

2024 International Conference on Emerging Smart Computing and Informatics (ESCI 2024)

**Pune, India
5-7 March 2024**

Pages 1-539



**IEEE Catalog Number: CFP24U97-POD
ISBN: 979-8-3503-0662-0**

**Copyright © 2024 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:	CFP24U97-POD
ISBN (Print-On-Demand):	979-8-3503-0662-0
ISBN (Online):	979-8-3503-0661-3

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

TABLE OF CONTENTS

LPG Transport Tracking and Leakage Detection with Accident Prevention Alert System.....	1
<i>Puja Chavan Cholke, Roshani Tighare, Shreya Datir, Janhavi Tiwari, Raj Shishupal, Atharva Tandel</i>	
Advanced Driver Assistance System(ADAS).....	9
<i>S M Sangve, Manas Kulkarni, Khushboo Chawade, Gaurav Marathe, Parmeshvar Pawar</i>	
ONU: A Reinforcement Load Balancing Approach for Resource-Aware Task Allocation in Distributed Systems.....	15
<i>Minal Shahakar, S. A. Mahajan, Lalit Patil</i>	
Reducing Gender and Ethnicity Bias in Personality Trait Prediction.....	21
<i>Sarika Singh, Yash Shah, Yug Vajani, Anand Godbole</i>	
Criminal Recognition System.....	30
<i>Yashal Railkar, Sakshi Pawar, Rohini Pise, Aditi Nasikkar, Pranjal Patil</i>	
Real-Time Data Visualization for the IOT Application Using Tableau Platform	36
<i>P. C. Latane, P. A. Dhakate, V. S. Ubale, D. S. Mantri</i>	
Exploring Hand Gesture Recognition Techniques for Enhanced Control of Bionic Hands	41
<i>Amol Pandurang Yadav, S. R. Patil</i>	
Advancements in Image Caption Bots: A Deep Learning Approach.....	46
<i>Adarsh Dabral, Raj Gusain, Sushant Shekhar, Anurag Vidyarthi, Rishi Prakash, R. Gowri</i>	
Yoga Pose Recognition Using Deep Learning.....	51
<i>Prachi Kulkarni, Shailesh Gawai, Siddhi Bhabad, Abhilasha Patil, Shraddha Choudhari</i>	
Integrated Healthcare System for Saline Monitoring, Patient Communication, and Heart Disease Prediction Using IoT and Machine Learning Algorithms.....	57
<i>Amruta Amune, Shraddha Chavanke, Shushwet Joshi, Shubham Kuttarmare, Shubham Kathane</i>	
Intelligent Override Adaptive Traffic Signal Controller.....	63
<i>Hemant Jeevan Magadum, Benoygopal E B, Satheesh G, Abhilash M</i>	
Sign Language Gestures Recognition Using CNN and Inception V3	67
<i>Shruti Kankariya, Kanak Thakre, Urvi Solanki, Sneha Mali, Abhishek Chunawale</i>	
Comparative Analysis of Machine Learning and Deep Learning Approaches for Multiclass Identification and Classification of Alzheimer's Disease	73
<i>Swati Shinde, Devyani Badwaik, Shruti Mane</i>	
Quantum Inspired Image Classification: A Hybrid SVM Framework.....	79
<i>Heet Patel, Sneha Kamthekar, Dinesh Prajapati, Richa Agarwal</i>	
Road Surface Data Acquisition and Monitoring System	86
<i>Prathamesh Deshpande, Mayuresh Dharwadkar, Vedant Dhole, Tejas Gambhir, Abha Marathe</i>	
Examine the Incorporation of Integration of Imaging Data for Orthodontic Prediction	92
<i>A Ramyaalakshmi, S Poonguzhali</i>	

Defect Inspection of Coated CFRP Structural Based on Microwave Split Ring Resonator	100
<i>Sagar B Pokharkar, Kanchan S Tiwari</i>	
Design and Development of Low Cost IoT Based Energy Optimising Meter for Home Application.....	105
<i>Anil Kadu, Viraj Jadhav, Sanjyot Sugandhe, Rajeshwari Kul, Pranav Shelke, Piyush Kumbhakern, Aneesh Bauskar</i>	
Innovative Attendance Tracking: Facial Recognition.....	111
<i>Madhuri Barhate, Ishita Ramdasi, Ishaq Shaikh, Vishwaraj Ingawale, Pradnya Ingle, Prasad Ingle, Mahesh Jadhao</i>	
Contactless Heart Rate Detection Using Eulerian Video Magnification	117
<i>Pulkit Agarwal, Nischay Mishra, Achala Deshmukh, Sarika Patil</i>	
Development of LiFi System for Communication and Control in Hilly Regions	122
<i>Adarsh Dabral, Raj Gusain, Anurag Vidyarthi, Rishi Prakash, R. Gowri</i>	
Decentralized Storage Security: A Blockchain-Driven Solution	127
<i>Rohini Pise, Iqra Khan, Geetika Rawal, Sonali Patil</i>	
SkyStrokes: Bridging Artistic Expression and Communication Barriers Through Aerial Digital Canvas	132
<i>Harikrishna Bommala, Raman Sivekha, Orra Venkata Srikanth Reddy, Neerati Shiva Kumar, Sai Kiran Rokati</i>	
Accurate Medicine Recognition and Audio Conversion for Handwritten Prescriptions	138
<i>Sania Ravindra Edlabadkar, Pranjali P. Joshi</i>	
Safe Count: A Two-Step Verification Based Voting System.....	144
<i>Shashwat Chavan, Tanmay Darekar, Nayan Chavhan, Yash Deore, Ranjeetsingh Suryawanshi</i>	
Precision Diagnosis of Wheat Powdery Mildew Using CNN and Random Forest	150
<i>Deepak Banerjee, Vinay Kukreja, Nisha Chandran S., Khushboo, Navin Garg</i>	
Enhancing Rice Leaf Disease Classification: A CNN-SVM Approach.....	156
<i>Deepak Banerjee, Vinay Kukreja, Prateek Srivastava, Abhishek Bhattacharjee, Kireet Joshi</i>	
ICode - An Unified Competitive Coding Profile Platform	162
<i>Saurav Muke, Samruddhi Ahire, Geetanjali Kale, Pranali Navghare</i>	
Comparative Analysis of Outlier Elimination Algorithms on Pulsar Stars Dataset.....	167
<i>Tejaswini Katale, Waidehi Gautam, Aakash Chotrani, Aishwarya Katale, Parikshit N. Mahalle, Gitanjali R. Shinde</i>	
A Comparative Study on Emotion Analysis Using Transfer Learning	173
<i>Saranyaraj D, Pavitra Arcot</i>	
Identification of Sign Language Alphabets on Static Images Using Deep Learning.....	179
<i>Bipin Bihari Jayasingh, Sumitra Mallick</i>	
Brain Tumor Detection Using Deep Learning(CNN).....	185
<i>Yuvraj Patare, Sanket Yadav, Rupesh Pingale, Kavitha S</i>	
Long Short-Term Memory-Based Next Keyword Prediction.....	190
<i>Rajkumar. K, Karthikeyan. S, U. Hariharan</i>	

Time Series Forecast with Stock's Price Candlestick Patterns and Sequence Similarities	195
<i>Harmanjeet Singh, Chhavi Sharma, Vikas Attri, Supreet Singh</i>	
Analysis of Hyper-Threading Technology Using On-Die Performance Monitoring Counters.....	201
<i>Saurabh Pandey, Ashwini Rana, Vivek Tovinakere</i>	
ANN Based Approach for Electricity Theft Detection in Single Phase Energy Meters	207
<i>Priya Gokhale, Shashikant Bakre, Suchita Ingle</i>	
Prediction of Diabetes Mellitus Disease Using Supervised Machine Learning Models.....	212
<i>Bhawmesh Kumar, Harendra Singh Negi, Sushil Chandra Dimri, Divyanshi Rana</i>	
Application of YoloV5 for Brain Tumor Detection from MRI.....	217
<i>Ganesh Jayprakash Jagtap, Prasadu Peddi, Yogita Deepak Sinkar</i>	
Enhancing Swipe Typing with Gated Linear Transformer	222
<i>Ni Jia, Ying Zhang, Qing Wu</i>	
Stability and Control of RT-VCM Employed for Moving Mirror Control in FTIR Spectroscopy Using FOPID Controller.....	228
<i>Poulomi Chatterjee, Jayati Dey</i>	
Sentiment Analysis from Reviewer's Comments from E-Commerce Sites Using a Natural Language Processing.....	235
<i>Kovvuri Siva Kumar Reddy, Pandiselvam Pandiyarajan, Padmaraju Sreenivasulu, Veparala Devendra, Vootkuri Shivani Reddy, Baskaran Maheswaran</i>	
Comprehensive Exploration of the Role of Graph Databases Like Neo4j in Cyber Security	242
<i>Pratima M. Bhalekar, Jatinderkumar R. Saini</i>	
FireLens: A Deep Learning Solution for Wildfire Identification.....	246
<i>Shital Pawar, Parag Salunkhe, Sarthak Jaybhay</i>	
Utilizing Bayesian Networks to Augment Decision-Making for Dengue Outbreak Response in Public Health Systems.....	252
<i>Mousumi Karmakar, Subhajit Bhattacharyya</i>	
IoT Based Real Time Drainage Monitoring System.....	257
<i>Vikram S. Gawali, Milind Pande, Munir Sayyad, Raghunath S. Bhadade</i>	
Camera and LiDAR Integration for Lane-Following and Obstacle Avoidance in Self-Driving Cars.....	263
<i>Praveen Mounabhargav, Anurag, Pooja Agrawal</i>	
Distributed MQTT Broker: A Load-Balanced Redis-Based Architecture	269
<i>Rohan Doshi, Sanika Inamdar, Tanmay Karmarkar, Madhuri Wakode</i>	
MDLGO: Integrated Multimodal Deep Learning Framework for Enhanced Precision in Glaucoma Diagnosis Using OCT A-Scans	275
<i>Rupesh Goverdhan Mundada, Devesh D. Nawgaje</i>	
Fake Review Detection Using Neural Network	282
<i>Prathmesh Sikchi, Shital Jagtap, Jyoti Kundale</i>	
Number Plate Recognition Using OpenCV.....	288
<i>R. Roopa Chandrika, K Vanitha, Aafiya Thahaseen, Chandramma R, Vikram Neerugatti, Mahesh T R</i>	

Deep Learning Based Foreign Object Debris (FOD) Detection on Runway.....	292
<i>Alka Kumari, Abhishek Dixit, Pooja Agrawal</i>	
Image Enhancement Using Tri-Histogram Equalization Technique.....	298
<i>Upendra Kumar Acharya, Ameer Faisal, Manglesh Singh, Ritika Yadav, Upanshu Goswami</i>	
Firefly-Driven Feature Selection for Enhanced DDoS Detection in IoT Networks	304
<i>Mohith Suggala, Seetha Hari, Seshu Bhavani Mallampati</i>	
A Video Steganography Approach with Randomization Algorithm Using Image and Audio Steganography.....	310
<i>Geetanjali Kale, Atharva Joshi, Ishaan Shukla, Abhishek Bhosale</i>	
Human Pose Estimation Techniquesfor Yoga and Kavayat(drill): A Yardstick Analysis.....	315
<i>Babanne Vanita Sharad, Pankaj M. Agarkar, Nirja Jain, Ashlesha Sawant</i>	
An Innovative Way to Increase the Speed and Efficiency of Reverse Mapping of Elliptic Curve Points.....	320
<i>Ryan Saptarshi Ray, Debendranath Das, Aritro Sengupta, Pankaj Kumar, Arun Kumar Sahani</i>	
A Study of Weed Management in Agricultural Plants Using IoT and Machine Learning	327
<i>Subodh Kakade, Poonam Pawar, Devata Anekar, Yash Patil, Samadhan Rathod, Fiyona Shah</i>	
Human Disease Prediction Using Machine Learning.....	333
<i>Vijay Mane, Mohinee Jadhav, Ishita Kadam</i>	
Software Defect Prediction by Logistic Regression with Gradient Descent Cost Computation	339
<i>Ranjeetsingh Suryawanshi, Amol Kadam</i>	
Unmasking Disinformation: Detection of Fake News Online Using Learning Techniques	344
<i>Numair Shaikh, Pallavi Petkar, Sheetal Sonawane</i>	
Evolution of Methodologies and Comparative Analysis of Different Development Paradigms	350
<i>Abdellah Amine, Rachid Ait Daoud, Said Adbi, Fatiha Ait Yacine</i>	
AI-Powered Automated Wheelchair with Lane Detection	355
<i>Abiraj B, Sethuraman K, Bethanney Janney J, P Grace Kanmani Prince, T. Sudhakar, Ezekiel Jebaraj S</i>	
Machine Learning Based Crop Recommendation Model in Precision Agriculture.....	360
<i>Tanima Bhowmik, Debajyoti Mitra, Pratyusha Chatterjee</i>	
Deep Transfer Learning Based Diagnosis of Multiple Neurodegenerative Disorders.....	366
<i>Rakesh Kumar Mahendran, R Aishwarya, R Abinayapriya, P Kumar</i>	
Multi-Modal Visual Features Perception Technology for Internet of Vehicles (IoV).....	370
<i>Rakesh Kumar Mahendran, Abirami Thiyagarajan, Angelin Gracia A, Kumar P</i>	
AI-Optimized Eco-Charge Regeneration Technology in EV.....	375
<i>R Sheeja, R Akshaya, S Akshaya, D R Jashwanthikaa</i>	
Smart Survival Lance System for Visually Impaired Person.....	380
<i>Amruta Pisal Deshmukh, Rehan Lukade, Sanket Pawar, Pallavi Tekade, Dipmala Salunke, Sonali Rangdale</i>	
Bidirectional Sign Language Assistant with MediaPipe Integration	384
<i>Shital Pawar, Yashashree Shastri, Syeda Zarah Aiman</i>	

Recognition of Critical Built-Up Areas Located on High Hill-Slope Regions Using Spatial Data Mining Technique.....	392
<i>Kodge B. G</i>	
Efficacy of an Augmented Reality Application for Enhanced Learning of 3D Geometric Shapes	397
<i>Kishan Poddar, Deepak, Manisha Pathania, Chander Partap Singh</i>	
With You - Indian Sign Language Detection and Alert System.....	403
<i>Shreya Daga, Atharva Dusane, Dyuti Bobby</i>	
VGG16-PotatoGuard: A Deep Learning Approach to Detecting Leaf Diseases in Potatoes	408
<i>Tanvi Kaur Sasan, Jaspreet Kaur Monga, Jasdeep Kaur, Jasneet Chawla</i>	
Ingenious Waste Management: Implementing Machine Learning in Waste Segregation.....	414
<i>Asha V, B Nithya, Govindaraj M, Brunda T M, Ashwini Hiremath, B Jayaprakash</i>	
An Investigation on the Level of Customer Satisfaction with E-Banking Services with a Special Focus on the Delhi - NCR Region.....	419
<i>Tanushree Sanwal, Ankita Sharma, Sandhya Avasthi, Meenakshi Tyagi, Rachita Sharma, Shenki Tyagi</i>	
Security Camera with Frame Detection.....	425
<i>Manjinder Kaur, Priyanka Behki, Amanpreet Kaur, Ameena Naaz, Radha, Pranav Mehta</i>	
Machine Learning Based IPL Fantasy Cricket Dream11 Best Team Prediction	430
<i>Mangesh Balpande, Kalparatna Mahajan, Jayesh Bhandarkar, Bhushan Kapadne, Gaurav Borse</i>	
Steganography in the Quantum Era.....	436
<i>Aksaj Kumar Bharatwaj, Amey R Hasabnis</i>	
Localization of Dengue Virus Likelihood Using Image Processing Technique	441
<i>Md. Mahbub Hosen, Md. Rahatul Islam, Faria Tabassum, Syeda Thamina Tonni, Malik Mohammad Nafiur Noor, Shahid Rahman</i>	
Role of Non Fungible Tokens in Transforming Academic Credentials for Trust and Transparency	448
<i>Girish R. Naik, Poornima G. Naik</i>	
Game Theory-Based Fastest Route Plan Method for Transportation Network Applications	457
<i>Zheng-Tan Liu, Ling Wu, Chi-Hua Chen</i>	
Neuro-Cognitive Pattern Recognition: Advancements in Memory-Related Disorders Identification.....	463
<i>Vifert Jenuben Daniel. V, Archanaa. N, Mohammed Faheem, Kousihik. K, Suwin Kumar. J. D. T, M. Muthulakshmi</i>	
A Novel Approach for Channel Assignment Using Optimization Technique in Wireless Networks.....	469
<i>Sheenam, Raman Chadha</i>	
CTC-CNN-Bidirectional LSTM Based Lip Reading System.....	474
<i>Swati Shilaskar, Harsh Iramani</i>	
Machine Learning Based Water Requirement Prediction for Agriculture Before a Rainfall.....	480
<i>Paurav Goel, Vikas Wasson, Inderkiran Singh, Anoop Kaur, Ankitaa Pupneja, Aditya Nipahde</i>	
Optimized Vedic Multiplier Using 3nm Nanosheet Technology	487
<i>Swati S. Shetkar, Sanjay Koli</i>	

Usability - A Key to Security and Utility: Case of Core Banking System.....	491
<i>Arati Sameer Nimgaonkar, Rajendra Kumbhar</i>	
EcoSprout: Machine Learning-Powered Smart Sprinkler System.....	497
<i>Sai Nithin Reddy Gottam, Bhargav Prajwal Pathri, Krishna Vamshi Ganduri, Tulasi Lalitendra Venkata Prasanna Sathwik, Samanthula Thatwik Reddy, Varanasi Vaishnavi</i>	
A Machine Learning Enabled Approach for Mental and Physical Health Management Using OpenCV, NLP and IOT.....	504
<i>Milind Rane, Raj Khanke, Kunal Kharat, Kanad Kolhe, Rushikesh Mane, Jainil Vaidya</i>	
Machine Learning in Agriculture: A Land Data Approach to Optimize Crop Choice with the LAGNet Model.....	512
<i>C. Bala Kamatchi, A. Muthukumaravel</i>	
Adaptable System for Protecting Inhabitants	518
<i>Calin Ciufudean, Corneliu Buzduga</i>	
CDBO_DenseNet: CAViaR Dung Beetle Optimization Enabled Deep Learning for Diabetic Retinopathy Classification.....	523
<i>Vidya Sagvekar, Manjusha Joshi, Minu Ramakrishnan, Ajay Dudani</i>	
A Novel Natural Language Processing Based Model for Plagiarism Detection.....	529
<i>Rahul Patil, Vaibhavi Kadam, Roshan Nakate, Sanjay Kadam, Suraj Pattade, Mihir Mitkari</i>	
Vision-Based Humanoid Robotic Palm for Amputee Person Using Deep Learning	534
<i>Swati Shilaskar, Shripad Bhatlawande, Sandesh Bagmare, Prem Shejole</i>	
AI LipReader-Transcribing Speech from Lip Movements	540
<i>D Ajitha, Disha Dutta, Falguni Saha, Parus Giri, Rohan Kant</i>	
Water Resource Optimization by Using a Hyper Parameter Tuned LSTM of a Smart Agriculture	546
<i>Jagtap Sharad Sarjerao, G. Sudhagar</i>	
SensorNet-Cipher: A Lightweight Protocol for Security in Resource-Limited Networks.....	557
<i>B. Neeharika Gangothri, Krishna Prasad Satamraju, B. Malarkodi</i>	
Development of Code-Mixed Marathi-English Dataset for Hate Speech Detection	562
<i>Prasad Joshi, Varsha Pathak</i>	
Mask Attention-Based Vision Transformer (MA-ViT) for PCB Defect Detection.....	567
<i>Jahid Hasan, Ummey Habiba Tamanna, Habiba Akter Rimi, Shamim Akhter</i>	
A Paradigm Shift in Ethereum Network Analysis Through Google BigQuery,Portation, and Visualization.....	573
<i>N. Suresh Kumar, S. Mirdula, Pushpa Singh, T Gayathri, Jayanthi S, Anandraj M</i>	
GIS-GNSS Integrated Cost Efficient Static Monitoring System	580
<i>Prity Mishra, S Mahato, Subhadip Ghorui, Anindya Bose</i>	
Advancements in Healthcare: Predictive Modeling for Early Disease Diagnosis and Patient Record Management	586
<i>Renu Kachhoria, Prithviraj Raut, Amar Buchade</i>	
Sign Language to Text Translation Using Convolutional Neural Network	592
<i>Trivedi Devarsh Gunvantray, T Ananthan</i>	

Enhancement of Network Security in MANET Using Refined Adaptive Harris Hawks Optimization Algorithm (RAHHO) for IoT Applications	597
<i>P. Satyanarayana, Umar Bashir Sofi, Bisma Farooq Ahmed, N. Naga Saranya, G. V. S. Padma Rao, V. Gokula Krishnan</i>	
Utilizing Deep Belief Networks for Consumer Behaviour Analysis in Retail Management.....	602
<i>Anna Gustina Zainal, Rekha Murugan, Wulan Suciska, Bartoven Vivit Nurdin, Nanang Trenggono, B Kiran Bala</i>	
Efficient Feature Extraction and Segmentation Methods Used in Tuberculosis Detection	608
<i>Emil. M. Paul, G. Jayahari Prabhu, B. Perumal, T Senthil, M Suresh Chinnathampy, T Jarin</i>	
Ecological Surveillance and Crisis Management: Early Forest Fire Prediction and Endangered Species Identification	613
<i>Ashok K, Pratik Chatterjee, Aman Kumar Jha, Akshay Herle, Shaksham Gupta, Saumyadeep Das</i>	
Performance Analysis of Velostat, Conductive Fabric and Force Sensing Resistor for Incorporating Safety in Women's Jacket	618
<i>Suthagar S, Shriganth Ra, Subash S, Vasanth M</i>	
Classification of Malware Families Using Transformers and Auto Formers in Deep Learning.....	625
<i>T. Deepthi, Sk. Tasleema Kulsum, K. Supritha, M. Bhargavi, L. Vineela</i>	
Advancements in Quantum Error Mitigation Strategies for Reliable Quantum Computing on IBM Simulators.....	630
<i>L Sherin Beevi, P. M. Joe Prathap, Sudhish Reddy D, Agnes Joshy S, W Vinil Dani</i>	
Smart Agriculture System Using Internet of Things (IoT) and Machine Learning	636
<i>Nitipriya Anand, Harsh Pundir, Kapil Singh, Kartik Singh Bisht, Rahul Chauhan, Akanksha Kapruwan</i>	
Soil-Borne Pathogens Management in Cloud-Connected Agriculture: An IoT and Decision Tree Algorithmic Approach.....	643
<i>S. S. Shireshi, Ramakrishnan Raman</i>	
Early Disease Detection in Wildlife by Analysing Behavior and Weather Conditions Using Image Processing and Deep Learning	648
<i>Premanand P. Ghadekar, Yash Pramod Gaikwad, Ajinkya Ghansham Ghusarkar, Girish Anil Nikam, Sourabh Bholanath Shintre, Atharva Rajesh Thokal</i>	
Applying Transformer-Based Neural Networks to Corpus Linguistic Data for Predictive Text Generation in Multilingual Environments.....	654
<i>Taufikin, Myagmarsuren Orosoo, Manikandan Rengarajan, Gulnaz Fatma, Dilyorjon Yuldashev, I Infant Raj</i>	
Effect of Monetary Policy Instruments on Economic Growth: An Ordinary Least Square Approach	660
<i>Uttam Barua, Pawan Pant, Md. Motahar Hossain</i>	
Automated Detection of Dysgraphia Symptoms in Primary and Middle School Children	666
<i>Tushar B T, Umang Goel, Varun Urs Ms, Vinay Kulkarni, Kavitha Sooda</i>	
FashionVLM - Fashion Captioning Using Pretrained Vision Transformer and Large Language Model	671
<i>Gaurika Gupta Computer Science, Pritam Shete Computer Division</i>	

Analysis of Pre-Trained CNN Models for Pepper and Potato Leaf Disease Prediction	676
<i>V. Umarani, S. Thirisaa</i>	
Graph Based Analysis Technique for Identification of Key Functionalities in Malicious IoT Binaries.....	681
<i>Mahesh U. Patil, Shailaja C. Patil, Santosh C. Wagaj</i>	
Synergizing SVM Classifier with Hybrid CNN Architecture for Handwritten Recognition.....	689
<i>V. Sujay, B. Seetha Lakshmi, T. Venkatesan, S Sakthiya Ram, E. Sangeetha, S. Satheeshkumar</i>	
Investigation of Methods to Improve the Performance of Frequency Reconfigurable Antenna for Future Wireless Communication	694
<i>Vinaya Deshmukh, Suvarna Chorage</i>	
Modelling and Simulation-Based Design Approach to Assisted and Automated Driving Systems Development	699
<i>Shivaji Thorat, Ramesh Pawase, Balasaheb Agarkar</i>	
Hash Based Secure and Efficient Scaling Approach for Detecting the Diabetic Retinopathy Disorder	707
<i>Naga Venkata Rishika. G, Mukesh. Ch, Rupa. Ch, Akhil Babu. N</i>	
CNN and ANN Based Tool Condition Monitoring in Gear Machining Using Audio and Vibration Signals Via Cost Effective Sensors.....	713
<i>Jathursajan Kanakasuntharam, Akila Wijethunge</i>	
A Meta-Learner-Integrated Stacking Voting Ensemble Network for Cervical Malignancy Classification	719
<i>Kanchan V. Wankhade, Mayuresh Gulame, Priya Khune, Aarati Pimpalkar, Sneha Singha, Mohini Kumbhar</i>	
Optimisation of Anomaly Detection in Video Processing Using Efficient Feature Engineering.....	724
<i>Varaun Gandhi, Stavan Shah, Miloni Shah, Aryan Mehta, Kriti Srivastava</i>	
Partitions of Liver Cancer by Enhanced Feature Extraction and Mapping with Improved Transfer Developing Methods	730
<i>Aarti P. Pimpalkar, Nilesh N. Thorat, Mayuresh B. Gulame, Deepali A. Lokare, Nilesh Kulal, Priya Khune</i>	
Advancements in Power System Stability: FOPID Control Optimization Using Harris Hawk Algorithms in SMIB Systems.....	735
<i>Yogesh Kalidas Kirange, Pragya Nema</i>	
Efficiency Comparison of Dataset Generated by LLMs Using Machine Learning Algorithms	741
<i>Premraj Pawade, Mohit Kulkarni, Shreya Naik, Aditya Raut, K. S. Wagh</i>	
Accurate Semantic Segmentation of Aerial Imagery Using Attention Res U-Net Architecture	747
<i>Nagamani Gonthina, Saikumar Adunuri, Rishindra Mateti, Sai Sudeep Allampalli, L V Narasimha Prasad</i>	
Identification of Nutrient Deficiency Based on Leaf Image Data Using Machine Learning.....	752
<i>Kavitha S</i>	
Face Recognition Based on Fusion Feature Extraction Algorithms	757
<i>Ibrahim Mahmood Rashid Albakri, Muhammad Imran Ahmad, Mohd Nazrin Md Isa, Mustafa Zuhaer Nayef Al-Dabagh</i>	

Real-Time Injury Risk Assessment in Athletes Based on Relative Joint Angles.....	762
<i>Atharv Salian, Bhuvi Ghosh, Harsh Shetye, Parth Kapadia, Kriti Srivastava</i>	
Unusual Human Behavior Analysis Using the Deep Learning.....	768
<i>Megha G. Pallewar, Vijaya R. Pawar, Arun N. Gaikwad</i>	
Facial Video Analytics: An Intelligent Approach to Heart Rate Estimation Using AI Framework	773
<i>Minal C. Toley, Raj Gaurav Mishra, Vishal Shirsath</i>	
Prediction of Human Emotions Based on Speech Recognition System	780
<i>Ajay Pal Singh, Parvez Rahi, Nirmalya Basu</i>	
IoT Image Security Using DNA Technique.....	785
<i>Shaik Sajeera Begum, Purushotham Muniganti</i>	
SE-VGG16 MaizeNet: Maize Disease Classification Using Deep Learning and Squeeze and Excitation Attention Networks	791
<i>Abu Sayem Md. Siam, Abir Hossain, Rifat Bin Hossain, Md. Musfiqur Rahman</i>	
Agrobot for Inter-Row and Intra-Row Weeding.....	797
<i>Mugdha Jog, Sudhir Agashe</i>	
Re-Cognition I: An Inspection of Learner's Cognitive Well-Being, Pursuant to Contemporary Period, Facilitates the Academic Life Cycle.....	801
<i>Souvik Ganguly, Kailash Pati Mandal, Debasis Guha</i>	
Enhancing Stock Price Prediction with MACD and EMA Features Using LSTM Algorithm	807
<i>Rahul Maruti Dhokane, Sohit Agarwal</i>	
Towards the Development of an Automated Pipeline for Cilia Detection.....	813
<i>Aneesh Mazumder, Anirudh Mazumder</i>	
Accurate Classification of Tessellated Retinal Disease with Deep Learning Model.....	818
<i>Kachi Anvesh, Bharati M Reshmi</i>	
Analyzing the Impact of Uncertainties with Fuzzy Logic on Service Composition in Smart Agriculture.....	824
<i>Shalini Sharma, Rajiv Kumar, Bhupendra Kumar Pathak</i>	
Minutes of Meeting Generation for Online Meetings Using NLP & ML Techniques.....	829
<i>Renu Kachhoria, Netal Daga, Himanshu Ramteke, Yash Akotkar, Samarth Ghule</i>	
Blockchain Revolution: A New Horizon for Supply Chain Management in Hotel Industry.....	835
<i>Somesh Kadam, Rutwik Senta, Rahul Kumar Sah, Abhijeet Sawant, Shitalkumar Jain</i>	
Adaptive DoS Attack Detection in SDN	843
<i>Rejo Rajan Mathew, Amarsinh Vidhate</i>	
Smart Energy Power Consumption	848
<i>Bharatoday Mishra, Rejo Mathew</i>	
Revolutionizing Medical Diagnosis with Novel Teaching-Learning-Based Optimization.....	854
<i>Mitra Bakhshi, Ali Karkehabadi, Seyed Behnam Razavian</i>	
UAV Assisted Next Generation Wireless Communication Network	860
<i>Rahul Sharma, Shakti Raj Chopra, Akhil Gupta</i>	

Optimizing Respiratory Assessment with Advanced Photoplethysmography Techniques	865
<i>Sakshi D Salimath, Mangal Patil, Vikas Kaduskar, Sonali Pawar</i>	
Image Encryption and Decryption Based on 3D Chaos Maps and DNA Encoding	871
<i>Kosaraju Sai Chethan, Kodur Sumanth, Shinu M. Rajagopal</i>	
Aqua Watch: A Nitrate Sensor with Color Intelligence	877
<i>Souraja Maity, Soumadeep Maji, Surajit Bagchi</i>	
Data-Driven Decisions: A Machine Learning Perspective on Loan Authorization	882
<i>Anitha Julian, R Booshanram</i>	
Safe and Secure Communication Using SSL/TLS	887
<i>Darapureddy Devendra Kumar, Jerripothula Desai Mukharzee, Chirla Vijay Durga Reddy, Shinu M. Rajagopal</i>	
True Feature Distillation for Compression of GANs.....	893
<i>Premanand Ghadekar, Raghav Sadany, Ishaan Kale, Nikhil Kulkarni, Omkar Korate</i>	
LoRa-Based Wireless Sensor Network Testbed for Precision Agriculture Application	900
<i>Balamurugan P, G. S. S. Chalapathi</i>	
Artificial Intelligence Based Deep Learning Surrogate Model for Design Optimization of Microstrip Frequency Selective Surface.....	906
<i>Burak Dokmetas, Shivani S. Shinde, Mehmet Ali Belen</i>	
A Xgboost Optimized Ensemble Model for Remaining Useful Life Prediction of Aircraft Turbofan Engines	910
<i>Vaasudev Sharma, Riyansh Dagar, S. Sharanya</i>	
Advancing Manufacturing Energy Efficiency: The Role of AI and Web-Based Tools.....	915
<i>Asmae Lamsaf, Pranita Samale, Hugo Proença, João C. Neves, Kailash Hambarde</i>	
Envisioning India's Energy Future: Predictive Models for Power Generation Trends	921
<i>Naveenkumar Anbalagan, Akilandeswari. J, Mouliraj. V, Nandhini. P, Kalaivani. P, Iyyanar Perumal</i>	
Crop Yield Forecasting for a Resilient Food System: The Role of AI and Green Principles	927
<i>Iyyanar Perumal, Kalaivani P, Nandhini P, Mouliraj V, Naveenkumar Anbalagan, Akilandeswari. J</i>	
Deep Reinforcement Learning in Stock Trading: Evaluating DDPG and DQN Strategies	934
<i>Nithin Kodurupaka, Basavadeepthi H M, Shiva Teja Pecheti, Amudha J</i>	
Flood Susceptibility Mapping and Accuracy Assessment of a River Floodplain Using Bivariate Statistical Methods and AHP Approach.....	941
<i>Prashant N. Pusdekar, Sanjay V. Dudul</i>	
A Circularly Polarized 2x2 Element MIMO Antenna with Dual Band for V2X Applications	949
<i>Maruti R Jadhav, Uttam L Bombale</i>	
Cross-Domain Text Classification: Transfer Learning Approaches.....	956
<i>H. Jimsy Asha, Benitta. G, J. Alisha Josephine</i>	
Natural Language Processing for Text Mining: Leveraging Linguistic Features for Classification.....	962
<i>Benitta. G, H. Jimsy Asha, J. Alisha Josephine</i>	

Exploring Machine Learning's Role in Intrusion Detection Systems for Network Security	968
<i>P. R. Rege, Aarti Kalnawat, Anishkumar Dhabliya, Rahul Sharma, Rupali Sachin Kaldoke, Rashmi Ashtagi</i>	
Alzheimer Disease Progression Forecasting: Empowering Models Through Hybrid of CNN and LSTM with PSO Op-Timization	974
<i>Pallavi Deshpande, Ritika Dhabliya, Deepti Khubalkar, Pawan Arunkumar Upadhye, Kapil Adhar Wagh, Vinit Khetani</i>	
Optimizing Breast Cancer Prediction: A Multimodal Dataset Approach with XGBOOST.....	979
<i>M. Dharani, C. Radhakrishnan</i>	
Fine-Tuning ResNet50 for Land Use and Land Cover Classification in the Philippines	987
<i>Erwin Cahapin, Arnel Fajardo</i>	
Power Efficient High Gain/CMRR and Low Noise ElectroOculogram for Human-Computer Interaction and Wearable IOT Devices.....	992
<i>Sarin Vijay Mythry, Vijaykumar Sajjanar, N. Dinesh Kumar, P. A. Harsha Vardhini, Chikka Priyanka, Chittaluri Rashmitha</i>	
Transformative Advancements: Sign Language Conversion to Text and Speech.....	998
<i>S Balakrishna Reddy, Ahmed Shahebaaz, Ratnam Dodda, C. Raghavendra</i>	
Ultra-Low Energy Consumed GDI Based Hamming Code High Speed Signal Processing Communication System for IOT Application.....	1005
<i>Sarin Vijay Mythry, Chakradhar Adupa, Tanmayee Bandaru, Sahithi Reddy Gunamgari, Karthikeyan Bandari, Nikhitha Balagoni</i>	
Kernel Based FCM for Spinal Cord Segmentation on Computed Tomography Images	1011
<i>M Lenin Kumar, P A Harsha Vardhini, V Malathy, M Anand, P Bharath Kumar Chowdary</i>	
A Novel Probabilistic Access Scheme for NB-IoT in 5G Networks	1017
<i>S Pothalaiah, Srilakshmi Aouthu, M. Amru, L. Jagadeesh Naik</i>	
Analysis of Carrier to Noise Density Ratio, Satellite Visibility and Skyplot of Multiple GNSS Constellations Using Smart Phone for Relative Positioning Application.....	1023
<i>K. C. T. Swamy, Bindu Swetha Pasuluri, Akash Venkata Ramana G, Jaya Tarun K, Bharath M, Dileep Kumar B</i>	
Pioneering Minimalist Speech Analysis Through Optimized Spectral Features Machine Learning Models.....	1027
<i>P A Harsha Vardhini, S Shiva Prasad, M H S Vishnu Sai, Ch. Santoshi, Dhanush Konduru</i>	
Non-Invasive Detection of Oral Cancer Through a Microfluidic Biosensor Using Salivary Interleukin-8 as a Biomarker	1033
<i>Kalyani Durai, Kavitha Chandrasekaran, S. Sudha, Tina George</i>	
Convergence of Blockchain and Internet of Things Using Hyperledger Fabric.....	1039
<i>Rejesh Kumar Kaushal, Naveen Kumar</i>	
Fraud Detection and Prevention for a Secure Financial Future Using Artificial Intelligence	1044
<i>Rishi Chaudhry, Sandeep Kaur, Jagdeep Singla, Ruchi Mittal, Varun Malik</i>	
Artificial Intelligence-Based Forecasting Market Trends and Guiding Investment Decisions.....	1050
<i>Naaz Gorowara, Jagdeep Singla, Rishi Chaudhry, Varun Malik, Ruchi Mittal</i>	

AI Personalizing Training and Reskilling Employees for the Digital Age	1055
<i>Naaz Gorowara, Anshika Prakash, Frederick Sidney Correa, Varun Malik, Ruchi Mittal</i>	
Artificial Intelligence with Streamlining Payments and Lending for a Simpler Financial Ecosystem.....	1061
<i>Rishi Chaudhry, Anshika Prakash, Naaz Gorowara, Ruchi Mittal, Varun Malik</i>	
A Novel Approach Using Feature Fusion for Android Malware Detection and Classification	1066
<i>Sonam Jain, Tanya Gera, Rupali Gill</i>	
Redefining Security: Unveiling the Vulnerabilities of Captcha Mechanisms Using Deep Learning	1071
<i>Puneet, Deepika</i>	
Energy Aware IRS-Aided Wireless Network for Next Generation IoT	1077
<i>Ashu Taneja, Ankita Rana</i>	
Code-Mixed Sentiment Corpus of Customer Reviews in Malayalam and English for Enhanced Local Market Analysis in India	1082
<i>Sree S Bhagya, Hrishiraj G L, Naderabeevi S</i>	
Feature Extraction of Unprinted Fabric for Defect Detection Using Gabor Filter, HOG and SVM.....	1089
<i>Nitin Toradmal, Vinayak Bairagi, Dattatray Jadhav</i>	
Boosting Wavelet-Based Image Fusion Using Equal Weighted Average of DSIHE and CLAHE	1094
<i>Nikhil Soniminde, Maheshwari Biradar</i>	
Dynamic Human Activity Recognition with Vision-Based Pose Estimation and Machine Learning for Various Age Groups	1100
<i>Varsha K. Patil, Shristi Dhamange, Shraddha Bhandurge, Samruddhi Gaikwad, Aditya Patil</i>	
SipSmart: Elevating Palates with Machine Learning for Wine Quality Prediction	1106
<i>Navjot Singh Talwandi, Shanu Khare, Anup Lal Yadav</i>	

Author Index