

# **2022 IEEE 3rd Global Conference for Advancement in Technology (GCAT 2022)**

**Bangalore, India  
7-9 October 2022**

**Pages 1-533**



**IEEE Catalog Number: CFP22T92-POD  
ISBN: 978-1-6654-6856-5**

**Copyright © 2022 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:	CFP22T92-POD
ISBN (Print-On-Demand):	978-1-6654-6856-5
ISBN (Online):	978-1-6654-6855-8

**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](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com

# TABLE OF CONTENTS

Application of Industry 4.0 Technology and Internet of Things in Power Transmission Protection, Monitoring and Asset Management .....	1
<i>Vivek Kapil, Sheetla Prasad</i>	
Parkinson's Disease Detection - An Interpretable Approach to Temporal Audio Classification.....	9
<i>Raj Shah, Bhavi Dave, Nirali Parekh, Kriti Srivastava</i>	
Plant Disease Classification and Detection Using CNN.....	15
<i>Revanasiddappa Bandi, Suma Swamy</i>	
Assessment of Deep Sequence Models for Characterization and Prediction of Cloud Workloads .....	22
<i>Manasa Pachava, Karthick Seshadri, Chidambaran Kollengode</i>	
The Conventional Security of Cloud Computing and the Growing Threat to Quantum Computing.....	28
<i>Rajvir Shah</i>	
CCRNET Customer Conversion Rate Network .....	35
<i>Grejo Joby, Hayden Cordeiro, Manasi Anantpurkar, Amiya Kumar Tripathy</i>	
Optimized Shelter Accommodation in Odisha .....	42
<i>Athira Lonappan, Esther Fernandes, Jobinsi Prince, Amiya Kumar Tripathy, Anand Ramachandran Nair</i>	
Modified U-Net with Attention Gates and FTL for Lesion Segmentation .....	48
<i>Akshay Neel, Tripty Singh</i>	
Optimization Accuracy of Heart Disease Diagnosis Using Machine Learning Approach .....	53
<i>Ravitesh Mishra, Sanjeev Kumar Gupta</i>	
German Language Cognitive Tutor Empowered with 3D Environments.....	59
<i>Adonia Sequeira, Chryselle Fernandes, Tejas Redkar, Sejal Chopra</i>	
Energy Efficient FPGA Implementation of a Spiking Neural Network .....	66
<i>Asmer Hamid Ali, Mohammad Zain, Syed Mehdi Kazim, Mohd Hasan</i>	
Smart Energy Management System for the Optimal Control of Loads to Reduce the Burden on the Grid.....	72
<i>P N Seema, M P Suresh, Manjula G Nair</i>	
DAAM: Drop Activity Alert Manager for Elderly .....	78
<i>Denzita Dsouza, Suman Semalty, Snehal Chougule, Sejal Chopra</i>	
Stock Market Prediction Using Yahoo Finance and Twitter Polarity .....	84
<i>Simren Dubey, Nisarg Patil, Pallavi Thakur, Harshil Kanakia</i>	
Machine Learning Approach for Detecting Mental Health on Twitter Using Chrome Extension .....	89
<i>Reena Kale, Brian Pereira, Yash Shah, Ditty Varghese</i>	
AI Based Predictive Model for Selecting Doped Eelectrode Material for Organic Lithium Ion Batteries for Electric Vehicles .....	96
<i>Indu Pandey, Jai Deo Tiwari</i>	

Performance Analysis of Brushless DC Motor.....	101
<i>Hardik Prajapati, Grupesh Tapiawala</i>	
Virtual Canvas for Interactive Learning Using OpenCV .....	109
<i>Palak Rai, Reeya Gupta, Vinicia Dsouza, Dipti Jadhav</i>	
A Comparative Study of Supervised and Reinforcement Learning Techniques for the Application of Credit Defaulters .....	114
<i>Meryl Jacob, G S Harshavardhan Reddy, Christeena Rappai, Pranay Kapoor, Megha Kolhekar</i>	
Synthetic Content Detection in Deepfake Video Using Deep Learning.....	120
<i>Kalicharan Jalui, Aditya Jagtap, Saloni Sharma, Gilofer Mary, Reba Fernandes, Megha Kolhekar</i>	
Deep Learning Based Predictive Analysis of BLDC Motor Control.....	125
<i>T Porselvi, Sr Y Aouthithiye Barathwaj, Sai Ganesh Cs, S. V Tresa Sangeetha, J Shalini Priya</i>	
Machine Learning Algorithms and Approaches Used in Cybersecurity .....	131
<i>M Sudhakar, K. P Kaliyamurthie</i>	
Matrix Formulated $\lambda$ -Iteration Method for Economic Load Scheduling with B-Coefficients.....	136
<i>I R Rao, Jora M Gonda, Surya Teja Surampudi</i>	
Design and Development of a Fast Fourier Transform-Based Coconut Meat Type Detector Through Sound Signatures.....	144
<i>Raymart B. Balakit, Jennifer C. Dela Cruz, Hesusa Krisani M. Cardona, Clarisse Anne S. Contreras, Alyssa G. Mazaredo, Mischelle A. Nohay, Djon Antonio I. Nuñez, Lucky Nikko P. Pasahol</i>	
Nejat Control Gain Series Method .....	151
<i>Cyrus Nejat</i>	
COVID-19 Risk Factors Specification Using Decision Tree Based on the Degree of Redundancy Between Features .....	156
<i>Sahar Jasim Mohammed, Mohammed Sami Mohammed</i>	
Schrodinger Wave Equation Based Drain Current Model for Nano Scale Device.....	167
<i>Sirisha Meriga, Brinda Bhowmick</i>	
A Novel Approach to Ambiguous Fake News Classification Through Machine Learning.....	171
<i>Sanai Divadkar, Akshat Sahu, Shalini Puri</i>	
Supervised Machine Learning Models to Assess Impact of Building Parameters on Energy Efficiency .....	180
<i>Lakmini Rangana Senarathne, Gaurav Nanda, Raji Sundararajan</i>	
Cyber Attack Detection on Self-Driving Cars Using Machine Learning Techniques.....	187
<i>Yashaswini S Pawar, Prasad Honnavalli, Sivaraman Eswaran</i>	
Analysis of the Diagnostic Parameters of Heart Diseases and Prediction of Heart Attacks.....	192
<i>Gnaneswari G</i>	
The Maximum Reduction in Transmission Losses Possible with Reactive Power Allocation.....	198
<i>Srikumar Manghat</i>	

A New Non-Iterative Power Flow Method for Radial Networks .....	202
<i>Srikumar Manghat</i>	
A Simple Method to Find the Most Vulnerable Generator and a Safe Value of Critical Clearing Time for a Fault in a Power System .....	207
<i>Srikumar Manghat</i>	
The Manuscript Evaluation Through Artificial Intelligence Using Natural Language Processing and Machine Learning.....	213
<i>Talib Ul Haq, Darpan Anand, Nitika Kapoor</i>	
Parameter Optimization for GARCH Model Using Hybrid PSO-GA .....	219
<i>Lalitha R, Biju R Mohan</i>	
Autonomous Pharmaceutical Dispensing Robot .....	226
<i>Digil Biji George, Rajesh Kannan Megalingam</i>	
Audio Synthesis Translation and Auto-Summarization (ASTA) .....	232
<i>Jivin Varghese, Pakshal Ranawat, Ruvim Rodrigues, Phiroj Shaikh</i>	
Classification of Music Genre Using Machine Learning .....	237
<i>Isha Pathania, Navpreet Kaur</i>	
Enabling Deep Learning Inferencing in Edge Devices.....	242
<i>Vijay Kumar Kodavalla</i>	
FBG Peak Wavelength Detection Using Transfer Learning-Based Machine Learning Method.....	249
<i>Sunil Kumar, Somnath Sengupta</i>	
Classification of Attention Deficit Hyperactivity Disorder Using Machine Learning .....	253
<i>Jivesh Singh, Gurpreet Kaur, Nitika Kapoor</i>	
Face Mask Detection: A Deep Learning Approach.....	261
<i>Soumyajit Bera, Puneet Kumar</i>	
Exploration of Three-Port DC to DC Converters and Its Multidisciplinary Applications.....	267
<i>Sreedevi S Nair, Mini Rajeev</i>	
Frequency and Temperature-Based Noise Figure Modeling for GaAs HEMTs.....	273
<i>Mohammad Abdul Alim, Tofayel Karim, Imdad Ahmed Jaman, Mayaj Al Razy, Arnab Barua Niloy, Ali A. Rezazadeh</i>	
Hybrid Confidentiality Framework for Secured Cloud Computing .....	279
<i>Gaurav Shrivastava, Sachin Patel</i>	
A Novel Method of Transmitting Text Messages Via Images Using Chaotic Encryption.....	284
<i>Sugato Chakrabarty, Shyamasree Ghosh, Pratham Majumder</i>	
EV Control in G2V and V2G Modes Using SOGI Controller .....	289
<i>Sudhanshu Mittal, Alka Singh, Prakash Chittora</i>	
Classification Using Radial Basis Function for Prediction of Parkinson's Disease.....	295
<i>Md. Mosharraf Umar, Sameena Naaz</i>	
Analysis of Feature Extraction Models for Emotion Recognition Using EEG Signals.....	301
<i>K Kannadasan, Md Tanjirul Islam Miraj, Kritant Sao Bheekhar, B. Shameedha Begum</i>	

A Novel Divergence and Fuzzy Divergence Measure in an Uncertain Environment for Multi-Criteria Decision-Making Problems .....	307
<i>Manpreet Kaur, Akanksha Singh</i>	
Model Predictive Control Technique of Voltage Source Inverter for Linear and Non Linear Load .....	314
<i>Bansilal Bairwa, K A Manohar, Madan Murari, B S Sagar</i>	
Investigating the Role of Named Entity Recognition in Question Answering Models .....	319
<i>Vasuki Nadapana, Hima Bindu Kommanti</i>	
Hybrid Optimization for Developing Human Like Chess Playing System .....	326
<i>Vikrant Chole, Vijay Gadicha</i>	
Switching-Assisted Cooperative Decode-And-Forward Relaying for Hybrid FSO-RF System .....	331
<i>Deepak Kumar Singh, B B Tiwari</i>	
Dealing with Data Imbalance in Exudate Detection of Retinal Fundus Image .....	339
<i>Moumita Sahoo, Madhuchhanda Mitra, Saurabh Pal</i>	
Rogowski Coil with an Active Integrator for Impulse Current Measurement.....	345
<i>Priti Bawankule, Kandasamy Chandrasekaran</i>	
Performance Optimization of FSO Link Via Intelligent Reflecting Surfaces (IRS).....	350
<i>Deepak Kumar Singh, B B Tiwari</i>	
Predicting Early Reviewers on E-Commerce Websites.....	359
<i>D Anil, S Suresh</i>	
ADC-PWM Synchronization for Motor Control Unit Development.....	364
<i>T Likitha, Venkatanarasimharao Medam, G Ranjani</i>	
Artificial Intelligence in Transport- A Survey.....	370
<i>Shagun Preet Kour, Parshant Sharma, Maddassar Jalal</i>	
Hearing Loss Prediction Using Machine Learning Approaches: Contributions, Limitations and Issues .....	376
<i>K Venkataramana Pai, P. Santhi Thilagam</i>	
An Optimized FPGA Architecture for GPS Signal Acquisition.....	383
<i>Keshihaa Rudra Gana Dev V, Ranjani G</i>	
Playlist Classifier Based on Song Features .....	389
<i>Arunima Agarwal, Poornalatha G</i>	
Implementation and Performance Analysis of Speed Control Strategy for Induction Motor Using a Novel PLL and Discrete Fourier Transform.....	393
<i>Sushil Karvekar, Prasad Joshi</i>	
A Naive Bayes Approach to the Identification of Subjectivity Based on Optimized Subjective Clues.....	398
<i>Satarupa Biswas, G. Poornalatha</i>	
Area-Time Efficient of 2-D DWT Using Modified DA Technique and Reversible Gate .....	402
<i>Aman Dubey, Shivraj Singh</i>	
Handwritten Digit Recognition for Two Digits Using CNN & Image Processing.....	407
<i>Rushikesh Mantri, Dikshant Meshram, Akshay Kawale, Dipti Jadhav</i>	

ANNs Supervised Learning-Based Automatic Fault Detection in a Class of Wheatstone Bridge-Oriented Transducers.....	413
<i>Shonak Bansal</i>	
Machine Learning Algorithm for Abnormality Detection and Classification of Kidney Stones in Ultrasound Images.....	420
<i>Devaraj Somasundaram</i>	
Deep Learning Model Based Semantic Segmentation Network for Ultrasound Gallbladder Images .....	423
<i>Devaraj Somasundaram</i>	
Ergonomic Automated Dry and Wet Waste Segregation and Compost Production for Innovative Waste Management .....	426
<i>R Shreeshayana, Manjunath V Gudur, L Niranjana, B Sreekantha</i>	
Classification of Thaats in Hindustani Classical Music Using Supervised Learning .....	432
<i>Shobhan Banerjee, Manas Kumar Rath, Utpal Chandra De, Ribhu Sanyal</i>	
IoT Based Innovative Smart Monitoring of Aquaponics System Using Atmega 328P and ESP 8266 .....	438
<i>Niranjana L, Manjunath V Gudur, Shreeshayana R, Sreekantha B</i>	
AutiScan: Screening of Autism Spectrum Disorder Specific to Indian Region .....	444
<i>Ruhi Patankar, Shreyas Vedpathak, Vaidehi Thakre, Prajool Sethi, Sejal Sawarkar</i>	
DBTap-A Digital Transformation App .....	452
<i>Joel Shaji Parakal, Srushti Shivsandesha Shetye, Anuja Anil Vaidya, Sana Shaikh</i>	
Design of 1-7 GHz High Gain Wideband Filter LNA for Wireless Applications .....	459
<i>Rohit Goel, Anil Kumar, Mahesh Kumar, Sandeep Kumar</i>	
A New Adaptive Modeling and Denoising of Real ECG Signal.....	464
<i>Alka Mishra, Surekha Bhusnur</i>	
Comparative Analysis of Deep Learning Models for Malaria Detection .....	470
<i>Harshita Dooja Poojary, T. V Sumithra</i>	
Low-Energy-Consumption Design: 16 Bit Block Based Carry Speculative Approximate Adder .....	476
<i>Ch. Raja Naga Praneeth, Ch. Usha Kumari, T. Padma, N. Arun Vignesh</i>	
Distracted Driver Posture Recognition.....	480
<i>V. Bhanu Shankar, S. Thangam</i>	
Combination of APF and SVC for the Power Quality Improvement in Microgrid .....	488
<i>Sharan G M, Jeevan B M, Aravinda P, Iman Khan, Shobha Shankar, Ganavi C N</i>	
Design and Analysis of Groundless XNOR Gate Topology in 90nm Technology .....	492
<i>Preeti Verma, Ajay K Sharma</i>	
Federated Learning for Colorectal Cancer Prediction .....	496
<i>Yash Maurya, Prahaladh Chandrasanan, Poornalatha G</i>	
A Deep Learning Approach to Recognize Telugu Handwritten Numerals .....	501
<i>K. Hari Kiran, G. Sai Prakash, V. Shiva Ram, Vamshi Krishna Munipalle</i>	
Seamless Handover Algorithms for Non-Standalone 5G mmW Networks.....	506
<i>Ranjeet Kishore Bal, S Reddy Vamshidhar Reddy, Deepak Kumar Nayak, Sanjay Dhar Roy</i>	

Design & Implementation of Microstrip Interdigital Band-Pass Filter for X-Band Applications.....	511
<i>Dhruv Sharma, P Shanthi</i>	
Review of Different Flip-Flop Circuits and a Modified Flip-Flop Circuit for Low Voltage Operation.....	517
<i>Vipul Jee Verma, D. Alok Kumar Mishra Vaithivanathan, Baljit Kaur</i>	
IoT Enabled Cold Supply Chain Monitoring System.....	522
<i>Sutapa Sarkar, K. S. Akshatha, Ankit Saurabh, B. Samanvitha, Md Faizan Sarwar</i>	
An Efficient User Trust Computation Using Machine Learning Methods in Online Social Networks.....	528
<i>Anitha Yarava, C. Shoba Bindu</i>	
Digital Crimes in Cloud Environment and the Analysis Via Blockchain.....	534
<i>Emmanuel Muragijimana, T. N. Shankar, Naween Kumar, Basant Sah, Sasmitha Padhy</i>	
Knowledge Based Classifier and Pattern Recognition Technique for Satellite Image Analysis.....	540
<i>Nita Nimbarte, Aniket Nagpure, Badal Sanodiya, Harshal Sevatar, Sanjay Balamwar</i>	
An Effective IOT Based Driver's Drowsiness Detection and Monitoring System to Avoid Real-Time Road Accidents.....	546
<i>Neha Qureshi, Shilpa Chaudhari, Jagadish S. Kallimani</i>	
Multi-Band Millimeter MIMO Antenna for 5G High Band Spectrum Applications.....	553
<i>Abhilash A P, Neema K, Anandan C K</i>	
Design of a Gagenbuer Polynomial Based Low Voltage Ride ThroughScheme for Three-Phase System.....	559
<i>Amarendra Pandey, Alka Singh</i>	
A Comparative Study on State of Art Cryptographic Key Distribution with Quantum Networks.....	565
<i>Seema B. Hegde, Shivam Srivastav, Nithin Bharadwaj Ks</i>	
Open Information Extraction System for Extracting Relations in Legal Documents.....	572
<i>Nikhil Raj, Shiyon Thomas, Veena G</i>	
Multi-Agent Reinforcement Learning-Implementation of Hide and Seek.....	580
<i>Shrushti Jagtap, Allen Thomas, Sharvari Gadiwan, Sashikala Mishra</i>	
A Comparative Analysis Study of VDTA and OTA to Design on-Chip Filters for Various Application.....	587
<i>Cheena Singhal, Neelam Srivastava</i>	
A Comparative Technique to Detect and Classify Power Quality Disturbances with Noise Signals.....	594
<i>S Ramana Kumar Joga, Lipsa Ray, Chidurala Saiprakash, Pampa Sinha, Chitralkha Jena, Subhashree Priyadarshini</i>	
5G Network Implementation in Least Developing Countries: Possibility, Barriers and Future Opportunities.....	600
<i>Marshia Mostafiz Mim, Mrinmoy Karmokar, Kazi Md. Tarikul Imam, Moshfiq-Us-Saleheen Chowdhury, Daiyan Kabir</i>	
Modeling & Verification of an Adaptive IoT System Using Uppaal.....	609
<i>Geetha Lekshmy V, Amal S Pillai, Arun Raj</i>	



Design and Analysis of a Ka Band Microstrip Slotted Patch Antenna with 5G Communication Technology Using CST .....	614
<i>Sifat Hossain, Md. Sohel Rana, Md. Mostafizur Rahman</i>	
Simulation and Analysis of Non Inverting and Inverting Mixed Logic 2-To-4 Decoders Using Mentor Graphics 130nm Technology .....	618
<i>Pavan G, V Siddeswara Prasad</i>	
Simulation and Comparative Analysis Between MOSFET and FinFET Based Digital Circuits .....	624
<i>H Hithashree, Panwala Fenil Chetankumar</i>	
Comprehensive Analysis of Heart Disease Prediction: Machine Learning Approach .....	631
<i>Swetha Sivakumar, T. C Pramod</i>	
Early Detection of Brain Tumor and Survival Prediction Using Deep Learning and an Ensemble Learning from Radiomics Images .....	638
<i>Puneet Jain, S. Santhanalakshmi</i>	
Implementation of Automotive Sensor Tester for Engineers at OEMs and Vehicle Service Agencies Using Raspberry Pi.....	647
<i>P V Santhosh Kumar, G N Keshava Murthy</i>	
Design of Low Complexity Arbitrary Pass-Band Filter Hardware Using Newton Structure-Based Lagrange Interpolators.....	650
<i>G. Sandhya, Sreelekha K. R, Bindiya T. S</i>	
Design and Analysis of Underwater Bifacial Solar Photovoltaic Cell .....	656
<i>Suraj Damodar Naik, Shreeram V Kulkarni</i>	
4 Channel Downconverter Receiver with Integrated Guard Channel Supportive Calibration .....	661
<i>Vipin Kumar, R Sivakumar, S K Kiran</i>	
An Automated Approach to Detect & Diagnosis the Type of Cosmetic Skin & Its Disease Using Machine Learning.....	665
<i>Shwetambari Borade, Dhananjay Kalbande, Hemangi Jakaria, Linesh Patil</i>	
Localization of Ultra Wide-Band Enabled Devices.....	673
<i>S Lingesh, G Shobha</i>	
Pulmonary Artery Pressure (PAP) Prediction Based on Three Physiological and Seven ECG Signal Features .....	678
<i>Azizul Islam, Sheik Erfan Ahmed Himu, Nowshad Bin Amin, Md. Salahuddin Kaoser, Fahim Abrar, Md. Rafi Islam</i>	
MATLAB Based Simulations on DC Shunt Motor Based Four Quadrant Chopper with Driver Circuit.....	683
<i>Issa Etier, C Arul Murugan, Nithiyanthan Kannan</i>	
Handwritten Character Recognition Using Neural Network for Encryption System .....	688
<i>Aarnav Pant, Babita Sonare, Abhishek Mule, Nikhil Naudiyal, Siddhesh Lonkar, Shaikh Kaif Raza</i>	
Design and Implementation of Indoor Positioning Using UWB Positioning Algorithm for Indoor Navigation .....	691
<i>Asima Siddiqi, Satyanarayana Sahoo, K Saraswathi</i>	

Artificial Intelligence Integrated Control to PMSG Built Wind Energy Conversion Scheme .....	698
<i>T. Muthamizhan, Mohamed Aijaz, A. Sivakumar</i>	
Performance Analysis of Sparse Code Multiple Access Transceiver System for Massive Machine - Type Communication .....	705
<i>S Shruthi, K Saraswathi</i>	
Design and Implementation of a National Health Data Warehouse for the Healthcare System in Bangladesh .....	710
<i>Sheik Erfan Ahmed Himu, Fahim Hasan, Nowshad Bin Amin, Mohammed Soaibul Chowdhury, S. M. Shahriar Iqbal, Fahim Abrar, Asiful Islam</i>	
Study on 5G Massive MIMO Technology Key Parameters for Spectral Efficiency Improvement Including SINR Mapping on Rural Area Test Case .....	716
<i>T R Delson, Iven Jose</i>	
IoT Based Depression Detection .....	722
<i>Garima Gupta, Sanskruti Joshi, Sukanya Kulkarni</i>	
An Efficient Boruta-Based Feature Selection and Classification of Gene Expression Data .....	729
<i>K R Kavitha, Sreelakshmi Sajith, Namitha H Variar</i>	
Bit Loading of GFDM Based Communication System for IoT Applications .....	735
<i>R V Hemalatha, K Saraswathi</i>	
A Novel Exploration Technique for Multi-Agent Reinforcement Learning .....	741
<i>Devarani Devi Ningombam</i>	
Gene Selection Using Moth Flame Algorithm and Classification of Gene Expression Dataset .....	747
<i>Kavitha K R, Akshay Venugopalan, Sakhil Devan</i>	
Control of CLLC Resonant Converter in Grid Connected Electric Bus Charging Station .....	753
<i>Sayantana Bhanja, Ann Mary Joshua, Panduranga Vittal K</i>	
Design of Indigenous Quadrature Hybrid for ISRO Missions.....	761
<i>Komal, Harsh Dashora, Jitendra Kumar, Dinesh Kumar, D Mamatha</i>	
Prediction of Higher Education Students Academic Grades Based on Personality Traits .....	764
<i>Vinayak Hegde, M. R Ruthvik</i>	
Sentimental Analysis of Twitter Data and Comparison of Covid 19 Cases Trend Using Machine Learning Algorithms .....	770
<i>K S Vrunda, BS Jayasri</i>	
Energy Scalable Brent Kung Adder with Non-Zeroing Bit Truncation .....	777
<i>M B Veena, N Suhana Khanum, D H Soundaryya, P Mamatha Sarathi</i>	
Age Progression and Regression Using cycleGAN.....	783
<i>Vaibhav Parate, Arka Dey, Manas Bhandarkar, Saadiya Dafedar, Satishkumar Chavan</i>	
Automatic Attendance System Using Artificial Intelligence.....	789
<i>G S Pooja, K. S. Rekha</i>	
Sound Share: P2P File-Sharing System.....	793
<i>B. Pranav, M Dharithri, D. Venu, Mrinal. S. Setty, K. S. Rekha, H. D. Phaneendra</i>	

Disease Detection in Tomato Plants Using CNN .....	798
<i>K. S. Rekha, H. D. Phaneendra, B. C Shri Gandha, H Rohan, B N Sai Niranjan, Chitrala Badrinat</i>	
Optimisation of Off-Grid Solar-Biogas Hybrid System for a Dairy Plant in India .....	804
<i>Priyank Tamilsekaran, Mohamed Salman</i>	
Troubleshooting Tool for VxLAN Bridging .....	810
<i>Pravallika Vasireddy, Rohith Kasthuri Rangan, V Kaviya</i>	
Technologies Used in E-Business and Its Security .....	817
<i>Ragya Sulakshmai Bharti</i>	
A Single Phase Multilevel Inverter with Cascaded Basic Units.....	820
<i>R. Ramaprabha</i>	
Comprehensive Study on Mobile Ad-Hoc Routing Protocols: OLSR, AODV and DSDV.....	826
<i>R C Jisha, Jithin Joseph, Muhammed Nadeem Muhammed Basheer</i>	
Feature Extraction and Analysis of MR Images of Brain Tumors .....	832
<i>Madhumitha Manjunath, Shayana Saravanakumar, Shreya Kiran, Jhinuk Chatterjee</i>	
Low Power High Speed Brent Kung Adder Using SPST.....	838
<i>Veena M B, Pramath Akkamanchi, Vighneshkumar Uttarkar</i>	
Empirical Evaluation of Approximation Algorithm for Sorting by Prefix-Block Interchanges.....	844
<i>R Soorya Narayanan, Rahul Krishnan R</i>	
Implementation of Machine Learning Algorithms for Brain Tumor Classification Using MRI and Numerical Dataset.....	850
<i>Kiran Prabhakar, B Roja Reddy</i>	
Dynamic Wireless Power Transfer Using an Isolated DC-DC Converter.....	855
<i>Harshavardhan Yadav Gangadhara, K Deepa</i>	
A Framework for Comparing Different Machine Learning Algorithm Models for Intrusion Detection in IoT Environment .....	863
<i>S Unnikrishnan, S Gokul Krishna, S Krishna</i>	
Organization-Wide IOC Monitoring and Security Compliance in Endpoints Using Open Source Tools.....	868
<i>P J Divya, Reenu Sara George, G Madhusudhan, S Padmasree</i>	
Anomaly Detection in Recorded CAN Log Using DBSCAN and LSTM Autoencoder .....	874
<i>Chandralekha, Chandrashekar H M, Nijesh P S, Sreejith Pai P S, Mrinal Kanti Ghosh</i>	
Microgrid Operation Management .....	881
<i>Anjana Tirkey, Sharmistha Sharma, Prasenjit Debnath</i>	
A Service Migration Strategy for Communication Networks .....	887
<i>K Chaitanya, B C Mallikarjun</i>	
Shaming Tweets Detection on Twitter Using Machine Learning Algorithms .....	891
<i>Shubhangi S. Mohite, Vahida Attar, Shrida Kalamkar</i>	
Implementation of Server Based Authentication Security System Using Augmented Reality .....	897
<i>Keshihaa Rudra Gana Dev V, K. Viswavardhan Reddy</i>	

Performance Evaluation of Predictive Machine Learning Models for Diabetic Disease Using Python.....	902
<i>Madhubrata Bhattacharya, Debabrata Datta</i>	
CI-CD Pipeline for Content Releases.....	909
<i>Swaralee Nandgaonkar, Vaibhav Khatavkar</i>	
A Deep Learning Based Approach on Radar Interference Mitigation for Autonomous Vehicles.....	913
<i>Hritwik Todawat, Deepti Kakkar, Gurjot Kaur</i>	
Ethereum and Binance Price Forecasting Using Machine Learning .....	919
<i>K. Chaitanya Kumar, Rajesh M</i>	
Image Processing for Facial Expression Using Machine Learning Algorithm.....	927
<i>H N Rakshitha, H M Kalpana</i>	
Comparative Study of Classification Algorithms for Weed Detection.....	932
<i>V Geethalekshmy, P Gowri Keerthana, Parvathy N Nair</i>	
Development of NavIC Based Asset Tracking System.....	939
<i>Yuvraj Dewangan, Sateesh Kumar Awasthi</i>	
Energy and Power Analysis of SE-6T SRAM Based on MOS and FINFET Technology on 32nm .....	945
<i>Pragati Balaji Kendre, Pankaj P. Tasgaonkar</i>	
Early Detection of Dry Eyes Through Blink .....	949
<i>K Chayashree, U K Harshitha, Mohammed Sayeed, L P Nagaditya, Sumalatha Aradhya, K R Subramanya Navada</i>	
A Review of Ambiguous News Detection Approaches with Deep Learning, Machine Learning, and Ensemble Paradigms .....	956
<i>Sanai Divadkar, Akshat Sahu, Shalini Puri</i>	
Document Clustering Using Keyword Extraction.....	965
<i>Raji Ramachandran, Manjusha K Mohan, Subin K Sara</i>	
Segmentation of Cell Nuclei in Microscopy Images Using Modified ResUNet .....	971
<i>Aruna Kumari Kakumani, L Padma Sree, Boggula Varun Kumar, Surineni Karthik Rao, Mithil Garrepally, M Chandrakanth</i>	
Machine Learning Methods for Secure Internet of Things Against Cyber Threats.....	977
<i>Shalini K B Devi, Sanjay Kumar, Jambi Ratna Raja Kumar</i>	
Automotive Vibration Datalogger.....	982
<i>K S Rajesh Kumar, H K Ravi</i>	
Digital Smart Kaizen to Improve Quality Rate Through Total Productive Maintenance Implemented Industry 4.0.....	986
<i>T Roosefert Mohan, J Preetha Roselyn, R Annie Uthra</i>	
Fakequipo: Deep Fake Detection .....	992
<i>Pramod Bide, Varun, Gaurav Patil, Samveg Shah, Sakshi Patil</i>	
HRCT Chest Analysis for Detection of Pulmonary Arterial Hypertension in COVID-19 Patients Using Convolutional Neural Networks .....	997
<i>Azra Nazir, Roohie Naaz, Shaima Qureshi, Nidha Nazir</i>	

Improved Grasshopper Optimization Framework for Optimal Power Flow Considering Multi Objective Functions.....	1002
<i>Nimushakavi Syam Manohar, Kiran Teeparthi, Sreenadh Batchu</i>	
Investigation of Temperature Variation in Partially Extended Si <sub>1-x</sub> Ge <sub>x</sub> Source Double Gate Tunnel FET.....	1009
<i>Omendra Kr Singh, Vaithyanathan Dhandapani, Baljit Kaur</i>	
Disease Detection and Diagnosis on the Leaves Using Image Processing.....	1015
<i>D Anil, M N Sindhushree, Tejaswini M, Tehleel Ahmad Lone</i>	
A Cohesive Relation Between Cybersecurity and Information Security.....	1021
<i>Kunal, Pritpal Singh, Nishit Hirani</i>	
Glitch Classification for Gravitational Wave Interferometry Using Machine Learning.....	1027
<i>Rita Abani</i>	
Web-Based Election Monitoring Integrating Barangay Geospatial Mapping .....	1030
<i>Hasmer C. Salubre, Monalee A. Dela Cerna, Felix Venson A. Chua, Gideon G. Buniel, Gay D. Tiu</i>	
MPTR: Multi-Parameter Based Travel Time Reduction for Emergencies.....	1038
<i>Adwitiya Mukhopadhyay, Ramya C A, Gunashree B</i>	
Fuzzy Controller Based Partial Charging System for Electric Vehicles .....	1046
<i>P. Adi Venkata Narayana, V. Sailaja, K. Deepa</i>	
Performance Analysis of Optimized Path in Software Defined Network.....	1052
<i>Gayatri Deshmukh, Rajshri Mahajan, Radhika Joshi</i>	
Diabetic Retinopathy Detection Using Deep Learning Methodology .....	1058
<i>Arsha V Kumar, Anoop S Babu</i>	
Method of Analysing a Metamaterial Unit Cell with Square and Hexagonal Shaped Waveguide Setup for Accuracy.....	1064
<i>S Rajasri, D Rahul Gandh, D Vijayalakshmi</i>	
Ensemble Approach with Hyperparameter Tuning for Credit Worthiness Prediction .....	1068
<i>Pavitha N, Shounak Sugave</i>	
GMM-Based Document Clustering of Knowledge Graph Embeddings .....	1073
<i>R. K. Remya Menon, S Devika Kumar, Cr Vismaya</i>	
Cervical Cell Nuclei Segmentation on Pap Smear Images Using Deep Learning Technique .....	1079
<i>Alisha S, Vinitha Panicker J</i>	
Coal Mine Safety Monitoring and Alerting System .....	1084
<i>R Akash, H R Varunkumar, Y Karthik Bhat, R Prajwal, Meenakshi L Rathod</i>	
Efficient Approach for Autism Detection Using Deep Learning Techniques: A Survey .....	1089
<i>Shabeena Lylath, Laxmi B Rananavare</i>	
A Novel Approach for Designing Network Intrusion Detection Systems Based on Hybrid Deep Learning Model CB-GRU .....	1095
<i>Sheily Verma</i>	

Vaccine Supply Optimization and Forecasting Using Random Forest and ARIMA Models.....	1103
<i>Shiv Charan Banerjee, Shobhan Banerjee, Pratik Rai</i>	
Improved Densenet Model for Automatic Categorization of Brain Tumors .....	1108
<i>Shivaprasad Biradar, Virupakshappa, Supriya Bagewadi, Sachinkumar Veerashetty, Ambika</i>	
RSA Based Forest Fire Spread Detection Using Drones and Image Processing.....	1114
<i>C Nithesh, T Shakthi, G Sumathi, Sp Mihir Achyuta, Nuthakki Shiv Thomas, Aparna Mohanty, Madhur Padavala</i>	
A Low Power CMOS Analog Multiplier Using Regulated Cascode Current Mirror Based on Translinear Principle .....	1118
<i>Bijjula Pruthwiraj, Alok Kumar Mishra, Dhandapani Vaithyanathan</i>	
Analysis and Implementation of a Low Power Sense Amplifier Based Flip Flop with Symmetric Latch Design.....	1122
<i>Sushmita Kumari, Baljit Kaur, Dhandapani Vaithyanathan, Alok Kumar Mishra</i>	
An Energy-Efficient Conditional-Boosting Flip-Flop with Conditional Pulse for Low Power Application .....	1128
<i>Dipali Patidar, Alok Kumar Mishra, Dhandapani Vaithyanathan, Baljit Kaur</i>	
Automated Detection of Brain Abnormalities in MRI Images Using Integrated Deep Convolutional Neural Networks with K-Means Algorithm .....	1135
<i>W. Jaisingh, R. K. Kavitha, S Saravanan, Radhika Gour</i>	
Design and Implementation of Low Power Flipped Voltage Follower Differential Pair-Based Summing Stage OTA .....	1139
<i>Km. Jyotsana, Amit Kumar</i>	
RescuTrack: An Edge Computing-Enabled Vitals Monitoring System for First Responders .....	1145
<i>Makarand Prabhu, Sai Shibu N B, Sethuraman N Rao</i>	
Emotion Recognition at Real-Time Applications Using Meta-Learning .....	1150
<i>Vaishnavi C, Suja Palaniswamy</i>	
DaDe: A Study of Chunking Algorithm and Hashing Function in Block Level Chunk Based Data Deduplication .....	1156
<i>Me Me Khaing, N. Jeyanthi</i>	
TCP and Priority Queue Based Emergency Data Transmission in VANETs.....	1163
<i>Adwitiya Mukhopadhyay, B S Limitha, R Anusha, V Gowthami</i>	
Secure De-Duplication Over Wireless Sensing Data Using Convergent Encryption.....	1169
<i>D. Yuvaraj, V. Pradeep Kumar, Harishchander Anandaram, Badugu Samatha, R. Krishnamoorthy, R. Thiyagarajan</i>	
Siamese Neural Networks for Kannada Handwritten Dataset.....	1174
<i>S Tejas, Kusumika Krori Dutta</i>	
Monocot Crop Yield Prediction Using Sentinel-2 Satellite Data .....	1180
<i>Laxmi B Rananavare, Sanjay Chitnis</i>	
A Comprehensive Survey of WiFi Analyzer Tools.....	1186
<i>M R Jivithesh, M. R Gaushik, P Adarsh, Gd Heshan Niranga, N Sethuraman Rao</i>	

Efficiency Improvements in Wireless Operation Mode Switching of an Adaptive Backhaul Equipment for Marine Communication.....	1194
<i>M R Gaushik, M R Jivthesh, D Arjun, Dhanesh Raj, Sethuraman N Rao, Sai Shibu N B, Aryadevi Remanidevi Devidas</i>	
Machine Learning Based Estimation of Silicon Concentration in Froth Flotation Process.....	1200
<i>Nagarjuna P, T Ananthan</i>	
CLUSBRIS Project: The Innovative Proposal for the Future of Space-Orbital Robotics Research and Development in Latin America.....	1206
<i>Paul Palacios, José Cornejo, Walter Castillo, Salvador E. Romero, Juan C. Chavez, Carlos Oblitas</i>	
Quantitative Trading Toolkit.....	1213
<i>Darsh Sharma, Anirudh Pradhan, Yogek Garg, Akila Victor, Ramani Selvanambi</i>	
Face Recognition in Different Scenarios Using Siamese Network .....	1221
<i>Rohith Mathi, Jaswanth Venkat Mothukuri, Venkata Akhil Pasumarthy, Palaniswamy Suja, R Subramani</i>	
A Novel Method for Text Summarization and Clustering of Documents .....	1227
<i>Raji Ramachandran, Sanju Jayachandran, Vaishnav Das</i>	
Offense Detection Using BERT and CNN .....	1233
<i>Meet Mehta, Dhruv Gada, Riddhi Sharma, Khushi Chavan, Pratik Kanani</i>	
An Efficient Quasi Comparison-Free Bidirectional Architecture for Sorting Algorithm.....	1238
<i>Gorrepati Chaithra Sri, S Arpitha Kopparthi Veera Hanuma, Nuthalapati Harshita, Sonali Agrawal</i>	
Scaled Agile Framework Implementation in Organizations', Its Shortcomings and an AI Based Solution to Track Team's Performance .....	1246
<i>Upasana Ameta, Mayank Patel, Ajay Kumar Sharma</i>	
Implementation of Battery and Ultra Capacitors Based Storage for Electric Vehicle System .....	1253
<i>Jalaj Tyagi, Sumit Kumar Yadav, Shakuntla Boora, Poonam Singhal</i>	
Automatic Flight Plan Generation for UAV-Assisted Elevated Meter Reading Using Ant Colony Optimization.....	1259
<i>Jose Eduardo B. Cerillo, Rizza T. Loquias, Senen D. Fenomeno</i>	
Multi-Objective Economic Operation in a Multi-Machine Power System Using Real-Time Data.....	1266
<i>Shrinidhi Hegde, Shreyanka Patil, Minal Salunke, V Girish</i>	
A Deep Learning Framework with Transfer Learning Approach for Image Forgery Localization.....	1272
<i>Nagaveni Hebbar, Ashwini Kunte</i>	
Ensemble Learning with CNN and BMO for Drought Prediction.....	1278
<i>Vandana Sardar, Shilpa Chaudhari, Aniketh Anchalia, Anirudh Kakati, Ankit Paudel, Bhavana B N</i>	
A Novel Approach for Improving Image Compression Ratio.....	1284
<i>Krishna Dharavath, Shankar Bhukya</i>	
Enhanced RTX-50 Aided Hybrid NOMA Video Communication for Mobile Networks .....	1288
<i>V Kaveri, T Deepa</i>	

Understanding Software Upgrade and Downgrade Processes in Data Centers .....	1294
<i>S. R. Jatin Nag, T. P. Mithun</i>	
Extraction of Fetal ECG Using ANFIS and the Undecimated-Wavelet Transform .....	1300
<i>Avinash Sharma, Dankan Gowda V, Deenadhayalan. R, Madasamy Raja G., Harishchander Anandaram</i>	
Modelling of Smart Energy Management System for Solar Microgrid Using MATLAB/SIMULINK.....	1305
<i>Burri Ankaiah, Charan Vishnu C, Sujo Oommen, Ananda M H, Mahesh Kumar, Rajini H</i>	
Development of Verification IP of Physical Layer of PCIe .....	1311
<i>Viraj Nitin Vaidya, Vaishali Ingale, Ashlesha Gokhale</i>	
Sentiment Analysis and Recommendation of Book Reviews.....	1316
<i>Devaki P, Lokesh Kumar R, Shivali Muthukumar, Kritya Shree S</i>	
6T SRAM Cell Design Using CMOS at Different Technology Nodes .....	1322
<i>Deepak Mittal</i>	
Approaches Involving Big Data Analytics (BDA) Using Machine Learning, Described .....	1327
<i>Seemant Tiwari</i>	
Design and Development of Cardiopulmonary Health Monitoring System Using IoMT .....	1334
<i>V Kabilan, P Harini, S Sindhuja, R Vignesh, U Madhanlal, D Kanchana</i>	
Consumer Grievance Handler .....	1339
<i>G. Shobana, S Selvam Sanjay, V Saran, G Kanishk Vardan</i>	
PCIe Transaction and Data Link Layers Verification IP Development Using UVM.....	1344
<i>Suraj Popat Jagtap, Vaishali Ingale, Ashlesha Gokhale</i>	
A Novel Seven Level Inverter with Common-Leg Configuration by Employing Transformers .....	1348
<i>Bhukya Nageswar Rao, Y Suresh, Banavath Shiva Naik, K Aditya</i>	
Classification of Student Mental Health Prediction Using LSTM .....	1354
<i>Suvarna Gangbo, Ganeshayya Shidaganti</i>	
Design and Implementation of Digital Clock Manager Based Pseudo-True Random Number Generator.....	1360
<i>Vishnu Vardhan Gudla, Vankayala Sri Sai Sita Swapna Jyothi</i>	
A Scalable Design Approach for State Propagation in Serverless Workflow .....	1365
<i>Urmil Bharti, Anita Goel, S. C. Gupta</i>	
Human Action Recognition Based on Depth Maps, Skeleton and Sensor Images Using Deep Learning .....	1372
<i>Dadithota Ganesh, Rapolu Ravi Teja, Chitte Dharmendra Reddy, Duvvala Swathi</i>	
A Grasshopper Optimization Algorithm Based Control Strategy for LVRT Capability Enhancement of Grid-Connected DFIG-WECS .....	1380
<i>Arindam Chakraborty, Tanmoy Maity</i>	
Assessing Entity Resolution Techniques Based on Deep Learning .....	1387
<i>Arnav Agarwal, Sunakshi Singh, Vijay Kumar Chaurasiya</i>	



Integration of Content-Based Recommendation System with 360° Video Player for Virtual Tourism .....	1393
<i>Mohsin Chougale, Larren Dsouza, Limark Dcunha, Rupali Sawant</i>	
Evolution of Neuromorphic Computing with Machine Learning and Artificial Intelligence.....	1399
<i>Ishu Sharma, Vanshika</i>	
Design of Miniaturized, Circularly Polarized, Dual Band mm-Wave Antenna for 5G Communication .....	1405
<i>Smitha R Vasisth, Swathi P N, T N Kusuma, H S Pradeep</i>	
Deep Learning-Based Bone Age Estimation Using X-Ray Hand Images.....	1412
<i>K Ramanjaneyulu, Sri. L Manju, M Sohit, M Vikas, S Yaswanth</i>	
Disease Diagnosis Based on Various Pattern Frequency from Extracted Exons.....	1417
<i>Chandra Mohan Dasari, Raju Bhukya</i>	
Pilot DroneUI: An User Interface to Control UAV Using Robot Operating System .....	1424
<i>B M Thippeswamy, Mohammed Ghouse, Adugna Deksiso, B M Prabhu Prasad, T C Pramod, B N Pavan Kumar</i>	
Be My Eyes: An Aid for the Visually Impaired .....	1430
<i>Neha Lakhani, Harshita Lakhotiya, Nikahat Mulla</i>	
Design and Manufacturing of Non-Invasive Ventilation System Connected with Remote Monitoring App for Oxygen Saturation Surveillance of COVID-19 Patients .....	1436
<i>Shariff Aspilcueta, Fernando Tello, Rubén Panduro, Carlos Tello, Ricardo Palomares, José Cornejo</i>	
Firefly Algorithm in FOPI Controller for Improving Power Quality of Three-Phase HES System Integrated UPQC .....	1442
<i>Shravan Kumar Yadav, Krishna Bihari Yadav</i>	
ANFIS Driven DC Link Voltage Control and Power Quality Enhancement in PV-Battery Incorporated UPQC.....	1448
<i>S Fathima, Uma Syamkumar</i>	
Controlling Access to eHealth Data Using Request Denial Cache in XACML Reference Architecture for ABAC .....	1454
<i>Litun Patra, Udai Pratap Rao, Pooja Choksi, Akhil Chaurasia</i>	
Graph Neural Networks Based Model for Aroma Prediction Using Molecular Structures.....	1462
<i>Varanasi L V S K B Kasyap, V S Bhagavan, M S Jagadeesh</i>	
An Application for Road Network Data Management and Querying .....	1468
<i>Sudha Chaturvedi, Tapsi Nagpal</i>	
A Nutrition-Based Smart Recipe Recommender for Healthy Living .....	1475
<i>L A Shubhashree, Shilpa Chaudhari, R Aparna</i>	
Detecting Parkinson's Disease with Image Classification .....	1481
<i>S. Kanagaraj, M. S. Hema, M. Nageswara Gupta, V. Namitha</i>	
Sign Language to Text Conversion in Real Time Using Transfer Learning .....	1486
<i>Shubham Thakar, Samveg Shah, Bhavya Shah, Anant V. Nimkar</i>	

Neural Machine Translation for English-Assamese Language Pair Using Transformer.....	1491
<i>Rudra Dutt, Tarun Aditya Kusupati, Akshat Srivastava, Basab Nath</i>	
Multi-Robot Security System Based on Robot Operating System and Hybridized Blockchain Model .....	1496
<i>Rahul H Kumar, G Muthu Subramanian</i>	
Transforming NoSQL Database to Relational Database: An Algorithmic Approach .....	1502
<i>Aniketh Anchalia, Ankit Paudel, R Sanjeetha, Anirudh Kakati</i>	
Complex Event Driven Data Analysis Approach in Fog Architecture Based Smart Healthcare.....	1511
<i>Swapnaja Rajesh Hiray, Bhramaramba Ravi</i>	
Cricket Highlight Generation: Automatic Generation Framework Comprising Score Extraction and Action Recognition.....	1519
<i>Abhijit Saha, Neel Kothari, Priyansh Shah, Rajvi Parekh, Narendra Shekokar</i>	
Analysis of Hybrid Energy Storage System for Electric Vehicles .....	1526
<i>Chetan Subhash Phutane, P. K. Katti, Ganesh Bhairu Shinde</i>	
Blockchain Based Fog Computation Model for Military Vehicular Application.....	1532
<i>Akhila Susan Babu, M. Supriya</i>	
Covid Contact Tracing Integrated with Blockchain Technology .....	1538
<i>Merin Anna Mathew, U Kumaran</i>	
Synthetic Speech Classification Using Bidirectional LSTM Networks .....	1545
<i>Aswin Sankesh G S, Ganeshkumar V, Vetrivel Chelian Thirumavalavan, Velmurugan Pg Sivabalan, Madhan Nanchan Suresh, Thiruvengadam S Jayaraman</i>	
Simulation of Solar Energy Based Off-Grid Substation for Remote Location.....	1551
<i>Anandakumar Annavarapu, Karuppiah Natarajan, Mounica Patil</i>	
Convolution Neural Network for Predicting Alphabet Sign Language and Comparative Performance Analysis of CNN, KNN, and SVM Algorithms .....	1556
<i>PC Pruthvi, J Geetha</i>	
Transfer Learning Using BERT & Comparative Analysis of ML Algorithms for Opinion Mining .....	1562
<i>Bhuvanajeet Singh Gandhi, Shubham Kumar, Akila Victor, Ramani Selvanambi</i>	
Networks Simulation: Research Based Implementation Using Tools and Approaches .....	1574
<i>C Smera, J Sandeep</i>	
Development of ANN Based Models for Binary Classification of Rainfall.....	1581
<i>Sandeep Kumar Sunori, Apala Bhatt, Amit Mittal, Nandan Singh, Krishna Kumar Tamta, Pradeep Juneja, Ishita Uniyal</i>	
Bangla Radical Text Categorization Using Lightweight Convolutional-LSTM Framework .....	1585
<i>G. M. Sakhawat Hossain, Md Mynoddin, Dhiman Sarma, Rischita Chakma, Rana Jyoti Chakma</i>	
COVID-19 Detection Using CT-Scan.....	1591
<i>V. Vanitha, R Srinidhi, R Darshana, S K M Nivetha</i>	
A Fruit Detection Method for Vague Environment High-Density Fruit Orchards .....	1596
<i>Y Nagaraju, Venkatesh, K R Venugopal</i>	

Pica-A Hybrid Feature Extraction Technique Based on Principal Component Analysis and Independent Component Analysis.....	1602
<i>Vineeta Gulati, Neeraj Raheja, Rajneesh Kumar Gujral</i>	
Design and Implementation of Access Monitoring System for Banks Using OpenCV and Django .....	1608
<i>R K Madhusudhana, G. R Kiranmayi</i>	
Analysis of Thermal Images with Parallel Convolutional Deep Neural Network for Diabetic Foot Detection .....	1612
<i>Jayaprakash Katual, Amit Kaul</i>	
Random Error Detection and Correction Codes for Multiple Bits .....	1617
<i>Sridevi Gamini, Amala Yelamanchili</i>	
Road Surface Recognition by Using Quantile Transformation and ML Algorithms .....	1622
<i>Jahan Malik, Punit Kumar Shet, Dhanush Gc, Naren Karri, B. H Kushal, Abhinay Kumar Singh</i>	
Look After: A Context-Aware Mobile Computing Based Smart Agent to Manage Personal Events .....	1626
<i>Bilas Halder, Md. Hridoy Chowdhury, Md. Saidur Rahman Kohinoor</i>	
Cascading Neural Network with Particle Swarm Optimization .....	1631
<i>Khandkar Raihan Hossain, Md. Shahjahan</i>	
Study of Contact Resistance in Amorphous Zinc Oxide Based Thin-Film Transistors.....	1636
<i>R. Niroscha, Rajesh Agarwal</i>	
Blackhole Attack Impact Analysis on Low Power Lossy Networks .....	1642
<i>Niharika Panda, M. Supriya</i>	
Estimation of Sentiment Analysis Base Stock Market Crisis .....	1647
<i>Aastha Gehlot, Rajesh Singh</i>	
Online Based Viva Voce Control System .....	1652
<i>Aastha Gehlot, Rajesh Singh, Ankita Joshi</i>	
Modeling, Optimization and Performance Analysis of Different Chemical and Biochemical Sensors for Distinct Analytes.....	1659
<i>Rohit Kumar, Gaurav Kumar Bharti, Ranjit Kumar Bindal</i>	
Intelligent Islanding Classification with Optimal k-Nearest Neighbors Technique for Single Phase Grid Integrated PV System.....	1663
<i>Samrina Ayoub, Ahteshamul Haque, Mohammad Amir, V. S. Bharath Kurukuru</i>	

## **Author Index**