

2026 International Conference on Smart Electronic Devices and Intelligent Systems (ICSEDIS 2026)

**Chiramanangad, India
13-15 April 2026**

Pages 1–607

IEEE Catalog Number:
ISBN:

CFP264AN-POD
979-8-3315-8825-0



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:	CFP264AN-POD
ISBN (Print-On-Demand):	979-8-3315-8825-0
ISBN (Online):	979-8-3315-8824-3

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

Optical Performance Improvement of Thin Crystalline Silicon Solar Cells through ZnS Nanoparticle Integration	1
<i>A. Sandeep Kumar Reddy, Arijit Bardhan Roy</i>	
Intelligent Decision Support System for Preliminary Assessment of Dermatological Manifestations	7
<i>G Megala, M Blessi, R Venkatesan</i>	
Voice-Controlled Robotic Arm for a Physically Challenged Person	11
<i>A.Vijayasri, S. Banupriya, D.Gayathri, V. Hemamalini</i>	
Design of Modular and Repairable Smart Health Ring	19
<i>Navya Bandila, Srija Eruvuri, Rakesh Kumar Reddy Billuri, Sai Prasanth Chelluboina, Dileep Kumar Y</i>	
AI-Driven Predictive Maintenance System using Multisensor Fusion	25
<i>S. Suriyamoorthy, B.M. Arul Victor Raj, D. Ragavan, A. Gopikrishnan</i>	
Thermal Management of EV Battery Pack by Detection of Thermal Runaway using Deep Neural Network	30
<i>Murali Dharan S, Sunil Raja R, Logapragash C, Gopikrishnan A</i>	
Energy-Efficient Auto-Switch-Off Socket for Reducing Phantom Load In Chargers	37
<i>Petchithai Velladurai, Saravanan S, Santhosh Kumaran P, Marimuthu P, R. Jenitha</i>	
Adaptive Micro-sleep Scheduling for Battery less IoT Sensors using Energy-Harvesting-Aware Reinforcement Learning	46
<i>Ben Sujin, M.Prabu, D.Joseph Jeyakumar, S. Mahaboob Basha, Moorthy Agoramoorthy</i>	
Optimized Pricing and Stochastic Modeling for EV Charging Stations using a MDP	53
<i>Prabin Devkota, Pratyush Adhikari, Pratyush Shrestha, T. V. Smitha</i>	
Design and Implementation of a Fault Tolerant Self-Healing Multi Train Reservation System	60
<i>Sashanth V, S Shrinidhi, Nivedha N, Arijit Bardhan Roy, S.S. Gayathri</i>	
Configuration-Aware Automated Design of Single-Stage BJT Amplifiers using Supervised Regression	66
<i>Manoj Shridhar Gudi, Vandith Yeri, Shantanu Patil, Sujata Patil</i>	
Design of an Electronic Sub-Consumer Unit for Lights Voltage-Surge Protection	72
<i>Okure Tom, Rakotoarinesa Dolly Joel, Pankaj, Balaka Biswas</i>	
1:2 Efficient Demultiplexer Design using QCA Technology	79
<i>Shivam Kumar, Vijay Kumar Sharma</i>	
Energy Efficiency AI Models Through Quantization and Lightweight Architecture Design	85
<i>N. Saikiran, Boya Kumudini Naidu, Challa Madhu Latha, L.H.Karthik Sai, Manjula Kumar Shankar G. Ravikumar</i>	
ShelfNet: Dynamic Shelf-Life Modeling for Fruits and Vegetables using LSTM and IoT Sensors	93
<i>Peddarapu Rama Krishna, Itikala Divya, Kaushik Shamagatla, Modala Poojitha Vellanki Chenchu Dedeepya, Saindla Rohith</i>	

FPGA-Accelerated Spatiotemporal Graph Neural Networks for Dynamic Terahertz Beam Steering	99
<i>Maya B Dhone, Uday Kumar Gundagani, Pravallika Koppula, Muppu Prathyusha, Mallareddy Adudhodla Pavan Kumar Reddy Manellore</i>	
Real-Time Machine Learning Framework for Predicting Urban Air Quality using Multi-Source Environmental Sensor Data	107
<i>Devi T</i>	
Towards Zero Backflow: A Low-Power Device for Automated IV Infusion Monitoring and Auto-Stop Mechanism	114
<i>Monisha R, Trishaa S G, Vaishali G, Sudha J</i>	
Intelligent Thermal and Power Behavior Prediction in Laptop Systems using Machine Learning	120
<i>Manisha R. Mhetre, Tejas R. Kulkarni, Anuj A. Khomane, Samadhan S. Kendre, Aditya V. Kulsange Soham S. Vaidya</i>	
Speed Sensor-based Predictive and Fast Secondary Control for Stable Dynamic Wireless Power Transfer in EV Charging Systems	127
<i>Vijayalakshmi R, Dharshan Sri P, Keerthi S, Sasikala N</i>	
RISC-Spend and Density-Managed Traffic Signal Management using RFID-based Violation, Theft, and Emergency Vehicle Recognition	133
<i>Aravinth S, Vimallesh V, P.Nisha</i>	
An Intelligent Machine Learning Approach for Wind Turbine Fault Detection	141
<i>N. Bhupesh Kumar, Rajesh Thangaraj, Kandukuri Kumari, K. Kiran Kumar, Imran Abdul D. Chandra Sekhar</i>	
A Single-Tail CMOS Comparator for High-Speed and Low-Power Data Conversion	145
<i>K.Lokesh Krishna, M.Kalpna, K. Madhavi, Kanipakam Yaswanth, Kasim Kuppam Sushmitha Lomada Bhanneswar Reddy</i>	
Power-Delay Optimized Full Adder Architecture based on Pass Transistor Logic	150
<i>D. Srilatha, K. Lokesh Krishna, I. Kundana Sindu, K. Sai Mahesh, B.Sree Harsha, K. Haritha Reddy</i>	
Real-Time Smart Garbage Management with Hybrid CNN-LSTM for Demand-based Vehicle Dispatch and Waste Segregation	155
<i>C Gayathri, K Rahul, S Samuel Santharaj, S A Sarukash, S Senthamil Kumaran</i>	
Implementing RF and Microwave Technologies with MLXAI using Spectral Methods	163
<i>Raja Kondaveti, Vuppu Neelima, D D D Suribabu, Dasaradha Ramayya Lanka, Nalini Prasad Tirumani M.Srikanth</i>	
Phase Noise Impact Analysis on Sub-THz 6G Integrated Sensing and Communication (ISAC) Systems at 240 GHz	171
<i>Priyanka Joshi, Sandeep Kumar Sunori, Manoj Chandra Lohani, Govind Singh Jethi</i>	
Intelligent Clinical Diagnostics using Deep Learning: An Integrated EHR Framework for Disease Detection and Risk Stratification	179
<i>Surampudi Prakeerthi, Mulla Shabnam Aara, Thunuguntla Sai Lakshmi Manikanta, Kakarla Naveen Praveen Tumuluru, Lakshmi Ramani Burra</i>	
Power Quality Assessment of Microgrid using Shunt Active Power Filter	187
<i>Sejal Puri, Namra Joshi, Sejal Patil, Hemangi Thakare, Anamika Patil, Purva Sonawane</i>	

An Intelligent Time-Series Forecasting Approach for Power Consumption using ML and DL Techniques	193
<i>Harish S S, Jothi Krishna G, Mohamed Riyaz S</i>	
Electro-Thermal Integrated CC-CV Charging Control for EV Batteries	199
<i>Shriraam R R, Cephas I</i>	
NB-IoT based Real-Time Manhole Monitoring System with Trash Removal and Automatic Gas Exhaust Mechanism	206
<i>Sentamilselvi M, Suganthraj P, Sujith P, Suryaprakash K, Tharunis T K</i>	
ML-based Self-Healing Battery Management System for Smart Rural Renewable Energy Systems	212
<i>K Prithivi, N.Priyadarshini, S.Gomathy, Kabinaya K, Dharmendra V, Arul Murugan B</i>	
Topology-Aware Hierarchical Multi-Agent Deep Reinforcement Learning for Virtual Power Plants	220
<i>Karthika M, R. Ravi, Abhishek Pandey, Ajit Kumar Singh, K.Muthukannan, Ganesh Kumar.G</i>	
Adaptive Ensemble Learning for Heavy-Duty Vehicle Emission and Maintenance Optimization	227
<i>N Saikiran, T Nalini, Arulanantham G</i>	
RF Embedded System for Detecting Hidden Wireless Cameras using Signal Persistence and Active Probing	234
<i>Manoja R, Karthi V, Sudha K, Ashraf Ali I, Dillshaad Singh R, Sivavishnu A</i>	
Energy-Efficient VLSI Architecture for Edge-based CNN Inference using Approximate Computing	240
<i>Dhanumjaya K, Sudharsan G, Balamanikandan A, Dhanalakshmi M, Venkata Karthika V Sudhakar Reddy N</i>	
AI-Assisted Low-Power VLSI Synthesis using Reinforcement Learning for Gate-Level Power Optimization	246
<i>Dhanumjaya K, Sudharsan G, Balamanikandan A, Mohana Priya S, Venkata Karthika V, Sudhakar Reddy N</i>	
A Predictive Dashboard for Ocean Plastic Accumulation using Remote Sensing and Marine Meteorology	252
<i>Kalingarani G, Savitha S K S, Sri Karthika Ganapathi.R</i>	
ECG-based Coronary Risk Prediction using Deep Convolutional Neural Networks	258
<i>Saraswathy C., Gopika S., Kasiyappan D.</i>	
Energy-Efficient Reversible 8-Bit Polar Encoder and Decoder on Artix-7 FPGA for Low-Power and Quantum Applications	264
<i>M. Mahesh Kumar, M. V. Subramanyam, M. Vinay, G.Mukesh, Kolla Pavan Kalyan, K. Maruthi</i>	
Realtime Wildlife Detection and Alert System using IoT Enabled Drone with Machine Learning for Anti-Poaching	271
<i>Prem Anand T P, Jayaganesh M, Akash T</i>	
FSM based I2C Communication Protocol for Reducing CPU Overhead	277
<i>P. Sivaranjani, S. Sasikala, S.K. Sobika, P. Kavın</i>	
Traffic Congestion Level Prediction using Temporal, Weather, and Event based Features	283
<i>B.Venkata Charan Kumar, N.Venkatesh Naik, Sankala Jaswanth, Kodiganti Tharun Kumar Shaik Nabi Rasool, Vankam Kumaraswamy</i>	

Experimental Fabrication of Graphene–PDMS Sponges with Tensile Characterization, and Microstructural Insights	291
<i>S Ramya, CT Kalaivani, T Hema Varshine, A Hamshitha Shri</i>	
Hybrid Random Forest–Reinforcement Learning Framework for Efficient Verification of PCIe 6.0 SoC Designs	297
<i>Santhi K, Chellaswamy C</i>	
Computer Vision-based Detection and Segmentation of Wind Turbine Surface Damage using YOLOv8 and SAM Models	306
<i>M.Balaji, P.Vijaya Lakshmi, A. Srithar, R. Manimegalai, P. Pradeep, Joshuva Arockia Dhanraj</i>	
Dynamic Wireless Power Transfer for Battery-Less Automated Guided Vehicles using Segmented Magneto-Inductive Transmitter Coils	312
<i>J. Priyadharshini, S. Mohana Sundaram, M.S. Nandha Kumar, P. Regan Rossario</i>	
Performance Optimization of Intel Multi-Core CPUs using Memory-Aware Data Parallelism	318
<i>Arunkumar Velayutham, S.Muthumarilakshmi, J.Jayasudha, R. Jagadeesh Kannan, R Babuji, S Sujatha</i>	
Yazh Smart Glasses: A Multimodal AI-Enabled Wearable Integrating Facial Recognition, Context-Aware Cognitive Assistance, and IoT-Driven Remote Care for Enhancing Elderly Autonomy	324
<i>S Sakthi Vinayagam, V Ashok Kumar, R Avinash, G Lakshmipathi, P S Malan Amirtha Yogan, P Mahendran</i>	
Intelligent Closed-Loop Control of a BLDC Motor using ANN-based PWM Regulation and IoT Integration	332
<i>Ajith B Singh, Madumitha S, Justin J, Libin Jebel I, Dhanaselvam J</i>	
Semi Circular Crown Shaped UWB Antenna	339
<i>K. Sumathi, P. Rajesh Kumar, M. Mithun, I. Mohammed Haris, P. Santhosh Kumar</i>	
Transformer-based Multimodal Framework for Real-Time Disaster Tweet Classification and Misinformation Detection	346
<i>K.Lakshmi, M.Baby Vineetha, S.Shaima Safath, K.Bhumika, M.Sudhiksha, V.Lilly Grace</i>	
Tunicate Swarm Optimization for High-Dimensional Parameter Tuning of an 8-DOF Electric Vehicle Model	354
<i>Soniya Patil, Rajeev R. Pathak, Leah S. Joshi</i>	
An Area and Power-Optimised Multiplier-Less MAC Unit for Artix-7 FPGA-based Signal Processing	363
<i>S.Girish Babu, S. Rambabu, B. Raghavendra, A.B.S Meghasyamachari, D.Murthujavali K.Kulasekhar Reddy</i>	
Design and Characterisation of Rutin–Zinc Oxide Nanoparticle-based Smart Nano-Systems for Targeted Cancer Therapy	369
<i>A. Surya, G. Gnanamathy, R. Jeevitha, P. Elumalai, M. Sridevi</i>	
Design and Analysis of Circularly Polarized Microstrip Patch Antenna for IRNSS S-Band Applications	376
<i>Rajesh S R, Murthi Mahadeva Naik G, Sushma N, Deepika K C, Santhosh Kumar K B, Usha Desai</i>	
CNTFET based Energy-efficient Approximate Full Adder for Low Power and High Speed Computing	382
<i>P. Raja, S. Jayanthi, M. Mohamed Sajid, D. Praveen, A. Sarathi Kannan</i>	
Design of Recursive Box Filter-based Bilateral Denoising System using QCA based Parallel Prefix Adder	388
<i>A.Abinaya A. Abinaya, Radha N, Vinodhini V, S.Rajapriya S. Rajapriya, Seshaiyah M A, Babitha Lincy R</i>	

A Microcontroller-based Intelligent Shopping Cart with Automated Navigation and Real-Time Billing	394
<i>Chava Sunil Kumar, Sujatha Banka, Regula Anjali, Nakka Harshitha, Jonnana Poojitha</i> <i>Chinnavula Sushmitha</i>	
Blockchain based Electronic Health Record (EHR) Management	400
<i>Shankar Gugulothu, D. Sandhya Rani, L. Swathi, K. Mrudul, Y. Kavya, K. Uday Kumar</i>	
Intelligent IoT-Enabled Battery Management System for Electric Vehicles	406
<i>T. Rampradesh, R. Chandravignesh</i>	
Adaptive Channel-Shuffled Deep Learning for Hormone-Conditioned Ovarian Ultrasound Analysis	410
<i>S. Mohamed Rafiq, A. Indira, A. Nasreen Banu, L. Ibby Sharona, G. A. Mejella Jasmine</i>	
Ant Colony Optimization-based Intelligent Energy Management for HESS based DC Microgrids	416
<i>Sujatha Banka, D.V. Ashok Kumar</i>	
Substrate-Engineered Low-SAR Z-Shaped Patch Antenna for Human-Safe Wireless Systems	424
<i>Santini Swetha A, Vishali M, Avudaiammal R</i>	
Sustainable Transportation using Hybrid Two-Wheeler	432
<i>Pradeep R, Gokula Brindha S, Rohith R, Sabarinathan M, Gowri Raja L, Janani K</i>	
Battery Management System with IoT based Monitoring and Data Logging	437
<i>Vaishnavi R, Divyashree B P, Lakith G, Sharmila N</i>	
Predictive Multi-Domain Dynamic Body-Bias Architecture for Energy-Adaptive System-on-Chip Platforms	442
<i>Harini P, Ajitha M, Martin Leo Manickam J</i>	
Enhancing Fetal Health Prediction Through Feature Reduction and Ensemble Learning	449
<i>Thripithi P Balakrishnan, Mahesh Bathula, Keerthi Addluri, Likhitha Modem, Mahendra Bala</i>	
Radix-8 Unsigned Floating-Point Multiplier for Neural Networks using Digit Recoding	457
<i>Suraj S Nair, Ajay A, Chitra E</i>	
Improved GRU-based Temporal Modeling for Robust Student Dropout Classification and Risk Prediction	463
<i>K. Sangeetha, N. Shanmuga Priya</i>	
Thermodynamically Constrained Variational Quantum Graph Learning for Near-Term Noisy Quantum Processors	471
<i>Ayush Mahanta, Jasmeet Kaur, Kapil Kumar, Manav Jain</i>	
Design and Analysis of High-k Stacked Nanosheet Gate-All-Around FET for Improved Performance	478
<i>Jeevanarao Batakala, K. Kanthi Kinnera, Kundrapu Sarala, Ellapu Bhanu Prakash</i>	
A Comprehensive Review of Energy-Efficient Data Center Cooling Technologies and Intelligent Control Strategies	484
<i>Vansh Bansal, Radha Krishna Rambola</i>	
Performance Evaluation of Approximate Multipliers for Energy-Efficient Computing Systems	491
<i>Bhuvana B P, Pown M, V Monishkumar, P Sairam, Bharathi Raju</i>	
A Multimodal Embedded System for Real-Time UAV Detection using Vision and Acoustic Signals	496
<i>Rohith S, Hemanth Kumar D, L. Jegan Antony Marcilin</i>	

Rule Driven Computational Framework For 3D Printed Multi Drug Polypills	502
<i>Lalith Krishna Vallamkonda, Sneha Gupta, Yashraj Joginder Nanda, Rajeswari D</i>	
Development of a GPS based Smart Fire Detection using UAV-UGV Coordinated Control	510
<i>Yogesh Varshney, Harshit Sharma, Loveleen Sharma, P.M Tiwari, Mehtab Fatima, Kamlesh Pandey</i>	
Joint Energy and Reliability Optimization in Hybrid Optical Acoustic Underwater IoT Networks	516
<i>Reshma P Vengaloor, S. Jagir Hussain, Reshmi Krishna Prasad, Neethu Susan Alex, Rahul R, T.Jaya</i>	
Real-Time 3D Printing Defect Detection and Temperature Optimization using Digital Image Processing	522
<i>Garre Sai Pranay Satvik, Ansh Hosabettu, Soumyapriyo Kundu, Rajeswari D</i>	
IoT Enabled Solar Powered Smart Watercraft for Automated River Waste Collection and Sustainable Transportation	529
<i>K Valarmathi, S Mahalakshmi, P A Mathina, P Angel, R Kartheeswari</i>	
NDVI-Enhanced Multisensor Tree Detection using YOLOv9 and U-Net	535
<i>Deepalakshmi T, Dr Thenmalar S</i>	
Optimized Route-based Energy Consumption Prediction for Electric City Buses using a CNN2D Framework	543
<i>K.Praveen Kumar, B. Anurag, R. Manas Kumar, CH. Mythri Reddy, Suma S, G.Swarnalatha</i>	
Reinforcement Learning based Energy Management Strategy for Hybrid Renewable Micro Grid with EV Integration	550
<i>Karanam Deepak, G Pandu Ranga Reddy, S Raj Kumar, Bondili Jithendra Singh, Jadala Aravind Kumar Pasupala Jayanth</i>	
Activity-Aware Power Management Architecture For FPGA-Based Edge System using On-Die Thermal Feedback	559
<i>Rukumani Devi D, Shanthi K G, Abishek S, Ashwin Balaaji J, Afeef A, Sam Kumar V</i>	
Cognitive Small World LPWAN For Health Monitoring	567
<i>Shanthi K G, Supriya Shree M, Vernisha Shree P, Sri Vaishnavi Kumar, Sreedharshini A, Subasree A G</i>	
Multi Model Machine Learning Framework for Real Time Vehicle Health Monitoring and Fault Prediction	574
<i>S. Nagendrudu, K. Veena, K. Chandrika, M. Naga Tejasree, R. Nageswari</i>	
Development of IoT-Enabled Building Management System for Advanced Safety, Energy Efficiency and Environmental Sustainability	580
<i>Pranay Debnath, Anurag Dey, S. Purushothaman</i>	
Circularly Polarized Wearable IIoT Antenna for ISM Band	584
<i>Ramalakshmi Gali, VS Muralidhar Palanki</i>	
Probabilistic Reinforcement-Optimized Hierarchical Temporal ECG Intelligence Framework with Immersive Augmented Reality Cardiac Electrophysiological Visualization for Translational Clinical Decision Support	590
<i>Sherwin Anand, R.R.Sanjay Chelliah, J.Thresa Jeniffer</i>	
WebSocket-Based Multi-Bed IV Therapy Monitoring System Using Time-of-Flight Distance Sensing	596
<i>Roshan Tripathy, Sandeep Kumar Dash, Satya Narayan Mishra</i>	

Dual-Domain Diffusion Networks for Ultra-Low Light Image Reconstruction in Real-Time Autonomous Systems	602
<i>R. Prabu, John Thangavel P, S. Sivakumar, P. Dhinakar, Rajat Kumar Dwibedi, Maruthupandi V</i>	
An Advanced Trellis-Coded Binary Modulation Approach to Achieve Extreme Coverage in 6G Communication Systems without Auxiliary Boosters	608
<i>Balaraman R, K. M. Dhanalakshmi, P. Sasireka</i>	
Design and Implementation of a Voice-Controlled Robot	615
<i>Ramkarthik Palaniappan, Anita Antwiwaa, G.Sharmila, Jeevitha R, Gomathi N.</i>	
Digital Twin-Assisted Self-Supervised Cognitive Resource Mapping for Interference-Aware 6G Cognitive Radio Networks	619
<i>Judy Simon, Nellore Kapileswar</i>	
Autonomous Weed Detection and Removal System using CNN and Python-Controlled Embedded Platform	625
<i>V Mangaiyarkarasi, A Julie, K Rajasree, S Malarkodi</i>	
Hand2Voice: Increasing Human Interaction using Gesture and Voice Translation	632
<i>Mythily V, Deepa B, Olimathi K M, Priyadarshikaa E, Ragavendiran S, Sathiyasudhan M S</i>	
An AI-Driven Hybrid BiLSTM-Attention and Ensemble Learning Framework for Threat Detection in Smart Grids	637
<i>Shaik Rajiya, Shaik Thahaseen, Pidaparathi Trinadh Reddy, Shaik Mohammed Uzair, N.V. Chinnasamy</i>	
Multi-layered Emotional Decoupling and Style Condition Control Algorithms for AI Composition in Automatic Electronic Keyboard Music Production	645
<i>TingTing Zhang</i>	
A Cost-Effective Portable Ventilator with AMBU Bag Mechanism and Real-Time Leakage Detection using LCD Display	652
<i>P.Gopinath, V. Dharshini, M. Hariprakash, S.V. Barath</i>	
A Deep Learning-based Predictive GPS Safety Monitoring System With Minimal Network Dependence	658
<i>S. Aadhitya, K. Mohan, T.R. Manikandan, S. Mohammed Noorul Aslam</i>	
Robust Field-Focused Digital Twin for Real-Time Water-Quality Estimation and Alerting	666
<i>Hariharan R, Subash N</i>	
Design and Implementation of an IoT-Enabled Real-Time Borewell Safety and Surveillance System with Integrated Sensor Fusion, Geolocation Tracking, and Multi-Platform Alert Mechanisms for Rural Infrastructure Protection	672
<i>H Vinothkumar, A Dhivya, K Varsha, M Sivagurunathan, A K Prasanna, T Thishva</i>	
U-Net Refined Iterative Image reconstruction Algorithm for Compressed Sensing via Adaptive Gradient optimization	679
<i>Ranji Sankar S, Nakkeeran R</i>	
IoT based Groundnut Storage & Drying Automation System with Rotating Tray	685
<i>Kamali B, Kathiravan M, Mariselvam G, Murugan A, Petchithai V</i>	

An XGBoost-Driven Framework for Accurate Peak-Hour Traffic Accident Prediction	693
<i>B.S.H. Shayeez Ahamed, N.Bala Krishna, Shaik Musthakeen, Ponna Manoj, Nallagrola Amarendra Odela Sai Sri Bhargav</i>	
Robust GhostNet Architecture for Network Anomaly detection	699
<i>Akshatha Rao K J, Hanumanthappa J</i>	
Enhanced AI-based Biometric Authentication using Recurrent Neural Network	705
<i>Gopinath P, Gopi Krishnan P</i>	
Edge-Enabled Autonomous Drone Navigation for IoT Data Gathering: A Hybrid Deep RL-GNN Framework with Energy-Aware Path Planning	711
<i>Mukkawar Sowmya, Swarna Kamalam Vaddi, D Devender, Mallareddy Adudhodla, Pravallika Koppula Pavan Kumar Reddy Manellore</i>	
ARMOR-Net: Adaptive ML-based Reconnaissance and Object Recognition Network for Smart Defence Surveillance Systems	718
<i>VenkataRamana Kaneti, Deepa Rani Gopagoni, Sumalatha Kanaparthi, S Anupkant, Mallareddy Adudhodla Pavan Kumar Reddy Manellore</i>	
Development of a Multi-Point Flow Monitoring System for Accurate Pipeline Leakage Detection	724
<i>Praveen V. Pol, Vikas J. Nandeshwar, Tejas R. Kulkarni, Sejal M. Mankawade, Aditya V. Kulsange Samadhan S. Kendre</i>	
A Context-Aware Traffic Violation Detection System for Complex Real-World Traffic Scenarios	730
<i>D.Ganesh, M. Sunil Kumar, Pulakanti Balaji, Mudimela Deepika, Pujari Raghavendra P.Venkateswarlu Reddy</i>	
A Smart Deep Learning-based Object Detection System for Persons with Disabilities	738
<i>Akshata Supekar, Shailaja Patil, S.C. Wagaj</i>	
ECLO-DHSCNet for Jamming Detection and Mitigation in Cognitive Radio IoT	744
<i>C.C.Athavale, K.P. Patil</i>	
Edge-Optimized Pothole Detection using Lightweight YOLO and LiDAR-Vision Fusion	751
<i>Pramod Mehra, Geetanjali Bisht, Deepak Kumar Chohan, Sumit Saklani, Rohan Verma</i>	
Smart Agriculture Utilizing Attention-Guided Granger Causality Graph Neural Network for Enhanced Crop Monitoring and Management in IoT Enabled Environment	757
<i>L. Febin Rani, Devi.T, N. Deepa</i>	
Electricity Theft Detection using GA-Optimized Random Forest	764
<i>M. Reha Sai, P. V. Divya Sree, Y. B. Ganga Lohitha, N. Neelima, T. V. Smitha</i>	
A Hybrid GAE-DNN Framework with Slime Mould Optimization for Lung Cancer Prediction	771
<i>Srisoundaryaa S S P, Rajesh Kanna P, Dhivya P, Soundhiri S</i>	
Deep Learning-based Intelligent Traffic and Road Safety Monitoring System	780
<i>K. Pavanikrishna, Vardhineedi Nithin Sai Narayana, Veditreswarapu Pavan Kumar Thota Pavan Krishna Rama Mahesh, Rayapureddy Phaneendhra</i>	
An IoT-Driven Intelligent Drainage Safety System using Federated Machine Learning for Real-Time Gas and Blockage Prediction	786
<i>Navaneetha Krishnan M, C.N.Vanitha, Gokul Nath S, Dhanush G, PrasanthT, Bharaniraj M</i>	

Real-Time Navigation Assistant for Visually Impaired People using YOLOv8 and Voice Alerts	793
<i>K.Parvathi, Thota Kesava Rao, P Srinivasa Rao, S. Gopinath</i>	
Accurate Blood Group Identification Through Fingerprint Analysis using Vision Transformer	799
<i>Sivasankar Rajamani P, Gowri Shankar C, Sridevi S, Abinaya T, Gowsick B, Hariprasanth M</i>	
Deep Reinforcement Learning-Driven Energy-Efficient Routing Protocol with Dynamic Power Control and Load-Aware Multipath Optimization for MANET	806
<i>Mamoun Yaqoub Mimoun Alhammali, Wilson Jeberson</i>	
AI-Powered Multimodal Human Detection System Combining YOLOv11 and Terrain Data in Search and Rescue Operations	813
<i>Sangeetha Archana J, Mohanraj K, Monishkumar S, Sanjay S</i>	
Intelligent Video Surveillance System with Violence Detection	818
<i>Nikhil Korada, Kuruba Vijayendra Varma, Adabala Nagesh Satya Vinay, D Rajeswari</i>	
Blockchain-Enabled Secure Transaction Architecture for Fraud Detection and Risk Management in Financial Institutions	825
<i>Jacob Davis K, A. Thilagaraj</i>	
A Real-Time Hybrid Threat Monitoring Framework with Human Validation for Cyber Security	833
<i>Nagendra Kumar V V, Medam Uma Sheshi, V Vijaya Chandra Rao</i>	
A Review of Integrating AI-driven Optimization Methods with Internet of Things for Improving System Performance: Research Challenges and Future Directions	840
<i>M. Ranjith Kumar, R. Sekar</i>	
Empirical Study of Polycystic Ovary Syndrome Detection based on Ultrasound Images using Deep Learning	848
<i>Pavithra B, Dr.L.Lakshmanan</i>	
Efficient and Secure Cloud Data Auditing With ECC-Based Stub Signatures for Dynamic Integrity Verification	856
<i>Periasamy.S, Obulreddigari Sailaja, Muchukota Cherishma, Garisha Poojitha, Marella Tharun Sai</i>	
A Robust and Explainable Machine Learning Framework for Early Lung Cancer Risk Prediction using Synthetic Data Augmentation and Cross-Dataset Validation	862
<i>B Rajani, K Varsha, K Srinivas, N Sivamani, K Tanveer Ahmed</i>	
An Improved Spatial Gated Attention-aided Efficient ResNext for Multiple Disease Detection using Medical Image in IoMT Environment	868
<i>Karunakar Chappidi, L.N.B. Srinivas</i>	
CNN-Alex Net Framework for Gallbladder Disease Detection using Ultrasound Imaging	879
<i>S.Prem Kumar, Yagatheepan S, Sathish Kumar P S, Pratheep P, Vijaya Kishore G</i>	
Smart Indicator Turn Off System for Forgotten Appliances	885
<i>M Premalatha, PoovishRaja D, Vanaraj K, Vishnu A</i>	
Efficient Net-Enhanced YOLOv8/YOLOv9 for Early Lung Cancer Detection in CT: Multi-Scale Feature Fusion for Precise Lesion Localization	892
<i>P.S. MayuraVeena, J.B. Seventline</i>	

Assistive System for Visually Impaired People using Artificial Intelligence	900
<i>Ashvitha S, Ashvitha P, T.Judgi</i>	
BioBin360: An AI-Driven, Contactless Sanitary Waste Management System with Dual-Mode Treatment for Smart Cities	906
<i>Kalaivani K, Dharshini R, Harini M S, Sugapriya B</i>	
Edge-Aware Unified Retinex Architecture for Adaptive Low-Light Enhancement of Images and Videos Across Diverse Domains in Real-Time	913
<i>Lakkakula Sai Raveena Sowgandhika, Madem Sanjana Sarvani, A. Yovan Felix</i>	
Attendance Management using Deep Face Detection and Recognition	921
<i>A Mohamed Anwar, Killi Naveen Kumar, Vasireddy Sudheer</i>	
VGG16-based Transfer Learning for Multi-Class Kidney CT Image Classification	926
<i>Shankar M, Anjali S, Manikandan R, K.Asritha, Shaik Heena Sireen, Sekh Mohammad Alamin</i>	
Urban Waste Detection and Segmentation using Deep Learning and Computer Vision Techniques	932
<i>Swagatika Devi, R. Valarmathi, Ch.V.Bhargavi, Arigela Sri Harsha, Robins A Kattoor, M.Vengadanathan</i>	
Smart Agricultural Hub: Intelligent Decision Supporting AI Multilingual Farmer Interface	938
<i>Hemakumar L, Dhanush S, J. Cruz Antony</i>	
A Resilient Machine Learning Framework for Adversarially Robust Intrusion Detection in IoT Environments	944
<i>M. Manikandan, P Vijayaragavan, R. Buvanesvari</i>	
Explainable and Reliable AI-based Threat Detection for Responsible and Sustainable IoT Environments	950
<i>R. Buvanesvari, Manikandan M, Vijayaragavan P</i>	
A Distributed Learning Framework for Data Privacy and Security in IoT Environments	956
<i>Vijayaragavan P, K.T. Fahad Iqbal, M. Manikandan</i>	
Thyroid Cancer Classification from Ultrasound Images using YOLOv9 with Attention Mechanism	962
<i>MD Asim, P Chinmai Karthik, P MD Toufiq Khan, Shaik Khadar Vali</i>	
Replay-Enhanced Adaptive Hybrid Intrusion Detection (REA-HID) for IoT Edge Gateways	968
<i>Kashmeera R, Prabhakar Krishnan, Hari N. N., Sethu Subramanian N, Kurunandan Jain</i>	
An AIoT-Enabled Fault-Tolerant Crop Recommendation System for Precision Agriculture	974
<i>Chidananda T G, Nirmala M B, Swathi Paapanna Gari, Chandan B Ram</i>	
An Adaptive Hybrid Framework for Complex Indoor Scene Analysis and Object Recognition	980
<i>Praveen Kulkarni, Naina Kalyanshetti, A Sachin, Aryan Penukonda, M Naveen Pramod Gurunath Chitrapur</i>	
Lightweight and Hybrid CNNs for Effective Cloud Detection from Satellite Images	989
<i>Prathik Kumaar.B, A.Deepak</i>	
An Optimized Crop Recommendation System using Soil pH, Rainfall, and Temperature	994
<i>Sridhar D, K Vinod Kumar Reddy, Boge Sumanth Kumar Reddy, Thoshitha M, Sindhu</i>	
Recent Trends in Deep Learning-Driven Tomato Leaf Disease Detection and Severity Analysis	1000
<i>Rashmi Suresh More, Roopalakshmi R., Rajashree Krishna, Archana Chougule</i>	

A Window-based Deep Learning Framework for Time-Series Anomaly Detection in ECG Signals	1007
<i>Keerthana S, S. Thenmalar</i>	
Adaptive Machine Learning Framework for Real-Time Medication Adherence Prediction in Chronic Disease Management	1013
<i>K.Nagaraju, K Srinivasulu Achari, Potturu Manisha, Kuppa Rupa Sri, Natuva Uttejetha, D K Shareef</i>	
Secure Cloud based Document Sharing System with IoT Integration for Global Collaboration	1022
<i>R.V. Viswanathan, R. Sathya, E. Aksha Pricilda Reena, R. Buvaaneswaran, K. Srisanjay, R. Vajravelmaran</i>	
Frequency-Attention-Multiscale Network (FAMNet): A Deep Learning Framework for Robust Multiclass Classification of Kidney CT Images	1028
<i>R. Raja Subramanian, Sri Ram Ganesh M, Arockia Sathiya Dass J, Gayathri Devi.M, S.M.KomathiSathya Matli Jai Hind</i>	
An Explainable Hybrid CNN-Transformer Meta-Ensemble for Chest X-Ray Diagnosis: Automated Clinical Narratives and Knowledge-Grounded Patient Communication	1038
<i>K. Visala, Rakesh Bhagavan Vajrapu, Tekkali Kasi Naga Venkata Ajay Kumar Vatsavai Rahul Satyanarayana Jagapathi Varma, Varuvuri Prasanna Kumar</i>	
Real-Time Tomato Leaf Disease Detection using Lightweight YOLOv11n with Web-Mobile Deployment	1044
<i>S. Kalpana, P. S. Nandhini, P. Jeevitha, J. K. Madhana Harish, V. Mahashwin, M. K. Nishanthini</i>	
Carelink-A: A Transformer-based Intelligent Assistive Communication and Safety Framework for Differently Abled Individuals	1051
<i>M.S. Thanabal, K. Sundara Pandi, Ma. Shunmuga Subramanian, S. Vasantha Kumar, S. Udhayaprakash</i>	
Enhanced Iris Recognition Framework using Hybrid Cosine and Hamming Similarity Measures	1059
<i>Abhinav R B, Dilshad Begum, Monish L, Manjula M, Siri A K, Thungashree I L</i>	
Accuracy and congestion Improvement in Intelligent Traffic signal Control using YOLOv10-Based object Detection and Q-Learning Compared with Fixed-Time Traffic Light	1064
<i>Priyadharshini A, Divya T, Vinoly G, Kavin V, Jothees Waran C, Surya S</i>	
Deep Fracture Recognition: Applying VGG-16 on Bone X-Rays	1070
<i>Pallavi Bheemu, D Phanidhar Mithra, A Shouryah, B Sai Sumith, Cuddapah Anitha</i>	
Personalized Sleep Pattern AI Coach: IoT Enabled	1077
<i>Padmaja Kadiri, Palagati Anusha, Velkuru Rishipriya, Idamakanti Lasya Reddy, Tadimarri Vishnu Vardhan T S Bharath</i>	
Adaptive Reinforcement Learning Framework for Multi-Level Crowd Density Classification in Pedestrian Surveillance Datasets	1088
<i>Gayathri V, Gnana Ruba J, Jacklin Dasan J, A Meenapriyadharsini</i>	
AI-Enabled IoT Smart Collar for Livestock Health Monitoring using CNN–LSTM in a Rental-based Rural Framework	1095
<i>S. Satheesbabu, M. Priyanka, T. Renusree, S. K. Samyuktha, L. Sandhiya</i>	
Fire and Smoke Detection using YOLOv8 and YOLO26: A Comparative Experimental Study with Architectural Evolution Analysis	1103
<i>Bashaer Abdullah Alsaidalani, Wael M.S. Yafouz</i>	

An Image Processing and Feature-based Learning Approach for Bone Fracture Detection in X-ray Images	1110
<i>V. Sathya, N. Sumaiya, B. Suvetha</i>	
Enhancing Network Security with Software-Defined Networking	1117
<i>J.Jenifer, Anita Antwiwaa, Sogy K Idicula, Gayathiri Devi S, Gomathi N.</i>	
Energy and Trust Aware Optimal Routing in Heterogeneous IoT Network	1122
<i>Anjana Devi Nandam, Chandra Sekhar Sanaboina</i>	
Design and Performance Evaluation of a Real-Time Multi-Camera PPE Compliance Monitoring Framework using Lightweight YOLO Models	1129
<i>Ashwin Sathappan Vellayan, Bala M, Bhuvan Kalyan G V, Giridharan P, Janani G</i>	
Multi - Purpose Autonomous Boat for Sea Monitoring with Machine Learning	1140
<i>Kami Reddy Jaya Prakash, Pothula Rajesh Yadav, P.Kavipriya</i>	
AI-Driven Continuous Authentication for Strengthening Security and Scalable Analytics in IoT-based Digital Institutions	1147
<i>A Jegatheesan, Anitha Gopalan, B S Berlin Jeba, P. Selvaraju, Rajasekar M., S. Dhanalakshmi</i>	
Adaptive Rhythm Control Optimization via Multi-Source Keyboard Performance Data Fusion for Intelligent Music Production	1154
<i>Hua Li</i>	
Design and Implementation of an AI-Powered Smart Railway Gate Control System using Image Processing	1162
<i>V. Govindaraj, P.Gayathri, D.Nivitha, G.Sugan, Ramesh.C, Balasubramanian.S</i>	
Blockchain-Enabled DAG Neural Network for Optimized IoT Data Storage in WSNs	1169
<i>Lakshmaiya N, M.Siva Ramkumar, Kiruthika Balakrishnan, Sundar Ganesh C S, Anand Rajendran Ramya M</i>	
Dynamic Residual Self-Attention Mechanisms for Securing IoT Wireless Sensor Systems Against Malicious Nodes	1175
<i>Natrayan L, M.Siva Ramkumar, Kiruthika Balakrishnan, R.V.Rangarajan, Anand Rajendran, Ramya M</i>	
Deep Residual Multiscale Hyper-Node Graph Networks for Adaptive IoT Cybersecurity	1182
<i>Natrayan L, Dr.M.Sivaramkrishnan, Kiruthika Balakrishnan, M.M.Jegan, Anand Rajendran, Ramya M</i>	
Causal Digital Twin–Driven Trust-Aware Federated CNN–LSTM and Gradient Boosting Framework for Industrial IoT Cyber Resilience	1188
<i>M. Arulmozhi, K Shanthi, V.Shanthi, Abdul Jabbar K, M Rajaram, Maumita Das</i>	
Graph-Enhanced Privacy-Preserving Federated Cognitive Digital Twins for Intelligent Industrial IoT Risk Modeling	1195
<i>V.Shanthi, M Rajaram, C. Preethibha, Abdul Jabbar K, R.K.Keerthana, Pradeep K K</i>	
Machine learning based Application specific Integrated circuit for Electrocardiogram Signal Analysis for Clinical Care Diagnosis	1201
<i>P. Suresh Venugopal, Remya Bharathy, Pavithra, Ravindrakumar Selvaraj</i>	
Decentralized Secure Cloud Storage using Blockchain Technology	1207
<i>R. Sai Krishna, Suma S, G. Swapthika, D.Asritha, K. Karthik, CH. Mallikarjuna Reddy</i>	

Adaptive Reinforcement based Edge Federated Learning Framework for Energy-Efficient Smart Buildings	1216
<i>P. Raja, Vankayala Chethan Prakash, Niranjana P G, Vetrivel M, Vijayaganapathi R, Gunal P</i>	
Handwritten Answer Script Evaluation using Multi-OCR Model	1223
<i>K R Sowmia, Yuvasree A, Subashini B, Vijayalakshmi K</i>	
Intelligent Cyberattack Mitigation using Q-Learning-based Dynamic Security Policy Optimization	1228
<i>M. Uma Maheswari, V. Thilakji, S. Niraikulathu Ayyanar, G. Saravanakumar, B. Saratha R. Saravanakumar</i>	
LSTM-based Event-Driven Cyber Threat Detection Networks Deep Learning with CICIDS 2018	1235
<i>Vudumula Lakshmi Priya, Jasthi Praveen Kumar, Moka Pannaga, Somanchi Sriteja Bala Gangadhara Gutam</i>	
Deep Learning-based Multi-Channel CNN Framework for Early Detection of Thyroid Cancer from CT Images	1243
<i>Mubeena Anjum, Mohit Arora</i>	
Real-Time Bank Transaction Fraud Detection using Apache Kafka and Machine Learning	1249
<i>Juvvala Bala Ambedkar, Karuturi Harshitha Devi, Daggupati Mohith Chandra Annavarapu Harsha Sri Vardhan, Chelluboina Bala Venkata Yashwanth</i>	
A Hyper-Local Rainfall and Flood Alert System using Deep Learning and Geospatial Intelligence	1257
<i>R. Prem Kumar, S. Mukilarasan, A. Rajesh, S. Yokesh, R. Jeevananth, M. Sakthivel</i>	
Dynamic Trust-Driven Access Control Model for Cloud Security	1265
<i>Badveli Jeevana, Konerreddy Jasrini, Meram Hemanth Sai, Angalagunta Jaswanth, Cuddapah Anitha</i>	
Smart Review Analyser: A Multiplatform AI System for Aspect-based Sentiment Analysis on E-Commerce Products	1272
<i>Desireddy Lakshmi Prasanna, L.Malleswari, Purohitam Preeti, M.Mallikarjuna Rao, D.Venkatesh C.Manjunath</i>	
AI-Assisted Hybrid Deep Learning Model of Accurate Cardiac Health Assessment with Clinical and Demographic Markers	1279
<i>R. Arulkumar, P.Malini, V.C. Bharathi, S.Muthulakshmi, P. Umaeswari, R.Sathya</i>	
AI-Enabled Skin Lesion Recognition for Multi-Insect Bite Diagnosis with Integrated Severity Analysis and First-Aid Guidance	1285
<i>Dinesh S, Dhanusya S, Rohini R, Gowriha B</i>	
Accurate Delirium Risk Prediction Performance among Alzheimer's Patients	1291
<i>S. Chitra Devi, R Sonia</i>	
Edge Computing Framework for Healthcare Applications	1299
<i>Prabh Deep Singh, Jatinderpal Singh, Sonia F Panesar, Narinder Kaur, Nidhi, Kiran Deep Singh</i>	
A Transformer-based Intelligent Framework for Post-Crisis Relief Coordination and Priority-Aware Resource Allocation	1305
<i>J. Sheetal Gunwant Rathod, S. Meyyappan, T. Jenistan, J. Joffin Renold, S. Marlen Brando Arockiyam</i>	

Federated Transformer–CNN Hybrid Framework for Privacy-Aware Multi-Hospital Disease Risk Prediction	1313
<i>Sanjay Gandhi Gundabatini, B Durga Sravani, Y.Sherly Priscilla, Bunga Revathi, D Ratnagiri Madhava Rao Maganti</i>	
Adaptive Cover Selection and Graph-Assisted Retrieval for Cloud-based Image Steganography	1321
<i>Somasila Venkata Siva Keerthan, Pokala Anitha, Muddana Yaswanth Reddy Pasupuleti Venkata Naga Hitesh, Bala Gangadhara Gutam</i>	
AI-Enhanced Health Report Interpreter using Large Language Models and Context Retrieval	1327
<i>U. Hemavathi, Venu. S, Kiran Kumar. B</i>	
A Robust Hybrid Deep Learning Approach for Lung Tumor Classification using Taguchi Optimization and Fuzzy Inference	1332
<i>Indrish Pranav C K, Ajanthaa Lakkshmanan, Sri Nidhi A, Jesline. D, Ram Saravanan Kumaran</i>	
Priority Aware Q-Learning for Multi Objective Task Scheduling in Cloud Computing	1339
<i>Harini Kota, S Sudheer Mangalampalli, Pillareddy Vamsheedhar Reddy</i>	
A Secure and Explainable Federated Learning Framework for Human Angiosarcoma Gene Expression Analysis using Blockchain and Differential Privacy	1346
<i>Penupotula Rajesh, K. Sailaja</i>	
Residual Deformable Attention Framework with Detection Transformer for Early and Accurate Skin Cancer Detection from Dermoscopic Images	1355
<i>Karamala Naveen, M. Humera Khanam</i>	
GenEd: Personalized Multi-Modal Storytelling and Learning Experiences in Special Education	1364
<i>Sangeetha Archana J, Dheekshith T, Daniel Das K, Amrish P</i>	
Design and Implementation of a Hybrid Real-Time File Integrity Monitoring System using Event-Driven Detection and Hash Verification	1369
<i>Jaideep Mourya Kathala, Karthikeya Seeda, Ramamoorthi S, Mohamed Sithik M, Priya S Mohammed Uveise S A</i>	
Adaptive and Explainable Cybersecurity Framework for Real-Time Threat Detection	1375
<i>Sirodhar Athyala</i>	
Exploration of Customer Behaviour in Real-Time E-Commerce & Bi-Directional Forecasting using Adaptive Multi-Domain Attention Networks	1381
<i>Lakshmana Rao Kawluri, S.Suresh Kumar, Tulasi Raju Nethala, Yugandhar Bokka</i>	
SpoofBuster: Adaptive Attention Transformer for Anti-Spoofing Face Recognition	1389
<i>V. Jyothsna, Banka Lakshmi, Pasupula Ruchitha Nevas, Afkhan Mohammad Fazal Khan</i>	
Hybrid Deep Learning and Machine Learning Framework for Multimodal Skin Lesion Diagnosis	1396
<i>Jayamangala Sristi, M.Poojitha, B.Snehalatha, K.Vyshnavi, K.Jayanthi</i>	
Vision based Road Damage and Speed Breaker Detection for Municipal Complaint System	1404
<i>Ashok Dasari, Omkar Reddy Chenchireddy, Ramya Rayarapu, Rushikesh Bodigundla Rahul Reddy Devulapalle</i>	
Secure Digital Kyc Framework using Blockchain Enabled Verification Credentials and Homomorphic Encryption	1410
<i>Dr.S.Praveena Rachel Kamala, Mahalakshmi R, Parkavi C</i>	

Proactive Traffic Surge Forecasting for Student Result Portals using LSTM Networks	1416
<i>Dhyana SK, Dharshana Priya V, Alexander</i>	
Edge AI Enabled Road Inspection Vehicle for On Field Road Damage Assessment and Traffic Data Acquisition	1422
<i>M. Durgapoorani, S. Abinaya, J. Joel Jeffrey, P. Leninpugalhanthi</i>	
Boundary-Aware Multi-Task Lightweight Framework for Automated Kidney Stone Segmentation and Classification in CT Images	1430
<i>Vijayakumar N, Harish M, Manoj Kumar D, Sehnaaz I T, Yazhini S</i>	
Skin Lesion Analysis Through VGG16 Deep Learning Architecture	1438
<i>Shamugasundaram Hariharan, K. V. Venkata Ravindra, D. Sudheer Kumar</i>	
From Generative to Agentic: A Survey of Autonomous AI Systems and Their Evolving Capabilities	1443
<i>K. Kajol Sushmitha, N. Shanthi, M. Muthuraja, J. Gowthami, S. Jahaganapathi, V. Kamal Kishore</i>	
Deep Semantic Segmentation with Combined Focal-Dice Loss for Multi-Class Land Cover Classification: A Comprehensive U-Net Evaluation	1449
<i>N. Chandramouli, Balajee Maram</i>	
MA-STGNN: Monsoon-Aware Spatiotemporal Graph Neural Networks with Hybrid Attention for Groundwater Forecasting in India	1457
<i>Makanyadevi K, Mounika B R, Elavarasi A, Ivanthika R, Monikashree P</i>	
Autonomous Multimodal Grievance Redressal System using Generative AI	1463
<i>Arpita Paria, Yash Kumar, Rohit Raj, Sagnik Das, Shaikh Aaman, Nandini K</i>	
Text Mining and Machine Learning for Workplace Accident Severity Classification in Industry 4.0	1469
<i>Shyji Ealias, Anitha Rani K S, Addanki Mounika, Ranjeeth Kumar M, Win Mathew John, S. Rukmani Devi</i>	
Intelligent Search Strategies for Designing Robust Variational Quantum Models	1476
<i>Asha V, M T Vasumathi, Arpana Prasad, Gouri S Tandel, Aditya Singh, Karthik Y M</i>	
An Integrated Secure Framework for Cyberbiosecurity	1482
<i>Samrajesh Maul, Kodakkal Kannan Viswanathan</i>	
A Multimodal Hybrid Framework Integrating Hypergraph-Spatio-Cognitive Transformers, Cross-Modal Adaptive Embeddings, and Temporal Attention Fusion Networks for Enhanced Early Detection of Autism Spectrum Disorder	1487
<i>Avila Roshini A, Anushree S, D. Lakshmi</i>	
Detecting Explainable Financial Fraud with a Hybrid Random Forest–XGBoost Model with Blockchain Validation	1493
<i>Milcah Blessy I, A.Reyana</i>	
An Attention-based Multimodal Feature Fusion Model for Stroke Prediction with Explainable Clinical Decision Support	1499
<i>Navaneetha Krishnan Muthunambu, Sowmiya K, Manu L B, Karthic E, Nithish S</i>	
Cloud based File Storage with Encryption, Upload, Store and Manage Files with Strong AES- GCM Encryption, Uses AWS S3 for Storage and DynamoDB for Metadata Tracking	1507
<i>Suryadevara Ramnikhil, Trivedh Karanam, Prabu S</i>	

An Integrated Machine Learning Model for Accurate Stroke Diagnosis using CT Neuro Images	1515
<i>B.Rama Subbaiah, Chenna Rajya Lakshmi, Kanike Lekha, Kummari Lavanya Kumari</i>	
<i>Malipeddi Sai Tharun</i>	
A Dual-Stage Convolutional Framework for Pancreatic Tumor Detection and Classification on Pancreas CT Images	1521
<i>Dhishya E, Anandababu P</i>	
Hybrid CNN-LSTM Edge Computing Framework for Intelligent Aquarium Health Management	1530
<i>M. Jayanthi, A. Rini Infanceya, S. Sahithya, S. Sakthi Pavithra, J. Sanjana</i>	
Deep Learning-based Framework for Social Media Mining and Sentiment Analysis	1538
<i>M. Gokuldhev, Gopalasetti Prabhash, M. Pavan Sujay</i>	
Agentic AI-Driven Machine Learning Framework for Proactive Cyber-Attack Detection and Early Threat Warning Systems	1545
<i>Ankita Sharma, Meenal Sharma, Bebesh Tripathy</i>	
Graph Neural Networks with Dynamic Temporal Encoding for Large-Scale Social Network Analytics	1551
<i>Naitik S T, Sridhar S K, Tanvir Habib Sardar, Gousia Thahniyath, Benaka Santhosha S, Kumar Dilip</i>	
Meta-Learning Approaches in Intracranial Tumor Segmentation: A Review with Focus on Generalization to Rare Tumors	1557
<i>Reena. K, S.Nagendra Prabhu</i>	
Auto-Scaling Strategies for Machine Learning Workloads: Performance, Cost, and Model Reliability: A Comprehensive Review	1564
<i>Dhanush Ponna, Janvi Shah, Sushika Reddy Gade, Kinjal A Patel</i>	
Multiclass Sleep Disorder Prediction using Ensemble Learning with Integrated SHAP and Partial Dependence Analysis	1570
<i>S. Vairachilai, Sarath Chandra Veerla, Balajee Maram, Markala Karthik</i>	
Insider Log Poisoning Attack on Enterprise SIEM Pipeline via Compromised Aggregation Database	1576
<i>Preetish Madhu, Prabhakar Krishnan, Hari N. N., Sethu Subramanian N, Kurunandan Jain</i>	
A Hybrid SOM–NSGA-II Optimized Neural–Forest Framework for Accurate Air Quality Prognosis	1582
<i>E.Poongodi, Reesha Mukdhar, Nithisha G, Shanmathi S, Yamini A</i>	
Intelligent Multi-Layer Penetration Testing System using Hybrid AI Models	1590
<i>K. Dinesh, Prakash Royal B, Manikandan R, R. Sai Kavya Sri, C. Sai Keerthana</i>	
FocusED: An NLP-Driven Personalized and Affective-Aware Learning Framework for Neurodivergent Students	1597
<i>C. Gayathri, Yedhu Krishnan. TV, S. Santhosh Kumar, K. Poovarasan, M. Sri Harish Vel</i>	
MIND EASE+: AI based Mental Health Support System	1605
<i>K N Sivabalan, Sajin S, Sivajith S P, Vasanth Kumar K, Vignesh S</i>	
Enforcing Zero Trust at the Endpoint: A Deterministic, Measurable, and Reversible Hardening Model for Microsoft Defender	1611
<i>Ashish Bhatti</i>	
A Two-Tier Stacking Ensemble Approach for Noise-Resilient Fitness Classification	1619
<i>Arnav Pandey, Rahul Sheoran, Parth Singh Chandel, Yamini B</i>	

TABLE-SMITH: Structured Data Transformation Through Class-based Segmentation	1625
<i>M. Deepika, Sandeep Kumar, K Anirudh Sai, B Sai Charan, K Hari, Shilpa Choudhary</i>	
Deep Learning-Enabled Medical Image Interpretation for Early and Explainable Disease Identification	1630
<i>Abdul Aziz</i>	
CNN Architectures for Osteosarcoma Detection: A Systematic Review and Comparative Performance Analysis	1638
<i>R. Vijayarajeswari, M. Yuvarani, P.Menaka, G.Meena</i>	
AI-Driven Predictive Healthcare Analytics for Early Disease Detection and Clinical Decision Support	1642
<i>Abdul Aziz</i>	
Prediction on Patient Structured Data of Heart Disease using XGBoost, Stacking, and Explainable AI	1649
<i>Sowmyadevi S, Bellanganti Naveena, Gangarapu Pravalika, Navya Jangam, Reddappagari Nagamani Anandaraj B</i>	
CAFF-Net: A Cross-Attention Feature Fusion Network for Robust Multi-Type Brain Tumor Classification	1655
<i>J.Steephan Amalraj, R. Jeevitha, Sakthivel. M, K. Saravanan, Raghavendran. N, Satheesh N. P</i>	
A Multi-Stage Cascade Framework for Face Anti-Spoofing using Lightweight CNNs, Depth-Aware ResNet18, and Implicit 3D Facial Geometry	1663
<i>Navaneetha Krishnan M, C.N. Vanitha, Gokulkrishnan R, Gokul Kumar L, Ramkumar M</i>	
Hybrid Multimodal DeepFake Detection using Spatial–Temporal Feature Learning	1669
<i>Niharika Sharma, Amit Gupta</i>	
An Explainable Artificial Intelligence-based Machine Learning Framework for Advanced Phishing Detection	1675
<i>Ishan Agarwal, Sahitri Choudhury, Anugraha P, Jasmine S</i>	
Multimodal Neuroimaging-Driven Predictive Framework for Ultra-Early Detection of Parkinson’s Disease using Interpretable Gradient Boosting and Centroid-based Learning Algorithms	1682
<i>Sai Kishore S, Tamilselvi P, Jayanhanthinhi T, Mohana Murthy P</i>	
DSMA: Drift-Aware Signal Modeling Algorithm for Robust Longitudinal Parkinson’s Monitoring and Adaptive Symptom Tracking	1688
<i>Kiruthika S, Vaishnavi N</i>	
An Ensemble Machine Learning Approach for Heart Diseases Prediction	1695
<i>M Suresh, Umamageshwari</i>	
A Multimodal Emotion Recommendation System using Text and Facial Expression Analysis	1701
<i>Harshini Sri D, Jeeva Santra G, Ashok Kumar K</i>	
DGC-TAMNet: A Dynamic Graph-Convolutional Transformer Framework for Imbalanced Network Traffic Anomaly Detection	1707
<i>Biyyapu Vishnu Priya, Kadiyam Rahul Prasad, M. Senthil</i>	
Random Forest Driven Dietary Habit Analysis and Preventive Health Prediction for Intelligent Nutrition Management	1713
<i>D. Shanthi, P. Shreya, R. Sneka, S. Swetha, V. Swetha</i>	

A Comprehensive Review of Graph-based Hybrid Deep Learning Methods for Robust Epileptic Seizure Detection	1720
<i>Shiv Ashish Dhondiyal, Sushil Chandra Dimri, Devendra Singh</i>	
A Feature-Enhanced Machine Learning Approach for Reliable Stroke Risk Prediction using CLOA-XGB	1726
<i>V. Usha, Vyshnav R, Devdath Suresh Kumar</i>	
A Novel Deep Learning Approaches for Brain Stroke Detection System on CT Images	1731
<i>Anitha Thangasamy, Raghi K R, Kommi Bharath, Kondragunta Bobby</i>	
Plant Disease and Pest Detection: A Lightweight Deep Learning Framework for Agricultural Diagnostics	1737
<i>Munish Kumar Bhatia, Suresh Kaswan, Sandeep Singh Kang</i>	
Detecting Data Poisoning Attack in Federated Learning Healthcare System	1744
<i>Saadhana Santoshi J, Rajeswari D</i>	
Shielded Med-AI: Privacy-Centric Federated Deep Learning for Healthcare Imaging	1750
<i>Thripathi P Balakrishnan, Gangaraju Vamil, Bommadi Vanitha, Nara Vasantha, Somarpu Sowmya Sree</i>	
YOLOv8-based Deep Learning for Ocean Plastic Detection	1757
<i>S P Sreeja, V Asha, Meenakshi J H, Manoj G L, Neel Johnson, Arpana Prasad</i>	
Deep Fake Face Detection using Multi-Domain Feature Fusion and Ensemble Learning	1763
<i>Jackson J, P.Jayanthi, Rizwana Banu H, Dr.A.M.Ravishankkar, Gomathi N.</i>	
AI-Powered Skill Assessment: Personalized Feedback Through Video and Emotion Analysis	1768
<i>A.Priyanka, A.Chiranjeevi</i>	
A Hybrid CNN–SVR based Decision Support System for Road Edge and Shoulder Repair	1776
<i>Milcah Blessy I, G. Jasper W Kathrine, S. Salaja</i>	
A Hybrid CNN-LSTM based Real-Time Sign Language Recognition using Segmentation and Feature Extraction	1782
<i>Akalya K, Dr.Gopikha.S, Keerthika R G</i>	
A Systematic Review of Brain Tumour Categorization and Severity Identification	1789
<i>Pillareddy Vamsheedhar Reddy, Gayathri Tippani, V Maddiletti Reddy, Sabitha Valaboju, Anil Kumar Kota Harini</i>	
Structured Channel-Pruned ResNet for Lightweight Multi-Region Bone Fracture Detection from X-Ray Images	1797
<i>Mallika S, Sivakumar Chinnusamy, Jeban Daniel, Joshua Thangaraj Gnanasekar, Sarath Awath L.R. Santhosh M</i>	
Hybrid Behavior Analytics and ML System for Cloud User Authentication and Security Monitoring	1803
<i>Archana Pudi, Gnanaprakasam Thangavel</i>	
A Semi-Supervised Entropy-Aware Machine Learning Model for DDoS Attack Identification	1809
<i>SVSV Prasad Sanaboina, R.Meghana, Nausheen Begum, K.Siddartha Reddy, K.Shilpa, G.Swathi</i>	
Design of Mac Unit for Deep Learning Application using Urdhava Tiryakbhayam Multiplier	1815
<i>V. Govindaraj, Lekha PV, Sivaraman V, Anitha S, Manickkavasakam A, Ramesh.C</i>	

Cryptography of Radiology Images for PACS system using DWT and Advanced Encryption standard with Swarm Intelligence based Optimization	1822
<i>P. Suresh Venugopal, D..Sasikala, G.Sudha, Ravindrakumar Selvaraj, Remya Bharathy K.</i>	