Hari Vardhan Reddy Kummetha, Anish Chand Turlapaty, Divyabramham Kandimalla</i>	
Design of Graphene Based Ultra-Thin Broadband THz Metasurface Absorber with Large Angular Inclination.....	1513
<i>Priyanka Saxena, Jayanta Ghosh</i>	
Design and Development of Microwave Absorber Using Biomass Materials for X Band Applications.....	1518
<i>Rakesh Kannan P, S. Piramasubramanian, M. Ganesh Madhan, Gnaneswar D, Harshini B, Varshini M</i>	
A Compact Printed Triple Band Meander Line Antenna	1523
<i>Priyanka Dalal, Deepak Sood, Ritu Boora, Manisha Jangra, Kiran R. Rathod, Bhimrao Sheshrao Jadhao</i>	
A Flexible and Transparent Polyethylene Based Conformal Array Antenna on for Sub-6 GHz 5G Applications.....	1527
<i>Pachiyannan Muthusamy, Shoaib Shaik, Mahesh Reddy</i>	

Design of a Compact Filtenna for Sub 6 Ghz Application	1531
<i>Viswa Sai Charan Reddy L, Harsha Vardhan Reddy K, Jaya Prakash Naidu D, Ananya Parameswaran</i>	
Optimized 433 MHz Implantable and Ingestible Conformal Antenna for Advanced ECG Biotelemetry	1535
<i>Debajit Sarma, Athul O Asok, Aditya Kumar Gupta, Sukomal Dey</i>	
Machine Learning-Ready Computer-Aided Butler Matrix Designer	1540
<i>Ravi Kumar Arya, Pawas Pandey, Keshavendra Tripathi, Prakhar Chaubey, Prashant Chaudhary, Harshit Mrutunjai, Kartik Rana, Nikhil Rawat, Tushar Rajora, Shiyuan Kong, Junwei Dong</i>	
A Dual-Band CPW-Fed Circularly Polarized Antenna with Gain Enhancement Using FSS for Wi-Fi and Sub-6 GHz 5G Applications	1544
<i>Sekhar M, Sunkaraboina Sreenu</i>	
Metamaterial-Based FP Filter for Hyperspectral Imaging in Cubesat Applications.....	1549
<i>Sudhakar Shrivastava, Deepak Kumar, Ankur Jain, Rajan Agrahari</i>	
SIW-Based Circular Cavity-Backed Slot Antenna for Vehicle to Vehicle and 5G Applications	1553
<i>Anil Kumar Nayak, Anuradha S, Aijaz M. Zaidi</i>	
Metamaterial Split Ring Resonator-Based Sensor for the Measurement of Dielectric Constant of Low-Loss Liquids.....	1556
<i>Aswathi P V, Anju Sebastian, Ajith Ramachandran, V P Joseph, Jolly Andrews</i>	
Integration of Software Defined Radio and Beamformer.....	1560
<i>Amogh G, Bhuvan Bharadwaj, Shushrutha K S, Mahesh A</i>	
Impact of Dielectric Loss on the Modal Tracking in Characteristic Mode Analysis of Planar Antennas	1564
<i>Sumithra Panneerselvam, Kannadassan Dhanaraj, D. V. B. Murthy, C. J. Reddy</i>	
Design and Performance Analysis of a Wheel-Shaped Microstrip Patch Antenna for Multiband Applications.....	1569
<i>Muvvala Kalpana, Pavada Santosh, Lalith Kishore K, Ramana Reddy R, Kishore Babu Gubbala</i>	
IoT-Based Predictive Service for Early Disease Detection in Poultry Chickens.....	1574
<i>B. Sridhar, K. Suguna, Gullipalli Divya, Kuna Gowri Shanker</i>	
Design of Klystron-Like Relativistic Backward Wave Oscillator with Triple Modulation Cavity.....	1579
<i>Pratibha Verma, M Thottappan</i>	
A Phase Coded Metasurface for Beamforming Applications in Wireless Communication	1582
<i>Deepak, Akhila Gouda, Saptarshi Ghosh</i>	
Design of Smart Cattle: Real-Time Health Monitoring System with IoT-Enabled Micro Services	1587
<i>B. Sridhar, S. Nikilkumar, S. Jahnavi, P. Phaneendra</i>	
Performance Evaluation of OTFS for 5G Applications: Comparative Analysis.....	1593
<i>Divya Mokara, Pradyut Kumar Biswal</i>	

Tri Band CPW Fed Circularly Polarized Antenna for WLAN and X-Band Satellite Communications.....	1598
<i>Katavolu Lavanya, Lakkamraju Sindhu, Karni Abhinash, Pothala Pradeep Kumar, Ramisetty Bhanu Venkatesh, Venkateswara Rao Manikonda</i>	
Design and Performance Analysis of Single Polarized Dipole Antenna for Base Station Application	1603
<i>Anusha Mula, Rama Krishna Dasari</i>	
Design and Optimization of Innovative FSS Absorber for Enhanced EM Wave Mitigation.....	1607
<i>Arun Kumar D, Afroz M, Sai Prahallad M, Jenith Kumar N, Dattatreya N</i>	
A Novel Polarization Transforming Metasurface	1612
<i>Arun Kumar D, Tejasree B, Sudharshan Sai K, Abhiram G</i>	
Non-Foster Circuit Loaded Metasurface Reflector for Polarization Conversion	1617
<i>Arvind Kumar, Gaurav Sharma, Anjali Kumari, Abinash Gaya, Yuvraj S, Jagannath Malik</i>	
Investigations on VU Shaped -Textile Antenna for Thyroid Cancer Detection.....	1621
<i>Perumalla Krishna Chaitanya</i>	
Probe-Fed Circularly Polarized Square Patch Antenna for Wireless Applications.....	1626
<i>Vaishnavi Bodke, Rutika Bhanushali, Anushree Deorukhar, Kiran R. Rathod, Priyanka Dalal, Bhimrao Sheshrao Jadhao</i>	
Design of a Dual-Band Coplanar Waveguide Antenna for Bluetooth and 5G Applications.....	1630
<i>Krishna Chennakesava Rao Madaka, Pooja Bhavani A, Harshavardhan K, Srilekha M, Harshavardhan K</i>	
Compact 2x2 MIMO Mm-Wave Antenna with Hybrid-Stub-Loaded Elliptical Slot for V-Band Wireless Communication Systems	1634
<i>Ananda Rao Nelapati, Sekhar M</i>	
Design and Analysis of a Modified U-Shaped Slot Microstrip Antenna Using Fabric - Based Substrates for RFID Systems.....	1639
<i>A. V. S Swathi, M. S. S. S. Srinivas, Sunkavalli Bindu Sree, Pedagadi Madhu, Potnuru Eswararao, Nammi Teja Pavan</i>	
CPW-Fed Dual-Band Bow-Tie Slot Antenna for WiFi and 5G Sub-6 GHz.....	1646
<i>Pannag Agrawal, Tushar Punjabi, Harshal Randive, Mit Shah</i>	
X-Band Radar Monopulse Comparator Utilizing Rat-Race Couplers.....	1650
<i>Potani Jahnavi, Rama Krishna Dasari</i>	
A Miniaturized High Gain MultiBand Microstrip Patch Antenna	1654
<i>Ghanapuram Yashaswi, Tharun Madasu, Bhavani Vantakala, Keerthi Sane, Thanmai Gadagamma, Lakshman Kukkadapu</i>	
HEM _{12δ} Mode Based Cylindrical DRA: Engineering with the Dielectric and Metallic Objects for Improved Radiation Properties.....	1659
<i>Sanjit Mukherjee, Soumojeet Basak, Sk Rafidul, Chandrakanta Kumar, Debatosh Guha</i>	
Design Analysis of We-Mo Satellite for Atmospheric Parameters	1663
<i>S. Bahulya, P. Naveen Kumar, Shafali Tandon, Srinivasu Garikipati, Subbarao Genikala, Gayatri Tangirala</i>	

A Tilted Beam SIW Horn Antenna with Enhanced Gain for 5G NR N257/N261 Bands	1668
<i>J. Moukthika, M. Shyamsunder, Swetha Muthyala, Gayatri Tangirala, Srinivasarao Alluri, Srinivasu Garikipati</i>	
Detecting Denial Attacks in Malicious Devices Through Analysis of Heterogeneous Networks	1672
<i>Kottnana Janakiram, Pullagura Joshua Reginald</i>	
Design and Analysis of Microstrip Monopulse Feed for Tracking Radar Application at 3.5GHz.....	1678
<i>Bhukya Samuel, Bharath Konnuru, Yennamalla Kamalaker, D. Ramakrishna, Eluri Sangeetha</i>	
Design and Analysis of an Annular Ring Antenna for GNSS Applications.....	1683
<i>Eluri Sangeetha, Bhukya Samuel</i>	
Wearable Jeans Substrate Integrated Antenna Design for 5G mm Wave Connectivity	1687
<i>Ishwarya M, Jnana Jyothi B K, Kavya Patil K M, Keerthana H V, Vivek Singh, Ajay Kumar Dwivedi</i>	
Real-Time Stress Detection for it Employees Using Deep Learning and Image Processing.....	1691
<i>Ch Gowri Sri Valli, B Teja Sree, A Bhagya Sri, E Lavanaya, B Pujitha</i>	
Advanced Sub-6 GHz 5G Communication Ring Patch Antennas with H-Slot Defected Ground Structure	1696
<i>Purra Raju, D. Ramakrishna</i>	
IoT-Enabled Health Monitoring Glove with Machine Learning-Based Risk Classification	1701
<i>I Lakshmi Narayana, Gaddamadugu Abhinay, Dhara Vinitha, Bolapati Charan, Boddu Veera Venkata Satyanarayana</i>	
Highly Sensitive Corrugated QMSIW Microfluidic Sensor for Biofuel Adulteration Detection	1706
<i>K B S Sri Nagini, V Jaya Prakash</i>	
Gesture-Controlled Drone: A Vision-Based Approach Using Coppeliasim, Raspberry Pi and Pixhawk.....	1711
<i>P. Jeevana Sri, P. Durga Kishore, J. Lavanya, B. Anand Mohan, M. Vamshi Krishna</i>	
Investigation of VHF Deployable Antennas for Satellite Applications	1718
<i>Nasimuddin, Hongbo Sun, Natalaray Thaddie, Yong Wei Fang, Siew Pern Chuang</i>	
Performance Evaluation of a Compact Dual-Band Filtenna for C Band Applications.....	1722
<i>Maneesha Dwivedi, Neelam Srivastava</i>	
Integration of IRSA, NOMA and MIMO for Efficient Traffic Management	1727
<i>Divya Mokara, Roshini Kadimisetty, Venkata Sai Kirla, Kavya Gorre, Bhargav Dasari</i>	
An Interdigital ELC Resonator Based Microwave Sensor for Material Sensing Applications.....	1732
<i>Subha Mandal, Subhradip Bal, Soham Banerjee, Malay Gangopadhyay, Gobinda Sen</i>	
Deep Learning-Based Identification of Random Body Movements for Enhanced RF Sensing	1736
<i>Prisila Ishabakaki, Muhammad Farooq, Hira Hameed, Michael Mollel, Hasan Abbas, Muhammad Ali Imran, Qammer Abbasi</i>	
Advanced Secure Ranging in Vehicle Access Using Radio Frequency Techniques	1740
<i>Suresh D, Prashant V Joshi, Parag Parandkar, Sudharshan K M</i>	
Additively Manufactured Array Antennas for Satellite Payloads	1746
<i>Philip Venezia, Clency Lee-Yow, Sudhakar Rao</i>	

Flexible Super Wideband Antenna for Microwave Imaging Applications	1751
<i>Dattatreya G, Vamsidhar Anagani, Teja Kumar Kona, Mohan Satya Sai K, Jairam Korupolu, Rahul Kasi</i>	
Advanced Ring Antenna for Vehicular Communication	1757
<i>Philip Venezia, Maxim Ignatenko, Clency Lee-Yow, Sudhakar Rao</i>	
Millimeter Wave Textile Based Antenna for Wearable Applications.....	1760
<i>Dattatreya G, Anindita Chatterjee, Vaishnavi Raghumanda, M. Manikantha, N Yamini, N Manikanta Reddy</i>	
A Millimeter Wave Metamaterial Based Array Antenna Structure with Dual-Band Resonance	1765
<i>Parveez Shariff B. G., Tanweer Ali, Satish Kumar Sharma, Pallavi R. Mane, Sameena Pathan</i>	
Design Analysis of Wearable Textile Antenna for Wireless Body Area Networks	1770
<i>Vijaya Adepu, V S S N Srinivasa Baba</i>	
Circularly Polarized Microstrip Patch Antenna for Dual Band Wireless Applications.....	1775
<i>Vijaya Adepu, V S S N Srinivasa Baba</i>	
Design of Dual-Band Circularly Polarized Stacked Patch Antenna for RFID Applications.....	1779
<i>Bharathi V, Krishnamurthy Ramanujam, Parthasarathy Ramanujam</i>	
Energy-Efficient 6G IoT Networks for Wearable Healthcare Devices Using Hybrid Reinforcement Learning	1783
<i>S Pradeep, G. Sreeram, Mamatha G, Arpit Namdev, Rohit Anand, Manisha Mittal</i>	
Development of a Smart Healthcare Surveillance System Using Wireless Communication and Real-Time Image Processing	1789
<i>Vivek Veeraiah, Mamatha G, V. E. Chandra Sekhar, P Ravinder Kumar, Gautam Kumar, Rohit Anand</i>	
Machine Learning Based Security for Healthcare Data Transmission in IoT Wireless Networks	1795
<i>Mamatha G, Vivek Veeraiah, Arpit Namdev, S Pradeep, Ankur Gupta, Manisha Mittal</i>	
Hybrid AI Models to Enhance Quality of Service in Healthcare Wireless Networks.....	1801
<i>Gitanjali Shrivastava, Veera Talukdar, Vivek Veeraiah, S Pradeep, Gulbir Singh, Ankur Gupta</i>	
Correction Bit Algorithm for Digital Phase Shifter Using Perturbation Technique.....	1807
<i>Arthi. R, S. Christopher, R. David Koilpillai</i>	
A UWB Antipodal Vivaldi Antenna with Meta-Reflector Decoupling Module for Through Wall Radar Applications	1811
<i>Masoom Verma, R Arthi, S Christopher</i>	
Phased Array Antenna Design for Transmit Applications	1816
<i>Sudhakar Rao, Vvsss Chakravarthy</i>	
Phase Gradient Profile and Target Deviation Error Analysis of 3-Bit Angle Insensitive Intelligent Reflecting Surface for 6G FR1 Band Application.....	1821
<i>Sunanda Mukhopadhyay, Abhishek Sarkhel, Satyendra Singh Yadav</i>	
Wideband 180-Degree Coupler for S-Band Precision Cosmology Experiments.....	1826
<i>Shilpi Sanyal, Keerthipriya Sathish, Mayuri Sathyanarayana Rao, Debdeep Sarkar</i>	
Performance Enhancement of Aesa Antenna Using Metasurface Lens for Radar Applications.....	1831
<i>Ajith B. Nair, Arthi R, Masoom Verma, S Christopher, Shiv Narayan, Raveendranath U. Nair</i>	

Classification and Identification of COVID-19 in CT Images Using the DL Approach	1835
<i>Khushmeen Kaur Brar, Bhawna Goyal, Rohit Anand, Ahmed Alkhayyat, Ayush Dogra, Jasgurpreet Singh Chohan</i>	
An Investigation of the Structure and Uses of Microstrip Patch Antennas.....	1841
<i>Khushmeen Kaur Brar, Bhawna Goyal, Rohit Anand, Ahmed Alkhayyat, Ayush Dogra, Prerna Setia</i>	
An in-Depth Evaluation of Mutual Coupling Strategies and Prospective Developments for MIMO Antennas for 5G Smartphones.....	1844
<i>Khushmeen Kaur Brar, Bhawna Goyal, Prerna Setia, Ahmed Alkhayyat, Ayush Dogra, Jasgurpreet Singh Chohan</i>	
Wireless Power Distribution and Near-Field Communication Leveraging an Inductive Coupling	1848
<i>Khushmeen Kaur Brar, Bhawna Goyal, Rohit Anand, Ahmed Alkhayyat, Ayush Dogra, Jasgurpreet Singh Chohan</i>	
Earth to Mars: Developing Requirements for an Earth Orbiting Perimeter Truss Reflector for the Mars Environment.....	1853
<i>Jonathan Sauder, Nacer Chahat, Serena Feraro, Gregg Freebury</i>	
A 3-D Printed Step Shaped MIMO Patch Antenna Design for Wireless Applications	1857
<i>Manasa Chinnam, Damera Vakula</i>	
A Simple Multilayer Frequency Selective Surface for Ultra Wide Band Applications	1861
<i>Anett Antony, Rosemary P J, Leo Lawrance, Joyal Biju, Nidhin Biju, Bidisha Dasgupta</i>	
Conformal Millimetre Wave Wearable Antenna for HealthCare Applications	1865
<i>Dattatreya G, Valiveti Ravi Tejesvi, S. Satya Suryakala, T. Abilash, U. Saikumar, S. Saikiran</i>	
Machine Learning-Driven Permittivity Prediction of Liquids Using a Novel Encircled Coupling Microwave Sensor.....	1872
<i>Imran Basha Syed, Narasimha Rao Banavathu, S. Yuvaraj</i>	
Quasi-Reflection Less Bandpass Filter Using Distributed - Elements	1877
<i>Shilpa Elaprolu, Arun Kumar Gande, Gopi Ram</i>	
Design of a Dual-Band Cavity-Backed SIW H-Coupled Dual Asymmetrical I-Slot Antenna for Medical Applications.....	1881
<i>Srinivas Lavudya, Arun Kumar Gande, Gopi Ram</i>	
Mitigation of Grating Lobe in Planar Arrays Using 2D Subarray Null Steering.....	1885
<i>Sivada M. S., Satish Srivastava, A. R. Harish</i>	
AI-Powered Smart Glasses for the Blind Using OpenCV & Python.....	1890
<i>B. S. S. V. Ramesh Babu, Gedela Jayakrishna, Balasani Mahendra, Medisetti Gowtham, Appana Lohitha Sri Sai Manasa, Munubarthi Chandrakanth</i>	

Author Index