

# **2023 4th IEEE Global Conference for Advancement in Technology (GCAT 2023)**

**Bangalore, India  
6-8 October 2023**

**Pages 1-598**



**IEEE Catalog Number: CFP23T92-POD  
ISBN: 979-8-3503-0526-5**

**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:	CFP23T92-POD
ISBN (Print-On-Demand):	979-8-3503-0526-5
ISBN (Online):	979-8-3503-0525-8

**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)

## TABLE OF CONTENTS

Transient Stability Assessment and Enhancement in the Realm of Power System Dynamic Security Analysis: A Review and Scope of Methods..... <i>Sreenadh Batchu, Kiran Teeparthi</i>	1
Stock Market Directional Prediction and a New Kind of Noise Filter .....	9
<i>Srikumar Manghat</i>	
VGA Controller Design & Implementation on FPGA..... <i>Akshay Chinchanikar, Pankaj H. Chandankhede, Abhijit Titarmare</i>	17
An Enhanced English to Marathi Translator Using Sequence-To-sequence Transformer..... <i>Om Gunjal, Saurav Garje, Samir Aghav, Lavesh Jaykar, Sunil Sangve, Saurabh Gunge</i>	23
Fund Tracking System Using Blockchain Technology..... <i>B S Anupama, Akash Ranjan Das, Navdeep Rattan, Riya Jaiswal, N R Sunitha</i>	28
Adaptive Power Control Topology Based PV-Battery Microgrid System..... <i>Rajat Raj, Rohini S Hallikar</i>	34
Multi-Modal Emotion Recognition .....	41
<i>M Rakshmitha, K S Nagegowda</i>	
A Content Based Image Retrieval System for Biodiversity System..... <i>Jyoti Madake, Rohit Agrawal, Vineet Pawar, Shripad Bhatlawande</i>	45
Design and Analysis of Permanent Magnet Synchronous Generator .....	51
<i>Prakash L Chavan, Sanjeev K Nayak, Vilas S Bugade</i>	
Deep Learning-Based Model for the Classification of Tuberculosis Using Convolution Neural Network..... <i>Archana Saini, Kalpana Guleria, Shagun Sharma</i>	57
Waste Segregation Using Deep Learning-Based Convolutional Neural Network Model .....	63
<i>Somya Srivastav, Kalpana Guleria, Shagun Sharma</i>	
Knowledge Graph Based Medical Chatbot Building .....	69
<i>R Bhuvanesh Shathyan, M. Farida Begam, K Jashwanth, Anirudh Jayaprakash</i>	
Recommendation System for Adventure Tourism..... <i>Prachi Pandey, Kumar Mayank, Sachin Sharma</i>	75
Open AI Based Differential Gain Model of Information Sharing in Industry 5.0 Health Sector..... <i>Abhiraj Gautam, Sachin Sharma</i>	82
Internet-Of-Things Enabled Smart and Portable Terrace Garden Protection Shed..... <i>Anushka Kukreti, Ayushi Shriyal, Sachin Sharma, Shuchi Bhadula</i>	89
A Comprehensive Study on Heart Attack Prediction Models: Comparative Analysis and Performance Evaluation .....	95
<i>Maanaav Motiramani, Parth Mody, Artika Singh</i>	
Investigation of Setpoint Tracking of Chopper Based DC Motor Drive .....	104
<i>Sandeep Kumar Sunori, Dikendra Verma, Mohit Pant, Pradeep Juneja</i>	

Enhancing Real Estate Market Insights Through Machine Learning: Predicting Property Prices with Advanced Data Analytics .....	108
<i>Parth Mody, Maanaav Motiramani, Anurag Singh</i>	
Enhancing Government Scheme Accessibility, User Profiling and Personalized Recommendations Using Data Mining .....	116
<i>Vinayak Tripathi, Sandeep Suthar, Bhavika Vaishnavi, Narendra Bhagat, Kiran Talele</i>	
Analysis of Performance of Foreign Market Indices and Its Corresponding Effects on Indian Indices .....	122
<i>Darshan Somani, Pratham D Solanki, Pranav Swaminathan, Amol Deshpande</i>	
Design and Simulation of a Solar-Powered UAV for Meteorology.....	128
<i>Satyajit Meti, Rohan Ramachandran, Narayanan Komerath</i>	
Role and Application of Multi-Rib Arrangement in Solar Air Heater Performance.....	136
<i>Amandeep Singh, Amit Mittal, Shiv Dayal Pandey, Sanjeev K Joshi, Kundan K Chaubey</i>	
Ensemble Model for Driver Distraction Detection.....	142
<i>S. Subbulakshmi, A.K Arathy, Praseetha Madhu</i>	
UHI Web Application: Empowering Healthcare with Disease Prediction for Seamless Doctor Consultations .....	149
<i>Nunna Harsha Vardhan, Rajesh M, V R S Vishal Matcha, Sathi Ravi Shankar Reddy, Verelli Nivas Chowdary</i>	
Machine Learning Based ADMET Prediction in Drug Discovery .....	154
<i>Bhavitha, PS Lekshmi Prasad, R Ani, Os Deepa</i>	
A Streaming Application for Real-Time Analytics of Seismic Data.....	163
<i>Surisetty Hima Varshini, Gottimukkala Sarayu Varma, S Saravanan</i>	
Reducing Complexity: A Comparative Analysis of Dimensionality-Reduction Techniques .....	171
<i>Raji Ramachandran, Yamunakrishnan, G Govind, M K Devkrishna, Abhiram A Anil</i>	
A Reversible Data Hiding Technique for Secure Image Transmission .....	179
<i>S Renji, Arun Cyril Jose</i>	
E-Commerce Logistics Distribution Based on Simulated Annealing Algorithm.....	185
<i>Jingjing Yang</i>	
Design of a Robust Technique for Fake News Detection .....	190
<i>Shubh Aggarwal, Siddhant Thapliyal, Mohammad Wazid, D. P. Singh</i>	
SAR Analysis of Human Head Tissue Exposed to 5G FR2 Frequencies .....	195
<i>Sunaina Shakya, Rajiv Kumar Singh</i>	
Protecting Our Children from the Dark Corners of YouTube: A Cutting-Edge Analysis .....	201
<i>Sajal Aggarwal, Dinesh Kumar Vishwakarma</i>	
Comparative Study on the Analysis of the Performance of Transfer Learning and the Customized Convolutional Neural Network to Detect Eyewear .....	206
<i>J M Varun Prakash, Ashwini Kodipalli, Trupthi Rao, S Kumaraswamy</i>	
Deep Learning Based Automatic Indoor Plant Management System Using Arduino .....	211
<i>Sanjana Prasad, K Umme Haniya, Syeda Zeenathunnisa, Mohammed Tahir, Mohammed Sulaiman</i>	

Analysis of Skin Lesions for Identifying of Skin Cancer Melanoma Using Customized CNN Model with Transfer Learning .....	216
<i>Ns Sinchana, K Jeevitha, S Kumar Swamy, Ashwini Kodipalli, Trupthi Rao</i>	
Brachial Plexus Segmentation and Detection Through Ultrasound Image Analysis Using Convolutional Neural Networks.....	222
<i>M. Sobhana, Lalith Sai Mukund Yarlagadda, Kushal Kumar Chintakayala, Venkata Siva Naga Raju Ala</i>	
Design of Farm Machinery Rental Based Model “Farmers-I Connect” .....	228
<i>Yogesh Kumar Verma, Tushar Gupta, Piyush Jha, Dinesh, Abhishek Malhotra, Atul Kumar Sharma</i>	
Skin Cancer Classification with DenseNet Deep Convolutional Neural Network .....	233
<i>Penubaku Anil, Budati Jaya Lakshmi Narayana, Gopireddy Krishna Teja Reddy, Sirigiri Rajeev Choudhary, Kosaraju Sujana Sri</i>	
Implementation of Hybrid Energy System Under Varying Loading Condition in MATLAB/Simulink.....	239
<i>Hemant Sharma, Kamalkant Sharma, Abinash Singh</i>	
Harmonic Source Identification in Microgrid Using TQWT and SVM Classifier .....	244
<i>Swathi Bandaru, B Jagadish Kumar, S Ramana Kumar Joga</i>	
Hybridizing Statistical and Neural Network Models for Enhanced Stock Price Forecasting.....	250
<i>R C Jisha, Hisana Nazeer, R Kavya</i>	
Automated Non-Helmet Rider Detection Using YOLO V7 and OCR for Enhanced Traffic Monitoring.....	258
<i>Saurav Prabhakaran, Rohit K Menon, Rahul Varma U</i>	
Implementation of a Modified SHA-3 Hash Function on FPGA .....	264
<i>M Agasthya Holla, Akshay S Shetty, S Santhameena, Shourya Harshraj, S Sushmitha</i>	
Enhancing Depression Diagnosis Through Advanced MRI Image Analysis and Machine Learning Techniques.....	270
<i>Minakshee Patil, Prachi Mukherji, Vijay M Wadhai</i>	
Detection of Brain Tumour Using Deep Convolutional Network .....	276
<i>K R Kavitha, Amritha S Nair, Vishnu Narayanan Harish</i>	
Word Sense Disambiguation Using Supervised Learning .....	282
<i>K R Kavitha, S Pranav, Akhil Anil</i>	
Optimization of Solar-Wind Hybrid Energy System with IoT-based Source Selector for Enhanced Power Generation in Smart Homes .....	288
<i>BS Sagar, Bansilal Bairwa, DR Sahana, NB Sujan, Sachin Kumar Sadari, E Sukrutha</i>	
Analysis of TCSC Performance in Modified IEEE 9 Bus System Using Distance Relay.....	294
<i>Adarsh Saini, Kuwar Yatendra, Arunima Verma</i>	
Multi Object Tracking System Form Video Streaming Using Yolo .....	300
<i>Firdosh Ahmad, Akash Chauhan, Prabhdeep Singh</i>	
Machine Learning Supported Malicious URL Detection .....	306
<i>Remya R.K. Menon, V Anandhu</i>	

Comparative Study of PID and State Feedback Controller for Level Control System.....	311
<i>Atharva Jaid, Gaurav Durge, Ashutosh Joshi, Khomesh Kalambe, Hrishikesh Dhale, Sanika Patankar</i>	
Cryptography, Code, Consensus and Currencies Exploring the Technological Evolution of Blockchain Networks .....	316
<i>Manas Pande, Shobhit Kumar, Lalit Mohan</i>	
Malnutrition Detection Using Deep Learning Models .....	325
<i>Derrick Roy Edgar Rajappan, S Sanith, S Subbulakshmi</i>	
Automatic Personality Recognition in Interviews Using CNN .....	333
<i>D Nagajyothi, Shaik Ashik Ali, Parimi Hema Sree, Praharsha Chinthapalli</i>	
The Impact of the Latest Technology on Healthcare and How Can it Be Leveraged to Improve Patient Outcomes and Reduce Healthcare Costs .....	340
<i>Disha Wankhede, Vaishali Mishra, Madhuri Karnik, Anish Kekane, Aishwarya Shukla</i>	
Facial Expression-Driven Music Recommendation: A Novel Approach for Personalized Listening Experiences .....	346
<i>A Srinivasan, V Dankan Gowda, Rm Aswin Kumarappa, M.R Parthasarathy, A Rohith, N Anil Kumar</i>	
Optimizing Book Recommendations Through Machine Learning: A Collaborative Filtering and Popularity-Based Framework .....	354
<i>R. Kavitha, V Dankan Gowda, V Rupa Shiva Dharshini, Priyadharshini M, Mirzanur Rahman, S. Jegadesan</i>	
Programmed Number Plate Recognition Using Deep Learning .....	362
<i>M. Ananthi, M Afrin Ruqayyah Fathima, S Srigomathi, Rk Abirami</i>	
High Gain DC-DC Boost Converter with Enhanced Capability for Non Conventional Energy Application .....	371
<i>Saqib Kamal, Abdullah Alvi, Mohammad Zaid</i>	
Verification of Hardware Resource Utilization Through High Level Synthesis for FPGA Implementation.....	378
<i>Jyoti Pandey, Abhijit R. Asati, Meetha V. Shenoy, Prateek Sikka</i>	
Scalable and Reliable Cloud-Based UV Monitoring for Public Health Applications.....	384
<i>Dankan Gowda V, Shekhar R, Prasad, Pullela Svvsr Kumar, Sreeti Gangadharan, Srividya C N</i>	
Development of a Real-Time Location Monitoring App with Emergency Alert Features for Android Devices .....	392
<i>V Dankan Gowda, Prasad, R Shekhar, Rachakonda Srinivas, Kale Naga Venkata Srinivas, Prasanna Kumar Lakineni</i>	
Enhanced Driver's Drowsiness Detection System Using CNN Model .....	400
<i>Mandapati Ankitha, Sandeep Vemuri, Suraneni Lowkya Gayathri, Jarabala Sindhu Bhargavi</i>	
Disease-Based Hospital Recommendation System Using Machine Learning and Natural Language Processing (NLP) .....	407
<i>Aravind Manoharan, R.S Anu Prabha</i>	
Prediction of Solar Energy Generation Using Machine Learning .....	413
<i>P Vijayakumar, L Rahunathan, J Rakshana Bai, E Saravanan, S Sindhuja</i>	

Acoustic Source Localization Model Using Audio-Visual Learning.....	420
<i>F M Umadevi, Abhishek Saurabh, Atul Kumar, C Sujatha</i>	
Sensorless MPP Estimation Method for Reserve Power Control in Photovoltaics .....	426
<i>Pankaj Verma</i>	
Graph Auto Encoders for Content-Based Document Recommendation System .....	432
<i>Remya R.K. Menon, R Rahul, V Bhadrakrishnan</i>	
Deep Learning for Iris Recognition: An Integration of Feature Extraction and Clustering.....	440
<i>Pothreddypally Jhansi Devi, Achampeta Sonali, Busim Naga Siddu Karthik, Ajmeera Sindhuja, Annapureddy Arun Kumar Reddy</i>	
Stock Price Prediction Using Long Short Term Memory Algorithm.....	452
<i>Dhruv Sharma, Damandeep Kaur</i>	
Exploiting Hybrid CNN and RF for Detailed Disease Classification of Cotton Leaf Spot: A Trek from Image Pixels to Increased Accuracy .....	457
<i>Nikhil Dhawan, Vinay Kukreja, Rishabh Sharma, Amit Gupta, Vijay Singh</i>	
Deloading Strategy in PV Systems : Installation Cost and Environmental Impacts Assessment for Obtaining Ancillary Services in Power System.....	462
<i>Pankaj Verma</i>	
Enhancing Crop Health Monitoring: A Hybrid CNN-RF Model for Early Detection and Fine-Grained Classification of Cotton Bacterial Blight.....	467
<i>Shruti Garg, Vinay Kukreja, Sushant Chamoli, Navin Garg, Rishabh Sharma</i>	
Enhancing Diagnostic Accuracy for Lung Disease in Medical Images: A Transfer-Learning Approach .....	473
<i>Pulkit Singla, Vinay Kukreja, Devesh Pratap Singh, Satvik Vats, Rishabh Sharma</i>	
Automated Red Chilli Disease Recognition Using Combined CNN-SVM Model: Enhancing Crop Management and Yield Optimization .....	478
<i>Yashu, Vinay Kukreja, Karun Madan</i>	
Hybrid Meta Heuristics Optimization of Hadoop Parameters for Increased Performance Gains.....	482
<i>Nandita Yambem, B Rekha, A N Nandakumar</i>	
Optimizing Convolutional Neural Networks and Support Vector Machines for Spinach Disease Detection: A Hyperparameter Tuning Study.....	488
<i>Ankita Suryavanshi, Vinay Kukreja, Ayush Dogra</i>	
Speed Control of BLDC Motor Using Trapezoidal Commutation & PWM Technique .....	494
<i>C.R. Edwin Selva Rex, K. Neelima, P. Bhavana, Y. Gayathri, K. Bhargava, S. Vinay Kumar</i>	
Machine Learning and Ensemble Techniques for Water Quality Analysis of Korattur Lake .....	499
<i>G Danush, A Pradeeshwar, Ds Tharun Kumar, Nk Vamsi Krishna, D. Venkata Vara Prasad</i>	
A Federated Deep Learning Method for Chronic Disease Diagnosis .....	508
<i>Vaishnav Srinidhi, Akila Victor</i>	
Novelty Detection of Text Using Spectral Graphs and Visualization .....	514
<i>Remya R.K. Menon, Fawaz-Al-Faizi, U.L Sooraj</i>	

Harmonizing Nature and Technology: CNN-SVM for Cercospora Leaf Spot Disease Recognition in Chilli Plants .....	522
<i>Arshleen Kaur, Vinay Kukreja, Rishika Yadav, Sarvesh Tanwar, Manish Sharma</i>	
Nature's Secrets Revealed: Unraveling Fusarium Wilt Diseases Through CNN and SVM .....	528
<i>Arshleen Kaur, Vinay Kukreja, Manisha Aeri, Sarvesh Tanwar, Noor Mohd</i>	
MintLeafNet: A CNN Model for Accurate and Efficient Detection of Multiple Mint Leaf Diseases .....	535
<i>Arshleen Kaur, Vinay Kukreja, Deepak Banerjee, Karun Madan</i>	
Improving Tumor Diagnosis Accuracy with CNN Based Image Segmentation and Arduino Decision Support .....	540
<i>G Indhumathi, E Stephena, B Priyadarshini, V Poonthamil, R Kesavraj, B Abinaya</i>	
Identification of Brain Tumour Detection and Localization Using Computational Techniques.....	544
<i>Akansha Ghosh, Anita Shrotriya, Deepika Shekhawat, Ginika Mahajan</i>	
An Enhanced Approach for Sentiment Analysis of Malayalam Text Using Ensemble Deep Learning Models.....	548
<i>S Soumya, K V Pramod</i>	
Deep Learning-Based Framework for Lung Disease Diagnosis Using Integrated CNN and RNN.....	554
<i>Raghav Jain, Vinay Kukreja, Devesh Pratap Singh, Rishabh Sharma, Satvik Vats</i>	
FPGA Based Realization of a High-Speed 8-Tap FIR Filter for Signal Processing Applications .....	560
<i>K S Ashim, Parul Mathur</i>	
Continuous Integration Pipeline for ROS-Based Application Using AWS Robomaker.....	566
<i>V Esakki Muthu Prabha, J Divya Udayan</i>	
Warehouse Automation Using Line Follower Robot.....	573
<i>Ayush Sharma, Soumya Gopal Kulhalli</i>	
Low-Power and Area-Efficient M-Term Binary Polynomial Multiplier for Finite Field .....	578
<i>Sahishna Mulagaleti, Visakha Ravikumar, Sonali Agrawal</i>	
Text Summarization and Image Decomposition of Medical Documents .....	585
<i>Raji Ramachandran, Arpit Aggarwal, Kanak Varshney</i>	
Computational Drug Discovery for Blood Cancer Classification Using Deep Convolutional Neural Network .....	591
<i>Adarsh R Nambiar, Sharath Sunil, R C Jisha</i>	
Analysis of Algorithm D* on N-Broom .....	599
<i>Arathi K Suresh, M Arjun, T S Indulekha</i>	
Optimal Switching Oscillation Damper of SiC-MOSFET .....	605
<i>Md. Sajedul Islam, Fariya Tabassum</i>	
Investigating the Superiority of Intel oneAPI IFX Compiler on Intel CPUs Using Different Optimization Levels: A Case Study on a CFD System.....	612
<i>Feisal Alaswad, Poovammal Eswaran</i>	
Automation of Sign and Photo Detection Using AI and OCR.....	621
<i>Geetha G, Mohammad Apsar, Neha, Jessica Shulamite, Navya Sri Maddipudi</i>	

Structured Approach for Relation Extraction in Legal Documents .....	627
<i>Anjali K Sasidharan, R Rahulnath</i>	
Early Detection of Alzheimer Disease Using Data Augmentation and CNN .....	633
<i>Tatireddy Subba Reddy, Veerbhadrappa Saikiran, Srigiri Samhitha, Shaik Moin, Thondapu Pavan Kumar, Vemula Sai Charan</i>	
Vehicle Detection Using CNN and YOLOv3 .....	639
<i>K.V. Mahalakshmi, Sumanth Kalagara, Abhiram Gudivada, Shravya Vankudoth, Likitha Neeli</i>	
Prediction of Movie Categories Using Randomized Sequences with Machine Learning .....	645
<i>Seelam Namitha, J Prathibha, Alle Aniesh Kumar, Shanmugasundaram Hariharan, Thokala Karthik Reddy, Vinay Kukreja</i>	
Enhancing Disaster Tweet Classification with Ensemble Models and Multiple Embeddings.....	650
<i>Anurag Singh, Pratham Soni, Ankur Singh, Ishaan Potle, Artika Singh</i>	
People Counting Based on YOLO.....	657
<i>G. Vasavi, Hari Haran Diddi, E Haritha, G Arun Kumar, G Harsha Varma</i>	
Investigation on Grid Integrated Alternative Energy Systems Under Varying Demand Conditions .....	663
<i>R. Muniraj, A. Vijay Kumar, J. Shanmuga Priyan</i>	
Driver Drowsiness Detection Using Convolutional Neural Networks(CNNs).....	669
<i>M. Shreesha, G. Sreehitha, G.Rohan Reddy, J. Srikanth, H.Ramesh Varma</i>	
Predictive Wi-Fi Network Selection: Enhancing User Experience Through a Machine Learning-based Approach .....	674
<i>V Akash, S Manoj Howale, Ajit J Gupta, N Kayarvizhy, Raj Kumar Saranappa</i>	
Sorting Permutations with 3-Brooms .....	680
<i>D N Swetha, T S Indulekha, A S Nayana</i>	
Paper-Pencil Based IoT Enabled pH Sensor Using LabVIEW.....	686
<i>G Harish Gnanasambanthan, Shashi Preetham, L K Akshaya, Debasish Maji</i>	
Ontology Based Personal Assistive Application.....	691
<i>Geethalekshmy, N.V Rohil, Ayush Nair</i>	
Augmentation of Internet of Things Security and Privacy with IOTA Tangle Network.....	695
<i>Ankita Kumari, Ishu Sharma</i>	
Diverse Machine Learning Models for Speech Emotion Recognition .....	700
<i>P Sonu, Vaishnav Babu, M Anuj</i>	
Human Activity Recognition Using Ontology.....	707
<i>Geethalekshmy, V S Abishek, Aditya Nair</i>	
Empowering Rice Farmers: Automated Multi-Classification of Rice Diseases Using YOLOv5 .....	714
<i>Niharika, Vinay Kukreja, Rishabh Sharma, Purushottam Das, Noor Mohd</i>	
Parametric Analysis of a Novel Dual-Output Current-Mode Filter for VHF/SHF Band Utilization.....	720
<i>Rajani Maurya, Siddharth Srivastava, Neelam Srivastava</i>	
Sowing the Seeds of AI in Agriculture: Federated Learning CNN for Groundnut Disease Detection .....	726
<i>Varun Jindal, Vinay Kukreja, Shiva Mehta, Richa Gupta, Manish Sharma</i>	

Severity-Level Assessment of Groundnut Leaf Diseases: A Federated Learning and CNN Approach .....	732
<i>Varun Jindal, Vinay Kukreja, Shiva Mehta, Dibyash Bordoloi, Vijay Singh</i>	
Improving Agricultural Efficiency: Severity-Based Diagnosis of Bottle Gourd Leaf Diseases Using Federated Learning CNN .....	738
<i>Varun Jindal, Vinay Kukreja, Shiva Mehta, Prateek Srivastava, Noor Mohd</i>	
Addressing Zucchini Leaf Diseases: An Innovative Approach Using Federated Learning and CNN .....	744
<i>Varun Jindal, Vinay Kukreja, Shiva Mehta, Amit Gupta, Kireet Joshi</i>	
The Role of Federated Learning and CNNs in the Detection and Classification of Zucchini Leaf Diseases: A Severity-Based Analysis.....	750
<i>Varun Jindal, Vinay Kukreja, Shiva Mehta, Sushant Chamoli, Manish Sharma</i>	
Vending Machine for Water Using Verilog.....	756
<i>A S Pranav Vishwas, Venkata Vinayak Addala, Rajesh Kannan Megalingam</i>	
Empowering Vineyards: Decentralized Grape Leaf Disease Recognition with Federated Learning CNN .....	761
<i>Varun Jindal, Vinay Kukreja, Shiva Mehta, Sushant Chamoli, Noor Mohd</i>	
User Categorization for Targeted Advertising Using Deep Learning .....	767
<i>Chindam Deepika, Ch Dheeraj, Avns Kartik, B. Varun, Satish Babu Thunuguntla</i>	
Development of Rainfall Prediction Models Using Linear and Non-Linear Regression Techniques.....	772
<i>Sandeep Kumar Sunori, Surya Kant, Pawan Agarwal, Pradeep Juneja</i>	
Reduction in Error-Rate Using BIOFDM Technique and Power Comparison for M-QAM System Under Various Fading Channel Environments .....	777
<i>Amol Sharma, Ram Chandra Singh Chauhan</i>	
Driver Fatigue Countermeasure System.....	783
<i>Ahalya Rani Gonuguntla, Vemula Sai Charan, Ventrapati Likhitha, Yeddu Srivalli, Yarmally Shivdeep, Veerbhadrappa Saikiran</i>	
Feasibility Investigation of HES in Power Distribution Network .....	789
<i>Hemant Sharma, Kamalkant Sharma, Abinash Singh</i>	
Deep Learning for Plant Health: Accurate CMV Morbidity Scale Classification Using Faster R- CNN .....	793
<i>Prachi Wadhwa, Vinay Kukreja, Rishika Yadav, Rishabh Sharma, Noor Mohd</i>	
Real-Time Face Recognition Using an Enhanced VGGNET Convolutional Neural Network.....	799
<i>L Balaji, L Rama Murthy, C Ashwini, Hansi Bansal, R K Shanmugha Priya, B V Santhosh Krishna</i>	
Analysis of the Monkeypox Outbreak Using CNN Model: A Systematic Review.....	804
<i>Vandana, Chetna Kaushal</i>	
Innovative Disease Management: An Encoder-Decoder Solution for Tomato Black Mold Detection.....	810
<i>Divyam Vashisht, Vinay Kukreja, Rishabh Sharma, Ayushi Jain, Ankur Choudhury</i>	
Machine Learning Based Model and Solution for Network Flow Attack Detection .....	815
<i>Atul Kumar, Ishu Sharma</i>	
Text Classification into Emotional States Using Deep Learning Based BERT Technique.....	821
<i>Farooque Azam, Mpanga Wa Lukalaba Gloire, Neeraj Priyadarshi, Sneha Kumari</i>	

A Secured Framework for Metaverse Applications .....	826
<i>Farooque Azam, Anshuman Semwal, Arun Biradar</i>	
Leveraging Artificial Intelligence Methodologies to Improve WSN Security .....	832
<i>Aadil Khan, Ishu Sharma</i>	
Enhancing Facial Emotion Detection with CNN: Exploring the Impact of Hyperparameters .....	837
<i>Baljap Singh, Jaspreet Singh, Gurwinder Singh</i>	
Automatic Grammar Correction Method for English Translation Based on Multi-Feature Fusion .....	842
<i>Jing Yu</i>	
Application of Modern Computer Technology in Automatic Management of Financial and Accounting Information .....	851
<i>Yonghong Wang</i>	
Research on Network Information Security Algorithm Based on Deep Learning.....	856
<i>Kexian Pan</i>	
Research on Teaching Reform of Petroleum Majors Based on Big Data Technology .....	860
<i>Dong Hao, Yan TingXing</i>	
Research on the Integration Path of Computer-Aided Technology and Higher Vocational English Teaching .....	864
<i>Xiushan Zhang</i>	
Augmented Reality-Based Visualization and Education for Biogas Plant Adoption in Rural Communities .....	868
<i>Akash, Andhe Dharani, Preethi N. Patil, Chandrani Chakravorty, Yathish L</i>	
Transformative Approaches: Diagnosing Lung Diseases Through Federated Learning CNN .....	875
<i>Yukta Nagpal, Vinay Kukreja, Devesh Pratap Singh, Satvik Vats, Shiva Mehta</i>	
Pushing Diagnostic Frontiers: Federated Learning CNN for Diverse Lung Disease .....	881
<i>Varun Jindal, Vinay Kukreja, Devesh Pratap Singh, Satvik Vats, Shiva Mehta</i>	
Reimagining Cucumber Disease Diagnosis in the Era of Federated Learning CNN.....	887
<i>Yukta Nagpal, Vinay Kukreja, Shiva Mehta, Ayushi Jain, Ankur Choudhury</i>	
Mapping Severity Levels of Cucumber Diseases Through Federated Learning CNN .....	893
<i>Varun Jindal, Vinay Kukreja, Shiva Mehta, Preeti Chaudhary, Ashish Garg</i>	
Maximizing Year-Around Energy Availability by Adaptive Component Changes in Microgrid .....	899
<i>M. M. Jaganath, Saheli Ray, N. B. Dev Choudhury</i>	
Design and Performance Analysis of 6T SRAM Cell on 90nm Technology.....	905
<i>Mehak Zargar, Anuj Kumar Goel</i>	
Generation of High-Quality Realistic Faces with StyleGAN .....	910
<i>K. Ashwini, D. Nagajyothi, Ch. Ramakrishna, V. Jyothi</i>	
Machine Learning Enabled Method for Preventing Industry 4.0 Botnet Attacks .....	917
<i>Atul Kumar, Ishu Sharma</i>	
A Hybrid Approach for Detection in Foggy Environments for Self Driving Cars: YOLO and MSRCR Techniques .....	922
<i>Maharaj Mahaadev, Debjani Ghosh, Madhavik Dogra, Gunesh Gupta</i>	

Citrus Leaf Scab Multi-Class Classification: A Hybrid Deep Learning Model for Precision Agriculture.....	928
<i>Nitin Jaswal, Vinay Kukreja, Rishabh Sharma, Preeti Chaudhary, Ashish Garg</i>	
Acoustic Environment Design of Residential Area Based on Genetic Algorithm .....	933
<i>Yiyi Wan</i>	
B2C E-Commerce Logistics Network Optimization Based on Constrained Clustering Algorithm .....	939
<i>Xiong Xiaoliang</i>	
Dynamic Estimation Method of Construction Cost Based on Particle Swarm Optimization Algorithm .....	945
<i>Xiaotao Zhang, Fuxin Ma</i>	
Intelligent Operation and Maintenance Management Method and System of Engineering Project Based on BIM.....	951
<i>Hongxia Liu</i>	
Design and Performance Analysis of L-Shaped Vertical Tunnel-FET for Bio-Sensing Application.....	957
<i>Sruti Suvadarsini Singh, Debasish Mohanta, Prasanna Kumar Sahu</i>	
A Machine Learning Framework for Stock Prediction Using Sentiment Analysis .....	962
<i>Deepak Parashar, Michela DSilva, Saloni Kulshreshtha</i>	
Implementation of Asset Inventory Model Based on Intelligent Algorithm.....	967
<i>Liuqing Ye, Canhui Zhang, Dan Zhao, Longmin Bu, Huiting Xu</i>	
Sports Score Management and Physical Fitness Analysis System Based on Data Mining .....	973
<i>Lin Xiao</i>	
Study on the Method and System of Rural Tourism Recommendation Based on Seasonal Characteristics and Location Characteristics Under AHP Algorithm .....	978
<i>Ying Zhang</i>	
Dynamic Analysis of a Malware Sample: Recognizing Its Behavior Using Forensic Application .....	984
<i>Abhinav Mohan Bhatia, Indrajeet Kumar, Noor Mohd</i>	
Hybrid Approach for Word Sense Disambiguation in Marathi Language .....	990
<i>Aparitosh Gahankari, Avinash S. Kapse, Mohammad Atique, V.M. Thakare, Arvind S. Kapse</i>	
A Comparative Analysis of Specific Absorption Rate from Different Antennas Utilized in 5G Technology .....	994
<i>Sunaina Shakya, Rajiv Kumar Singh</i>	
Analysis of Various Approximate Adders in Ripple Carry Adder Design.....	1000
<i>R.V Nithyashree, S Afreen, Shashidhar Tantry</i>	
Cutting-Edge AI for Helianthus Disease Detection: A CNN-KNN Hybrid Model.....	1005
<i>Nishant Choudhary, Vinay Kukreja, Rishabh Sharma, Lisa Gopal, Devyani Rawat</i>	
Predicting Credit Risk in European P2P Lending: A Case Study of “Bondora” Using Supervised Machine Learning Techniques.....	1011
<i>Sampurna Mondal, Sahil K. Shah, Vidya Kumbhar</i>	
Neural Antenna Optimizer: Improving Wireless Signal Amplification Through Machine Learning and Embedded Systems .....	1017
<i>Aditya Jain, Ajay Kumar, Neha Gupta, Kaushal Kumar, Dhruv Shrivastava</i>	

Design of Optimized CNN for Image Processing Using Verilog .....	1022
<i>M B Veena, Rohan Deodurg, V Shrinidhi, S Soundarya</i>	
Reinventing Respiratory Diagnostics: Federated Learning & CNNs in Pneumonia Classification .....	1028
<i>Varun Jindal, Vinay Kukreja, Devesh Pratap Singh, Satvik Vats, Shiva Mehta</i>	
Pneumonia Severity Dissection: A Dive into Federated Learning Integrated with CNN .....	1034
<i>Yukta Nagpal, Vinay Kukreja, Devesh Pratap Singh, Satvik Vats, Shiva Mehta</i>	
Towards Precise Lung Carcinoma Classification: Federated Learning Enhanced CNNs.....	1040
<i>Yukta Nagpal, Vinay Kukreja, Devesh Pratap Singh, Satvik Vats, Shiva Mehta</i>	
Modernizing Lung Cancer Detection: The Federated Learning CNN Approach .....	1046
<i>Varun Jindal, Vinay Kukreja, Devesh Pratap Singh, Satvik Vats, Shiva Mehta</i>	
Grayscale Image Colorization Using Deep Learning and OpenCV .....	1052
<i>Perala Venkata Akanksha, Sai Vardhan Ponduru, Odugu Krishna Chandra, Sai Ujwal Chelamkuri, Psrb Shashank</i>	
White Blood Cell Classification Using Deep Learning.....	1058
<i>Chandradeep Bhatt, Indrajeet Kumar, Ashok Kumar Sahoo</i>	
A Novel Approach for Alzheimer's Disease Detection Using XAI and Grad-CAM.....	1064
<i>Savarala Chethana, Sreevathsaa Sree Charan, Vemula Srihitha, Suja Palaniswamy, Peeta Basa Pati</i>	
Towards Autonomous Driving System Using Behavioral Cloning Approach.....	1070
<i>Sakilam Abhiman, B Natarajan, M. Umapathy, Kamaljit Kaur Bhagwat, Sudhanushu Dubey, Saurabh Rana</i>	
Enhancing the Performance of Facial Recognition Technology.....	1077
<i>Ahalya Rani Gonuguntla, P. Snehaja, P.Shiva Chandra Prasad, P. Rohith, P. Navya</i>	
Performance Evaluation of Novel Ternary Subtractor Circuits Using Double Pass Transistor Logic.....	1083
<i>Parikalp Gupta, Anum Khan, Subodh Wairyा</i>	
Prevention of DDOS Attacks in Cloud Using Combinational Learning Approach .....	1089
<i>Ruth Ramya Kalangi, S Janardhanarao, J Sirisha, Kayam Saikumar, Pagadala Veeranjaneyulu, M Suman</i>	
Comprehensive Study on High Resolution Aerial Image Classification to Highlight Issues, Potential Application, and Future Scope .....	1095
<i>Nikhar Bhatnagar, Sumit Srivastava, Shally Vats</i>	
Plastic Litter Collection App and Smart-Fuel Technology in a Community (PLASTIC).....	1103
<i>S Anoop, Sonu S Karanavar, S Akshith, Sreevidya Jayachandran, Anagha Pavithran, K R Bharath</i>	
Advances in Skin Disease Recognition: Hybrid Deep Learning and Ensemble Models for Accurate Classification .....	1109
<i>Yashu, Vinay Kukreja, Umang Garg</i>	
Transforming Okra Cultivation: A Study on Leaf Disease Using Federated Learning CNNs.....	1113
<i>Varun Jindal, Vinay Kukreja, Shiva Mehta, Himadri Vaidya, Sanjeev Kukreti</i>	
Deciphering Okra Leaf Diseases: Federated Learning CNN at the Frontier of Agricultural Science .....	1119
<i>Varun Jindal, Vinay Kukreja, Shiva Mehta, Mahesh Manchanda, Siddhant Thapliyal</i>	

A Construction of Smart Grid Authentication and Key Agreement System Using ECC Cryptography.....	1125
<i>Enaganti Karun Kumar, Allu Kumoulica, Annadanam Padmasini, A G Sreedevi, Saurabh Rana, Dharminder Chaudhary</i>	
Comparative Analysis of Embedding Models for Keyphrase Extraction: A KeyBERT-Based Approach .....	1131
<i>MR Nimisha, T Shamitha, Geetishree Mishra</i>	
The New Frontier in Plant Pathology: Predicting Bergamot Diseases with CNN and Random Forest.....	1137
<i>Arshleen Kaur, Vinay Kukreja, Umang Garg, Garima Verma, Vishal Jain</i>	
Quantification of Brain Tumor Region in MR Images Using FCM Technique.....	1144
<i>Modugula Kavya Sri, Rajesh Singamaneni, Mundru Navya Sree</i>	
Design and Implementation of Convolutional Neural Network Model for Melanoma Classification .....	1150
<i>R Hamsalekha, T Y Satheesh</i>	
Computer-Aided Diagnosis for Liver Tumor Feature Extraction.....	1157
<i>B Shilpa, T Y Satheesha</i>	
Design and Model of Speed Control for PMS Motorin EVs Using Matlab/Simulink.....	1162
<i>Nikhil More, Aabid Mulla, Mohit Kulkarni, Sachin Argade, Prasad Ambekar, Kishor Munde</i>	
Exploring Emotion and Sentiment Landscape of Depression: A Multimodal Analysis Approach .....	1167
<i>Devata Anekar, Yogesh Deshpande, Ranjeetsingh Suryawanshi, Rushikesh Waman, Vishal Divekar, Rushikesh Salunke</i>	
An Optimization on Bicluster Algorithm for Gene Expression Data .....	1173
<i>H V Ramachandra, Anooja Ali, P S Ambili, Sailaja Thota, P N Asha</i>	
FPGA Implementation of Double Bit Error Detection and Correction in SRAM Emulated TCAMs .....	1179
<i>P. Rama Krishna, K. Sowjanya, M. Swathi, B. Srikanth</i>	
DetParWav: Parkinson's Disease Detection from Wavelet Features with Machine Learning Approach Using PCA and Mutual Information Gain .....	1184
<i>V Shibina, T M Thasleema</i>	
Quantum Safe Construction of Authentication and Key Exchange Based on Module Lattices .....	1190
<i>Sayan Banerjee, M Nikhilesh, Ankit Sharma, A G Sreedevi, Saurabh Rana, Dharminder Chaudhary</i>	
A Deep Learning Based Approach for Analyzing the Sentiments of Financial Text.....	1196
<i>Moukthika Kadaparthi</i>	
Health Monitoring and Jaundice Detection System Using Verilog .....	1202
<i>Nandana Murali, Rajesh Kannan Megalingam, Chebrolu Gowtham</i>	
Comparison of Pseudo Random Numbers Generated by LFSR and Multivibrator Circuits on Xilinx ISE.....	1206
<i>Roopalakshmi Anil, Rajesh Kannan Megalingam</i>	
Combined Weights LSTM-Based Deep Learning System for Predicting CVDS in NAFLD Patients .....	1210
<i>A. Jenifer Sofia, A. Ruhan Bevi</i>	
An Efficient Approach to Detect the Pneumonia Using Advanced Deep Learning Techniques.....	1216
<i>J Jyostna, M. Santhoshi</i>	

A Novel Approach to Detect and Track Small Animals Using YOLOv8 and DeepSORT .....	1224
<i>Sai Deepa Bhavani Peri, Suja Palaniswamy</i>	
Generation of Smart Text Book Using AI .....	1230
<i>D. Deepika, G. Sindhu, K. Nikhil, K N Bhavya Sree, Y.Harsha Vardhan</i>	
Low Power Low Area Approximate Multiplier with Modified Error Compensation.....	1236
<i>N. Krishna Priya, N.Bhuvan Praneeth, K. Sandhya, Sarada Musala</i>	
Efficient Realization of XOR PUF Using GDI Technique in 4T/Cell Amplifier Chain .....	1242
<i>Gudipati Sneha, Sindhe Sreeja, Guguloth Ganesh, Sangeeta Singh</i>	
Enhancing Agricultural Supply Chain Management Using Blockchain Technology .....	1249
<i>Ganeshayya Shidaganti, M R Bhavani, Bindu, C D Sneha, C Vanitha</i>	
Identification of Medicinal Plants from Leaf Images.....	1255
<i>Parth Jhunjhunwala, Riya Sanjay Dhawas, Shristi Tiwari, Abhishek Sharma</i>	
SmartPark: RFID Enabled Smart Parking System .....	1264
<i>Abha Marathe, Sanket Disale, Ajay Gonopuri, Pratham Adav, Vishal Gavali, Dhruv Kshirasagar</i>	
Use of Compressive Sensing Framework in Wireless Sensor Networks.....	1270
<i>Chethana P. N, Ishita Ghosh, Saurav Ganguly</i>	
Phase Frequency Detector Using PLL for High Frequencies .....	1277
<i>Sai Nitin Varma Vetukuri, K K Abdul Majeed</i>	
Development of a Web Application to Track the Food Quality and Service in the Hostel Mess.....	1281
<i>Pooja Gaidhani, G.S Varsha, Netal Agrawal, Amarja Pote, Jayshree Pande</i>	
A Dynamic Approach for Handling UAV in Crowded Environment Using Deep Q-Networks .....	1287
<i>Yash Upadhyay, Muskan Gahlawat, S. Nivetha, Saurabh Rana, B Natarajan, Pratik Gupta</i>	
Automated Crop Health Management with Drone and Rover.....	1294
<i>Aditya Rane, Satvik Sattenapalli, Balajee Srinivasan, Pratham Talekar, Shripad Deshpande</i>	
Grey-Wolf Optimization-based Efficient Data Dissemination for UAVs in Critical Scenarios.....	1300
<i>Aditya Patel, Nilesh Kumar Jadav, Rajesh Gupta, Sudeep Tanwar, Jitendra Bhatia</i>	
Modelling and Performance Analysis of 2×2 Asymmetrical Quadrapole Micro-Optical Ring Resonator as an Optical Filter .....	1306
<i>Anshu Mala, Sanjoy Mandal</i>	
Revolutionizing Cattle Health: A Machine Learning Approach to Efficiently Predict Lumpy Disease in Cows .....	1312
<i>Amit Gupta, Divya Singh, Richa Gupta, Vikas Tripathi</i>	
Enhancing Crop Yield Through Recommendation System Using Fuzzy Inference Model.....	1318
<i>Shally Vats, Venkatesh Gauri Shankar, Smaranika Mohapatra, Anshika, Harkunwar Singh</i>	
A Simple Circularly Polarized Slot Antenna for Intelligent Transportation .....	1323
<i>Udbhav Pachisia, Priyanshu Gupta, Madhuri Sahal</i>	
Secure Optical Wireless Satellite Network Based OWC-OCDM System with DDW Code .....	1328
<i>Vivek Arya, Meet Kumari, Rahul Chauhan, Neha Sharma</i>	

Intelligent Deep Learning Framework for Breast Cancer Prediction Using Feature Ensemble Learning .....	1333
<i>Chintala Nageswara Rao, K Chatrapathy, A Jainul Fathima, Goski Sathish, Saptarshi Mukherjee, Pundru Chandra Shaker Reddy</i>	
AGRA: An Efficient Ant Colony Grid-Based Routing Algorithm for Mobile Ad Hoc Networks.....	1338
<i>Satyam, D. Damodaram, Nagarajan Pitchandi, N. Ashok Kumar</i>	
Machine Learnig Approach for Prediction of Employee Salary Using Demographic Information with Experience .....	1344
<i>Babasaheb S. Satpute, Raghav Yadav, Pramod K. Yadav</i>	
Ontological Representation of Medical Decision Support System Using Machine Learning Classifiers .....	1349
<i>N L Taranath, Lokesh Singh, Deepti Sisodia, A Geetha, B P Aniruddha Prabhu</i>	
Cloud Computing for Effective Cyber Security Attack Detection in Smart Cities.....	1354
<i>Santosh Gore, Nitin Mahankale, Sujata Gore, Swati Kadu, Sayali A. Belhe</i>	
Hybrid CNN-LSTM Architecture for Bilingual Next-Word Prediction in Punjabi-English Social Media Texts .....	1360
<i>Gurpreet Singh, C P Kamboj</i>	
Comparing ARIMA, Linear Regression, Random Forest, and LSTM for Time Series Forecasting: A Study on Item Stock Predictions .....	1367
<i>Bommireddi Nagendra, Ghanapriya Singh</i>	
Model in Loop (MIL), Software in Loop (SIL) and Hardware in Loop (HIL) Testing in MBD .....	1375
<i>Dapynhunlang Shylla, Ayushi Jain, Pritesh Shah, Ravi Sekhar</i>	
Deep Hybrid Fusion Model with OCR Integration for Accurate Advertisement Categorization .....	1381
<i>Byathol Anuradha, Amand Sri Siddhartha, Cheruku Alankrutha, Bethi Anirudh, Satish Babu Thunuguntla</i>	
Digital Transformation Adoption in the Insurance Sector of Bangladesh: A Quantitative Study from the Perspective of Insurer .....	1387
<i>Fahad Zeya, Nargis Sultana, Kazi Saifur Rahman, Shakil Ahmad</i>	
Audio-Based CAPTCHA Verification to Secure Web Applications .....	1392
<i>Avani Sharma, Aayushi Agrawal, Priyanka Mitra, Harkirat Singh</i>	
Humanoid Robot Gait Control Using PPO, SAC, and ES Algorithms.....	1397
<i>Savarala Chethana, Sreevathsaa Sree Charan, Vemula Srihitha, J Amudha</i>	
Cryptic Fusion: Advancing Text Steganography Via Pixel Manipulation & ASCII Integration.....	1404
<i>Quazi Saad Ul Mosaher, Mousumi Hasan</i>	
An Investigation of Advancements in Blockchain Consensus Algorithms & Leading Protocols.....	1414
<i>Amit Kumar, Neha Sharma</i>	
Comparative Performance Analysis of CNN with Transfer Learning Models for Detection of Monkeypox Skin Disease .....	1420
<i>Nidhi Chauhan, Anu Bala</i>	
Text Enhanced Ensemble for Human Stress Prediction .....	1426
<i>Tanmay Nema, Vedarth Kumtekar, Siddhivinayak Kulkarni</i>	

Triple Riding and No-Helmet Detection .....	1434
<i>Nikhil Kumar, Gaurav Kumar Sahu, M Ravi, Sahil Kumar, V Sukruth, A N Mukunda Rao</i>	
Designing Bandgap Reference Circuit and Sub-Bandgap Reference Circuit with Low Temperature Coefficient.....	1440
<i>Preeti C. Deshmukh, Vanita Agarwal, Vaishali Ingale</i>	
Machine Learning Algorithms for Intelligent Job Monitoring .....	1446
<i>Tanvi Mehta, Nidhi Gairola</i>	
An Evidence Collection Using Blockchain for Cybercrime Detection .....	1452
<i>Vinod Balmiki</i>	
An Deep Convolutional Neural Networks Are Used to Detect Cyberbullying on Social Networks. ....	1459
<i>B.S. Rawat</i>	
A Pay-Close-Enough-Attention Ensemble Classifier for Spotlighting Bogus Reviews.....	1466
<i>B.S. Rawat</i>	
A Detection of Vehicle Velocity Using Deep Learning .....	1474
<i>Devendra Singh</i>	
An Integration and Mining of Multiple-Source Data for Real-Time Services.....	1480
<i>Gaurav Thakur</i>	
Utilizing Analytical Parameterization for Job Scheduling and Virtual Machine Migration in Cloud Computing.....	1487
<i>Vibha</i>	
Thee Machine Learning Analysis of Data Granularity for Insider Threat Detection.....	1492
<i>Rakesh Kumar</i>	
A Novel Secure Identity Management for 5G Ultra Dense Communication Networks .....	1499
<i>Takveer Singh</i>	
The Performance Analysis of Encryption Protocols for 5G Communication Networks .....	1505
<i>Saksham Sood</i>	
Investigating the Security Trade-Offs of 5G Deployment Using Block-chain Based Encryption Model .....	1511
<i>Prerak Sudan</i>	
A Comparative Evaluation of Network Attack Detection and Prevention Strategies in Multi Model Cloud Servers .....	1517
<i>Sukhman Ghuman</i>	
Exploring Advanced Model Optimization Strategies for Network Intrusion Detection in Cloud Computing.....	1523
<i>Jaspreet Sidhu</i>	
Enhancing the Performance of Intrusion Detection Through Netwrok Optimization in Ultra Dense Cloud Networks.....	1529
<i>Prakriti Kapoor</i>	

Detection of Oil-Spill in Satellite-Based Synthetic Aperture Radar (SAR) Images Using Neural Network.....	1535
<i>J. D. Dorathi Jayaseeli, D. Malathi, Feisal Alaswad, Batoul Aljaddouh, Aryan Bhardwaj, Twishaa Sahay</i>	
Machine Learning and Deep Learning Transforming Healthcare: An Extensive Exploration of Applications, Algorithms, and Prospects.....	1541
<i>L.A. Anto Gracious, R. Megiba Jasmine, E. Pooja, T.P. Anish, G. Johncy, R. Siva Subramanian</i>	
Sentiment Analysis on Amazon Electronics Product Reviews Using Machine Learning Techniques .....	1547
<i>Horesh Kumar, Anshul Kumar, Adityavikram Anand, Ashin Sabu, Tarun Jain</i>	
Medical Image Analysis Using Distributed Deep Learning Models .....	1553
<i>Raji Ramachandran, Abhiram Prasad, Ritika R Prasad, Vysakh S Nair, Lakshmi G Pillai</i>	
An Advanced System for Automatically Segregating Bolts Using Thread Detection and Dot Matrix Marking. ....	1558
<i>S Ramkumar, M Sridharan, G Nareshbabu, R Giri, Kanagaraj Venusamy, R Priyadarshini</i>	
Unlocking Kubernetes Networking Efficiency: Exploring Data Processing Units for Offloading and Enhancing Container Network Interfaces.....	1565
<i>T.P. Nagendra, R. Hemavathy</i>	
Data-Driven Customer Segmentation Using Clustering Methods for Business Success.....	1572
<i>Suchita Sharma, Nishith Desai</i>	
Wildfire Detection Using HALE Meteorology Vehicles .....	1579
<i>Narayanan Komerath, Satyajit Meti, Nandeesh Hiremath, Vishwa Karthi, Rajesh Senthil Kumar</i>	
TAGIFY: Hashtag Recommendation Using Machine Learning and Google Cloud Vision API.....	1587
<i>Rahul Chauhan, Rishi Shukla, Chandradeep Bhatt</i>	
A New Approach Towards Deployment and Management of Machine Learning Models Using K-Serve Platform for Building Robust Machine Learning Systems.....	1594
<i>Kanwarpartap Singh Gill, Vatsala Anand, Rupesh Gupta, Charu Khosla, Pao-Ann Hsiung</i>	
Detection of Malware Using Machine Learning Techniques on Random Forest, Decision Tree, KNeighbour, AdaBoost, SGD, ExtraTrees and GaussianNB Classifier .....	1599
<i>Kanwarpartap Singh Gill, Vatsala Anand, Rupesh Gupta, Pao-Ann Hsiung</i>	
Transfer Learning and Feature Extraction of Chest X-Ray Images for Deep Convolutional Neural Network (CNN)- Based Pneumonia Detection.....	1606
<i>Kanwarpartap Singh Gill, Vatsala Anand, Rupesh Gupta</i>	
Development of Spell Corrector Model for Phrases.....	1613
<i>Rahul Chauhan, Tanu Negi, Chandradeep Bhatt</i>	
Internet of Things (IoT): Resilience as a Key Parameter in Security Management.....	1619
<i>S. Guru Prasad, M.K. Badrinarayanan, V. Ceromani Sharmila</i>	
Dual-Band Microstrip Fork Shaped Terahertz Antenna for Short Range Wireless Application .....	1625
<i>Ratikanta Sahoo, G.R.L.V.N Srinivasa Raju</i>	

Computer Vision and Voice Assisted Image Captioning Framework for Visually Impaired Individuals Using Deep Learning Approach .....	1629
<i>K M Safiya, R Pandian</i>	
A Systematic Study of Challenges in Cervical Cytology Image Segmentation of Intelligence Based Cervical Cancer Screening .....	1636
<i>P M Anu, C Lakshmi</i>	
Design and Deployment of Computer Vision Based Smart Patrolling Robot Using UP Squared Board .....	1643
<i>John Babu Bale, N. Manoj Reddy, N. Naziya Thabasum, S. Bhargavi, M. Nithya</i>	
An Innovative Approach for Delivering Food and Grocery .....	1649
<i>Chidananada, C. K. Srinivasa, P Panirama Prasad</i>	
Harnessing ML and DL for Stock Market Analysis: A Tableau Forecasting Perspective.....	1655
<i>Abhishek Singh, Mohammed Mehtab Afsar, Adithya Sharm, Trupthi Rao, Ashwini Kodip, B R Rohini</i>	
Analysis of Mental Health of a Young Adult: Post Covid Using Fuzzy TOPSIS & Fuzzy AHP .....	1660
<i>Chandana Uttarkar, Chalana B Arun, Anusha M, Khushi N, Ashwini Kodipalli, Trupthi Rao</i>	
Fabrication of SnS <sub>2</sub> Nanomesh Based Energy Efficient NO <sub>2</sub> Gas Sensor Using CVD .....	1667
<i>Shreerupa Biswas, Sapana Ranwa</i>	
Expense Management System.....	1672
<i>Era Johri, Parth Desai, Paarth Soni, Hardik Jain, Nirmit Sanganneria</i>	
Performance Analysis of RS-Coded UOWC System Under Gamma-Gamma Fading Channels for IoT Applications .....	1678
<i>Dushyant Singh Chauhan, Gurjot Kaur, Dinesh Kumar</i>	
Lumpy Skin Disease Prediction Using Machine Learning.....	1683
<i>D. H. Patil, Mahesh Pawar, Mukesh Jaiswal, Prasad Rane, Sandesh Jagtap</i>	
Revenue Analysis of Cooperation of Battery Storage and Wind Power to Provide Frequency Regulation in the Energy Market.....	1688
<i>Hasan Huseyin Coban, Mohit Bajaj, Arul Rajagopalan, Dhivya Swaminathan, Adel Oubelaid</i>	
Using AI and Kinetic Energy to Charge Mobile Devices with Human Movement .....	1695
<i>Nachaat Mohamed, Adel Oubelaid, Mohit Bajaj, Meenakshi Kandpal, Mohamed Metwally Mahmoud</i>	
Continuous Wavelet Transform Based Visualization of Transient and Short Duration Voltage Variations.....	1701
<i>M. S. Priyadarshini, D. Krishna, M. Bhaskara Reddy, Ankit Bhatt, Mohit Bajaj, Mohamed Metwally Mahmoud</i>	
IoT Platform-Based Prototype Model of an Adaptive and Intelligent Traffic Lighting System.....	1707
<i>M.S. Priyadarshini, Annareddy Sravani, Saikat Gochhait, Ankit Bhatt, Mohit Bajaj, Mohamed Metwally Mahmoud</i>	
Named Entity Recognition on Medical Text by Using Deep Nueral Networks .....	1713
<i>B. VeerasekharReddy, Venkata Nagaraju Thatha, Narasimha Swamy Biyyapu, J Satya Venu Gopala Krishna, Ajith Sundaram, Daria Sandeep</i>	

GAN and CNN Model for Generation of Synthetic Medical Images and Classification .....	1718
<i>Vrushali Kulkarni, Pranali Kosamkar, Rituja Shinde</i>	
A Novel Hybrid Compression Scheme for Lossless Gray Scale Image Compression .....	1725
<i>Vishwanath S. Kamatar, Vishwanath P. Baligar</i>	
Study and Analysis of Real-Time Video Streaming Over SDN .....	1732
<i>Pradeep Surasura, Shobha Hiremath, Swati Sajan, Vishwanath Kamatar</i>	
An Efficient Model for Plant Disease Detection in Agriculture Using Deep Learning Approaches .....	1739
<i>Puneeth N. Thotad, Shanta Kallur, Anupama Nandeppanavar</i>	
Mental Health Tracker Using Machine Learning Approaches .....	1745
<i>Puneeth N. Thotad, Shanta Kallur, Laxmi Mundaragi, Swati H. Kadam</i>	
Design, Simulation and Performance Analysis of S-Band Microstrip Patch Antenna for Wireless Applications.....	1750
<i>Md. Sohel Rana, Sanjay Kumar Joy, Md. Jubaer Nazmul, Md. Soriful Islam Sourav, Md. Jakaria Hassan, Md. Naheen Khurshid, Sheikh Md. Rabiu Islam</i>	
A Deep Learning-Based Fine-tuned Convolutional Neural Network Model for Plant Leaf Disease Detection .....	1755
<i>Gurpreet Singh, Kalpana Guleria, Shagun Sharma</i>	
Identification and Classification of Medicinal Leaves and Their Medicinal Values .....	1761
<i>Girish Saunshi, Shridhar Chini, Prerana Ganvatkar, Rahul Nayak</i>	
Performance Based Features for Classification of Cancer Using Images of Breast Mass Through Fine Needle Aspirate .....	1765
<i>Kumar Swamy V, A. M. Anusha</i>	
Smartphone Sensor-Based Road Health Monitoring and Classification for Rural Roads: A Case Study of Punjab and Haryana States in India .....	1770
<i>Divya Soni, Ramakant Kumar, Pravin Kumar, Naina Yadav</i>	
Multi-Modal Image Fusion Techniques to Detect Brain Tumor Using YOLO Technology .....	1774
<i>Nikhil Ravichandran, S M Sridevi, A. Mohanbabu</i>	
Optimizing Resource Allocation Using Proactive Predictive Analytics and ML-Driven Dynamic VM Placement.....	1781
<i>Utpal Chandra De, Rabinarayan Satapathy, Sudhansu Shekhar Patra</i>	
Utilizing the Inception-ResNetV2 Pre-trained Model for Binary Classification of Leukemia Cells: An Advanced Approach to Hematological Diagnostics.....	1786
<i>Gunjan Sharma, Vatsala Anand, Sheifali Gupta</i>	
Performance Evaluation of Adder Architectures for Vedic Multiplier Implementation .....	1792
<i>S. Dhanasekar, A. Merlin Anitha, M. Karunaya, K. Kavya Shree, S. Kalaivanan, V. Govindaraj</i>	
Parkinson's Disease Diagnosis Using Supervised Machine Learning Techniques .....	1798
<i>Shikha Prasher, Leema Nelson, Vasantha Sandhya</i>	
Community Pneumonia and Covid-19 Detection Based on VGG-16 Model Using Chest X-ray Images .....	1804
<i>Shikha Prasher, Leema Nelson, Dinesh Kumar</i>	

Enhancing Traffic Engineering Policy in SDN Addressing TCAM Limitations Using Bloom Filters.....	1808
<i>Akash Ghosh, Lalbhabhi Barik, Suchismita Rout, Bhupender Singh Rawat, Prakash Chandra Jena, Sudhansu Shekhar Patra</i>	
Data and Knowledge Engineering for Legal Precedents Using First-Order Predicate Logic.....	1814
<i>Mohammad Nazmul Alam, Md. Shahin Kabir, Arun Verma</i>	
G-Mail Spam Detection Using Natural Language Processing .....	1822
<i>Abhishek Jain, Harsh Goel, Kireet Joshi, Vishan Kumar Gupta, Anurag Shukla, Paras Jain</i>	
High Performance Design of Single Edge Triggered Johnson Counter.....	1828
<i>Imran Ahmed Khan, Owais Ahmad Shah, Devesh Tiwari, Prashant Kumar Mavi, Arjit Tomar, Anupam Yadav</i>	
Sentiment Analysis on IMDB Movie Reviews Using VADER with Lexical Affinity and Semantic Sentiment Expansion.....	1833
<i>Joshua Dsouza</i>	
Sentiment Analysis of Reviews Using Nature Inspired Algorithm.....	1840
<i>Abinash Tripathy, Utpal Chandra De, Bibhuti Bhushan Dash, Sudhansu Shekhar Patra, Binod Kumar Pattanayak, Trilok Nath Pandey</i>	
A CNN and Multi-Head Attention-Based Deep Learning Network for Trajectory Prediction of Autonomous Vehicles on Multi-Lane Highways.....	1845
<i>Omveer Sharma, Suryalok Dash, Manas Ranjan Sial</i>	
Anti-Toppling System for Heavy Vehicles .....	1851
<i>Atharva G. Jadhav, Madhuri Barhate, Atharva A. Jadhav, Chaitanya Jadhav, Daksh Jadhav, Digvijay Jadhav</i>	
Enhancing Texture Classification Through GLCM and LBP Feature Extraction with Modified PCA Dimensionality Reduction .....	1856
<i>Supriya Bagewadi, Sachinkumar Veerashetty</i>	

#### **Author Index**