

2024 IEEE 16th International Conference on Computational Intelligence and Communication Networks (CICN 2024)

**Indore, India
22-23 December 2024**

Pages 1-765



**IEEE Catalog Number: CFP2427L-POD
ISBN: 979-8-3315-0527-1**

**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:	CFP2427L-POD
ISBN (Print-On-Demand):	979-8-3315-0527-1
ISBN (Online):	979-8-3315-0526-4
ISSN:	2375-8244

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

2024 16th IEEE International Conference on Computational Intelligence and Communication Networks

CICN 2024 Table of Contents

Welcome from IEEE CICN 2024 General Chairs

Welcome from IEEE CICN 2024 Program Chairs

Conference Committees

Track-A: Communication Systems, MW Components, Communication Protocols and Computer Networks

A Hybrid PSO-AOQPIO Approach for Efficient Wind-Affected UAV Task Allocation and Path Optimization ..1 <i>Gurwinder Singh; Ranjan Walia; Ram Kishun Lodhi</i>	
A Modified Orthogonalization Minimization Algorithm for Millimeter Massive MIMO Communications7 <i>Yaseen Aiman Mohammed; Anas Lateef Mahmood</i>	
A Novel Multiple Input-Multiple Output Antenna Using Modified Co-Centric Hexagonal Resonator for Wi-Fi and 5G Communication System13 <i>Kanishk Garg; Smriddhi Lau; Monika Kaushik; Usha Sharma; Megha Agarwal</i>	
An Influence of Photonic Crystal Fibres on Bio Medical Applications in the Terahertz Regime Band18 <i>Ajay Bale, Santhosh Krishna B V</i>	
An Inventive DGS-Based Textile Antenna With Semi-Circular Ring With Triangular Cut for Healthcare Applications24 <i>Garima Singh; Akhilendra Pratap Singh; Vinod Singh; Zakir Ali</i>	
Application of Computer Network System in Intelligent Campus Multi Business Integration and Transfer System30 <i>Qian Zhang, Zhao Yao, Hejia Li</i>	
Clock Synchronization Protocols and Models for Wireless Sensor Networks36 <i>Murugaiyan Swaminathan Nidhya; Geetha S</i>	
Comprehensive Test Approaches for MIMO and MEMS: Addressing Challenges in Miniaturized and Multi-Channel Systems40 <i>Ramanjaneyulu K; Kanavath Chinna Kullayappa, Naik; Kishore Babu K; Vidyanadha babu D; Mohamed Kalith Oli M</i>	
Design and Application of a Virtual Simulation System Based on Wireless Sensor Networks43 <i>Shaozheng Wang</i>	
Design of Conformal Flexible Monopole Antenna With Corrugated Structures for Lower Band Sub 6GHz Applications49 <i>Nalini Prasad Tirumani; Satti Sudha Mohan Reddy; Kolisetty Rama Devi</i>	
Design of Quad-Port Circular-Shaped MIMO Patch Antenna for Triple-Band THz Wireless Communication54 <i>Chirukuri Naga Phaneendra; Ketavath Kumar Naik</i>	
Design of Wearable Textile Antenna for Wireless and Ultra Wideband Applications59 <i>Raghav Dwivedi; Dinesh Kumar Srivastava; Vinod Singh</i>	

Dipole Antenna Array Synthesis for Improvement of the Performance Using FPA	65
<i>Hemant Patidar, Prasanna Kumar singh, Arnab De, Prashant Upadhyay, Kuldeep Yadav</i>	
Enhancing Agricultural Efficiency With IoT-Enabled Precision Irrigation Management Using LoRaWAN Technology	69
<i>Ruchira U.G.C, Jayasinghe J.A.S.K, Wimalasena N.G.C.L, Thennakoon T.M.H.L, J.A.D.C.A. Jayakody, Dinithi Pandithage</i>	
Enhancing Wireless Network Performance Using Zone-Based Reinforcement Learning: the Zone Wise-RL Approach	76
<i>Swati Bhagoriya; M A Rizvi; Kanak Saxena</i>	
Feeding Analysis of Broadband CP Antenna: A Comprehensive Review	81
<i>Aniket Vasant Gunjal; Ujwala Kshirsagar</i>	
FinFET Based Low Power and High Speed 3-Stage Comparator	89
<i>Valluru Pavani, Simhadri Sai kiran, Tentu Yaswanth, Mariseti Upendra, Simhadri Mahesh, Jami Venkata Suman</i>	
Intelligent Algorithm based Interactive Optimization Charging Strategy for Vehicle Network	94
<i>Wuxiao Chen, Qiang Ye, Yuqing Cai, Han Lin, Zhijun Jiang, Chenhan Zhang</i>	
Modulation-Aware Asymmetrical Traffic Demand Splitting Based on Heterogeneous Traffic Demands	100
<i>Amit Khanjan Sarma; Sanjib K. Deka; Nityananda Sarma</i>	
Numerical Simulation of Arbitrary Diameter Tapering of Multi-Core Optical Fibers Based on Polyflow	109
<i>Yuyi Yin, Guanzheng Li, Guanrui Zhao, Zhiyong Wang</i>	
Optimizing Mobile Charger Scheduling in Wireless Rechargeable Sensor Networks Using Min-Heap Algorithm	115
<i>Md Kamaruzzaman; Abhijit Chandra</i>	
Optimizing the Threshold Modified Comparator Circuit (TMCC) With NCFET Technology for Low Power and High-Speed Performance	121
<i>Venu Siripurapu; Sailada Srivallika; Sarvisetti Soma Surya; Thota Durga Prasad; Vasudeva Bevara</i>	
Performance Analysis of Single, Double and Triple Rings as Absorber	126
<i>Binshati Chatterjee</i>	
Power Consumption-Aware Asymmetrical Traffic Splitting in SEON Based on Traffic Demands	132
<i>Amit Khanjan Sarma; Sanjib K. Deka; Nityananda Sarma</i>	
Spatial Monitoring Using Transmit-Only Static Wireless Sensors Under Uncertainties: a Search-Based Detection Approach	142
<i>Hadi Alasti</i>	
Transfer Learning for Efficient Node Placement in Dynamic Wireless Sensor Networks	147
<i>Rahul Priyadarshi; Shiva Singh Bagri; Rakesh Ranjan; Sundaram Sundaram</i>	

Track-B: Machine Learning, Deep Learning and Optimisation Methods

A Comprehensive Evaluation for Coronary Heart Disease Prediction Using Deep Learning Models	153
<i>Jyothi Prakash; Sukanya Singh; Balamurugan G</i>	
A Deep Learning Aided Smart Waste Classification System for Smart Cities	160
<i>Gomathi K; Lakshmi Kanthan Narayanan</i>	
A Novel Deep Learning Model for Security Enhancement in Cloud Systems	165
<i>Girish Dashmukhe, Pankaj Dashore</i>	
A Survey on Detection of Parkinson's Disease Through Clinical Data Using Deep Learning Approach	173
<i>Abdulaziz Aliero Salihu; Neha Malhotra</i>	
Abusive Content Detection Using Deep Learning: A BERT-Based Approach	178
<i>Ria Pahujani; Sakshi Bhuyan; Satvick Rai; Rohit Kumar Kaliyar</i>	

Addressing Market Volatility and Economic Factors in Long-Term Stock Price Prediction With Deep Learning	183
<i>Tanmaykumar Paradava, Rituraj Jain, Tirthkumar Patel, Damodharan Palaniappan</i>	
Algorithm Evolution and Application Strategy of Deep Learning in Violation Recognition at Homework Sites	188
<i>Zhongshan Fang, Hongyang Huang, Dongsheng Zhou, Xiaoming Huang, Xiao Lin</i>	
An Ensemble Approach to Raga Classification Using Deep and Traditional Machine Learning	195
<i>Srikar Bellur; Alicia Hong; Jeng-Shiuan Ma</i>	
An Experimental Analysis of Multiple Disease Prediction Using Machine Learning Algorithms	200
<i>Deepjyoti Choudhury; Shaurya Gupta; Karan Pal</i>	
Analysis of Deep Learning Models for Disease Diagnosis in Laryngoscopic NBI Images	207
<i>Pratham Tejas Shah; Kanika Prasad Chitnis; Alfin Ashpak Patel; Arjun Brajesh Pareek; Narendra Shekokar</i>	
Analysis of Seismic Activity Using Deep Learning	213
<i>Srinivas Babu N</i>	
Analysis of Wheat Plant Disease Detection Using Deep Learning Techniques on Real-Time UAV Images	218
<i>Manaswini Surusomayajula; Sateesh Krishna Dhuli; Vineela Chandra Dodda; Sai Varun Nimmagadda; Chiranjeevi Mondikathi; Tej Mahanth Jammula</i>	
Analyzing and Recognizing Human Activity Patterns Through Machine Learning Techniques	227
<i>Nitin Dixit; Rakhi Arora; Shrestha Kinger; Sneha Shivhare; Muskan Sihare; Jigyasa Mishra</i>	
Application of Deep Learning to Generate Auto Player Mode in Car Based Game	233
<i>Kunjesh Patadiya; Rituraj Jain; Jay Moteriya; Damodharan Palaniappan; Kumar J Parmar; Premavathi T</i>	
Audio-Based Symptom Classification Using Deep Learning: The V-Cold Approach	238
<i>Joydeep Chandra; Ranjan Walia</i>	
Content Generation Algorithm of AI in Short Video Creation Based on Deep Learning	246
<i>Te Zhai</i>	
Cross-Modal Hash Retrieval Based on Deep Learning	251
<i>Fanqi Meng; Kaidi Tian; Dong Wang; Yan Tian</i>	
Deep Learning Approaches for Brain Tumour Detection Using VGG-16 Architecture	256
<i>Lubhawani Tripathi; D Kalidoss; Geetanjali Sharma; Pushkar Dubey</i>	
Deep Learning Approaches for Forecasting Water Demand in IoT-Based Water Systems	262
<i>Lakshmi Kanthan Narayanan; Jeni Gracia RC</i>	
Deep Learning Road Lane Detection: Most Effective Way in Autonomous Systems	267
<i>Sivannarayana Annam; Girish Segu; Ramesh S</i>	
Deep Learning-Enhanced Adaptive Node Placement in Wireless Sensor Networks	273
<i>Rahul Priyadarshi; Anant Vikram Singh; Anish Kumar Vishwakarma; Rakesh Ranjan</i>	
Design of Intelligent Control System for Autonomous Transport Vehicle Based on Deep Learning	278
<i>Jianlin Tian, Xiaobo Chen, Wenchang Zhang, Hailong Wang, Deyu Wu, Dongsheng Chang</i>	
Detecting Pneumonia With Chest X-Ray Using Transfer Learning With Resnet50	285
<i>Kailash Rana; Sidhartha Chauhan</i>	
Detecting Questions in Online Communities: A Machine Learning Approach	290
<i>Dilnaz Omarova, Fares A. Dael, Ibraheem Shayea, Gulnara Abitova, Eldos Sailaukhanov</i>	
Developing a Memetic Algorithm for Personalized Learning in Intelligent E-Learning Systems	298
<i>Ramesh Jvn; Charu Bisaria; Shamim Ahmad Khan; Dr.V.Kanpur Rani; P Anbarasan; I Infant Raj</i>	
Dynamic Pricing Algorithm based on Deep Reinforcement Learning	303
<i>Lei Wang</i>	
Effective Prediction of Genus and Species Using a Novel Deep Learning Technique	309
<i>Yana Gaur; Abhay Chaudhary; Rohit Kumar Kaliyar</i>	

Emotion Detection Using Hybrid Deep Sequential Learning Architecture From EEG Signals	316
<i>Albania Suting; Darina Thangkhiew; Ansuman Kumar; Anindya Halder</i>	
Explainable Depression Detection in Social Media Using Transformer-Based Models: a Comparative Analysis of Machine Learning	321
<i>Laxman Bankupalle; Sanat Shantanu Kulkarni; Beecha Venkata Naga Hareesh; Murali Krishna Enduri</i>	
From Pixels to People: Deep Learning Breakthroughs in Human Detection	326
<i>Adeeba Bakhtiyar; Mohd Aquib Ansari; Arvind Mewada; Dushyant Kumar Singh</i>	
Identification of Corn Leaf Disease Using Deep Learning	332
<i>Rekha Kaushik, Suryansh Yagnik, Aman Verma, Nitin Yadav</i>	
Improvement of Learning Ability and Prediction Accuracy of Intelligent Software through Machine Learning and Deep Learning Algorithms	338
<i>Xue Yu</i>	
Improving Diabetes Classification Accuracy by Incorporating External Factors in a Machine Learning Framework	343
<i>Vijay Anant Athavale; Louis Lobo; Navnath Mane; Samprit Patel</i>	
Improving Weather Forecast Accuracy Using Hybrid Machine Learning Algorithms	348
<i>Naga Charitavya Madala; Sai Durga Sardhi Pranu Deepak Tallapudi; Venkata Srikari Malladi; Durga Mahesh Muthinti; Srilatha Tokala; Murali Krishna Enduri</i>	
Intelligent Network Traffic Control With AI and Machine Learning	353
<i>Sweekrithi Shetty; Thrisha M S; Vandhana H M; Rizawan N Shaikh</i>	
Intelligent Training System for Future Skill Needs: A Method of Integrating Deep Learning and Skill Graph	358
<i>Peng Li, Lina Yuan</i>	
Machine Learning Approaches for Predictive Maintenance in Industrial Operations	365
<i>Najim Alshahrani; Shahrani Najim</i>	
Machine Learning Approaches to Forecasting Car Prices in the Secondary Market	373
<i>Fares A. Dael, Daulet Talipov, Ibraheem Shayea, Asmaganbetova Kamshat,</i>	
Machine Learning for Autonomous Navigation and Collision Avoidance in UAVs	381
<i>Bisni Fahad Mon; Mohammad Hayajneh; Najah A. Abu Ali; Farman Ullah; Abdulmalik Alwarafy; Nasir Saeed</i>	
Machine Learning for Signal Processing in 5G and Beyond: Review	389
<i>Mustafa Efe Kurt, Bilal Saoud, Ibraheem Shayea, Rzayeva Leila</i>	
Machine Learning Model to Evaluate the Influence of Environmental, Geographic, and Sociodemographic Variables on the Prediction of Socio-Environmental Conflicts in the Mining Sector of Peru	395
<i>Arnaldo Lenin Olivares Santos; Cayo Victor León Fernández; Ciro Rodriguez</i>	
Machine Learning-Based Intrusion Detection for Denial-Of-Service De-Authentication Attacks on Drones	404
<i>Laila Hatem Abuljadayel; Suleiman Yerima; Usman Butt</i>	
Machine Learning-Driven Economic Modeling for Enhanced Unemployment Rate Prediction and Analysis	409
<i>Rakhi Arora; Nitin Dixit; Muskan Sihare; Shrestha Kinger; Sneha Shivhare; Komal Kulshreshtha</i>	
Machine Learning-Powered Malicious Website Detection System	414
<i>Kiran More; Manasi Rajesh Mhatre; Satyam Mhetre; Owee Ashish Mirajkar; Vivek Methade; Chinmay Metha</i>	
Mitigating Ransomware in Cyber-Physical Human Systems Through Game-Based Learning	420
<i>Usman Butt; Mansour Alraja; Abdulrahman Salih</i>	
Optimizing DDoS Detection in SDNs Through Machine Learning Models	426
<i>Md. Ehsanul Haque, Jeba Maliha, Md. Shafiqul Alam, Ahsan Habib Siam, Sayed Md Fazle Rabbi, Md. Muntasir Rahman</i>	
Outlier Detection in Wireless Sensor Networks based on Machine Learning: Review	432
<i>Burak Baykal, Bilal Saoud, Ibraheem Shayea, Rzayeva Leila</i>	

Personalized Diabetes Suggestion Using ML Algorithms and Cloud Technology	438
<i>Vura Venkata Naga Sai Bhargav Rohith; Sathwik Kumar Rudroju; Kamisetty Satya Chetan</i>	
Predictive Attributes in Machine Learning for University Academic Performance: a Feature Engineering Approach	443
<i>Juan Carlos Jo Luza; Ciro Rodriguez</i>	
Real-Time Crop Growth Tracking and Disease Detection Using Machine Learning	457
<i>A Rajendra Babu; Mohebbha Naaz; T Lalitha; B Anjali; U Chaithya Sree</i>	
Recent Trends in Brain Tumor Prediction Using Machine Learning and Deep Learning	462
<i>Gulshan Hariyani; Shamla T. Mantri</i>	
Review Rating Predictions Using Improved Deep Learning Architecture	468
<i>Kumar Deep Barman; Bhaskar Bordoloi; Ansuman Kumar; Anindya Halder</i>	
SD-TS-RF (Sales Data-Time Series-Random Forest) Hybrid Machine Learning Model for Enhanced Next-Day Sales Prediction in Supermarkets	473
<i>Balaji S; Manikavelan D</i>	
SFC Orchestration and SDN-VNF Trusted Deployment Scheme based on Deep Reinforcement Learning Algorithm	479
<i>Yongliang Li</i>	
Smart Retail: Utilizing Machine Learning for Demand Prediction, Price Strategy, and Inventory Management ...	485
<i>Amrita Kaul; Krish Singhal; Vaibhav Singh</i>	
Steroid and Non-Steroid Bodybuilder Classification Using Deep-Learning	490
<i>Safa Ahmed; Md. Tahmid Obayed; Mohammad Monirujjaman Khan</i>	
Synergizing Deep Learning and Internet of Things (IoT) for Smart Waste Management (SWM)	498
<i>Haneen Algethami</i>	
Visual Object Tracking Algorithm Based on Deep Learning	507
<i>Jinyi Zhu</i>	
Weighted Deep Learning Implementation for Cognitive Radio Attack Detection	513
<i>Anagha Ramakrishna</i>	

Track-C: Cryptography, Blockchain Technology and Network Security

A Secure and Transparent Voting System Framework Using Finger Vein and Blockchain Technology	520
<i>Chittapuli Bhupathi Padal; Valli Kumari Vatsavayi</i>	
A Survey on Enhancing Cloud Data Security Using Blockchain Technology	528
<i>Neethi Narayanan; Maria Celestin Vigila S</i>	
A Transformer Embedding Based Model for Malicious DGA-Generated Domain Detection	537
<i>Suleiman Yerima; Vinod P; Khaled F. Shaalan</i>	
Adaptive Steganography Approach in RGB Images Based on Color Channels to Enhance Stego Image Quality	542
<i>Rihan Farih Farih Bunyamin; Adifa D'Layla; Ntivuguruzwa Jean De La Croix; Tohari Ahmad</i>	
Application of Secure and Energy-Efficient Data Access Solutions in Industrial IoT for Small-Scale Industry	547
<i>Lopamudra Samal</i>	
APT Attack Detection Method Based on Long-Term Feature Extraction From Provenance Graphs	553
<i>Jiacheng Li</i>	
Artificial Intelligence Powered Fraud Detection and Prevention: Analysis of Application of Machine Learning in Online Transactions in Banking.....	559
<i>Omer Farook Mohideen Abdul Kader; Roop Kumar Yekollu; Sammip Biradar; Shivkumar V Haldikar; Tejal Ghuge</i>	
Blockchain-Based Secure e-KYC Solution for Banking System	565
<i>Zoya Tabassum; Sobiya Arsheen; Khaleel Ahmad; Gülcihan Özdemir</i>	

Campus Wireless Network Training Security Risk Assessment System Based on Intelligent Control Algorithm	572
<i>Keyang Chen</i>	
Cloud Storage and Secured File Sharing Using Blockchain With Xchacha20 and Shake Cryptography	578
<i>J Jayachita; H Arshad; R MuthuKumaran</i>	
Cryptographic Pixel Manipulation for Visual Security	584
<i>Uday Krishna Banala; Rushendra Sai Chidipothu; Murali Krishna Enduri; Gangi Reddy</i>	
Data Security Risk Assessment Method Based on Big Data Technology	589
<i>Xiaolu Zhang, Wuqiang Shen, Zheheng Liang, Lei Cui, Yechao Wang</i>	
Deep Fake Video Detection Using Inception_Resnet_v2: A Convolutional Neural Network Approach	595
<i>Mandala Praveen Kumar; Valli Kumari Vatsavayi</i>	
Design of Lightweight Decentralized Secure Communication	602
<i>Aditya Silwal; Bishwajeet Pandey</i>	
Detection and Identification of Fake Image Using Conditional Generative Adversarial Networks (CGANs)	606
<i>Mohebbha Naaz; Mamani Jyothirmai; K Mounika; E Sravani; B Mounika</i>	
Detection of Deep Fake Medical Images Based on Spatial and Frequency Domain Analysis	611
<i>Pradeepan P; Gladston Raj S</i>	
Enhancing Outpatient Medical Care Services Through SDN Cloud-Based Appointment Scheduling and Secure Data Management	618
<i>Benitha Christinal J; Ameelia Roseline A</i>	
Enhancing Support Vector Machines Against Poisoning Attacks: A Study on Noise Augmentation for Robust Modulation Detection	624
<i>Dhatri Shankari T M; M R Shreyaank; Diti B Jain; Aditya R G; Rashmi Ugarakhod</i>	
Fortifying IoT Networks: A Blockchain-Based Communication Security Paradigm	629
<i>Vinith Vijay Shetty; Samay Deepak Shetty; Shivakumar V; Prakhyat Prakash Shetty; Kiran B V</i>	
Hierarchical Cluster Analysis of Network Security	636
<i>Yongchang Ren, Lin Zhang</i>	
IntellBot: Retrieval Augmented LLM Chatbot for Cyber Threat Knowledge Delivery	644
<i>Dincy R Arikkat; Abhinav M; Navya Binu; Parvathi M; Navya Biju; K S Arunima; Vinod Puthuvath; Rafidha Rehimani K A; Mauro Conti</i>	
Leveraging Blockchain Technology for Secure and Efficient Storage of Medical Data	652
<i>Aryan Rai; Mahek Naik; Ida Seraphim B</i>	
Location-Based CAPTCHA: Enhancing Bot Detection Using Live Geolocation Autofill	657
<i>Sandeep Rathor; Anurag Pathak</i>	
Machine Learning in Cybersecurity: Opportunities and Challenges	663
<i>Mahfooz Alam; Deepak Singh; Bishwajeet Pandey; Mohammad Shahid; Faisal Ahmad; Shabeer Ahmad</i>	
Malicious Traffic Classification Model Based on Hypergraph-LSTM Neural Network	671
<i>He Xin Lei</i>	
Malicious URL Detection and Categorization Using Machine Learning Techniques	676
<i>Emaan Nazeeruddin; Ghazanfar Latif; Nazeeruddin Mohammad</i>	
Matrix Rotation Cipher With Graph-Based Key Generation for Secure Message Encryption	683
<i>Patnala Bharathi Devi, P.Rama Bhadra Murthy, Ravindra Ponugumati</i>	
Multi-dimensional Time Series Anomaly Detection Model based on Transformer and GAN for Oil and Gas Production IoT Applications	688
<i>Qiang Du, Yan Liu, He Pan, Qiuyue Ren, Heyu Liu</i>	

Performance Analysis of Classifiers in the Detection of Injection Attacks by the Association of Graph-Based Method and Generic Detection Attributes	695
<i>Merlin Linda G; Sudheer Reddy Bandi; Prabhakar Gantela; Nagarjuna Chary S; Spurthy K; Nagamani Samineni</i>	
Scalable IoT Security Framework Leveraging Ensemble Learning for Attestation	702
<i>Chittaranjan Hota; Mini TT; Santrupty Behera; Meka Srikar Reddy</i>	
Metamorphose Digital Marketing with Cybersecurity Data Privacy Federatin Utilizing Blockchain	1534
<i>Alaa A. Qaffas</i>	

Track-D: Power Systems, Renewal Energy and control Systems

A Synergistic Approach Using FCN and Gradient Descent Optimization for RUL Prediction of Lithium Ion Batteries	708
<i>Keren Persis P, Vijayakumar B P, G Ashwin Prabhu, Jagadeesh Bommisetty, Sangameswaran U, P. Tharaniya</i>	
Consumption and Cost Characteristics of Crossover Methods for Overhead Transmission Lines	714
<i>Yue Zhang, Yangyang Qi, Minquan Ye, Huiying Wu</i>	
DASH: An Open Access Low-Cost Quadruped Robot for Innovative Applications	720
<i>Lara Bander Alotaibi; Maria Alabdulrahman; Taha Houda</i>	
Future Trends in Fault Detection Strategies for DC Microgrid	727
<i>Sanatan Kumar; Abhay Chaturvedi; Abhimanyu Kumar; Chirag Gupta</i>	
IOT Based Intelligent Slot Allocation for EV Charging Station	732
<i>Divya S; Sivakumar P; Kaavya Agith</i>	
Multi Dimensional Power Grid Operation Risk Assessment Based on Adaptive Weighting Algorithm	737
<i>Wenke Guo, Lili Ran, Zhili Ma, Haitao Zhu</i>	
Optimizing BLDC Motor Control in Electric Vehicles Using Hysteresis Current Controlled Boost Converters	743
<i>Sanatan Kumar; Abhimanyu Kumar; Chirag Gupta; Abhay Chaturvedi</i>	
Power Supply Security Enhancement for Active Low Voltage Power Distribution Systems based on Topological Reconfiguration	749
<i>Zhixuan Zhao, Jiawei Liu, Haisheng Hong, Kangyi Yang, Xian Tang, Yi Hou</i>	
Real-Time Performance Assessment of Wind Turbine Model Under Ferroresonance Conditions	755
<i>Sunil Kumar; Ikbal Ali; Anwar Shahzad Siddiqui</i>	
Statistical Analysis and Electric Range Distributions in Battery Evs and Hybrid Evs	761
<i>Nagabushanam Perattur; Meenugu Venkateshwarlu; Jala Prakash Kumar; Vasanth K; S Siva Priyanka; Radha Subramanyam</i>	

Track-E: Signal Processing, Image Processing and CNN

An Evaluation of Text-Guided Image Editing Models	766
<i>Phong Tien Nguyen; Chibuike Onuoha; Nam Pham Ngoc; Huong Thu Truong; Truong Cong Thang</i>	
Analysis of Quality Evaluation Indicators for Visible Light and Infrared Image Fusion Based on Target Detection	771
<i>Shuqiang Guo, Fanning Duanmu, Fanqi Meng</i>	
Application of Deep Convolutional Network with Integrated Bilinear Pooling and Attention Mechanism in Bearing Fault Diagnosis	776
<i>Xudong Liu, Chuansong Zhou</i>	
Application of Particle Image Velocimetry Method Based on Full Convolution Neural Network in Turbulence Field	781
<i>Xie Zhi Cheng; Guo Shu Qiang</i>	
ASIC Implementation of Pre-Trained CNN for Handwritten Digit Detection Using GPD90nm Technology	786
<i>Bandi Raja Babu; Billakurthi Sai Sanjana; Syed Ali Hussain; Pradyut Kumar Sanki</i>	

ASIC Implementation of Pre-Trained CNN for Image Classification Using GPDK90nm Technology	793
<i>Billakurthi Sai Sanjana; Bandi Raja Babu; Syed Ali Hussain; Pradyut Kumar Sanki</i>	
AttCNNnet: Attention Based CNN Network to Detect Seizures From EEG Subjects	800
<i>Mohebbha Naaz; N Geetha Rani; Praveen Nayakanti</i>	
Botnet Detection Using Network Traffic Visualization and Histogram of Oriented Gradients	805
<i>Rajesh Thomas; Suleiman Yerima; Khaled F. Shaalan</i>	
CNN and Edge Detection Based Novel Leaf Disease Identification From Bush With Irrespective of Plant Types and Drone Footage-Based Real-Time Application	813
<i>Rajat Subhra Dutta; Shreyank Mukherjee; Soumyadip Chowdhuri; Santanu Mandal; Parnab Das</i>	
CNNM Based on Speech Tone Synthesis and Its Application in Translators	819
<i>Lin Jiang, Xiao Lu, Yingjun Liu</i>	
Comparative Study of Video Summarization Using Keyframes With State-Of-The-Art Techniques	825
<i>Manjusha J Yeola</i>	
Cross-Modality Person Re-Identification: An Attention-Enhanced Framework for Deep Fusion of Visible and Infrared Features	834
<i>Yue Wang</i>	
Diff-FFT: Synthetic Lumbar Magnetic Images From Frequency Domain-Based	839
<i>Jie Cao; Qingxuan Jiang; Boshuo Li</i>	
Efficient Coral Reef Mapping for Marine Ecosystem Conservation Using VGG16 Neural Network Model	845
<i>Chettiyar Vani Vivekanand; Varunesh B; Vinoth N</i>	
Efficient Stock Management Using Computer Vision	851
<i>Anitha Julian, Anbuselvan A, Ashika Jubi R, Akash Kumar B</i>	
Enhanced Object Detection Based on YOLOv9 for Marine Life	856
<i>Akshat Pawar; Ankush Handa; Madhav Pujari; Deva Hema</i>	
Exploring Denoising Diffusion Models for Realistic Anime Character Generation	862
<i>Vishakha Kumari; Robin Singh Bhadoria</i>	
Exploring New Frontiers in Video Fingerprinting: A Comprehensive Review of Techniques	867
<i>Siddharth Humbe; Nikita Kapadnis; Ganesh Lokhande; Piyush Lavekar; Durgesh Choudhary</i>	
Face Recognition From Partial Face Data and Fraud Detection	874
<i>Sonti Vivek Sai; Thavisala Veneela</i>	
Grain Size Analysis With Optimized Image Processing: a Contour-Based Approach	882
<i>Sashank Chowdary Kakarla; Ravindranath Chowdary Nayudu; Krishna Bogineni; Gangi Reddy</i>	
GWABHO-Adam: Grey Wolf Algorithm Based Hyperparameter Optimization of Adam to Enhance Cancer Classification From Microscopic Images	888
<i>Abhrodeep Das; Animesh Hazra; Souhardya Dutta; Indrajit Das; Sukal Roy; Nibaran Das</i>	
Identification and Assessment of Electric Bus Driver's Driving Behavior Based on Computer Vision and Intelligent Algorithms	896
<i>Xiaoqing Fang</i>	
Identify the Intended Covert Value Among an Adversary in a (T, N) Threshold Setup	901
<i>Anindya Kumar Biswas; Tanisha Das; Nilava Rana; Mou Dasgupta</i>	
Image Denoising Using Modified Cumulative Distribution Function in the Wavelet Domain	906
<i>Noorbakhsh Amiri Golilarz; Keyan Rahimi</i>	
Implementation and Comparative Analysis of CNN and Discrete Haar Wavelet Transform in Image Steganography	912
<i>Srusti R; Shruthi Mij</i>	
Implementation of Collaborative Filtering in E-Commerce Recommender Systems: An Elementary Review	917
<i>Mamta B Savadatti; Santhosh Krishna</i>	

Improved DCGAN Based on Coordinate Attention for Efficient Image Generation Under Small Sample Conditions	923
<i>Shuai Cao</i>	
Infrared Ship Detection Based on Improved YOLO-11	928
<i>Yayuan Hu</i>	
Iris Feature Extraction Method Based on Deep Hashing	933
<i>Xiaolu Yu</i>	
Leveraging Pre-Trained EfficientNet-B3 for Accurate Classification of Breast Cancer Images	938
<i>Geomol George; Anusuya S</i>	
LLCNN Based Image Enhancement With Squeeze and Excitation Network for Improved Visual Quality	945
<i>Maheswari S; Thirumurugan Shanmugam; Arun Kumar Sivaraman; Nithiyanantham Janakiraman; Priya Ravindran; Babu Sivam</i>	
Medical Image Classification of Brain Tumour: A Multi-Model Approach With Explainable Models	951
<i>Syed Ali Hussain; Turja Bhattacharjee; Pradyut Kumar Sanki; Pranab Mandol</i>	
Ophthalmic Diseases Detection Using CNN: a Comparative Analysis of ResNet and VGG Architectures	957
<i>Mohammad Monirujjaman Khan, Alif Al Razi, Zarif Khan, Zawwad Ul Sami</i>	
Optimal Enforcement of Liveness for FMSs Modelled With S4PR Petri Nets	963
<i>Mowafak Hassan Abdul-Hussin</i>	
Optimization of IP Image Design Technology in Visual Communication Design	971
<i>Chang Li, Jiayi Lin, Wenjing Wu, Rong Wang</i>	
Optimized Adaptive Based Method for MR Image Denoising	976
<i>Noorbakhsh Amiri Golilarz; Iman Dehzangi; Keyan Rahimi</i>	
Optimized Residual Attention U-Net-Based Lung Cancer Detection	984
<i>Jyoti Kumari; Sapna Sinha; Laxman Singh</i>	
Polar Fox Optimization Algorithm-Based Triangulation Method for Optimal RSUs Placement in VANETs	992
<i>Ezumalai R; Santhakumar D</i>	
Research on Insulator Defect Detection Based on Improved YOLOv7	999
<i>Linghao Meng; Guo Shu Qiang</i>	
Scene Text Detection in Medical Based on Differentiable Binarization	1004
<i>Nuan Wen</i>	
Synthesis of Supervisor Design for FMSs Modeled With S4PR Petri Nets by Controllable Transitions	1009
<i>Mowafak Hassan Abdul-Hussin</i>	
UAV Images Based Maize Crop Analysis Using Custom CNN Model	1018
<i>Thejaswini M; Gaurav Kumar; Sumit Kumar Aggarwal; Pravin Kumar Bagaria</i>	
Ultrasound Image Analysis in Breast Cancer: A Comparative Study of Decision Trees and Random Forests ..	1024
<i>Sivagami S, Sathya A, Afsin S</i>	
Utilising Convolutional Neural Networks for Automated Object Detection in Aerial Images	1030
<i>Ramesh S; Monika Pralayakaveri; Chinta Midhilesh Venkata Sai Reddy</i>	
A Framework for Human Activity Recognition in Multiview Environment Based on URILBP and Conv STLSTM	1036
<i>Diksha Kurchaniya; Sanjay Kumar</i>	

Track-F: Social Networks, Intelligent Systems and NLP

A Novel U-Net Based CNN Algorithm for High-Accuracy Weather Forecasting	1042
<i>Thirumurugan Shanmugam; Chirag Chandrashekar; Arun Kumar Sivaraman; Nithiyanantham Janakiraman; Priya Ravindran; Sarvesh Narayanan ST</i>	
Algorithms for Performance Prediction in Cricket - Factors Influencing the Player	1047
<i>Nagabushanam Perattur; Thota Praneeth Sai; Vasanth K; S Rekha; Vivek Singh K Kushwah; Radha Subramanyam</i>	

Black-Winged Kite Algorithm-Based Energy Efficient Clustering Protocol for Internet of Things	1052
<i>Jamuna Rani S; Santhakumar D</i>	
Codify: a Programming Learning Tool Prototyping Using Design Thinking Method	1058
<i>Safara Cathasa Riverinda Rijadi; Priya Mita Hartati Qhusna; Elvira Lailatuth Thohiroh; Vira Damayanti; Rafi Ahmad Khairan; Tien Fabrianti Kusumasari</i>	
Design and Development of an Intelligent Automated Waste Segregation System Using Arduino for Efficient Waste Management	1063
<i>Kalaaras A R; M Prabakaran</i>	
Development and Integration of an AI-Driven Adapter & Grade Prediction Model for Mathematical Question Classification and Assessment Which Enhance Student Profiling	1069
<i>M K C P Nishamali, Anuradha Jayakody</i>	
Embracing Industry 4.0: A Comprehensive Analysis	1075
<i>Dinesh Sharma; Geetam Singh Tomar, Sanjay Kushwah</i>	
Energy-Efficient Green Database Systems: Adaptive Resource Allocation in Cloud Platforms	1080
<i>Ankit Patra; Ankur Kashyap; Ida Seraphim B</i>	
Enhanced Pipeline Safety: Cloud-Based Leak Prediction Using XGBoost	1087
<i>Jagadeesh V; Sivakumar P</i>	
Enhancing IoT Device Responsiveness With Dual Feedback Schmitt Trigger Optimization	1092
<i>Mourya Anjali Ramsamuzh; Aryan Kannaujiya; Pankaj Lodhi; Amrinder Kaur</i>	
Fine-Tuning Transformer-Generated Language Model Embeddings to Improve Performance in Downstream Tasks	1097
<i>Diptee Vishwanath Chikmurge</i>	
Geo-AQI: Location-Based Air Quality Monitoring With Real-Time and Predictive Insights	1102
<i>Bikash Sadhukhan; Ricky Dey</i>	
Graph Based Keywords Extraction From Crime Data	1109
<i>Priyanka Das; Anuvab Munshi; Annwesha Naha; Adrija Dey; Sriparno Chakraborty</i>	
Improved Tuna Optimization-Based Energy Efficient Clustering Protocol for Internet of Things	1115
<i>Jamuna Rani S; Santhakumar D</i>	
Innovative System for Early Detection and Intervention in Developmental Disorders: a MultiSensory, Child-Centric Approach	1122
<i>Lohan Kavinda Bandara; Arunali Nawodya; Kaveesha Amandi; Kaveesha Vihangana; Dinithi Pandithage; Narmada Gamage</i>	
Opening the Black Box: Explainable AI Insights Into Obesity Prediction Using SMOTE-Balanced Stacking Ensembles	1127
<i>Raj Gaurang Tiwari; Vrince Vimal; Ambuj Agrawal</i>	
Optimization and Construction of AI Systems Using Artificial Intelligence Technology	1131
<i>Yali Guo, Peng Wu, Haoping Guo</i>	
Research and Application of Visual Engineering Project Management and Control System Based on Multimodal Information	1136
<i>Wang Feng; Wang Ji; Cai Hao; Yang Gang</i>	
Research on the Design and Application of Integrated Monitoring and Visualization Systems in Intelligent Project Management	1141
<i>Wang Feng; Wang Ji; Cai Hao; Yang Gang</i>	
Resource Management and Scalability in Container Orchestration Platforms	1146
<i>Tejal Ghuge; Omer Farook Mohideen Abdul Kader; Roop Kumar Yekollu; Sammip Biradar; Shivkumar V Haldikar</i>	
Revolutionizing Emotional Intelligence With AI and Facial Data	1152
<i>Harshalkumar Vanpariya; Paramprakash Makwana; Rituraj Jain; Damodharan Palaniappan</i>	

Sculpting With Algorithms: A Computational Approach to Analyzing Digital and Traditional Methods	1157
<i>Prem Kumar</i>	
Sentiment Analysis of Online Streaming Reviews for Movies Using the Dual LSTM-CapsNet Model	1162
<i>Kondaveti Raja; Bhramara Bar Biswal; Rvsv Prasad</i>	
Skin Disease Classification With Help of Artificial Intelligence Techniques	1169
<i>Mohit Agarwal; Rohit Kr Kaliyar; Vivek Mehta</i>	
Systematic Review of Swarm Intelligence for Autonomous Radiotherapy Planning Decision-Making	1175
<i>Nikitas Gerolimos, Vasileios Alevizos, Sabrina Edralin, Clark Xu, Akebu Simasiku, George A. Papakostaas</i>	
Trend of Hot Data in New Media Communication Based on Artificial Intelligence	1179
<i>Xuan Tan, Zhenzhen Xing, Yijing Liang</i>	

Track-G: Fuzzy Logic, Neural Networks and Optimisation

A Data Hiding Method for Improved Payload Capacity Using a 2-Dimensional Block Segmentation	1184
<i>Enrico Almer Tahara; Adifa D'Layla; Ntivuguruzwa Jean De La Croix; Tohari Ahmad</i>	
A Dynamic Routing Switching Method Based on Graph Neural Network for Fire Rescue Site Command Battle Network	1191
<i>Chunhua Zhang, Yufeng Fan, Qingbo Ma</i>	
A Novel Fuzzy Logic Framework for Model Reliability Evaluation in Permeability Prediction Using GPR	N/A
<i>Ahmad Lawal; Yingjie Yang; Nathanael L Baisa; Hongmei He</i>	
Enhanced Sugarcane Leaf Disease Detection via Hybrid Deep Capsule Autoencoder CNN Optimized by Improved Whale Algorithm	1202
<i>Raj Gaurang Tiwari; Satvik Vats; Ambuj Agrawal</i>	
Enhancing Personalization in Media Streaming Services Through Graph Neural Network	1208
<i>Ravindra Changala; S Sandya Sneha Sri; Sunil Kadyan; Sasthi Kumar C; Veera Ankalu Vuyyuru; B Kiran Bala</i>	
Enhancing Turbidity Prediction in Saki Lake Using a Hybrid Gradient Boosting and Neural Network Model	1214
<i>P Durga Devi, G. Mamatha</i>	
Improvement of Spiking Neural Network With Bit Plane Coding	1220
<i>Nhan T. Luu; Duong T Luu; Nam Pham Ngoc; Truong Cong Thang</i>	
Mood Based Music Composition With Transformers and Fuzzy Logic	1225
<i>Puppala Tirupathi; Nagavelli Ramana; Gade Sathwika</i>	
Multi Scenario Modeling and Aggregation Scheduling of Distributed Resources Based on Stochastic Optimization Algorithm	1230
<i>Hanbing Zhang, Xiaogang Chen, Jichao Ye, Ning Ding, Yonghai Xu, Aoying Ji</i>	
Optimizing Edge Node Efficiency Through Data Reduction Using Dimension Reduction Techniques	1237
<i>Abhishek Kumar Saxena, Rajiv Pandey, Neeraj Kumar Singh</i>	
PepperShield: Disease Detection With Hyper Tuned Precision	1242
<i>Anitha Julian, Jaiganesh V, Thirumurugan O T, Isreal Moses B</i>	
Performance Analysis of Adaptive Neural-Fuzzy MPPT in Photovoltaic System	1249
<i>Anjali Yadav; Imran Khan; Saurabh Kumar</i>	
Performance Evaluation of Deep Pre-Trained Models Under Progressive Blur	1254
<i>Mohit Tanwar; Seba Susan</i>	
Recommender System Using Decision Tree and Neural Network for Disaster Risk Reduction Management Services	1259
<i>Joaquin Alaistair F Bayot; Christy C Segunto; Gene Daniela L Pahoyo; Criselle J Centeno; Mark Anthony S. Mercado; Dan Michael A. Cortez; Marilou B. Mangrobang</i>	
Research on Digital 3D Reconstruction of Cultural Relics Based on Convolutional Enhanced Neural Radiance Field	1266
<i>Ping Wen Zhi; Guo Shu Qiang</i>	

TMT-Labelled Annotated Spectra Prediction Using Deep Neural Networks	1271
<i>Shraddha Kumar; Anuradha Purohit</i>	
Transformation of Sign Language to Text in Digital Era Using Deep Neural Network	1278
<i>Mohebbha Naaz; A Rajendra Babu; Y Siva Himaja; S.Joy Stuthi; B Mamatha</i>	
User Experience Design of Wearable Devices Using Fuzzy Logic	1284
<i>Xinhe Ren</i>	

Track-H: Data Analytics, IT Enabled Services and Prototyping

A Comparative Analysis of JavaScript Unit and End-to-End Testing Frameworks: Enhancing Quality Assurance in Modern Web Applications	1289
<i>Anujkumarsinh Donvir</i>	
A Data-Driven Approach to MBTI Personality Classification: Insights from Machine Learning Models	1297
<i>Fares A. Dael, Sybat Maidanova, Ibraheem Shayea, Gulnara Abitova, Aigul Seraly</i>	
A Knowledge Graph-Based Information Retrieval Method for Substation Safety Hazards	1304
<i>Yijun Yan</i>	
A Method for Constructing a Cross-Media Heterogeneous Information Network	1310
<i>Dong Wang; Kaidi Tian; Xiaoyu Chang; Fanqi Meng</i>	
A Study on the Impact of Microstructures Inside the Human Brain in Understanding the Progression of Alzheimer's Disease	1317
<i>Sikha Saha; Sandiparna Barman; Bratin Ghosh; Soumyajit Biswas; Abhijit Chandra</i>	
A Validation Perspective on Random Forest for Precise Remaining Useful Life Prediction	1322
<i>Keren Persis P, Radhika Sethuraman, R. Geetha, P.Tharaniya, Thalapati Rajasekaran, G Ashwin Prabhu</i>	
Advanced Remote Sensing Techniques for Underwater Fin Whale Detection in the Indian Ocean	1328
<i>S Vasavi; Akshaya Sura; Pranavi Chimirala</i>	
AI-Powered Real-Time Text Editor With Speech Recognition and Multilingual Translation	1335
<i>Anubhava Srivastava; Aditya Dwivedi; Shreya Shreya; Siddhinath Sahu</i>	
Analysis and Prediction Model of Big Data-Driven Electricity Consumption Behavior in the Context of Power IoT Environment	1341
<i>Weijing Yao, Xian Luo, Jundong Huang, Chen Yang, Xin He</i>	
Analysis of Training Optimization Strategy Based on Adaptive Hierarchical Genetic Algorithm	1347
<i>Xin Feng, Jin Wen, Fengyang Fu</i>	
Application of Artificial Intelligence Algorithms in B2C E-commerce Logistics Distribution Path Optimization ...	1353
<i>Min Zhao</i>	
Application of Interactive Genetic Algorithm in Product Human Machine Shape Design System	1359
<i>Wu Guo, Zhicong Wu</i>	
Comparative Analysis of One-Dimensional Regression Techniques	1365
<i>Mehmet Bora Kocabaş, Waheeb Tashan, Ibraheem Shayea, Murat Alibek</i>	
Comparative Effectiveness of Classification Algorithms in Predicting Diabetes	1371
<i>Fares A. Dael, D. Mareyev, Ibraheem Shayea, Kulniyazova, Korlan S., Gulnara Abitova</i>	
Corn Disease Detection Using Few-Shot Learning Prototypical Network	1379
<i>Ruchi Rani; Jayakrushna Sahoo; Sivaiah Bellamkonda</i>	
Crop Growth Analysis Across Indian States: The Role of Temperature, Humidity, Soil pH, and Rainfall	1384
<i>Neha Chauhan; Dinesh Sharma; Manish Gupta</i>	
Data-Driven Strategies for Improving Railway Ticket Demand Forecasting Accuracy	1391
<i>Tomiris Boltaikhanova, Fares A. Dael, Ibraheem Shayea, Rzayeva Leila</i>	
Design of Digital Agricultural Product Traceability and Quality Traceability System Supported By Big Data Analysis	1399
<i>Li Mu</i>	

Disordered Electricity Consumption Behavior Identification Method Based on Demand Response Load and Big Data	1405
<i>Mingjun Jiang, Mingyuan Ren, Lei Zhang, Sixing Chen, Changjuan Guo</i>	
Distance Intelligent Learning Based on Big Data Technology	1412
<i>Huanan Wang</i>	
Dynamic Region-Aware Fine-Tuning: Enhancing Geographic Inclusivity in Large Language Models	1418
<i>K Shantha Kumari, S.Udhaya shree, C.Calarany</i>	
Empowering Agility: Unleashing Performance Potential With Power BI in IT Project Management	1424
<i>Arijit Sengupta; Faizul Aziz</i>	
Enhanced Prediction of Happiness Scores Using Explainable AI and Ensemble Models With Socioeconomic Data	1429
<i>S Narendran</i>	
Fox- Based Feature Selection Algorithm for Detection of Parkinson's Disease	1435
<i>Neha Singh; Sapna Sinha; Laxman Singh</i>	
Framework-Agnostic JavaScript Component Libraries: Benefits, Implementation Strategies, and Commercialization Models	1441
<i>Kishan Kesari Gupta; Prashant Awasthi; Mahaboobsubani Shaik; Parag Ravikant Kaveri</i>	
Gamification Model for the Affective Commitment of the Technology Team in a Financial Institution	1447
<i>Daniel-Antonio Farias-Güich; Ciro Rodriguez</i>	
Interactive Crime Map Integrating Geospatial Data to Improve Public Safety in the City of Lima	1453
<i>Cesar Pena; Ciro Rodriguez</i>	
Leveraging LLMs for LLM-Generated Fake News Detection: Insights From COVID-19 Misinformation	1460
<i>Hong Ngoc Dao; Yasuhiro Hashimoto; Incheon Paik; Truong Cong Thang</i>	
Mining of User Behavior Patterns in Computer Big Data Based on Apriori Algorithm	1467
<i>Jianhang Wang, Haibo Wang</i>	
NLP in Business Analytics: Generating Insights From Textual Data Using NLP Models	1472
<i>Priyanshu Mishra, Parul Dubey, Ketki Ninawe</i>	
Predicting Crop Yields: Harnessing IoT Sensor Data for Accurate Forecasting and Sustainable Agricultural Planning	1479
<i>Kulesh B Abhayasundara; Jayakody Arachchilage Don Chaminda Anuradha Jayakody</i>	
Probability Algorithms for Data Statistics and Optimization Analysis of Parallel Systems	1486
<i>Xinyan Yu</i>	
Real-Time Accident Detection and Response System Using Resnet Algorithm	1493
<i>Sabitha R; Tejashree D; Yaashish G</i>	
Enhanced Potato Leaf Disease Detection Through Multi-Modal Fusion of Graph Neural Networks and ResNet18	1498
<i>Abhishek Bajpai; Yogesh Pal; Shaline Sahu; Vivek Srivastava</i>	
Sales Prediction for Imported Fruits Using a Linear Regression Model	1505
<i>Ankita Bose; Jayasravani Bhumireddy</i>	
Sales Predictions for Video Games Using Predictive Analytics of Market Data	1510
<i>Dashae Gray; Atef Shalan; Christopher Kadlec</i>	
Shanno Quadratic Algorithms for Effective Force and Position Control in Bilateral Teleoperation	1517
<i>Naveen Kumar; Niharika Thakur; Yogita Gupta</i>	
VR Applications and Vision-Based Recognition Techniques for Sign Language: a Survey	1527
<i>Sumayyah Seher; Kulsoom Abedi; Kulsum Fatima; Sadiya Badiwalla; Taha Houda</i>	
Author Index	