

2023 International Conference on Smart Systems for applications in Electrical Sciences (ICSSES 2023)

**Tumakuru, India
7-8 July 2023**



**IEEE Catalog Number: CFP23DU8-POD
ISBN: 979-8-3503-4730-2**

**Copyright © 2023 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:	CFP23DU8-POD
ISBN (Print-On-Demand):	979-8-3503-4730-2
ISBN (Online):	979-8-3503-4729-6

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

SMART KISAN: A Mobile App for Farmers' Assistance in Agricultural Activities	1
<i>Tejal Yadav, Pooja Sable, Dhananjay Kalbande</i>	
Implementation of New Incremental Mass Clustering Algorithm to Handle Dynamic Dataset and Identify Core, Non-Core, Noisy Points	7
<i>S Malleesh Babu, V. K. Sharma, S. Roopa</i>	
De-Adulteration Techniques for Aquatic and Atmospheric System	13
<i>Srividya B V, Smitha Sasi</i>	
Classroom Activity Detection in Noisy Preschool Environments with Audio Analysis.....	20
<i>Siddhartha Cv, Preeti Rao, Rajbabu Velmurugan</i>	
A Novel Study on Smart Sensors Used in Smart Automation System	26
<i>Rakesh S, Ravi H K</i>	
Performance Evaluation of CoolSiC™ Trench MOSFET Based Buck Converter	32
<i>Prajwal S Magadi, Soumya V Kulkarni, Anish P Purdannavar, Pramukh Manchikanti, A B Raju</i>	
Terminal Voltage Control of BLDC Motor.....	38
<i>Yadunandan, Bhargav Naik, Roopesh Konduru, Bibijohara Bashasab Ilkal, Sahana Kalligudd</i>	
An Artificial Neural Network Based Energy Efficient Wireless Detection System to Extend the Lifetime of the Network	43
<i>Rakheeba Taseen, Niranjana L, Haseeba Yaseen, Imtiyaz Ahmed B K, Sridhar N, N Shwetha</i>	
An Improved Fuzzy Logic Control Algorithm of Photovoltaic MPPT Incremental Conductance Methodology	49
<i>Burri Ankaiah, Sujo Oommen, Mahesh Kumar, Ananda M H, K Lokeswara Rao</i>	
Blockchain and IoT-Based Medical Care Utilizing Secure and Protection Safeguarding Watermark.....	55
<i>Shruthi K, Poornima A. S</i>	
Gallium Nitride (GaN) Device - Study and Application in Power Electronics	61
<i>Adarsh A. A, Aashish Purdannavar, Vijeta R. Shetty, Muskan N. Nadaf, A. B. Raju</i>	
Vision-Based Automated Guided Vehicle.....	67
<i>Venkatesh T, Nataraj Urs H D</i>	
Design of Unmanned Aerial Vehicle for Stability	72
<i>Rithika Shenoy, Roopa Manjunatha</i>	
Robotic Orchard : A Smart and Efficient Solution for Fruit Harvesting.....	78
<i>Amisha, Babli Kumari, Priya, Shambhavi Kumari, Srividya B. V</i>	
Mathematical Modelling and Simulation of BLDC Motor with Trapezoidal Control Technique	85
<i>Vandana Muratti, Vikas Kulkarni, Sahana Bhat, Sanjay Rajur, Aishwarya Laddigatti</i>	
Data Acquisition of Iris and ECG for Person Biometric Authentication and Verification.....	90
<i>Ashwini K, G N Keshava Murthy</i>	

Deep Learning Based Super-Resolution for Accurate COVID-19 Diagnosis in Chest CT Images.....	96
<i>Rajeshwari P, Shyamala K</i>	
Crop Yield Prediction of Cotton Using Optimization Technique	102
<i>Prathiksha S V, Spandana N Raj, Soumyalatha Naveen, Ashwinkumar U M</i>	
Smart Glove with Gesture Based Communication and Monitoring of Paralyzed Patient	108
<i>H M Kalpana, Aditya Balaji Kulkarni, Manish Tiwari, Om Rajesh Chitmalwar, Raghavendra Surya T R</i>	
Emotion Recognition and Stress Reduction Based on Electroencephalograph (EEG) Signals Validated by Machine Learning Algorithms	114
<i>Shwetha Baliga, Nafisa Ali, Anusha Ls, Vishruth P</i>	
Analysis and Review of Various Motors Used for Electric Vehicle Propulsion	120
<i>Palla Siva Kumari, Mareddy Padma Lalitha</i>	
An Error-State Extended Kalman Filter Based State Estimation and Localization Algorithm for Autonomous Systems	125
<i>Madan H T, Vaseem Akram, Sumanth Reddy, Mohan Gowda Kn, Uday Kumar Ld</i>	
Trajectory Tracking and Lane-Keeping Assistance for Autonomous Systems Using Pid and MPC Controllers.....	131
<i>Madan H T, Ramya P, Rakshitha M, Saniya</i>	
Detection of Path History of an Emitter Using TDOA Measurements and Spherical Intersection Algorithm	138
<i>Raji C, Aravind Valsalan</i>	
Investigating the Performance of a Wide Bandgap BaZrS ₃ Perovskite Tandem Solar Cell	144
<i>Shreyus Goutham Kumar, Suraj N, Anmol Pramod, Prashanth C R, Gajanan V Honnavar</i>	
Design of Fractional Order PID Controller Based Automatic Voltage Regulator System Using HarrisHawk Optimization Algorithm	150
<i>Jaya Surya Varaprasad Samasani, B. T. Krishna</i>	
ISmartYog: A Real Time Yoga Pose Recognition and Correction Feedback Model Using Deep Learning for Smart Healthcare	156
<i>Hukam Chand Saini</i>	
Advancements and Challenges in 5G Networks.....	162
<i>Sindhushree K, Naik D C</i>	
Smart Wearable Memory Band System for Alzheimer's Patients.....	168
<i>Rashmi G. P, Sreenivasulu K. N, Prathima N, G. V Jaya Krishna</i>	
Fingerprint Definition for Song Recognition Using Machine Learning Algorithm.....	173
<i>Arunakumari B N, Shashidhar R, Sahana B, Jagadamba G, A S Manjunath, Roopa M</i>	
A Cooperative Global Sequencing Algorithm for Distributed Wireless Sensor Networks.....	179
<i>M Lorate Shiny, C Sharon Roji Priya, Sam Gilvine Samuvel, Niranjana L, Shilpa A N, Shwetha N</i>	
Enhanced Crop Protection in Agriculture Utilizing Open Source Platform	186
<i>Panwala Fenil Chethankumar, Lokashree N B, Naveen T, K V Niranjana Sharma, Ranjitha P, Panchami J</i>	

Effective Method for Vehicle-Automatic Emergency Braking System and Blind Spot Detection Using Radar and IoT	190
<i>Bindu S P, Harshitha V M, Keerthi L Reddy, Lavanya M, H. Venkatesh Kumar</i>	
Gate C-V Characteristics of n-Channel MOSFET Considering Quantum Mechanical Effects.....	195
<i>K. V. Jyothi Prakash, G. S. Jayadeva</i>	
Classification of Valvular Diseases Using Phonocardiogram Without Segmentation and Gammatone Filters	199
<i>Rajeshwari B. S., Nirmalya Ghosh</i>	
Design and Implementation of Cruise Control for Bikes Using Raspberry PI.....	204
<i>Madhu B. M., Sakcham Somvanshi, Mansi Ramsinghani, Punith N, Sumit Kumar</i>	
Wireless Sensor Network and AI Boom in Classroom-A Review	208
<i>Ashwitha B. M, Bharathi P. T</i>	
Classification of Skin Cancer Using Machine Learning Techniques.....	213
<i>Aishna Shah, Shreya V, Reehana D R, Amrita Das, Purushotham U</i>	
Realtime Detection of Humps and Potholes	219
<i>Tejas B S, V Pavan, Rohith H, Pranam J, Veena N. Hegde</i>	
Recent Trends in Development of Soft Magnetic Material for Power Electronics Applications: A Review.....	225
<i>Rashmi Aradhya, R Santhosh Kumar, Sundara Rajan J.</i>	
Breast Cancer Detection with Multiparametric Magnetic Resonance Imaging Using Deep Learning.....	231
<i>Swati Nadkarni, Kevin Noronha</i>	
A Novel UAPQC Device for Enhancing Power-Quality in Grid Connected PEV Charging Station	236
<i>Anil Kumar Dharavatu, R. Srinu Naik</i>	
Performance Analysis of Piezo Resistive MEMS Cantilever for the Detection of VOCs	243
<i>Guruprasad B, M G Veena, Usha Rani C M</i>	
Harmonic Source Identification in Microgrid Using Wavelet Time Frequency Analysis.....	249
<i>S Ramana Kumar Joga, Javvadi Shiva</i>	
Multiclass Classification of Rail Track Defects Using Deep Learning Techniques	255
<i>Shreetha Bhat, Asha Gowda Karegowda, Leena Rani A</i>	
An Intelligent VGG-16 Framework for Brain Tumor Detection Using MRI-Scans.....	261
<i>Poonam Shourie, Vatsala Anand, Sheifali Gupta</i>	
Design and Implementation of Kogge-Stone, Sparse Kogge-Stone and Spanning Tree Adder.....	267
<i>B N Shashikala, Pooja R, Pavan Prahallad, Ramya S K, M V Ramyashree</i>	
Modeling and Simulation of Various Suspension Systems for Dual Axis MEMS Accelerometer Towards Seismic Sensing Application.....	273
<i>Nithya G, Niroop. C, Sandesh N, Madhu R, Nagaraj K Hegde</i>	
Machine Learning Models for Early Prediction of Malignancy in Sepsis Using Clinical Dataset.....	277
<i>Divya Bhaskaracharya, Diya Mehta</i>	
Control Strategy for Power Sharing in a Microgrid Using Wind/Fuel Cell Hybrid System.....	282
<i>Karthik R P, Sushma S R, Surenderkumar S</i>	

Evaluating Metaheuristic Algorithms and Neural Networks for PID Tuning.....	287
<i>Abhigyan Adarsh, Amal Chawla, Anirudh Singh, Bharat Bhushan</i>	
Optimal Sensor Network Solution Based Smart Drip Irrigation System.....	293
<i>Mallikarjun B C, B. A. Pramod Reddy, Parinitha Shivakumar, Varun Kumar Jain Tv, Rakshith M D, Manoj K R</i>	
Stairs Count and Zebra Crossing Distance Estimation for Visually Impaired Individuals	299
<i>Swati Shilaskar, Shripad Bhatlawande, Parul Inamdar, Piyush Pandita, Pulkit</i>	
Classification of Voice Pathology Using Different Features and Bi-LSTM.....	305
<i>Anilkumar V, R Venkata Siva Reddy</i>	
Sugeno/ Mamdani Interval Type II Fuzzy Logic Controller Based DSTATCOM with Controlled Load.....	309
<i>Muhannad Drak Alsebai, Kishore Kumar Pedapenki</i>	
Design of Optimized and Energy Efficient 1-Bit Comparator.....	315
<i>Ranjani Aruna A, Kamala J, Sahaana K, Priya M</i>	
A Novel Based Crop Prediction Using Machine Learning and Internet of Things.....	320
<i>R. Bhargava Rama Gowd, Shilpa A N, Sridhar N, Niranjana L, K. Ezhilarasan, S. Sajithra Varun</i>	
Fabrication and Characterization of Nano Structured ZnO Thin Films for Gas Sensing Applications	325
<i>Sthuthi A, K Naveen Kumar, Rutikesh A, Prasanna Kumar R, Sagar V, P Nitheesh</i>	
Implementation of Wearable Device for Monitoring Alzheimer's Patients	331
<i>Sophiya Susan S, Ambika R, Deekshitha S M, Keerthana N M, Vandana K</i>	
A Novel Based NSEC System for Integrating Network Capability with Wireless Sensor Network Using Web Services.....	337
<i>Husna Tabasum, Sam Gilvine Samuvel, Shilpa A N, Niranjana L, Sridhar N, Shwetha N</i>	
Automatic Early Detection of Dysarthria Using Deep Neural Network	343
<i>Akshatha K, Lohith T N, Sonu Upendra Bhat, Sunil R, Chandrashekar H M</i>	
Design of Wide Bandpass Filter Using Planar Metal Strip Grating by Analyzing Dispersion Properties.....	347
<i>Ranjitha S Y, M N Sujatha</i>	
Classification of ECG Arrhythmia Using a Convolution Neural Network.....	352
<i>Reethunandh, Yashwanth H R, T Sai Venkata Sandeep, Subramanya Navada K R, H M Chandrashekar</i>	
Multi-Objectives Based Reliable Routing Algorithm for IoT Health Care	360
<i>Raghavendra M, Sunitha N R</i>	
Efficient Artificial Intelligence-Teaching Assistant Based on ChatGPT	366
<i>Yiqian Chen, Hanxi Deng, Chi-Hua Chen, Chan-Liang Chung</i>	
Multimodal Biometric System Using Alex Net Model	371
<i>Yashavanth T R, Suresh M</i>	
Vehicle-To-Vehicle Communication Using RF Technology.....	375
<i>Rashmi Rani Samantaray, Sufia Banu, Abdul Azeez, Bhoomika Cn, Kannan, Jayakrishna D</i>	

Multimodal Biometric Authentication.....	381
<i>Pranathi S, A N Mukunda Rao, Sandhya H R, Inchara P N, Kanakareddy B, G Karthik Devadiga</i>	
Multiple Layer Security System to Access Encrypted Secure IP Streaming Videos Using Matlab.....	387
<i>Rashmi Rani Samantaray, Nayana Hegde, Abdul Azeez</i>	
Bacterial Detection in Contaminated Water Using a Photonic Crystal Sensor.....	393
<i>Ranjith B Gowda, Vilas T V, Komal G D, Venkatesh Badageri, Preeta Sharan, Ciro Rodriguez</i>	
Post-Quantum Cryptography Neural Network	398
<i>Abel C. H. Chen</i>	
Vibration Signal Analysis of Induction Motor Bearing Faults: Some Aspects	404
<i>Debayan Bhaumik, Abhishek Sadda, Gururaj S Punekar</i>	
Loss of Lock Characteristics of Global Positioning System Signals Under Ionospheric Scintillations at Guntur, India.....	408
<i>Ram Kumar Vankadara, Sampad Kumar Panda</i>	
Performance Evaluation of Machine Learning Algorithms for Website Defacement Attack Detection	412
<i>Atul Kumar, Ishu Sharma</i>	
Traffic Flow Prediction Method Based on Similarity Graph and Temporal Convolution Units.....	418
<i>Hao Chen, Chi-Hua Chen</i>	
Realization of Free Space Optical Communication.....	421
<i>Preksha T V, Gaganashree C, Shilpa S P, T N Chandrika</i>	
Impact of Al and Mn Doping on Structural and Electrical Properties of the Green Synthesized ZnO Nanoparticles.....	426
<i>D. Savitha, Latha H. K. E, H. S. Lalithamba, Yogananda Vasudev Jeppu</i>	
Non-Invasive Detection of Breast Cancer Using Antipodal Vivaldi Antenna	432
<i>N Kranthi Kumar, G Bhuvan, Sakthi Abirami, Devi Sowjanya P</i>	
CsPbI ₃ Based Perovskite Solar Cells: ETL Parameters Optimization Using SCAPS-1D	437
<i>Vishal Yadav, Rahul Pandey, Jaya Madan</i>	
Deep Learning-Based Braille Technology for Visual and Hearing Impaired People	441
<i>Chellaswamy C, Geetha T S, Hariharan K, Dhelipan Raj A, Archana K, Babitharani S</i>	
Improved SRFT Controller Based Power Quality Improvement in EV Integrated Distribution System	449
<i>Aswini Pentakota, Krishna Nag Arsavelli, S Ramana Kumar Joga</i>	
Investigation of CH ₃ NH ₃ SnBr ₃ Perovskite as an Active Layer in PV Cells: SCAPS-1D Simulation and Thickness Optimization for Enhanced Efficiency	455
<i>Savita Rawat, Jaya Madan, Rahul Pandey</i>	
A Study on Reinforced Support Vector Machine Classifier for Periodic and Aperiodic Scheduling in Networked Control Systems.....	459
<i>K Varalakshmi, S. M. A. K. Azad</i>	
Anomaly Based IDS in Industrial IoT	463
<i>Abhijeet Singh, Achyut Mishra, Ajit Antil, Bharat Bhushan, Anamika Chauhan</i>	

GSO-VGG-16 Model for Predicting Diabetic Retinopathy by Analysing Up-Sampled Gaussian Filtered Fundus Images	469
<i>Saravanan Parthasarathy, Vaishnavi Jayaraman, Viji Vijayan</i>	
Design and Simulation of Low Noise Amplifier for Sub-6GHz 5G Application	475
<i>Sateesh Kumar T R, Puneeth Kumar Tharehalli Rajanna, Deepika P N, Soniya S S, Yashaswini H M, Bhavyashree K V</i>	
A Deep Learning Approach for Detection and Classification of Ten Species of Monkeys	480
<i>Rudresh Pillai, Rupesh Gupta, Neha Sharma, Rajesh Kumar Bansal</i>	
OFDM Transmission for Encrypted Images Based on 3D Chaotic Map and S-Box Through Fading Channel.....	486
<i>Jenan Ayad, Fadhil Sahib Hasan, Alaa. H. Ali</i>	
Investigation of Power Flow Analysis in Networked Microgrids.....	492
<i>Ankeshwarapu Sunil, Chintham Venkaiah</i>	
Hardware Acceleration Using SIMD Based Vector Processor Array to Enhance Performance of Deblurring Methods for CT and MRI Images Having Motion Blur Artifacts	498
<i>Poonam Sharma, Ashwani Kumar Dubey, Ayush Goyal</i>	
Hands-Free Mouse Control Using Facial Feature	504
<i>Pradeep Kumar S, Saket Agarwal, Daniyal Mustafa, Divyansh Kumar, Gautam Ranjan</i>	
Automated Text Summarizer Using Google Pegasus	510
<i>Nalini N, Agrim Narayan, Akshay Mambakkam Sridharan, Arkon Pradhan</i>	
Identification of Suitable Machine Learning Or Deep Learning Algorithm for Diabetic Retinopathy Detection	514
<i>G Shraddha, Srikrishna S, Prajoona Valsalan, Sudiksha Bhat M, Jisha P</i>	
Investigating the Effectiveness of Free Space Optics in Central Indian State of Madhya Pradesh: A Performance Evaluation	520
<i>Shubhojeet Roy, Atul Kumar Buchke</i>	
HDL Programming and Sequential Circuitry for Multi-Core RISC-V Processor	525
<i>Anil Kumar D B, Bansilal Bairwa, Bhadriraju Vamsidath, Ujwal V, Tharun P, Tushaar Rao</i>	
Dual Band Dual Circularly Polarized Patch Antenna for Sub-6 and Wi-Fi Applications.....	531
<i>Nandini H S, Preethi Reddy K R, Saniya Kousar S, Priya Darshini S, Manjunath M N</i>	
SIT-HANDS: A Novel RGB-D Dataset for Static Hand Gesture Recognition Using Kinect Sensor	536
<i>Dayananda Kumar N. C, K. V Suresh, Sheela S. J, Dinesh R</i>	
A PF Improved LED Drive Using Modified Non-Bridged Cuk Converter.....	544
<i>Tanmay Shukla, Aftab Ahmed Ansari, Anwar Ahamed Ansari</i>	
Dielectric Properties of Green Synthesized Sb:SnO ₂ Nanoparticles.....	549
<i>Chaitra C, H. M. Kalpana, C. M. Ananda, H. S. Lalithamba</i>	
Transformerless Dynamic Voltage Restorer Based on Switched Capacitor Multi Level Inverter and Interleaved Boost Converter.....	553
<i>Akshayaa Dharmaraj, Kannabhiran Arumugam</i>	

Intelligent Battery Interfaced Solar PV Powered BLDC Motor Using ANN in MPPT and Regenerative Braking Concept.....	559
<i>Bismit Mohanty, Sobhanjit Padhi, Siddhant Mishra</i>	
Forensic Investigation of Drone Malfunctions with Transformer	565
<i>Arda Surya Editya, Tohari Ahmad, Hudan Studiawan</i>	
A Comparative Study of PID Controller and Artificial Neural Network for Load Frequency Control in Hydro Power Plant	570
<i>Kanika, Tilak Thakur</i>	
A Closed-Form Solution to Estimate Parameters of Three-terminal Hybrid Transmission Lines	576
<i>Vijay Saieesh Ats, O. D. Naidu, Nandiraju Venkata Srikanth</i>	
Post Quantum Implications on Private and Public Key Cryptography.....	582
<i>Seema B. Hegde, Aayush Jamuar, Raghunath Kulkarni</i>	
A Review on Different Acoustic-Noise and Torque Ripple Lessening Techniques of Switched Reluctance Motor	588
<i>N S Madhuri, Prabhu Sundaramoorthy, Arun Vijaykumar</i>	
A Novel UAPQC Device for Enhancing Power-Quality in Grid Connected PEV Charging Station	594
<i>Anil Kumar Dharavatu, R. Srinu Naik</i>	
Using Elliptic Curve Cryptography for Homomorphic Hashing	601
<i>Abel C. H. Chen</i>	
Synthesis and Characterization of Silver Nanoparticles for Gas Sensing Applications	606
<i>Mala S, Lalithamba H S, Nagesh Gowda B, Manoja K N, Pavankumar R, Kishore T J</i>	
Intelligent Control Strategies for DC-DC Boost Converter: Performance Analysis and Optimization	612
<i>Utsab Saha, Shakib Shahria, A. B. M. Harun-Ur Rashid</i>	
Design and Control of a 2kW Electric Vehicle Charger	618
<i>Sushant Chaturvedi, Alka Singh</i>	
Experimental Design of Solar Powered Dynamic Wireless Charging of Electric Vehicle	624
<i>Dileep Kumar Kohar, Akshaya Kumar Pati, Ananna Biswas</i>	
Comparative Study of 5G Wireless Technologies	629
<i>Dhruva Kumar T, Bhavana T M, Dhanushree K, Govardhan K H, Hemanth D</i>	
Predictive Analysis of Energy Consumption and Electricity Demand Using Machine Learning Techniques.....	635
<i>Ayush Thakur, K. A. Shukla, Ayush Choudhary, Jonathan Atrey</i>	
Intelligent Reflecting Surface Assisted Wireless Communication for Coverage Enhancement.....	641
<i>Tejas K S, Udaykumar M, Varun R, Suhailkhan, Dhruva Kumar T</i>	
Classification of Healthy and Diseased Silkworms Using Ensemble Learning and CNN	647
<i>P. S. Shilpashree, Asha Gowda Karegowda, K. V. Suresh, Leena Rani A</i>	
Simulation of Terahertz Communication in Vehicular Network.....	652
<i>Aayush Jamuar, V M Aparanji</i>	
A Medical Chatbot with Object Detection Feature for Improved Patient Care	658
<i>R Kumaraswamy, Sudhanva G R, Jeevan Gowda N, Kantharaju, Chandrashekharaiyah R</i>	

Wireless Communication Using Autoencoder.....	664
<i>Harshitha Y S, Bhuvan T S, Sowkhya G R, Rahul Kumar K N, Veena Karjigi</i>	
Solar Power Based Multipurpose Agriculture Robot with Leaf-Disease Detection.....	670
<i>Ankit Kumar, Atirek Raj, Kshitiz Singh, Ritabrata Sarkar, B T Venkatesh Murthy</i>	
Automatic Classification of Sober/Drunk Through Iris Pattern Recognition.....	676
<i>Sahil Singh, Riya Kumari, Suyash Shukla, Rishab Kumar, Nagaratna B Chittaragi</i>	
Blind-Aid: Empowering the Visually Impaired Using Artificial Intelligence and Image Processing.....	682
<i>T C Mahalingesh, A Karthik, Banashankar K L, Basavaradya M C, Abhishek R</i>	
Design of MMIC Based Ka-Band Power Amplifier Using 0.15um GaN for Satellite Communication.....	686
<i>B T Venkatesh Murthy, Adithya H P, Bindu K S, Kishan Gowda M, Prajwal D</i>	
IOT Based Lake Cleaning Machine-: Removal of Floating Objects.....	691
<i>Pavan Bhargav V, K N Krishna Adiga, Madhu H, Suhas K N, G R Kiranmayi, Rohit Sharma</i>	
Underwater Surveillance Robot.....	695
<i>Shobha S Goudar, P S Shilpashree, Dasangam Shabareswar, N N R S Vijay Kumar, Sanka Jyothi Swaroopa, Sathi Venkata Satyanarayana Reddy</i>	
LiDAR-Based Advanced Driver Assistance for Vehicles.....	701
<i>Harshalatha Y, Nagesh M V, Navya G Hebbar, R Manasa, Naganagouda Kenchanagoudra</i>	
Performance Analysis of Underwater Images Enhancement Techniques.....	706
<i>Viswanath K, Navya V, Abhilash G, Tanmay M, Tejas V</i>	
Millimeter-Wave Dielectric Resonator Antenna for Breast Tumor Detection.....	712
<i>Usha L, Janhavi, Noushenn Banu, Sakina Banu, Sumana B M</i>	
Design and Implementation of BIST Architecture for Low Power VLSI Applications Using Verilog.....	716
<i>Aadesh Gonda, Bharathi S. H</i>	
Deep Learning Technique Used for Tomato and Potato Plant Leaf Disease Classification and Detection.....	720
<i>Amit Gupta, M. Senthil Kumar, M. Raman Kumar, D Hemanth Kumar</i>	
Cardiac Arrest Prediction Using Gradient Boosting Algorithm.....	726
<i>M. Bhavya Sri, V. Priya Radhika, N. Praveena</i>	
Air Quality Prediction Based on Decision Tree Using Machine Learning.....	732
<i>Soumyalatha Naveen, M. S. Upamanyu, Karun Chakki, Chandan M, P Hariprasad</i>	
Wireless Detection Systems Using Matrix-Oriented Diffusion.....	738
<i>Akshatha Bhat, Lavanya M S, Niranjana L, Rakheeba Taseen, Haseeba Yaseen, N Shwetha</i>	
An Efficient Digital Cluster Scheme to Improve the Lifetime Ratio of Wireless Sensor Networks.....	744
<i>Soni M, Akshatha Bhat, Sachin Aralikatti, Afroz Pasha, Niranjana L, Yousuf Madar R</i>	
Design and Implementation of Low Power-Novel Encoder Based Flash ADC.....	749
<i>Arshiya Sadath, Deepa</i>	
Comparative Analysis of EEPL and CPL Techniques Using 2:1 Multiplexer Based on 18nm FinFET Technology.....	755
<i>Gautam Rana, Kulbhushan Sharma</i>	

Author Index