

2023 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS 2023)

**Bhopal, India
18-19 February 2023**

Pages 1-522



**IEEE Catalog Number: CFP2366S-POD
ISBN: 979-8-3503-9875-5**

**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:	CFP2366S-POD
ISBN (Print-On-Demand):	979-8-3503-9875-5
ISBN (Online):	979-8-3503-9874-8
ISSN:	2688-027X

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

Generalized Immutable Ledger (GILED) Using Blockchain Technology.....	1
<i>Harsh Bari, Nidhi Patel</i>	
Smart IR Drop Reduction Technique Using Pegasus Flow	10
<i>Sushant Saurabh, Shreyasi Ghosh Dastidar, Amit Singh, Tarun Kumar Gupta</i>	
FIS Based Fault Identification and Classification in IEEE RTS96 System.....	14
<i>Matushree Kochar, Aradhana Ekka, Anamika Yadav</i>	
Solar Power Monitoring and Forecasting System Using Artificial Intelligence.....	22
<i>Ahmed Abdulfatah Alanqar, Venkatratnam Chitturi</i>	
Design and Development of BLDC Motor Drive for Solar-PV Irrigation System Using MATLAB.....	30
<i>Mayank Kumar, Pankaj Deosarkar, R. N Mahanty</i>	
Third Eye – a Smart Wearable Glass with Deep Learning Technology Powered with Artificial Intelligence for Visually Impaired People	35
<i>Uma R, Harish P. S., Ragav N. G., Navin A</i>	
Grid Integrated Bidirectional EV Battery Charger in V2G-G2V Mode with Improved Power Quality.....	39
<i>Ashish Dixit, Pankaj Swarnkar, R K Nema</i>	
Efficient Soil Condition Monitoring with IoT Enabled Intelligent Farming Solution.....	45
<i>K. Sudharson, Badi Alekhya, G. Abinaya, C. Rohini, S. Arthi, D. Dhinakaran</i>	
A Review on Dam Water Level Alerting System Using IoT	51
<i>Priyanka Dudhe, Gaurav Magarde, Madan Raj, Aditya Karemore, Jayesh Wankhede</i>	
Deep Learning Approach for Sign Language Recognition Using DenseNet201 with Transfer Learning	55
<i>Yasir Altaf, Abdul Wahid, Mudasir Manzoor Kirmani</i>	
Modelling Proton Exchange Membrane Fuel Cell for Power Generation Using Multi-Stage Power Conversion System.....	61
<i>Uliya Mitra, Anoop Arya, Rupesh Dwivedi, Sushma Gupta, Priyanka Paliwal, Shilpi Tomar</i>	
Seven-Level Single-Phase Reduced Device Count Multilevel Inverter	67
<i>Dilip Kumar Patel, Niraj Kumar Dewangan, Dhananjay Kumar, Arun Rathore</i>	
Linear L-Intersection Pairs of Monomial and Decreasing Monomial Cartesian Codes with Application to EAQEC Codes *	72
<i>Md Ajaharul Hossain, Ramakrishna Bandi</i>	
Government Infra Assessment System.....	75
<i>Reena Thakur, Abhijeet Gadmail, Akash Gomkale, Tanuksha Jambhulkar, Harshal Bhujade, Aditya Charpe</i>	
Carbon Nano Tube Based Thermoelectric Generator and Graphite Nanoparticle Based Supercapacitor for Smart Wearable Sensors.....	78
<i>Binula Ravindu Gunawardana</i>	

Sarcasm Detection Analysis – Comparative Analysis	81
<i>Chandu Vaidya, Ajit Gupta, Aditya Shastrakar, Anil Kathane, Kunal Atmande, Krishnan Iyer</i>	
Speed Regulation of Stepping Motor Using Metaheuristic Algorithm.....	85
<i>Shailu Sachan, Amogh Narwaria, Pankaj Swarnkar</i>	
A Review on Battery Technologies and Its Challenges in Electrical Vehicle	89
<i>Dhanveer Mehar, Rishi Kumar Singh, Ankur Kumar Gupta</i>	
Raisin Grain Classification Using Machine Learning Models	95
<i>Onur Sahin</i>	
Smart Contract-Based Land Registration System Using Blockchain.....	101
<i>Ram Kumar Yadav, Rushabh Dabare, Mehul Ghyar, Shreya Bhongade, Mukul Gautam</i>	
Arduino Based Bluetooth Voice-Controlled Robot Car and Obstacle Detector	107
<i>Rajeshwari Sissodia, Manmohan Singh Rauthan, Varun Barthwal</i>	
Random Key Generation Based Double Image Encryption System.....	112
<i>Hariom Singh, Chetan Gupta</i>	
Online Training and Placement System.....	118
<i>Gunjan Jewani, Swati Sahare, Trupti Kamble, Ritu Kathalkar, Ashwini Unhale</i>	
Simulation and Performance Analysis of a Fuel Cell Hybrid Electric Vehicle.....	123
<i>Uliya Mitra, Anoop Arya, Arshad Khan, Naveen Javara, Suresh Kumar Gawre, Manoj Arya</i>	
On Parametric Picture Fuzzy Information Measure in Pattern Recognition Problem	129
<i>Arsh Aryan Tiwari, Himanshu Dhumras, Rakesh K Bajaj</i>	
Performance Comparison of Multilevel and 2-Level Inverters for High Voltage E-Drive Application	134
<i>Akash Misra, Kothamasu Srikanth, B. L. Narasimharaju</i>	
Design and Control of Solar-Battery Fed PMSM Drive for LEVs.....	140
<i>Mayank Kumar, Pankaj Deosarkar, Nikhil Tayade, Sandip Yenare</i>	
Teeth Gap and Position Recognition System with Intraoral Scanner Images Using Image Processing.....	149
<i>R. Sathya, N. Nikhil Anirudh, H. Ganeshram</i>	
A Review on College Enquiry Chatbot	156
<i>Gaurav Sambhe, Shanal Awaze, Shraddha Bobade, Sukesha Bhagwatkar, Prachi Bhojar</i>	
On Medical Diagnosis Problem Utilizing Parametric Neutrosophic Discriminant Measure.....	159
<i>Muskan, Himanshu Dhumras, Varun Shukla, Rakesh K Bajaj</i>	
A State-Of-Art Review on Applications of Machine Learning Based Approaches on DSM Programs	164
<i>Ayushi Shrivastava, Priyanka Paliwal</i>	
Design of Metasurface Radome with Large Angle Stability in Ku-Band.....	170
<i>Qianqian Wang, Jie Liang, Runze Li</i>	
Multi Band FSS for 5G Signal Enhancement.....	173
<i>Yuanliang Ni, Qing Xiong, Shiwan Zhang, Yong Lou</i>	
Machine Learning Based Approach to Predict Cardiovascular Diseases	177
<i>Rishi Garg, Ritik Srivastava, Vishakha Rathore, Sanjay Kumar Gautam, J. Sathish Kumar</i>	

A Focusing Meta-Surface with High Transmittance and Low Profile for Millimeter-Wave Lens Antennas	183
<i>Kaihong Zheng, Qing Xiong, Yong Luo</i>	
A Comparative Study of Five Level Reduced Switch Count Multilevel Inverter	189
<i>Jyoti Chouhan, Amit Ojha, Pankaj Swarnkar</i>	
Hand Sign Language Detection - Using Deep Neural Network	195
<i>Neha Titarmare, Chandu Vaidya, Rohit Meshram, Abhay Dongre, Prathmesh Jawale, Nihal Bambale, Ojas Awachaat</i>	
A Multi-Layer Planar Beamfocusing Lens for 5G Communications	199
<i>Qing Xiong, Shiwan Zhang, Yuanliang Ni, Yong Luo</i>	
A Survey of A-Star Algorithm Family for Motion Planning of Autonomous Vehicles	203
<i>Pulkit Paliwal</i>	
The Sensitivity Analysis of Metasurface-Based Sensor	209
<i>Gangyi Yang, Yong Luo</i>	
Auto Detection of Personal Protective Equipment on Human	214
<i>Chandu Vaidya, Prajakta Yelure, Shivani Gonnade, Rasika Mohitkar, Tanvi Burande, Urvashi Sonkawade</i>	
Design and Simulation of Energy Selective Surface	219
<i>Yan Chen, Xiao Tong Li, Han Sen Wang, Ming Xuan Tan</i>	
High-Lens Metasurface Focusing Vortex Current Beams	223
<i>Hansen Wang, Qiwei Yang, Zhibo Sun</i>	
Decentralized File Sharing	226
<i>Chandu Vaidya, Kunal Takalkar, Anurag Ghosekar, Susmit Nimgade, Vivek Ghode</i>	
Comparative Study of Cell Balancing Techniques for Battery Module Performance Optimization	232
<i>Shashank Shrivastava, Pankaj Swarnkar</i>	
A Review on Strategies of Electrical Drive Utilization in Solar Powered Airplane	238
<i>Amisha Shukla, Savita Nema</i>	
A Review of Metamaterial Absorber and Its Absorption Techniques	244
<i>Asha Verma, OP Meena</i>	
Design of LCL Filter for Grid Connected Three Phase Three Level Inverter to Meet IEEE 519 Standards	250
<i>Alok Ranjan, D. Giribabu</i>	
Performance Analysis of Two-Stage Micro-Inverter Under Different Pulse Modulation Techniques.....	256
<i>Ajay Kumar Sahu, R. N. Patel, Lalit Kumar Sahu</i>	
AI Based Segmentation Technique to Identify Abnormality in MRI Images	262
<i>Priya Prasad, Agya Mishra</i>	
A Threat Modeling Approach to Analyze and Mitigate WhatsApp Attacks: A Review	268
<i>Pawan Kumar Patidar, Deepak Singh Tomar, R. K. Pateriya, Yogesh Kumar Sharma</i>	
Grid Integrated Electrical Vehicle Bi-Directional Charging Station.....	274
<i>Rituraj Mandloi, Jatoth Rajender, Manisha Dubey</i>	

Detecting Fake Profiles on Social Networks: A Systematic Investigation	279
<i>Rutika Bhambulkar, Sachin Choudhary, Amit Pimpalkar</i>	
Application of Linear Optimization Technique to Design a Fixed Coefficient Multiplierless Sample Rate Conversion Filter for Multiple-Of-Three Decimation Factor.....	285
<i>Divya Gautam, Kavita Khare, Bhavana P. Shrivastava</i>	
Thirteen Level Inverter with Low Switch Count and Self Balancing.....	290
<i>Goutam Kumar Yadav, S. C. Gupta, Mukesh Kumar Kirar</i>	
Hybrid and Classical Models of Recommendation Systems- A Review	296
<i>Mohd Mustafeez Ul Haque, Bonthu Kotaiah</i>	
ANN Based Solar MPPT for BLDC Motor Load Using Bidirectional Converter.....	302
<i>Pooja Mandre, Banothu Somanna, Sushma Gupta, Savita Nema</i>	
Design and Implementation of a Voice Controlled Chessboard Using an X-Y Mechanism.....	308
<i>Hema Susmitha Panuganti, Afreena Shaik, S M Padmaja, Greeshma Sri Thota, Pagadala Venkata Saranya, J Rohith Balaji, Tanuja Poolla</i>	
Review on BIST Architectures of DRAMs	313
<i>Manasa Lukka, Sangeeta Nakhate, Shreyasi Ghosh Dastidar</i>	
A Review on Direct Torque Control Strategies in Induction Motor Drives for Electric Vehicle Applications.....	317
<i>Sudhir Sharma, Bhoopendra Singh, Ashutosh Datar</i>	
Bulk-Driven Inverter Configuration and Its Application for Implementing Ring Oscillator.....	325
<i>Mohd Javed, Rockey Gupta, Susheel Sharma</i>	
Smart Attendance System Using Biometric and GPS	333
<i>Mallela David Vinay, Mandavyapuram Hemanth Kumar, Banoth Hemanth, Deepak Singh Tomar</i>	
Enhanced Low Dimensional MOSFETs with Variation of High K Dielectric Materials.....	339
<i>Abhay Pratap Singh, R K Baghel, Sukeshni Tirkey</i>	
Quantile Regression Comprehensive in Machine Learning: A Review.....	344
<i>Vivek Kumar Patidar, Rajesh Wadhvani, Sanyam Shukla, Muktesh Gupta, Manasi Gyanchandani</i>	
A Review on Identification of Number Plate and Wrong Way Vehicles Detection	350
<i>Nilesh Shelke, Samiksha Jadhav, Mitali Doifode, Yamini Umate, Rinki Patil, Nilam Harinkhede</i>	
Design Approaches and Performance Analysis of Electric Vehicle Using MATLAB/Simulink	354
<i>Dileep Kumar Kohar, Akshaya K Pati, Sarita Nanda</i>	
Real Time Door Unlocking System Using Facial Biometrics Based on IoT and Python.....	360
<i>Medisetti Yashwanth Sai Krishna, Anoop Arya, Shaziya Ansari, Simran Awasya, Jatoth Sushakar, Neeraj Uikey</i>	
Comparative Analysis of Emitter and Collector Coupling for Synchronization of Chaotic Colpitts Oscillators.....	365
<i>Manas Sharma, Babita Saxena, Smita Shandilya</i>	

Sub-10-Nm Tunnel Field-Effect Transistor with Schottky Drain	375
<i>Ying Liu, Yuan Wang, Chan Shan, Lian-Ying Ou-Yang, Shu-Rong Wang, Ping-Ting Ruan, Ge-Jing Xu</i>	
Deep Learning Approaches for Plant Disease Detection: A Comparative Review	378
<i>Mayank Agarwal, Ashish Kotecha, Atharva Deolalikar, Ritika Kalia, Ram Kumar Yadav, Achamma Thomas</i>	
A Comprehensive Analysis of Interaction Based Segmentation Using Deep Learning Techniques.....	384
<i>Gyanendra Singh Tomar, Hemant Kumar Soni</i>	
A Survey on AR-Based Digitization for Smart Education System.....	390
<i>K Sudharson, R Raja Arvindan, M Balashunmugham</i>	
A Survey on Reader's Society: New Social Network of Book Swapping Platform.....	395
<i>Sudharson K, Ashwin Prasad H, Smriti S</i>	
Recommendation System for Crops Integrating with Specific Soil Parameters by Machine Learning Techniques.....	401
<i>Namrata Bhatt, Sunita Varma</i>	
Agriculture Advisory Using ML in Cloud Computing	409
<i>Bhushan Potbhare, Sagar Khandate, Tanmay Ingole, Sanskar Manohare, Nikhil Kanoje, Ritu Talekar</i>	
Evaluation of Deep Learning Methods and Face Detection Framework with Convolutional Neural Network.....	414
<i>Gowri Vidhya N, Vijay Jeyakumar, Arul Selvi R</i>	
Analysis and Methodology to Reduce Aggregate Technical & Commercial Losses.....	420
<i>Rahul Kumar, Arun Rathore, Anupam Kumar, Dhananjay Kumar</i>	
Security and Privacy in Wireless Sensor Networks Using Intrusion Detection Models to Detect DDOS and Drdos Attacks: A Survey	425
<i>Kosaraju Chaitanya, Sankara Narayanan</i>	
A Secure Electronic Medical Record Authorization System in Clouds.....	433
<i>Harshwardhan Zade, Rohit Khedekar, Ankit Gwalani, Chinmay Borkar, Avdesh Bokade, Vaishali Katare</i>	
Deepfake Face Detection Using Deep InceptionNet Learning Algorithm.....	437
<i>Prasannavenkatesan Theerthagiri, Ghouse Basha Nagaladinne</i>	
A Comprehensive Review of the Occlusion Identification Based Gait Recognition Mechanism	443
<i>Beauty Kumari, Jyoti Bharti</i>	
Med Assistant Android Application.....	449
<i>Hemant Turkar, Shubham Tiwari, Aman Mate, Atish Naranje, Jay Jaulkar, Kunal Hadke</i>	
Machine Learning Based Intrusion Detection Scheme to Detect Replay Attacks in Smart Grid	455
<i>R. Sriranjani, Bharath Kumar M, Paramesh A. K, Md Saleem, N. Hemavathi, A. Parvathy</i>	
On Banking Site Selection Problem Utilizing Novel Picture Fuzzy Discriminant Measure	460
<i>Ekal Sharma, Himanshu Dhumras, Rakesh K Bajaj</i>	

A Novel Optical Encryption Strategy Using Virtual Digital Holography and Fractional Fourier Based Key Hiding	465
<i>Romita Tiwari, Mukesh Yadav</i>	
Novel Deep Neural Network for Suspicious Activity Detection and Classification	469
<i>A. M. Bhugul, V. S. Gulhane</i>	
Segregation of Solid Municipal Waste Using Machine Learning.....	476
<i>Abhijeet Pandey, Bhavi Khator, Dhruvi Agrawal, Danish Halim, J Sathish Kumar</i>	
An Overview of the Regenerative Braking Technique and Energy Storage Systems in Electric, Hybrid, and Plug-In Hybrid Electric Vehicles	482
<i>Anchal Raghuwanshi, Amit Ojha</i>	
Mirchi Crop Yield Prediction Based on Soil and Environmental Characteristics Using Modified RNN	488
<i>Chaitanya Kosaraju, Chaitra Nama, Y Deepthi, C Ramanjamma, P Chandrakala</i>	
Using the Cooja Simulator, Analysing the Routing Protocol (RPL) for Low Power and Lossy Networks in IoT.....	493
<i>Anil Behal, Jasminder Kaur Sandhu, Ganesh Gupta</i>	
EV Battery Charging Using DAB DC-DC Converter with EPS and DPS Modulations	497
<i>Mridul Mishra, Indrajit Sarkar</i>	
Data Hide Security Using Image Object	503
<i>Pintu Tiwari, Tanmay Sahare, Himanshu Mahajan, Isha Kanojiya, Dhanshree Talekar, Prasanna Lohe</i>	
Secure-E-Share: Data Leakage Detection and Prevention with Secured Cloud Storage.....	507
<i>Aditya Jaiswal, Vansh Purohit, Vivek Jhavar, Yash Jadhav, Karuna Borhade</i>	
Monitoring Health of IoT Equipped 3-Phase Induction Motor Using Interactive Dashboard.....	512
<i>Chayna Bhandarkar, Saloni Deshmukh, Kartik Yeole, Rakshit Dalvi, Smita Kapse, Pranay Shete</i>	
HoneyTrack: An Improved Honeypot	517
<i>Atharva Auti, Shrawani Pagar, Vivek Mishra, Jay Makwana, Shwetambari Borade</i>	
Predicting the Prices of the Used Cars Using Machine Learning for Resale.....	523
<i>B Hemendiran, P N Renjith</i>	
Bending Stability Analysis of Flexible Polymer Based Temperature Sensor	528
<i>Kamalesh Tripathy, Mitradip Bhattacharjee</i>	
Superpixel Based Image Colorization with Automated Reference Image Selection	532
<i>Vijetha U, Geetha V</i>	
Deep Learning Technique to Generate Lip-Sync for Live 2-D Animation.....	538
<i>Ashish Soni, Janhvi Deshmukh, Ayush Shende, Ramanshu Gawande, Priti Agatkar, Kshitija Chilbule</i>	
Music Streaming Using Blockchain - Blockics.....	545
<i>Ashish Kumar Soni, Anshuman Padiya, Banshi Patel, Sheikh Hassan Raza, Khushi Malviya</i>	
Reconfiguration of the Distribution Network Using a Whale Optimization Algorithm	551
<i>Akash Solanki, Shweta Mehroliya, Anoop Arya, Shilpi Tomar, Karuna Nikum</i>	

Improved Soft Actor-Critic: Reducing Bias and Estimation Error for Fast Learning.....	557
<i>Manas Shil, G. N. Pillai, M. K. Gupta</i>	
Priority Based Task Scheduling in Cloud Integrated WOBAN Network	563
<i>Mausmi Verma, Uma Rathore Bhatt, Raksha Upadhyay, Vijay Bhat</i>	
Driver Drowsiness Detection and Alerting Model for Minimizing Road Accidents	567
<i>R. Sathya, D. Sai Surya Harsha, M. Gopala Krishna, G. Pavan Sundar Reddy, P. S. Arhith</i>	
A Brief Review on Triple Active Bridge DC-DC Converter	573
<i>Subhradip Mukherjee, Indrajit Sarkar</i>	
A Smart IoT System for Accident Prevention	579
<i>R. Sathya, B. Aneesh Reddy, P. Jaswanth, Ch. Sai Ram, T. Srivenkateswara Swami</i>	
Covid Wave Prediction Using SARIMA Machine Learning Algorithm.....	585
<i>R. Sathya, Leander P Steve, Nitish Narayan, Abhishek Upadhye, M. Aravindharaj</i>	
Car Hiring System Using Web Technology.....	590
<i>R. Sathya, G. Srujan Reddy, Grandhi Ram Teja, Vedantham P S Srinivasa Iyengar, Prabhat Kumar</i>	
Pothole Detection Using YOLOv3 Model.....	596
<i>R. Sathya, B. Saleena, B. Prakash</i>	
An Analytical Study of Various Pothole Detection and Prevention Techniques.....	603
<i>R. Sathya, B. Saleena, N. Nikhil Anirudh</i>	
A TKF Based Adaptive Filtering for ECG Signal	610
<i>Pragya Talwar, Kanchan Cecil</i>	
A Novel Miniaturized Triple-Band Monopole Antenna for 2.4/5.2 GHz WLAN and 5G Applications.....	615
<i>Allu Bhaskara Naga Surendra, Iramaganti Srihari, Pathagolusula Akash, Bandi Yaswanth, Matta Venkata Pullarao, Kabir Das Ayinala</i>	
Intelligent Transformation of 6G Network by Incorporating Expert Systems.....	621
<i>Tania Chauhan, Renjith P N</i>	
Spatio-Temporal Analysis and Modeling of Coastal Areas for Water Salinity Prediction.....	626
<i>Sudhakara B, R Priyadarshini, Shrutilipi Bhattacharjee, Sowmya Kamath S, Pruthviraj U, K V Gangadharan, Soumya K. Ghosh</i>	
Data Driven UX/UI Design for Reproductive Health Tracker	632
<i>Anand Upadhyay, Muskan Shekhawat, Rashi Manhas</i>	
Incubation of a Metaheuristic Searching Approach for Intrusion Detection into a New Constrained Crow Search Algorithm.....	637
<i>Khusbu Rai, Megha Kamble</i>	
Real Time Seatbelt Detection Using YOLO Deep Learning Model.....	646
<i>Anand Upadhyay, Bhavesh Sutrave, Abhishek Singh</i>	
Acoustic Power Distribution Analysis in Different Human Tissues for Bioimplant Application.....	652
<i>Ariba Siddiqui, Subham Das, Mitradip Bhattacharjee</i>	

Ant Species Recognition Using Convolutional Neural Network	656
<i>Anand Upadhyay, Vijay Prajapati, Akshada Shinde</i>	
A Review on Strategies for Hybrid DC/AC Microgrid Power Management.....	661
<i>Pragati Garhe, S. C. Gupta, Goutam Kumar Yadav</i>	
A Study on Creation of Industry 5.0: New Innovations Using Big Data Through Artificial Intelligence, Internet of Things and Next-Origination Technology Policy	667
<i>Mohit Yadav, Aditya Vardhan, Amarjeet Singh Chauhan, Sanjay Saini</i>	
Gait Assessment Using Optimized Machine Learning and Feature Selection Algorithm for Identifies Parkinson's Disease	678
<i>Nutan Singh, Priyanka Tripathi</i>	
VI Based Hemodynamic Monitor Using Labview	684
<i>R. D. Manoj, G. Bagyalakshmi, V. Gomathi, V. Valarmathi</i>	
Aspect Based Neural Recommender Using Adaptive Prediction	690
<i>Avinash Bhojwani, Vanshika Jolly, Saksham Goel, Anand Kumar M</i>	
A PV-Powered Microcontroller-Based Agricultural Robot Utilizing GSM Technology for Crop Harvesting and Plant Watering	697
<i>Ahsan Kabir Nuhel, Mir Mohibullah Sazid, Dipta Paul, Ekramul Hasan, Priyadarshini Hridhhi Roy, Fenish Prafulbhai Sinojiya</i>	
Connection of Big Data Analytics & Artificial Intelligence.....	702
<i>Rohit Soni, Ananya Baghel, Sparsh Paliya, Ritika Mamtani, Lalita Gupta</i>	
Review of Big Data Analytics	708
<i>Rohit Soni, Ananya Baghel, Sparsh Paliya, Lalita Gupta</i>	
Apply Machine Learning and Image Processing to Detect Plant Diseases	714
<i>Shraddha Chourasiya, Aman Ashok Gadpale, Paramveer Singh Thethi, Pratik D. Nagdeve, Pratiksha Wakode, Muskan Indorkar</i>	
A System for Medical Record Using Blockchain.....	719
<i>Mona Mulchandani, Priti Samrit, Srusti Wakode, Palak Tahlyani, Iqra Ansari, Muskan Sheikh</i>	
Steady-State Analysis of Dual Active Bridge Converter with Single Phase Shift and Dual Phase Shift Modulation.....	723
<i>Deepak Chandra Pandey, Pradyumna Kumar Behera, Monalisa Pattnaik</i>	
A Comparative Analysis of Two-Phase and Three-Phase Interleaved Bidirectional DC-DC Converter.....	729
<i>Rajesh Kumar, Pradyumna Kumar Behera, Monalisa Pattnaik</i>	
A Comprehensive Survey on Real Time Human Pose Estimation	734
<i>Apoorva Pravin Datir, Snehal Shivaji Funde, Nikita Tanaji Bhore, Shweta Balasaheb Gawande, Pallavi Dhade, Pallavi Nehete</i>	
Music Genre Classification Based on Song Titles with Long Short-Term Memory	743
<i>Onur Sahin</i>	
A Planar Dual-Band 4-Element MIMO Configuration for WLAN and Sub-6 GHz 5G Applications.....	748
<i>Iramaganti Srihari, Allu Bhaskara Naga Surendra, Pathagolusula Akash, Bandi Yaswanth, Matta Venkata Pullarao, Kabir Das Ayinala</i>	

Job Applications Selection and Identification: Study of Resumes with Natural Language Processing and Machine Learning.....	754
<i>Amit Pimpalkar, Aastha Lalwani, Roshan Chaudhari, Mohd. Inshall, Mahak Dalwani, Tarandeep Saluja</i>	
Building Intelligent Embodied AI Agents for Asking Clarifying Questions	759
<i>Dhruvil Lakhtaria, Radhika Chhabra, Rohit Taparia, Anand Kumar M</i>	
Novel Four-Stage Comparator with High Speed and Low Kickback Noise.....	765
<i>Shubham Namdeo Shende, Arjun Singh Yadav</i>	
Hyperspectral Image Classification Using Machine Learning Techniques - A Survey	771
<i>Sampurnima Pattem, Satish Thatavarti</i>	
Security Analysis of Open Source SDN (ODL and ONOS) Controllers	785
<i>Pulkit Ohri, Subhrendu Guha Neogi, Sunil Kumar Muttoo</i>	
Comparison of Different Levels of Cascaded H Bridge Multilevel Inverter Using PSPWM Technique for EV Applications	789
<i>Vishwajit Kumar, Pooja Kumari, Niranjana Kumar</i>	
Optical Performance Enhancement of GaAsBi/P3HT Hybrid Solar Cell Incorporating Metallic Nanoparticles in the Absorber Layer	797
<i>Debamita Roy, D. P. Samajdar, A. Biswas</i>	
Automatic Classification of Multi-Class Skin Lesions Dermoscopy Images Using an Efficient Convolutional Neural Network	801
<i>Anurodh Kumar, Amit Vishwakarma, Varun Bajaj</i>	
A Comparative Analysis of the Feature Selection Process Using Deep Learning Methods for Arrhythmia	806
<i>Shaik Janbhasha, S Nagakishore Bhavanam</i>	
Optical Performance Analysis of GaAs Thin Film Solar Cells with Different Anti-Reflection Coatings.....	812
<i>Sadhna Singh, Dip Prakash Samajdar, Koushik Dutta</i>	
Empirical Analysis of Income Prediction Using Deep Learning Techniques.....	817
<i>Jeyanand Vemulapati, Akash Bayyana, Sai Hemanth Bathula, Srilatha Tokala, Koduru Hajarathaiah, Murali Krishna Enduri</i>	
Digital Image Watermarking and Its Applications: A Detailed Review.....	823
<i>Shaik Kashifa, Sravani Tangeda, Ummadisetty Kavya Sree, V. M. Manikandan</i>	
Determination of Battery Life Using State of Health Data and Linear Regression.....	830
<i>Aman Banthia, Shreyansh Paliwal, Vedant Patle, Mukund Subhash Ghole, Priyanka Paliwal</i>	
Fault Detection in Transmission Line Using ANN.....	835
<i>Supriya Kumari, Anchal Mishra, Ayush Singhal, Vikram Dahiya, Mayank Gupta, Suresh Kumar Gawre</i>	
Modified Boost Converter-Based Speed Control of BLDC Motor	840
<i>Sunil Kumar Sahare, D. Suresh</i>	
A Survey on Diagnosing Pulmonary Diseases	845
<i>Anusha S Rao, S Shamitha, S R Ganesh Tarun, S Usha Priya, V R Badri Prasad</i>	

An Improved Indexing Technique for Tribal Art Retrieval System.....	850
<i>Kishor Mane, Urmila Shrawankar</i>	
A Comparative Analysis of Low Power FINFET SRAM Cells on Different Technology Node with Variable Number of Transistors.....	855
<i>Kaushal Kishor, Lalita Gupta</i>	
Reduction in Harmonics at Load Side of Dynamic Voltage Restorer at Different Dip Conditions	860
<i>Satyam Patel, Arun Rathore, N. P. Patidar</i>	
An Efficient LGBM Based DDoS Attack Detection Approach for SD-IoT	866
<i>Pinkey Chauhan, Mithilesh Atulkar</i>	
An Efficient Technique for Improving Trust and Privacy in Blockchain as a Service (BaaS)	876
<i>Sonali Vishwajeet Shinge, Urmila Shrawankar</i>	
A Review on Fuel Cell and Different Controller	880
<i>Raushan Kumar, Satyam Patel, N. P. Patidar, Sandeep Kumar Patel</i>	
A Survey on Homomorphic Encryption for Biometrics Template Security Based on Machine Learning Models.....	887
<i>Pavani Chitrapu, Hemanth Kumar Kalluri</i>	
A Hybrid Intelligent Control for DSCC Based Modular STATCOM.....	893
<i>Rashmi Sharma, Vijay H. Makwana</i>	
MR Brain 2D Image Tumor and Cyst Classification Approach: An Empirical Analogy	899
<i>Surendra Kumar Panda, Ram Chandra Barik</i>	
Data Ensemble Model for Prediction of Oxygen Content in Gas Fired Boiler for Efficient Combustion	905
<i>K Ganpati Shrinivas Sharma, Surekha Bhusnur</i>	
Oral Cancer Detection Using Deep Learning Approach.....	913
<i>Ram Kumar Yadav, Priyanka Ujjainkar, Rahul Moriwala</i>	
Smart Car Parking System Using Arduino	920
<i>Monika Dixit, Anjali Priya, Gaurav Haladiya, Anu Priya, Bhavesh Kumar</i>	
Various Channel Coding Schemes for 5G	925
<i>Amrit Muskan, Tuhina Raj, Tehmina Nisar, Mehak Abbas, Shaheen Naz, Usha Tiwari</i>	
Energy Meter and Power Theft Monitoring System.....	938
<i>Rohit Andore, S. S. Kulkarni, A. G Thosar</i>	
Facial Image Super-Resolution with CNN, “A Review”.....	944
<i>Ajay Sharma, Bhavna Prakash Srivastava, Patil Nilesh Shankar</i>	
A Review on Heartbeat Classification for Arrhythmia Detection Using ECG Signal Processing.....	950
<i>Praveen Kumar Tyagi, Neha Rathore, Dheeraj Agrawal</i>	
Semi-Automatic Analysis of Cells in Honeybee Comb Images	956
<i>Neha Rathore, Praveen Kumar Tyagi, Dheeraj Agrawal</i>	
A Review on Graphene Transistors	960
<i>Abhay Pratap Singh, Patil Nilesh Shankar, RK Baghel, Sukeshni Tirkey</i>	

Analysis of Linux Server Performance.....	966
<i>Bhawna Sachdeva, Abhimanyu Kushwaha, Ankit Kumar, Anshoo Tiwari</i>	
Design a Voice App Controlled IoT Based Water Tank System	970
<i>M. Madhuri, B. Sridhar, K. Anusha, K. Siddardha</i>	
Design an IoT Based Highway Toll Plaza System	975
<i>T. Prathyusha, B. Sridhar, T. Jagadeesh, Y. Swarna Deepika</i>	
Cyber Physical Security of a Smart Grid: A Review	980
<i>Uplabdh Khare, Abhishek Malviya, Suresh Kumar Gawre, Anoop Arya</i>	
Comparing HTTP and COAP for IoT Low-Power and Lossy Networks Using the Cooja Simulator	986
<i>Anil Behal, Jasminder Kaur Sandhu, Ganesh Gupta</i>	
Performance Improvement of SEIG Based WECS Using Artificial Neural Network	990
<i>Navin Kumar, Giribabu Dyanamina</i>	
Piezoelectric Based Power Generation for Portable Charging System.....	996
<i>Sajal Sahu, Virendara Kumar Verma, Giriraj Yadav, Agnoor Hema, Riya Arya, Suresh Kumar Gawre, Ritu Verma</i>	
Recent Advancement in Autonomous Vehicle and Driver Assistance Systems.....	1001
<i>Abhishek Mishra, Jahanvi Purohit, Maruf Nizam, Suresh Kumar Gawre</i>	
IoT and Machine Learning Based Standalone Health Monitoring System.....	1006
<i>Sourabh Mishra, Amisha Raj, Richa Dubey, Divya Tewari, Purushottam Dubey, Suresh Kumar Gawre, Jahanvi Purohit</i>	
Decoupled Control of Rotor Side Power Electronic Converter for Grid Connected DFIG Based Wind Energy System	1012
<i>Aftab Ahmed Ansari, Giribabu Dyanamina, Anwar Ahamed Ansari</i>	
An Extensive Critique on Quality Checking of Natural Ester Based Oil	1018
<i>D Sarathkumar, Raymon Antony Raj, P Sujeet, S Sukitha, J Sumithra, R Muralidharan</i>	
IOT Based Surveillance Camera with GPS Module.....	1024
<i>Leo John Baptist Andrews, Sarathkumar D, Raymon Antony Raj</i>	
A Strategy to Reduce the Importation of Petroleum Oils in Vietnam by Transforming Rice Bran Waste to Vegetable Oil-Based Transformer Liquid Insulation	1027
<i>Raymon Antony Raj, Srinivasan Murugesan, D Sarathkumar, V Sampath Kumar</i>	
An Extensive Critique on Microgrid Control Techniques	1032
<i>Sarathkumar D, Raymon Antony Raj, Sampath Kumar V</i>	

Author Index