

2026 International Conference on Electronic Systems and Intelligent Computing (ICESIC 2026)

**Chennai, India
13-14 March 2026**

Pages 1–585

IEEE Catalog Number: CFP26BL1-POD
ISBN: 979-8-3195-2018-0



Copyright © 2026, IEEE

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:	CFP26BL1-POD
ISBN (Print-On-Demand):	979-8-3195-2018-0
ISBN (Online):	979-8-3195-2017-3

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

TABLE OF CONTENTS

A Development of Efficient Traffic Light Management System with Hybrid Deep Learning Techniques Through Population Dynamics in Smart Cities	1
<i>K. Umamaheswari, N Gowtham, T Ajay Prasanth, R Kumaresh, N Tharaneeh</i>	
An AI-Driven Adaptive Automotive Control System Using Synthetic Data Generation and Multi-Output Machine Learning	6
<i>A Benazir Begum, J Ajone, A Asorin Jarish</i>	
Enhanced Liver Tumor Segmentation and Feature Extraction Using Gaussian Filtering and LICA on CT Images	12
<i>D. Anandkumar, S. John Justin Thangaraj, C. Alamelu, M. Vallikkannu</i>	
A Secure and Explainable Dialogue System for Adaptive Symptom Assessment in Medical Chatbots	18
<i>Monish Kumar A, M A Thaswanth, A. Saranya</i>	
AI-Based Resume Screening System using Generative Artificial Intelligence	23
<i>M Dhivya, C Shwetha, J Sripriya, S Hemamalini</i>	
Ai Powered Smart Energy Solution For Theft Detection and Intelligent Billing In Home and Eb Offices	29
<i>S Divya Dharshini, L Nancy Infanta, R Sahana, D Selciya, L.Hubert Mary, W. Nancy</i>	
A Novel Semi-Supervised Skeleton Data-Based Action Recognition System using Graph Representation Alignment Model	35
<i>V. Sankari, R.Senthamil Selvi</i>	
An Enhanced Text Classification Performance Using Hybrid Deep Learning Procedure	41
<i>R. Deepa, R.Senthamil Selvi</i>	
VANET Integrated Multi-sensor Framework for Real-time Road Surface Anomaly Detection and Vehicle Health Prognostics in Intelligent Transportation System	48
<i>P Abinayashree, S Gopika, D Jayasri, W. Nancy, J.Venu Gopala Krishnan, M. Indumathi</i>	
Enhancing Communication for Deaf and Hard Hearing People Using Real Time Augmented Reality Captioning Glasses with Sign Language	54
<i>A.R Kavitha, Avinash Venkatraman</i>	
AI Guardian Chain Using Hybrid IoT Sensing and Context-Aware Intelligence for Real-Time Navigation and Autonomous Emergency Response	60
<i>S Revathi, V Abinaya, B Janani, N Satish, Ashka Shaji, M Mugila</i>	
A Deep Ensemble Learning System for Smart Helmet Detection and Automated Traffic Fine Notification	66
<i>M.R. Nithya, K Naveen, N Satish, D J Praveen, V Barath, V Sanjay</i>	
An Artificial Intelligence–Driven Computational Framework for Quantitative Analysis of Narrative Structural Transformation in Literary-to-Cinematic Adaptations	72
<i>V. J Bharathi, R. Rajakumari</i>	
Blockchain-Enabled Architecture for Secure Validation of Medicines and Consumer Products	78
<i>K. Maithili, S V Hemanth, S.Tejas Reddy, S. Amutha, Krishnaveni N, Minu Inba Shanthini Watson Benjamin</i>	

Vector: Canonical Intent Graphs and Mode-Aware Execution for State-Persistent Web Interaction	84
<i>Gautham Venkatesan, B Sharan, P Rama, J. Kalaivani, V. Angayarkanni</i>	
Classification of High-Impact IPL Players for Fantasy Cricket Selection Using Machine Learning	90
<i>T Kumaragurubaran</i>	
Detection of Ad Click Fraud Using Hybrid Machine Learning and Deep Learning Algorithms	96
<i>Ch.Kranthi Sai Ramesh Babu, M. Sai Dinesh, P. S. Ramesh</i>	
Data Finger Printing and Visualization for AI Enhanced Cyber-Defense	101
<i>R. Janaki, Bejagam Ramarao, Chava Venu, Gera Kiran Babu, Guntupalli Chanikya Chandu</i>	
A Multilingual Text-Audio Framework for Cyberbullying Detection on Social Media Using Transformer Models	107
<i>N. Madhusudhana Reddy, B. Ravi Kumar, S. Ramakrishna, C. Nagaraju, M. Kiran</i>	
Model Context Protocol Driven Reinforcement Learning Framework for Next Generation LLM Training	113
<i>Devendra Babu Tati, Bhanu Prakash Reddy Nareddy</i>	
Predictive Analysis of Global Greenhouse Gas Emissions Using Regression-Based Machine Learning Models	119
<i>Rajaram Pichamuthu</i>	
Bitcoin Price Detection Forecasting Using Time-Aware Machine Learning Models	125
<i>K Senthil</i>	
EcoEats: An AI-Driven Sustainable Food Delivery Platform Integrating Carbon Footprint Prediction, Green Routing, and EcoScore-Based Decision Support	131
<i>Ritam Nandi, Shaik Suhail, Pradeep Sudhakaran</i>	
The Effectiveness of using Artificial Intelligence in Supply Chain Management	137
<i>C Arulselvan, V Adesh, N Umesh Reddy, Leena Jenefa, E. Rushit Gnanaroy, M. Jayakumar</i>	
Curiosity: An AI-Powered Agentic Search Engine for Knowledge Discovery and Productivity	142
<i>Atharv Kumar Tiwari, B. Aditya Madhav, R. Thanga Selvi</i>	
A Deep Reinforcement Learning Approach for Adaptive Energy Optimization in MANET-IoT Networks	148
<i>P. Uma Maheswari, R. Sheeba</i>	
Automatic Animal Skin Disease Detection Using Transfer Learning with MobileNetV2	154
<i>S Kathir, K Sudharshan, Monishkumar Balaji, Kalaichelvi Nallusamy</i>	
AI-Based Internship Recommendation Engine for the PM Internship Scheme	160
<i>D. Rosy Salomi Victoria, L Gokulraj, R Hem Kumar, S. Roselin Mary, S Nithya Roseline</i>	
AI-Driven Agent System for Local MCP Task Automation And Dynamic Tool Integration	166
<i>E. Poongulali, A. Balakrishna Reddy, K. Arun</i>	
Boosted Inception Shared-Backbone using KD for Fine-Grained Animal Image Classification	171
<i>S.Pavan Kumar Reddy, Manideep Pasunuri, Sakshi Malipatel, Pardha Saradhi Nakka</i>	
AI Powered Smart Farming Ecosystem	177
<i>Krishnav Mahanta, Shaik Shahid Hussain, G Abinaya</i>	

Modeling Global Food Availability from Feed Allocation Patterns: A Machine Learning Perspective	183
<i>S Sivagami</i>	
Automating Architecture Tradeoff Analysis in Microservices Using Machine Learning Models	189
<i>Almas Begum</i>	
Efficient Brain Tumor Classification Using Vision Transformer Feature Embeddings and Classical Machine Learning	195
<i>G Ayyappan</i>	
Automated ECG Arrhythmia Classification Using Logistic Regression and Random Forest	201
<i>S Senthilvadivu</i>	
Synergistic Interaction Model for Enhanced Assistive Communication Interfaces	207
<i>V. Ravikanth, Naru Harshini Reddy, Battula Harshitha Reddy, Mangali Hemanth</i>	
Automated Chest X-Ray Report Generation Using Vision-Language Models	213
<i>G. Vennila, Sana Mehnaz Pathan, Bingumalla Venkata Jaya Ranjan, Syed Shakeer Ali Choppa Venkata Manikanta</i>	
Noise-Aware Hybrid Classical-Quantum Framework for Android Malware Detection	219
<i>Gokulakrishnan Mohandass, S Monish, M Kowsigan</i>	
Smart Style: AI-Powered Virtual Stylist for Personalized Fashion Recommendations	225
<i>A S Syed Fiaz, Abdul Mahaboob Fazil, M Abdullah, M Aravindar V, R. Rajmohan</i>	
Efficient Lung Segmentation from Chest Radiographs Using a MobileUNet Architecture for Resource-Constrained Environments	231
<i>G Sriram, Sujith Bysani Santhosh, Priyanka Nallusamy, R Arumuga Arun, R Adaline Suji C Chandru Vignesh</i>	
Cross-Platform Women Safety Mobile Application with Real-Time Alert System and GPS Tracking	237
<i>P. Jothilakshmi, M S Rishikesh, M Y Srikanth</i>	
A Quantum Assisted Secure Data Transmission Architecture for Hybrid Classical Quantum Communication Systems	243
<i>C. Gowdham, T. Godhandaraman, K. Vengatesan, R. Sriramkumar, B. Lingampalli, M. Lakshmanan</i>	
An Interpretable Machine Learning Method For Early Autism Spectrum Disorder Prediction	248
<i>Ajmiya Nizam, Sherin Eliyas</i>	
Healthcare-AI: A Disease Prediction System using ML Based on Symptoms	254
<i>Polavarapu Pavani, Munnangi Ashok Kumar, Velamuri Keerthi Sri, Dharmavarapu Satya Surya Teja</i>	
Adaptive Sobel Edge Detection with Multi-Scale Gradient Optimization for Robust Medical Image Analysis	261
<i>Gutti Naga Swetha, P. Ysaswini, M. Sreevani, A. Sreenath</i>	
Sentiment Analysis of Public Feedback on Government Schemes using Social Media	266
<i>Yesaswini Arikatla, T. Lakshmi Surekha, Hemalatha Jonnala, Swetha Talluri</i>	
Time-Series-Conscious Ensemble Learning Approach for Maize Yield Prediction	272
<i>K.V. Sai Charan, P.C. Rehan Raja, G Tamilmani</i>	

Behavior-Aware Cybercrime Detection on Social Media Using Semantic, Behavioral, and Temporal Intelligence	278
<i>A.L. Keerthana Rani, M J Carmel Mary Belinda</i>	
Vision-Based Guidance System for the Visually Impaired Across Indoor and Outdoor Spaces	284
<i>T Athish, K Cheran Alias Abishek, T Gowtham Raj, U M Ramya</i>	
Lead HeatScore: An AI-Driven Lead Classification and Outreach Recommendation System	290
<i>D.Rosy Salomi Victoria, P Roshika, B. Padmavarshini, Sumit Kumar, K. Gunasekar</i>	
Electric Vehicle Range Prediction Using Regression-Based Machine Learning Models	296
<i>M. Uthayakumar, M. Pethuraj</i>	
Hybrid Deep Learning-Based Multi-Class Brain Stroke Classification Using CT Imaging with Optimized Feature Learning	302
<i>P G Priyadharshini, A Ranjith Kumar, Sashmitha Babu, I Prassana</i>	
A Multimodal Transformer-BiLSTM Framework for Temporally Coherent Video and Text Summarization	308
<i>M A Asvika, R K Sundaram, M A Christy Grace</i>	
AI-Driven Battery Life Management Using Decentralized Power Scheduling Data in Wireless Sensor Networks	314
<i>M. Elza Melif, I. Muthulakshmi</i>	
An Optimal Evaluation of Entanglement Depth in Variational Quantum Classifiers for Efficient Deployment of Machine Learning Applications	320
<i>Aryan Sahni, Krishnesh Mathur, Yashvi Diya Singh, Kowsigan M</i>	
Robust 3D Stacked Nanosheet Capacitorless 1TDRAM	326
<i>E Veera Boopathy, B Dhivya, R Rajalakshmi, M Ishwarya Niranjana, T Renita Pearlin, K Rajeshwaran</i>	
Perception Intelligence-Based Neuro-Fuzzy Framework for Real-Time Autonomous Vehicles Using Monocular Vision	332
<i>G Paramesh, G Arulkumaran</i>	
Ephemeral Bastion: A Lightweight Zero-Trust Framework utilizing Blockchain-Backed Auditing and JIT Certificate-Based Authentication	338
<i>Ramu Para, S.M. Udhaya Sankar, Aswanth Babu, N Kishan Jai Soorya, G Harikumar</i>	
Congestion-Aware Bi-Level Optimization of Electric Vehicle Charging Infrastructure Using Real Urban Road Networks	344
<i>Riwaj Adhikari, Jagarlapudi Narasimha Karthikeya, Guduru Ritesh, M.R. Rashmi, Hoong Pin Lee</i>	
Reconfigurable Microstrip Patch Antenna for Radar Application	350
<i>G Thirunavukkarasu, A G Pranesh, V Paul Rozario, R M Prasanna Sabari</i>	
Strategic Analysis of the Global Widebody Aircraft Market: AI-Driven Fleet Optimization, Interior Innovation, and Supply Chain Resilience	356
<i>M Kanisha, P Prince, Leena Jenefa, Sachin Sabharwal, S Ashok Kumar, M. Jayakumar</i>	
Multi-Directional SPAM Feature Extraction for Enhanced LSB Steganalysis using Random Forest Ensemble Learning	361
<i>Vibhor Agrawal, Priyanshi Gupta, Islabudeen Mohamed Meerasha</i>	

Smart Fall Guardian: Cloud-Based Real-Time System of Monitoring Falls on the basis of IoTEnabled Wearables and Smart Fuzzy Logic Analysis	367
<i>R Sherlin Preethi, SP. Chokkalingam, C Alamelu</i>	
An Intelligent AI-Based Framework for Automated Educational Video Generation	373
<i>T Kathiyan, M Kishore, D Priyanka</i>	
Energy-Efficient Task Offloading in Multi-Tenant Edge Clouds	379
<i>Srinivasu Yalamati</i>	
Computational Analysis of Mapping Resolution in Cardiac Digital Twins: High-Density Grid vs. Contact-Force	385
<i>Shashank Kotagi, Chethan Sharma, A.N. Ramya Shree, M Madhukar, Nisha P Shetty</i>	
Sign Language Gesture Recognition via Temporal Attention Networks	391
<i>S Poonguzhali, N. Sarika, D. Meenakshi, R. Muthulakshmi, G. Elakkiyaselvam, S. Sowmyayani</i>	
A Systematic Study of Machine Learning Frameworks Enabling Scalable Secure and Explainable Artificial Intelligence in Salesforce CRM Platforms	396
<i>Achuta Krishna Kishore Varma Alluri</i>	
An Attention-Guided CNN–BiGRU Framework for Multi-Class Epileptic Seizure Classification Using CEEMDAN-Decomposed EEG Signals	402
<i>A Aameer Arshath, D Karthikeyan</i>	
Weather Satellite Image Reception using SDR and Automatic Antenna Tracking	408
<i>A Sindhuja, G Harini, A Tamilselvi</i>	
A Multimodal Fusion Network for Real-Time AI-Driven Retail Product Optimization	414
<i>I Surenther, K Manoj Kumar, M Balachandharsriram, N Senbagavalli</i>	
Privacy-Aware Federated Large Language Model Adaptation Using Encrypted Gradient Aggregation	420
<i>Gade Shiva Kumar, Basha Vankudothu, Abhishek Kumar Tiwari, V.P Gladis Pushparathi, B Sathiya U D Prasan</i>	
Meta-Learning-Driven Channel Forecasting for Robust mmWave Beam Reliability Enhancement in Dynamic Environments	426
<i>Mukund Anant Kulkarni, R. Krishnamoorthy, G. Gokulakrishnan, P. Poonkuzhali, B.Ramana Reddy Kusuma Sundara Kumar</i>	
A Cross-Modal Vision–Language Alignment Framework for Explainable and Human-Centric Satellite Image Interpretation	432
<i>Kvn Gunavardhan, P.P. Nagaraja Rao, Soundarya S, Subhashini. Tata, M. Kamaraju, U D Prasan</i>	
AI Powered Decision Intelligence Frameworks for Predictive and Prescriptive Business Optimization in Salesforce Enterprise Platforms	438
<i>Achuta Krishna Kishore Varma Alluri, Shantanu Barde</i>	
Ensemble Supervised Intrusion Detection System for Wireless Sensor Networks	444
<i>P.Thiru Moorthy, S. Suchitra, S. Manju Bashini S</i>	
Predictive Modeling Of Customer Attrition In The Banking Sector	450
<i>P.Thiru Moorthy, S Manju Bashini, S Suchitra</i>	

An Intelligent IoT-Enabled Physiological Surveillance Framework for Early Cardiac Risk Detection and Emergency Intervention	456
<i>V. Gomathi, K Nandha, M Dhinesh Raj</i>	
A Performance-Centric Investigation of ICT-Enabled Information Integration and Decision Support in Healthcare Supply Chain Systems	462
<i>S. Surendharan, M Krithika</i>	
An Efficient Retinal Vessel Segmentation Through Modified NOA Algorithm based Feature Selection and CrossViT for Feature Extraction	468
<i>M Soujanya, A Swathi, Imad Shalout, Preeti Khurana, G. Ramkumar, Chitukula Navya Sree</i>	
A Novel Optical Coherence Tomography Model with Aggregated Channel Attention Up sampling and Diffractive Deep Neural Network	474
<i>K M Rayudu, Ja'Far A Aldiabat Al-Btoosh, D Vidyanadha Babu, T P Ramachandran, Bh Prashanthi Sreeja Vijay</i>	
Efficient Task Execution Model with System Safety Using Edge Convolutional Neural Networks in Computer Vision Cloud Service	480
<i>K Ganapathi, R Manasa, Ashraf Shaqadan, Srilakshmi Aluri, Maranan Ramya, Vijaya Vardan Reddy S. P</i>	
A Development of Efficient Task Scheduling and an Improved Quantum Genetic Algorithm in an Internet of Things based Edge-Cloud Environment	486
<i>M Muthamizh Selvam, N D Bilal, K. Nithya, Abla Suliman Hussein, S. Kaliappan, Srilakshmi Aluri</i>	
Experimental Evaluation of Network Anomaly Identification System based on Security assisted Machine Learning Methodology	492
<i>Satvik, Annanay Rangta, Syed Faheem, S Ramesh</i>	
Very-Large-Scale Integration Implementation using Multiplier Topologies with BTC Algorithm and Threshold Optimization for Efficient Computation	499
<i>R Manasa, Ahmad Al-Qerem, B Mouli Chandra, R Govindaraj, G. Karthik, Bharathi Panduri</i>	
An Efficient Malware Detection and Protection Mechanism Design using Machine Learning Principles	504
<i>Ashmit Shandilya, Dikshant Redhu, Nishchay Manhas, S Ramesh</i>	
Development of Multilevel Secured RFID and GPS based Smart College Bus Tracking System with Internet of Things and Integrated Security	511
<i>Prasanth B, K. Umamaheswari, Abishek S, Nicksan Roj A, Nisanth Pa, Sai Ganesh G</i>	
Enhancing Road Safety through Deep Learning Approach for Driver Distraction and Drowsiness Detection	516
<i>Madhumita Shenbagaraman, A. Jeyasekar</i>	
DeBERTa-CapsNet: A Hybrid Transformer-Capsule Network for Fake News Detection	523
<i>P Josephin, N Joseph Jeyaranjan</i>	
Integrating Internet of Things in Sustainable Automotive Supply Chains Enhancing Transparency, Efficiency and Environmental Performance	528
<i>S. Aneesha Bhanu, M. Krithika</i>	
Enhanced Channel Selection and Improved Dingo Optimizer for Wearables in 6G Assisted Wireless Body Area Network based Healthcare Environments	534
<i>S Srividhya, S. Srividhya, S. Selvakumar</i>	

Edge Deployable Attention Optimized Network for Real Time Ultrasound Image Analysis	539
<i>M. Priscilla, R. Harshini, R Premalatha, G. Karthika, Nalam Durga Prasanna, N.R Gladiss Merlin</i>	
Intelligent MRI-Based Brain Tumor Detection Using CNN Architectures	545
<i>T. Manju, S.R. Asvitha Fatimaa, S. Darshini</i>	
FinOps-based Cloud Cost Optimization Using Billing Analytics and Anomaly Detection in GCP	551
<i>R. Rakavi, K. Divya Dharshini, A. Shuveta Jovi, R Thenmozhi</i>	
Lightweight CNN–Attention Framework for Real-Time Crop Disease Detection	557
<i>S. Senthil Kumaran, P. G. Akila, I. Karthikeyan</i>	
An Attention-Based and YOLO Hybrid Vision Framework for Real-Time Road Obstacle Detection and Driver Distraction	562
<i>S Revathi, N Satish, P Balu, S Mohammed Navas, M Velusamy, N Rajeshkannan</i>	
A Wearable IoT–Driven System for Accurate Fall Detection and Continuous Health Monitoring of Elderly Patients	568
<i>J Anuragh, J Jebastin Darios, V Prasannakumari</i>	
Artificial intelligence Based Self-Balancing Kinematic Automation Mechanism for Energy-Efficient and Load-Independent Mechanical Actuation	574
<i>R. Senthilmurugan, S. Sridevi</i>	
IoT-Enabled Smart Driver Seat for Real-Time Monitoring of Driver Safety and Alertness in Four-Wheelers to Prevent Accidents and Enhance Road Safety	580
<i>K.A. Pradeep, K. Sabari, T. Viswanath Kani, B. Vinoth, S. Vishwa</i>	
A Hybrid YOLO and Vision-Inertial Learning Framework for Clone-Based Object Detection in Autonomous Drone Autopilot Systems	586
<i>N Satish, V Meena, M Charanbalaji, S Harikrishnan, P John Priya Kumar, J M Tharun</i>	
Automatic Non-Invasive Blood Group Detection Using CNN With MobileNet	592
<i>B. Senthilnayaki, J M Anito, K R Jayasiddharth</i>	
Blink Verified Face Recognition Attendance System Using Dlib Embeddings and Deep Learning Techniques	598
<i>R Deephika, S Kaviya, N Gowri Vidhya</i>	
Secure Rare Disease Data Sharing and Outcome Prediction Using Blockchain	603
<i>B. Shanmuga Sundari, I. Muthulakshmi</i>	
Enhanced Emergency Vehicle Detection through Vision-Audio Fusion of InceptionV3 and Audio Transformers	609
<i>R Reeta, R Babu, K Vijay, M. Buvana</i>	
Probabilistic Machine Learning Approach for Alzheimer’s Disease Risk Prediction	615
<i>S Krishika, Amrutha Reddy Medapati, Logeshwari Dhavamani</i>	
Predicting Anomalous and Age Consigning During Heists	621
<i>S Bhuvana, S Harini Shree, H Niroshini Infantia, E Christopher Siddarth</i>	
Intelligent Parking Solutions for Efficient Space Management	627
<i>V Priya, D Prabakar, A Geetha, R Pradeep, S Karthi</i>	

Edge Intelligence Enabled Predictive Maintenance Framework for Smart Manufacturing IoT Environments	633
<i>K. Radha, A. Vanathi, S. Agnes Shifani, S. Madhubalan, Chinta Sri Divya, R Kamalakannan</i>	
Reversible Logic Based Green VLSI Architecture for Sustainable Energy Efficient Computing Systems	639
<i>Balamuralitharan Balakrishnan, P. Shyamala Bharathi, A Jayalakshmi, R. Ashwini, P Keerthana A P Ramesh</i>	
Explainable Multimodal Vision Transformer for CKD Prediction and Stage Classification	645
<i>V Nivethitha, K S Manoj, K Sai Poojitha</i>	
Transparent Multi-View Learning Framework for Automated Skin Cancer Classification	651
<i>K.G. Mohanavalli, S. Suthir</i>	
Memory-Augmented Retrieval for Long-Context Conversational AI: A Comparative Analysis of Adaptive Memory Mechanisms	657
<i>Sahil Pareek, Shri. Nivethithavijayaraj</i>	
Early Detection of Chronic Traumatic Encephalopathy (CTE) Risk Using Multimodal Digital Assessments and AI-Based Analysis	663
<i>Aadit Vinayak, Michael Ryan</i>	
An Experimental Demonstration for Anomaly Detection in 6G-Enabled Healthcare Environment Using Spiking Neural Networks – A Cyber-Physical System	669
<i>Balamuralitharan Balakrishnan, R Premalatha, R. Sankar, G Gayathri, K. Syamala Kalyani, M. Tamilselvi</i>	
Neuro-Causal Resilience (NCR): A Certified Multimodal Intrusion Detection and Autonomous Defense Framework	674
<i>Thripathi P Balakrishnan, Suthir Sriram</i>	
A Data-Driven Empirical Study of Healthcare Investment and SDG-3 Health Outcomes	680
<i>C Rohit, Saksham Kumar Gahoi, Soumya Jain, D Praveena Anjelin</i>	
Robust Vision–Language Reasoning: Spatially Structured and Uncertainty-Aware Summarization Models	685
<i>P Deepthi, Sriramsuthir</i>	
Explainable Artificial Intelligence for Multi-Cancer Detection Using Accurate Computational Models	690
<i>Vijayaraj Nivethitha, Maddipatla Chetan, Yadhav Balaji Rao</i>	
Startup Bridge - A Secure Startup - Investor Networking Platform	696
<i>D. Abitha Kumari, Ashwin D, Ajay Antony T, Shaik Mohammed Yaseen, Potturi Akshitha Chowdary</i>	
Detecting Hateful Multimodal Content on Social Media with Attention-Augmented Deep Learning	702
<i>Janani Srinivasan Anusha, S. Baghavathi Priya, Krithikha Sanju S, Venkateswaran Radhakrishnan</i>	
Realtime Predictions and Channel Pruning in Bilateral Feature Pyramid Network using Deep Learning Approach in Agricultural Environment	708
<i>Kolamala Sumathi, K V J Bhargav, Abdullah Khatib, V Radhamani, M Ramya, V Manasa</i>	
Experimental Demonstration for Pancreatic Cancer Detection of Using Deep Learning Approaches and Random Masking Strategy	714
<i>L Lakshmi Tejaswi, D Sharada Mani, Ja'Far A Aldiabat Al-Btoosh, G. Ramkumar, Vikas Verma Deeksha B Shirahatti</i>	

Quantitative Evaluation for Microcontroller based LPG Gas Control for Sustainable Safety Monitoring Using Google Cloud and Raspberry PI	719
<i>M Gopi, K Umamaheswari, G. Saravanan, R Giriraj, S Gokul, R Premkumar</i>	
Physics-Guided Boundary-Aware Deep Learning for Robust Water Segmentation Using HydroPhysNet	724
<i>Yadhav Balaji Rao, S Suthir</i>	
Incipient Location and Fault Detection in Underground Cable Through Traveling Waves and Integrated AI Systems Using Enhanced CNN and LSTM Model	730
<i>V Puvikko Chezian, K Uma Maheswari, Dr Ajai Venkatesh, R Divya Dharsan, Kc Guruprasath, S Saran</i>	
Optimized Drone Network Through Ground Control Points and Energy Management approach with Linformer-based Efficient Attention Mechanism	735
<i>M Venu Gopala Rao, M Nagajyothieswari, R. Madhana, Ja'Far A Aldiabat Al-Btoosh, S. Kaliappan Akila Venkatraman</i>	
An Innovative Road Safety System and Transport Management with Pedestrian Road Crossing Alert Using Explainable Artificial Intelligence	741
<i>P. Arulkumar, R Ragupathi, S Vijaya Kumar, P Saravanavasan, K J Shanjai Eswaran</i>	
Electromagnetic Design for Secured Nonlinear Robot with Triple Mode and Signal Jamming Using Neural Networks and Multimodal Locomotion	746
<i>G. Saravanan, G Siva Magesh, T Kavın Kumar, P Arun Kumar, K Vasathakumar</i>	
Hybrid Machine Learning approach and Statistical Ensemble Model for Spatiotemporal Crop Yield Prediction	751
<i>N Satish, K Akash, A Kishor, M Kumaravel, Gokulraj, K Sabari</i>	
Intelligent Recruitment Scam Detection Framework Using Deep Semantic Learning and Ensemble NLP	757
<i>V Meena, K Abishek, C R Yogeth, N Satish, R Karthik, Rk Srinivasan</i>	
Hybrid Deep Motion Analytics and Pose Estimation Framework for Intelligent Fitness Performance Evaluation	763
<i>V Meena, T Deepan, L Narendhiran, N Satish, R B Logesh Kumar, D Sanjay</i>	
Unpredictability Aware Deep Ensemble Learning Model for Reliable Clinical Medical Image Decision Support	769
<i>N. Rupadevi, M Supriya C, K Revathi, R. Harshini, Chitneedi Kasi Viswanadham, R Premalatha</i>	
Novel Approach for Design of Autonomous Multi-Robot Networks with Efficient Deployment and Obstacle Avoidance in Unknown Environments	775
<i>R Premalatha, A. Vanathi, Arun Kumar Selvam, Venkatesh Vakucherla, S.A Shifani, R Kamalakannan</i>	
Surface Flood Diffusion and Inundation Analysis in Multitemporal Sentinel-1 Dataset Using Improved K-Means Clustered Segmentation	780
<i>A. Lakshmi Parvathi, Omar Mustafa Ahmad Al-Omari, R. Sai Lavanya, Bharathi Panduri, Maranan Ramya Ata. Kishore Kumar</i>	
Design and Development of Enhanced Ultrasound Vibration Potential Imaging Process Using MobileNetV2 and Efficient Stability Analysis	785
<i>M Chiranjeevi, Ahmad Al-Qerem, D V Ashok, Akila Venkatraman, S. Kaliappan, Sreeja Vijay</i>	

Energy Adaptive Reconfigurable Neural Accelerator Architecture for Efficient Edge Artificial Intelligence Applications	791
<i>S. Lt. Prem Anand, Omar Alidmat, J. Lakhmi Prasanna, Pushplata Dubey, N. Meenakshi Sundaram Ginni Nijhawan</i>	
Deep Learning Framework for Crowd Density Estimation and Motion Analysis	797
<i>K Vijay, D Dhanush Ishwar, P Ezhil Adhithya, N Avishikar Kannan, S P Surweesh, N Shriram</i>	
EcoSort AI: An Intelligent Waste Classification and Disposal Recommendation System	803
<i>Sherphia Let S, Mohan Bhashya, Prithi Samuel</i>	
Hybrid Machine Learning Framework for Accurate Used Car Price Prediction Using Regression and Ensemble Models	809
<i>Koushik Sundar, R Vijayakumar, I Eugene Berna, M Vimalan, Y Arockia Raj</i>	
Combined OCD-FCNN and Explainable Machine Learning Framework to Diagnose Ovarian Disorders	814
<i>S. Kayasandigai, V. Vinothkumar</i>	
A Lightweight Transfer Learning Framework for Deepfake Audio Detection using Mel- Spectrograms	820
<i>Thuraka Sai Jeevan, K. Jai Ram, R. Rajmohan</i>	
Facial Recognition Based Attendance Management in Educational Institution using Cloud	826
<i>M Sumathi, N Vijayaraj, D. Rajalakshmi</i>	
A Cost-Effective System Design and Monitoring for Analog and Digital Sensors with Key Exchange Algorithm for Smart City Applications	832
<i>N. Nagaraju, Ja'Far A. Aldiabat Al-Btoosh, T. Sreenivasa Murthy, Bhavani G, Aman Mittal, D. Siri</i>	
An Early Detection of Multi-Class Skin Lesion Using Convolutional Neural Network Architecture and Kernel Soft Plus Extreme Learning	838
<i>Mohana Prasad Mendu, Ashraf Shaqadan, Sk. Rabbani Basha, V Senthil Kumar, Preeti Khurana, L Deepak</i>	
AI-Powered Smart Document Classification for Automated Document Management Systems	843
<i>S. Uma, S. Ramya, S. Naveenkumar, R. Vijay Ragav</i>	
POSBERT: Particle-Optimized Sentiment BERT for polarity detection on Twitter data with explainable AI	848
<i>A. Emily Jenifer, Thaventhiran Chandrasekar, Praveen Kumar Karunanithi, B.Bharathi Kannan M Prasannakumar</i>	
Weight Factor Optimization and Load Resistance with Smart Sensing in Wireless Body Area Networks (WBANs) Using AI and DNN Architectures	853
<i>M. Soujanya, Khaled Alqawasm, A. Vasu Babu, Tara Singla, K. Sailaja, J. Lakhmi Prasanna</i>	
An Effective Multidrug-Resistant Tuberculosis Detection Using DenseNet121 Feature Treatment and Feed-Forward MLP Classification	858
<i>M. Ganesh Kumar, Imad Shalout, D Chaitanya, Sourabh Kumar, S. Sophana Jennifer Desai Fiyancy Sanjaybhai</i>	
An Enhanced Cybersecurity and A Fermatean Fuzzy Approach for Cooperative Smart Farming Architecture Using Machine Learning Models	864
<i>Pulicharla Venu Gopal, Ja'Far A. Aldiabat Al-Btoosh, M. Rama, K Revathi, Gaurav Gupta, Ramesh Banoth</i>	

A Hybrid Explainable Deep Learning and Linguistic Feature Framework for Psychological Character Analysis	869
<i>V Parkavi, Meera Karthikeyan Nair Sathikumari, R. Rajmohan, A. Palaniappan, V. Srija, R. Kanagaselvam</i>	
An Interpretable Ensemble Neural and Symbolic Learning Framework for Pattern Discovery Across Literary Eras	875
<i>S. Nandhini, Bujji Babu Velagaleti, M. Udhayakumar, S. Padmapriya, Tahmeena Fatima, R. Kanagaselvam</i>	
A Hybrid Ethical AI and Context-Aware Language Modeling Framework for Interpreting Postcolonial Literature	881
<i>Sugantha Ezhil Mary, Nabanita Das, Sangita Tanaji Ghodake, Shreeja Shreekumar Pillai Tahmeena Fatima, R. Kanagaselvam</i>	
Interpretable Ensemble Learning for Multi-Domain Classification: A Performance–Interpretability Trade-Off Analysis Using Rule-Based and Hybrid Models	887
<i>K. Pavithra, M. RamkumarProfessor</i>	
Machine Learning Meta-Fusion Framework for Multi-Channel Retail Operations and Market Trend Governance	893
<i>Gnana Sagaya Raj, Khaled Jumah, Y V Bhaskar Reddy, Gaurav Gupta, R. Kannamma, D Siri</i>	
AI-Enabled Hybrid Decision Engine for Real-Time Financial Risk Forecasting in Enterprise Capital Management	899
<i>N Srinu, Thaer Faisal Abdelrahim Qushtom, K Latha, Preeti Khurana, S. Famitha, D Siri</i>	
Deep Hierarchical Hybrid Learning Framework for Autonomous Organizational Knowledge Mining and Productivity Forecasting	905
<i>G Vamsee Krishna, Abdelhalim Mohammad Jubran, M Manideepika, E. Padma, K. Venkataramanan G Karuna</i>	
Hybrid ML Ensemble for E-Commerce Fraud Governance, Trust Scoring, and Transaction Reliability Management	911
<i>Netranandha Behra, Khaled Jumah, V Gopinath, Ginni Nijhawan, Geeta Padole, Smitha P B</i>	
AI-Orchestrated Hybrid Optimization Framework for Strategic Leadership Intelligence and Policy Planning	917
<i>D Ananda Babu, Maan Hussein Mansour, N S R Srikanth, Soosan Chhabra, Geeta Padole</i>	
Deep Hybrid Spatiotemporal Learning for Smart Facility Management and Energy-Aware Enterprise Operations	923
<i>Mohyedin Hamza, K Kishore Babu, G Hariharan, A Lakshmi Parvathi, J Alekhya, I Arun</i>	
A Modular Edge-Assisted Deep Learning System for Real-Time Intrusion Detection in Smart Surveillance	929
<i>M. Saranya, S Fazil, R Muthumari, B Nivethithan, S Meiyarul, R Ranjithkumar</i>	
Hybrid Machine Learning and Queuing Theory Approach for Real-Time Hospital Resource Allocation	935
<i>K. Sasikala, S. Karpagalakshmi, M. Rajeswari, C Abinaya, E Janani</i>	
AI-Powered Low-Dose CT Reconstruction using Autoencoders for Radiation Risk Reduction	941
<i>S.Maflin Shaby, N. Vasuki, R.A. Priya, S Nithyanandh, M. Sornavalli, S. Krishnakumari</i>	
Virtual Health Assistant AI-Powered System Checker and Intelligent Healthcare Support Platform	947
<i>A Soujanya, Imad Shalout, Lavish Kansal, N Jayashree, J.Lakhmi Prasanna, R Sri Kumar</i>	

Behavioral Anomaly Detection Framework Using AI for Intrusion Defense in Cyber-Physical Systems	952
<i>M. Nirmal Kumar, T. Vijayan, B. Karthik</i>	
Integrated IoT and Deep Learning Architecture for Real-Time Crop Stress Detection and Irrigation Optimization	958
<i>S.P. Saranya, S. Abinaya, K Manoj Kumar</i>	
Campus Lifestyle Analytics and Academic Success Using IoT-Based Behavioural Tracking	964
<i>G. Swarnalatha, S. Mohan, G Saabakarini</i>	
Effectiveness of Online Learning Platforms Enhanced by Virtual Reality and AI Tutoring Systems	970
<i>G. Gowtham, K. Yasotha, R Siddharth</i>	
A Hybrid Authentication and Trust-Based Routing Protocol for Mobile Ad Hoc Networks	976
<i>P. Mathiazhagan, R. Kavitha, M Rohith Ram</i>	
Empowering Advanced Analytics: The Role of NLP and Semantic Modeling in Self-Service Risk Intelligence	982
<i>Vinoth Kumar Arumugam, Jeevitha Sakkarai</i>	
Adaptive Defense Mechanisms for Improving Adversarial Robustness of Deep Learning-Based Intrusion Detection Systems	988
<i>Mukesh Kumar, Ritika Mehra Professor</i>	
A Data Mining–Driven Predictive Framework for Energy Optimization in Smart Residential Environments	994
<i>R.Chithrai Selvi, N.Shanmuga Priya</i>	
SmartScore: A Deep Learning Approach for Predicting Final Scores in IPL Matches	1000
<i>M V L N Raja Rao, Lakshmi Sathvika Devanaboina, Koppaka Gnanendra Chowdary, Karra Geethika Mugata Dhanunjay Prabhakar</i>	
Diagnosis of Brain Tumors Using Deep Segmentation and Transfer Learning	1006
<i>D.E. Gnana Shiney, Shaik Sabeya, Pedasingu Sai Sushma Sri, Rajulapati Vijay, Tata Varun Kumar</i>	
Graph Learning Framework for Predicting ShortHorizon Market Responses to Analyst Rating Adjustments	1012
<i>Suheel, M Chetana, N Nirmala, R. Jayashree, J. Lilly, G. Venugopal</i>	
IoT and AI Based Smart Agriculture System for Real-Time Soil Nutrient Monitoring and Precision Fertilizer Management	1018
<i>S. Vinodhini, M. Sindhuja, P. Saravanan, S Sathya</i>	
Robust Deep Temporal Feature Extraction for Authentication Using Raw ECG and Bidirectional LSTM	1024
<i>K Dhikshanya, P Pradheeba, J Jeyalakshmi, K E Narayana, K E Krishna, S Gnanavel</i>	
Hybrid Deep Learning and q-Rung Orthopair Fuzzy System for Stroke Risk Prediction Using Clinical Data	1030
<i>N Ruth Naveena</i>	
Preserving the clean core principles in SAP systems: Design strategies for integrating AI	1036
<i>Trupti Raikar</i>	

Integrating Metabolic Pattern Analysis and Ketone Dynamics with AI-Based Strength Training for Lower Limb Health Prediction in Working Women	1042
<i>B. Devimano, S Ravikumar</i>	
AI-Powered Intelligent Framework for Detection and Prevention of Cybersecurity Attacks using Machine Learning Algorithms	1048
<i>L. Sherin Beevi, Mohanaprakash T A, R. Vasanthi, Ashwath Kumar, Naveen Kumar Clilaka Varshirth Reddy</i>	
CFA-EI: A Framework for AI-Enhanced Digital Forensics Using ChatGPT	1054
<i>T Varalakshmi, J Bibija, M Dhivya, H Jeya Mohan, S Bargunan, T A Mohanaprakash</i>	
A CNN-based Transparent AI System for Early Detection of Vitiligo Through Explainability Methods	1060
<i>T Sanjay, R Vijay Shyam, N Vinay, V. Gokula Krishnan</i>	
YOLOv8-Based Real-Time Detection of Greater Wax Moth Infestation in Beehives Using Cloud-Assisted Alerting	1066
<i>S Daksha, P Gopinath, K Gopi Manikandan, V. Gokula Krishnan</i>	
A Robust Hybrid Deep Learning Framework for Cassava Leaf Disease Detection using the TransEffNet-B3	1072
<i>K Kaviyadharshini, D Nikitha, Oviya Shyam Sunder, V. Gokula Krishnan</i>	
Precision Agriculture System for Soil Nutrient Monitoring Using Machine Learning	1079
<i>A Harsha, R Deepa, R Adithya</i>	
Wideband Low Profile Dielectric Patch Antenna Ensuring Stable Radiation Pattern for Wireless Application	1085
<i>A Manjusha, V Nandhini, M Poornika, K Dharshini, M. Benisha, P. Gobi</i>	
IOT Enabled Water Quality Surveillance System	1091
<i>M Anjeeswari, K Ramya, D Shalini, M Bharathi, M Indumathi, M Nithya</i>	
Smart Vehicle Black Box for Enhanced Road Safety and Crash Investigation	1097
<i>M Dinesh Kumar, R Srikumar, S Sahaya Sam, P Sharon Raj, M Indumathi, S Revathy</i>	
IoT Driven Intelligent safety helmet for Adaptive accident Prevention and Real time Alerting	1103
<i>A Benisha, M Infant Marissa, J Shannya, T. Sripriya, S. Arul, H. Shine</i>	
IoT-Enabled Crop Monitoring and Disease Prediction Using Machine Learning	1109
<i>D Anbu Selvan, A Jayakumar, P Vasudevan, S Ayyanar, S. Revathy, W. Nancy</i>	
An Intelligent Wearable Health Band with Supervised Machine Learning-Driven Alerts	1115
<i>S Gowtham, S Gabriel Isaac, M. Sudhagar, M. Benisha, S. Revathy, P. Gobi</i>	
Deep-Transfer Learning with Fused Features to Detect the Paddy Disease: A Study	1121
<i>G. Dheepigha, K. Pavithra, V. Vijayan, K. Vijayakumar, Audithan Sivaraman, Sarvpal Singh</i>	
Microscopy Images Supported Blood Infection Detection using Deep Transfer Learning: A Study	1126
<i>S. Divakar, S. Chidharth, V. Vijayan, K. Vijayakumar, Audithan Sivaraman, Dayashankar Singh</i>	
AI-Powered Visibility Enhancement System for Safe and Intelligent Driving	1132
<i>Vangimalla Roopswara Sai Reddy, Nivethitha Vijayaraj</i>	

Examinaion of Skin Cancer in Dermoscopy Images with Deep Learning and Features Fusion	1138
<i>A. Mohamed Simar, A. Shri Ram Padian, V. Vijayan, Audithan Sivaraman, K. Vijayakumar, Niharika Singh</i>	
SilentVoice: A Deep Learning System for Recognizing Silent Speech Using EMG Muscle Signals	1143
<i>Nandhini Venkatesan, J Nirmalraj</i>	
Stacking Classifier-Based Prediction of Optimal Crops and Fertilizer Recommendations Leveraging Soil and Environmental Factors	1149
<i>C Alamelu, M. Vallikkannu</i>	
A Fourier-Based Dynamic Harmonic Regression Framework for Overcoming Computational Barriers in High-Frequency Seasonal ARIMA Modelling	1155
<i>V Anirudh, V. Sivakumar, S. Mithra, S. Samy</i>	
Privacy-Preserving Software Defect Prediction Using Federated Learning with Class-Imbalance Optimization	1160
<i>Sai Krishna Gunda</i>	
AI-Powered Real-Time Vehicle Detection and Traffic Analysis using YOLOv3 and OpenCV	1166
<i>S Nireesh Kumar, A. Hemalatha, P Malathi, T.N. Charanya, K Antony Kumar, P Rajendran</i>	