

2025 IEEE International Conference on Advanced Computing Technologies (ICACT 2025)

**Tirupati, India
1-2 September 2025**

IEEE Catalog Number: CFP2573T-POD
ISBN: 979-8-3315-9003-1



Copyright © 2025, 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:	CFP2573T-POD
ISBN (Print-On-Demand):	979-8-3315-9003-1
ISBN (Online):	979-8-3315-9002-4

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

Leveraging Vision Transformers for Automated Skin Lesion Diagnosis: A Case Study on Skin Cancer MNIST: HAM10000	1
<i>Karamala Naveen, M. Humera Khanam</i>	
Incorporating Machine Learning Techniques for Terrain Change and Anomaly Detection using Bhuvan	9
<i>Ansel Jo Paul, Aditya KH, Malligeswari N</i>	
Optimizing Performance, Charge Cycles, and Resource Efficiency Through Energy-Efficient Battery Management in Electric Vehicles	13
<i>V.Samuthira Pandi, Iyswariya A, Johnsni Rani J, Ala'a Al-Shaikh, Rajkumar Chadge, M Dinesh</i>	
A Secure and Adaptive Framework for Realtime Data Stream Mining in Evolving Environments	20
<i>Arangi Ravi Kishore, Balajee Maram, Shanker Chandre</i>	
Enhancing Sentiment Analysis of Student Feedback Using Fine-Tuned BERT: a Comprehensive Multi-Class Classification Approach With Optimized Deep Learning Techniques	27
<i>Helaria Maria, R. Subhashini</i>	
Pulmonary Fibrosis Severity Prediction Using Convolutional Neural Network	38
<i>S. Amutha, Kartik Singh, Y Venkata Sai, Ashwin Singh Chauhan</i>	
Deep Learning Model Architectures for Medicinal Plant Identification and Classification: A Comparative Evaluation	46
<i>Yamini Singh, Sanjay Kumar Dubey</i>	
Advanced Cybersecurity Framework for Cloud Computing with Intrusion Detection Using Improved ResNet-50 and Hybrid Encryption Approach	54
<i>Chithanya K V K, Lokeswara Reddy V</i>	
Performance Evaluation of FPGA Based Efficient RNGs	63
<i>Pranavi Nikam, Shivangi Agarwal</i>	
A Smart Intelligent Agriculture Technique for Leaf Disease Identification and Monitoring Using Deep Learning	70
<i>Kanthi Murali, Bigul Sunitha Devi, S. Muthubalaji, Koppula Sridhar, R. Sivakami, A. Akila</i>	
Deep Learning-Based Segmentation and Classification Framework for Automated Skin Disease Detection	78
<i>Nirupama, Virupakshappa</i>	
Advancing Corporate Finance: A Multigranularity Approach to Bankruptcy Prediction	86
<i>A Suresh, Durairaj K, B Anandan, K. D. Mohana Sundaram, B. Ravi Babu, Agan Prabu S</i>	
Hybrid Deep Learning Approaches for Skin Cancer Diagnosis: A Review on CNNs, Vision Transformers, and ASURF Fusion for Dermoscopic Images	93
<i>S Revanth Babu, K. Reddy Madhavi</i>	
Deep Learning for Anomaly Detection in Environmental Monitoring	101
<i>A. Shiva Prasad, B. Ravi Kumar, Suneel Laxmipuram, Eruva Aparna, Kaidapuram Mounika Mohammad Shahbaz Khan, Prasad Janga</i>	

STORYFLOW: Real-Time Adaptive Narrative Engine	108
<i>Sindhu P. Menon, Manoj T M, Abhiram V V, Mohan Sai J, Yaswanthi B</i>	
A Review of the Role of 6G and Wearable Technologies in Shaping the Future	112
<i>Vanlalruata Hnamte, Jamal Hussain, Chhakchhuak Laldinsanga, Ashfaq Ahmad Najar</i>	
Smart Diabetes Prediction System Using Machine Learning Algorithms	119
<i>M. Archana, B. Swathi Reddy, N. Shruthi, M. Hasitha Reddy, P. Malla Reddy</i>	
Anomaly Detection in Financial Transactions Using Graph Mining	123
<i>G. Rajender, A. Venkata Lakshmi, Pateti. Navitha, S. Naga Jyothi, P Anusha, P. PavanKumar</i>	
Solar Energy Harvesting Techniques for Sustainable WSN Operations	128
<i>RadhaKrishna Karne, A. Venkata Lakshmi, Pateti Navitha, S. Naga Jyothi, G. Rajender, P. PavanKumar</i> <i>P. Anusha</i>	
Leveraging CNN with Bi-LSTM Approach: a Comparative Analysis with Different Datasets to Detect Sarcasm on Telugu Text	134
<i>Bhargavi Vemala, M. Humera Khanam</i>	
Dynamic Model Selection Based on F1-Score in Streaming Classification Tasks	141
<i>J L Mazher Iqbal, Balamurugan S</i>	
Multi-Model Machine Learning Framework for Smart Vehicle Telemetry Analytics	147
<i>J L Mazher Iqbal, Balamurugan S</i>	
Wireless Power Transfer (WPT) for Prolonged Sensor Node Lifetime using PEGASIS Protocol	153
<i>Gutam Venkata Swamy, K Navya, A. Shiva Prasad, Radha Krishna Karne, Kaleem Niranjana Reddy</i> <i>D. Rahul</i>	
Multi-Objective Optimization in Wsn Topology Design Using Multi-Objective Particle Swarm Optimization (MOPSO) Technique	159
<i>Pradeep Kumar, B. Kishore, V. Sumathi, S. Gopala Krishna, G. Archana Devi, K. Haripal Reddy</i>	
Detection and Prevention of Blackhole Attacks in WSNs Using Supervised Machine Learning	166
<i>Mohammed Yasmeen, S. Samatha Goud, E. John Alex, B Venkata Krishnaveni, Ch Cury, P. Venkatapathi</i>	
Enhancing Security and Transparency in Fog Computing Networks using Blockchain Technology	171
<i>M Rudra Kumar, N Karthik Narayan, Deepika</i>	
5G Macro Cell Deployment in mmWave: A Case Study	174
<i>Amar Choudhary, Rakshita Mahadev Nyamagoudar, Babitha H T, Nabipatel Saidapur</i>	
Structural Framework for Earthquake Surveillance and Safeguarding	178
<i>Devyansh Batra, Hardik Nayyar, Kartik Marjara, Devansh Chopra, Sajal Jain, Aaskaran Bishnoi</i>	
Scalable NLP Systems: Bridging Efficiency with Advanced Computational Techniques	184
<i>Devyansh Batra, Harmanjit Singh, Mohit Choudhary, Jobandeep Singh, Aaskaran Bishnoi</i>	
Kaarigar: Region-Specific Motif Generation Using Stable Diffusion for Customizable Textile Design	190
<i>Nitya Shukla, Varun Tiwari, Amit Kumar Bairwa</i>	
AI Driven Virtual Interview Platform	196
<i>Aditi Nagpure, Rohit Kharat, Trushna Deotale</i>	

AI Based Rush Collision Prevention in Railways	202
<i>Viji K, K Chitra, A Muthu Aravind, Arfa S, Asha B V, B Tarika</i>	
The Role of Robotic Process Automation in Computerized Accounting Workflows	208
<i>Karthik Kovuri, Vaishali Gaur, Amanjot Kaur Hira, Md Sikandar Azam, Ruchitra Kaparwan, Vasim Ahmad</i>	
Future of Finance: Secure 6G-Enabled Blockchain Networks with AI for Data Integrity	214
<i>Srinivas. D, Kanika Rawat, Jiwanjot Kaur Hira, Sangeeta Bagga, Sonal Saxena, Vasim Ahmad</i>	
Ai-Augmented Legal Research for Indian Commercial Courts: a Scalable, Explainable Framework	220
<i>Dravid Nagi, Manish Kumar Ojha, Sofia Singh</i>	
Follicle Fusion: Integrating External and Internal Factors for Smart Hair Product Recommendations	226
<i>Ms. Sharmikha Sree R, S Meera, Kaviyaselvi V, S Divya Darsshini, Sreenithi R</i>	
Veracura: A Mobile Application for Counterfeit Drug Detection and Health-Care Support	232
<i>A Sathiya, Su Suganthi, A Hariragavan, PS Manmohan, A Dhamarai kkannan</i>	
Frequent Login Security System	239
<i>Meena M, Madhan S, Muthuvanan S, Selvamanikandan S</i>	
Adaptive Heterogeneous Multi-Model Ensemble Framework for Modeling and Enhancing Student Engagement Using Multimodal Educational Data	244
<i>Fahmida Begum, K Ulaga Priya</i>	
Strengthening Pharmaceutical Supply Chain Surveillance: A Blockchain-Based Counterfeit Drug Alert Framework	250
<i>Venkateswarlu Boddu, Malaya Dutta Borah, Naresh Babu M</i>	
Realworldengine: Agile Modular Framework Integrating Transformer-Based Sentiment Analysis for Real-Time Cryptocurrency Trading	256
<i>Divyanshu Yadav, Prakhar Agrawal, Sanchit Grover, Sanjay Kumar Singh</i>	
Ai-Driven Legal Assistant and Judicial Support System	262
<i>Prajwal P Patil, Shreya Ashoka, Pavan S, Prasanna N, Roopa B S</i>	
TRANSMALY: A Real-Time Telemetry Anomaly Detector Using Transformer-Based Approach	268
<i>Ashutosh Dutt, Sumit Saxena, Ashish Saha</i>	
Enhancing Bankruptcy Prediction for Corporate Finance: A Decision-Making Model Using Computational Intelligence	274
<i>B. Rupa Devi, Karamala Naveen, Anjaiah Pole, Kota Sudheer Babu, L. Jayasree, M. Sudhakara</i>	
Serverless Frameworks for Scalable Cloud-Native Applications: A Comparative Study	280
<i>Ravinder Reddy Baireddy, CH. Bhavani, K. Sangameshwar, Komuravelly Sudheer Kumar Prakash Nakirekanti</i>	
A Cryptographic Framework for Secure Civilian Communication During Border Conflicts	286
<i>Komuravelly Sudheer Kumar, S. Kishore, Mothe Rajesh, N. Vijay Kumar</i>	
Machine Learning Based Quant Trading Strategy on NIFTY 50 Index	290
<i>Nishkarsh Mittal, Abhay Bhatnagar, Sanjay Kumar Singh, Joy Bhatnagar</i>	
Bipartite Graph-Based Resource Allocation in Multi-Tenant Cloud Environments	296
<i>Komuravelly Sudheer Kumar, Bhavana Jamalpur</i>	

Serverless Computing Optimization for Scalable Applications: Enhancing Efficiency in Cloud Services	301
<i>Dileep M R, Heera, Sreekanth Rallapalli</i>	
Software Development for Necrosis Segmentation in Histological Images	307
<i>Sadish Sendil Murugaraj, Boddula Sanath Chandra, Yogesh Aditya R S</i>	
Word Embedding Over Linguistic Features for Fake News Detection	313
<i>K. Srinivas, T. Akash, G. Nishitha, P. Shashipal, K. Rajashekar</i>	
Dual-Hand Sign Language Recognition System with Real-Time Feedback for Assistive Communication	318
<i>B. Madhumitha, S. Madan Kumar, K. Regin Bose</i>	
Envi-Drone: A Modular IoT-Enabled Autonomous Drone for Industrial Air Quality, Waste, and Anomaly Monitoring	324
<i>J. M. Nandhini, K. Anuratha, Shanthosh Kumar B, Karthikkeyan V, Vasanth V</i>	
Depression Detection Through Text Analysis Using Machine Learning	330
<i>Shreyas S Acharya, Sumana Sinha, Tushar D S, Suhas Gudur, Deepthi K</i>	
Secure E-Voting Technology System using Blockchain and Authentication via Face Recognition	336
<i>M.P. Kumar, R.G. Kumar, R. G. Santhi, Sampathi Sai Vamsi, Chellu Mani Ratnam, K. Muhammad Ashiq</i>	
Novelty of Cloud Computing in the Internet of Things: Improving Real-Time Processing, Analytics, and Data Storage for Connected Devices	341
<i>Veena K, V.Samuthira Pandi, Riham Alkabbji, Sourabh Kumar, G. Karthikeyan, Devi Priya.L</i>	
Development of AI Models Driven by Blockchain for Privacy-Preserving Data Exchange in Personal Data Management and Healthcare Systems	348
<i>Shamshad Ahmed Khan, Faiz Ahmed Khan, Sathiyandrakumar Srinivasan</i>	
Exploring the Potential of 5G Wireless for Healthcare, Automotive, and Industrial Automation in Real-Time	355
<i>V. Samuthira Pandi, D. Anbarasu, E. Sivajothi, Ala H. Jaber, Sravanthi, G. Karthikeyan</i>	
Implementing Edge Computing and Cloud Computing: Emerging New Opportunities for Real-Time Analytics and Self-Designing Systems	361
<i>P. Krishnamoorthy, Monisha M, V. Samuthira Pandi, Ibrahim Mohammad Khrais, Navdeep Singh G. Karthikeyan</i>	
Novel Strategies for Integrating Blockchain and Deep Learning: Foster Ethical, Secure, and Transparent Artificial Intelligence Systems	367
<i>K. Janaki, B. Geetha Vani, Kalaiyarasi R, Ibrahim Mohammad Khrais, Alok Jain, G. Karthikeyan</i>	
Developing Quantum-Enhanced Intelligent Systems for Ethical Cybersecurity Through Quantum Machine Learning: Making Transparency, Security, and Scalability a Priority	373
<i>Venugopala Reddy Kasu, Bakkiyaraj Kanthimathi Malamuthu, V. Samuthira Pandi, Khaled Tawfiq Al-Assaf Manish Gupta, M. Dinesh</i>	
Emerging Machine Learning for the Integration of Biomedical Data Processing Application: Enhancing Patient Care via the Utilization of Multi-Omics Data and Clinical Insights	379
<i>B. Lakshmi Dhevi, Jongoni Srikanth, V. Samuthira Pandi, Khaled Tawfiq Al-Assaf, Manish Gupta M. Dinesh</i>	

Employing the Synergies of Blockchain with AI: Enhance Trust, Efficiency, and Accuracy in the Execution of Smart Contracts	385
<i>Karpagam P, Gohin, Khaled Tawfiq Al-Assaf, Sorabh Lakhanpal, M. Dinesh, E. Yuvabharathi</i>	
AI-Assisted Case Analytics for the Indian Judicial System: Enhancing Efficiency and Transparency	391
<i>Sameer Patil, Darshana Desai</i>	
Elevation-Aware Deep Learning Framework for Safe Lunar Rover Path Planning Using Chandrayaan-2 Datasets	397
<i>Vedant Chopane, Sarika Zaware, Janhavi Chavan, Sanika Belote, Aishwarya Bhosale</i>	
A Comparative Study of Astrology vs Astronomy Using Hybrid ABM-SD Modelling with Analogy of Twisted Pair Cable	404
<i>Vincent Gnanaraj T, Mahesh Muthulakshmi R, Saranya R, A Sathish</i>	
Enhancing Query Efficiency with Traffic-Aware Data Partitioning and Aggregation in Scalable Systems	410
<i>Arangi Ravi Kishore, Balajee Maram, Shanker Chandre</i>	
Integrating Particle Swarm and Ant Colony Optimization for Feature Selection and Hyperparameter Tuning in ELM-Based Retinal Disease Models	417
<i>Pedada Priyanka, Srinivas Prasad</i>	
DeepConvLeafNet: A Convolutional Neural Network Approach for Tomato Leaf Disease Classification	423
<i>Halaswamy B M, Vinutha C B, Shyla M K</i>	
Long-Range Drone Control Through Cellular Connectivity: Design and Implementation Using SIM-Based Internet Architecture and MAVLink	429
<i>Aryan Mehta, Aryan Vyas, Maya Kurulekar, Abhijit Karji</i>	
Machine Learning Based Optimization of Emergency Department Length of Stay Prediction for Comorbid Patients	435
<i>Suresh Kumar H S, Ayesha Parveen, Pushpa C N</i>	
Lung Cancer Risk Prediction: A Machine Learning Approach	441
<i>Thammisetty Swetha, Jasmine Sabeena, Sailaja G, K. Hema, B. Rajani, Tupakula Gokul Krishna</i>	
Emotion Based Music Recommendation System Using CNN & HARR Cascade	447
<i>Thammisetty Swetha, Srilakshmi Cherukuri, R. M. Mallika, V. Deepika, K Divya Reddy, Tikkala Chaithanya</i>	
Semantic Classification of Sahasra Nama Based on English Meanings	452
<i>Avula Chandrakanth, Kazipeta Praveen Kumar</i>	
Videostrobokymography: An Image-Guided Objective Evaluation of Laryngeal Pathology	458
<i>Sri Ranjani Venkata Murali, Prakash Boominathan, Somu L, S Pravin Kumar</i>	
Author-Oriented Semantic Plagiarism Detection Using Transformer Architectures	464
<i>Atharva Mangeshkumar Agrawal, Arvind Kumar Chaudhary, Viswa Gandamalla, Aravind Reddy Sheru Ashmita Chakraborty, Bhavesh Arjan Dhirwani, Priyank Agarwal</i>	
Sarcasm-Aware Neural Translation for Informal Social Media Texts in Low-Resource Languages	470
<i>Sai Bhuvana Kurada, Atharva Mangeshkumar Agrawal, Viswa Gandamalla, Krishna Goel Bhavesh Arjan Dhirwani, Prakhyati Bansal, Gopi Chandu Injarapu</i>	

Transformer-Based Authorship Attribution: Fine-Tuning BERT and S-BERT for High-Accuracy Stylometric Analysis	475
<i>Arvind Kumar Chaudhary, Sai Bhuvana Kurada, Atharva Mangeshkumar Agrawal, Ashmita Chakraborty Bhavesh Arjan Dhirwani, Priyank Agarwal, Yash Shindey</i>	
Deep Learning-Based Diagnostic Framework for Early Detection of Jaundice Using Skin and Eye Image Analysis	481
<i>Manisha Das, Bura Vijay Kumar, M.V.B. Chandrasekhar, Balajee Maram Kattamuri Venkata Chandra Sekhar, CH Bhanu Tej</i>	
A Gamified Approach to Enhancing Cybersecurity Awareness: Educating Users on Threats and Best Practices	487
<i>Aswini. J, Nadar Akila P Mohan, Aravindhath TR, Sakthivel M, Sathish R</i>	
Automated Skin Allergy Detection Using Machine Learning	493
<i>Poornima Pradeep, Amina Noushad, Fathima Nishla M, Muhammadu Rafi S, Muhammed Indisham Aneesh R P</i>	
Optimizing Urban Traffic Flow with Adaptive Signal Updates Using Proximal Policy Optimization Algorithm	498
<i>Gopi Sri Harsha Karedla, Ashutosh Satapathy, Altaf Hussain Shaik, Sai Sowrabh Nallagondla</i>	
Performance Paradox: Navigating Retention and Turnover with Machine Learning	505
<i>Suryabalaji D., C. Therasa</i>	
Machine Learning Secured Facial Recognition with Spoofing Detection	510
<i>Tushar Waykole, Narendra Chaudhari</i>	
Optimizing Credit Risk Assessment in Digital Banking Through AI-Driven Predictive Science	516
<i>Mahesh Reddy Konatham, Dharmateja Priyadarshi Uddandaraao, Ravi Kiran Vadlamani, Rajit Nair</i>	
Secure Offline Password Manager With AES-256-GCM and Honey Encryption for Brute-Force Attack Resilience	522
<i>Namratha Akshaya, Namrutha M, Niharika Reddy G, Kavitha C.R.</i>	
AI-Powered Visual Identification of Plastic Materials for Smart Waste Management	528
<i>M.Kiruthiga Devi, Unnamalai K, Dinesh S, K. Nithya, C. Sharmila, Venkat Vishal Guddanti</i>	
Enhancing Alzheimer's Disease Diagnosis with Explainable Deep Learning Through a CNN Based Approach Using Grad CAM and LIME	535
<i>Parthiv JP, Pon Harshavardhanan, Rajit Nair</i>	
Cyber Frauds and the Human Mind: Behavioral Vulnerabilities and Adaptive Defense Mechanisms	541
<i>Digvijaysinh Mahida, Brijesh Bhatt, Bhavika Gambhava</i>	
CVision: An AI-Powered System for Smart Resume Enhancement and Job Role Alignment	547
<i>Atharva Pagar</i>	
Retinal Fundus Image Enhancement using Adaptive Guided Illumination Correction	554
<i>RPVG Ashok Reddy, A.Yasmine begum</i>	

Hybrid Transformer-Based Deep Learning Model for Automated Kidney Disease Classification Using CT Imaging	560
<i>Md Yousuf Ahmad, Roise Uddin, Sazid Rahman Kazi, Md Nafis Azad Nobel</i>	
<i>Mohammad Mahmudur Rahman, Debabrata Biswas, Mainuddin Adel Rafi, Girigula Durga Bhavani</i>	
<i>Irfan Sadiq Rahat</i>	
Blockchain Reimagined: A Unified Path to Intelligence, Sustainability, and Trust	566
<i>Sairam Jalakam Devarajulu, Sirisha Talapuru</i>	
Adaptive Meta-Learning Architectures for Real-Time Decision-Making in Dynamic Environments	575
<i>Akshar Patel, Sai Bhuvana Kurada, Sangeeta Singh, Vivek Ghatala, Preeti Sharma Nair</i>	
Blockchain-Driven Zero Trust Framework for Enhancing Network Security in Distributed Enterprises	581
<i>Rajeev Agarwal, Raju Katukam, Saswata Dey, Nitin Mukhi, Rajit Nair</i>	
Cross-Domain Knowledge Transfer in Multimodal AI Systems for Enhanced Predictive Accuracy	587
<i>Vivek Ghatala, Sai Bhuvana Kurada, Sangeeta Singh, Shashank Majety, Preeti Sharma Nair</i>	
Energy Efficient CAM Design Using FinFET for IoT Applications	593
<i>Sandhya Pagadala, Naga Jyothi Grande</i>	
AI-Augmented Threat Intelligence for Proactive Intrusion Detection in Multi-Cloud Ecosystem	598
<i>Venkatraman Viswanathan, Sai Santhosh Polagani, Rajeev Agarwal, Satyasri Akula, Saswata Dey</i>	
<i>Ramgopal Kashyap</i>	
Design and Analysis of a Super Source Follower-Based Multipath Fully Differential Operational Trans Conductance Amplifier	604
<i>Bukke Gayathri, Grande Naga Jyothi</i>	
AI-Driven Risk Scoring Models for Predictive Credit Analytics in Digital Banking Ecosystems	609
<i>Pravanthi Dontu, Aswin Babu Rasipuram Sivaselvan, Sujeet Kumar Tiwari, Rajender Chilukala</i>	
<i>Ramgopal Kashyap</i>	
A Hybrid Deep Learning Framework for Real-Time and Explainable Social Network Analytics	615
<i>B. Adithya, V. Seethalakshmi, D. Amu, Addanki Mounika, J. Ranjith</i>	
Uncovering Latent Behavioral Patterns Using Advanced Clustering in Customer Segmentation	621
<i>Divyaraj Singh Jatav, Mahamood Hussain Mirza, Manoj Pal, Anshuli Tripathi, Rajit Nair</i>	
Galactic Rotation Curve Modeling and Simulation	627
<i>Vedang Pratap Singh, M. Sai Manaswini, G. Ayyappa Harsha Vardhan, O. Raghu Harsha Vardhan</i>	
<i>S. Manimaran</i>	
Citrus-Defense: Ensemble Learning-Models for Early Citrus Disease Identification	633
<i>K. Jagadeeswari, B.Rama Subba Reddy</i>	
Interactive Campus Navigation Bot	638
<i>Minakshi Rokade, Pritam Morey, Taniksha Upadhyay, Giridhar Urkude</i>	
Revolutionizing Shopping with RFID-Enabled Automated Billing and Bulk Scanning	644
<i>Falguni Rinke, Shlok Vij, Sunidhi Haware, Giridhar Urkude</i>	
Smart Healthcare Monitoring Through Federated IoT Networks and Privacy-Preserving Deep Learning	650
<i>Arvind Kumar Chaudhary, Sai Bhuvana Kurada, Venkata Babu Mogili, Ronish Balvantbhai Patel</i>	
<i>Durgesh Nandan</i>	

Statistical Validation of Assamese Question Sentence Correctness	656
<i>Manisha Deka, Shikhar Kr. Sarma</i>	
A Graph Neural Network Framework for Real Time Cyber Threat Intelligence and Risk Analysis	661
<i>Voruganti Naresh Kumar, MNS Suvarna Kumar, R. Suhasini, Manikala Lakshman</i> <i>Naveenkumar Anbalagan, Krithika. D.R</i>	
A Block Chain Integrated Security Model for Confidential and Decentralized Cloud Data Sharing	668
<i>K Srujan Raju, K Vinay Kumar, T Krishnaveni, M Prabhakar, Hemalatha K, D. Narayani</i>	
Automation of a Water Treatment Plant Based on PLC Integrated Systems	674
<i>Diwankar Mishra, Ashok Kumar Kumawat</i>	
An Evaluation of AI in Balancing Security and Performance in Privacy-Preserving Machine Learning	678
<i>Mohammad Shareef, Kunal Devidas Gaikwad, P Sravanthi, G Usha Rani, P. Bhuvaneswari</i> <i>Sangeetha Radhakrishnan</i>	
Green/Energy-Efficient Ai: Strategies for Reducing Power Usage in Large-Scale Model Training	683
<i>Arpit Garg, Anuraj Bhosale</i>	
A Machine Learning Perspective on Slope Stability: Evaluating Logistic Regression and Random Forest	689
<i>M Sunitha, S. Alagumuthukrishnan, A Shekar, Nishma Bhaskarani, T. Sathiya, Fathima Rumaiza SM</i>	
Next-Gen Simulations: Cloud-Based Digital Twins for Real-World System Optimization	695
<i>T Vasavi, B Sampath Kumar, R Venkateswara Reddy, T Sarika, S. Asha</i>	
A Novel Deep Learning Model for Enhancing Chest X-Ray Assessment Using CXRIA-Net	700
<i>Adde Divya Bharathi, B Sindhuja, Vivekanand Aelgani, P Chander, Komalavalli D, S. Muthukumaran</i>	
Anisotropic Diffusion-Based Multi-Modal Medical Image Fusion with Enhanced Structural Preservation	706
<i>G. Tirumala Vasu, Afreen Kubra, Deepti Raj, Seema J Kampli, Koteswararao Seelam, Anitha Suresh</i>	
A Statistical Study on Heliocentric Orbital Period and Geocentric Gochar Transits for Validating Ancient Vedic Astrology	712
<i>Vincent Gnanaraj T, Mahesh Muthulakshmi R, R Vinitha, Angeljulie J</i>	
Kidney Disease Detection Using Computed Tomography Scans: A Deep Learning Approach with Hybrid Activation Functions Based ResNet50	718
<i>Niharika Vemula, Durgesh Nandan</i>	
Interactive Text Generation Using GPT-2 with Gradio: An Approach to Accessible NLP Applications	724
<i>Niharika Vemula, Durgesh Nandan, Ravikiranreddy Kandadi, Mahesh Kumar Singh</i>	
Instantaneous Detection of Anomalous Behavior in IoT Systems via Responsive Learning Algorithms	729
<i>N. Pavan Kumar, B. Rama Subba Reddy</i>	
Edge-AI-Driven 3D Underwater Object Detection and Tracking Using Advanced HydroLensX	734
<i>Sujilatha Tada, V. Jeevanantham</i>	
Adaptive Low-Complexity Hybrid Precoding Algorithms for 6G Communication Systems Operating at Higher Frequencies	740
<i>Madhu Kumar Vanteru, Anvesh Thatikonda, Sravan Kumar Vanam, Madhavi Kesoju</i> <i>Ranjith Kumar Siddoju, Karthik Kumar Vaigandla</i>	

Optimizing Robotic Manipulation and Grasping Techniques for Complex Tasks Using Reinforcement Learning and Computer Vision	746
<i>Sandeep Kumar, Deepika Mallampati, Rasveen, M Sudhakar, B. Sabitha, Shilpa Choudhary</i>	
An Approach to Image Blur Detection and Restoration Using Generative Adversarial Networks	751
<i>Kunduru Gayathri, Ch. Prathima, N. Siva, Bingi Manorama Devi, B. Sunil Kumar, M. Ramu</i>	
SoftNet-Guard: A Machine Learning-Enhanced Software Framework for Comprehensive Home Wi-Fi Network Security Monitoring	757
<i>Nithya T, Mahendrakumar S, Priya Keerthana A, Sakthi M, Monish S, Nandini S</i>	
Emotion Artificial Intelligence: A Cognitive Behavioral Sentiment Analysis System for Mental Health Support	762
<i>Bosubabu Sambana, S.S.D.K Mahalakshmi, Surya Pavan Kumar Gudla, K. Vara Prasad, Uppe Nanaji Yagireddi Ramesh, B. Ganesh, Vakada Trinadha</i>	
E-Commerce Data Analysis and Visualization Using Python: A Case Study of Amazon and Flipkart	768
<i>Hemachandrika S, Venkata Naga Chetan Kumar Pulipati, Anusha Koneti, Shaik Mahammad Irfan Muralidhar Kurni, Ramesh Krishnamaneni</i>	
Quiz-Based Resource Recommendation System Using Decision Tree Classification for Adaptive Learning	774
<i>Harshitha Kachapuram, Venkata Naga Chetan Kumar Pulipati, Umesh Potha, Muralidhar Kurni Irala Suneetha, P. Harish</i>	
Healthy Bites: An AI-Based Calorie Tracking and Personalized Food Recommendation System for Indian Dietary Patterns	780
<i>Sharmila S, M Piramu, Jayashree T, Iswarya N</i>	
Enhancing Spectrum Efficiency in Cognitive Radio Networks Using Novel Machine Learning-Based Sensing Method Compared with Rule-Based Spectrum Sensing Method Based on Time	785
<i>B.T. Geetha, Navaneetha Krishnan K</i>	
Optimizing Dynamic Spectrum Access in Cognitive Radio Networks Using Novel Reinforcement Learning Approach Compared with Game Theory Approach Based on Efficiency	790
<i>B.T. Geetha, Navaneetha Krishnan. K</i>	
A Twin-Layered Transfer Learning Based Adaptive Convolutional Neural Network (A-CNN) for Diagnosis of Pneumonia	796
<i>Pulicherla Poornima, B. Rama Subba Reddy</i>	
Absolute Valued Message Passing-Based PAPR Reduction in OTFS Under Fading Channel Conditions	801
<i>Illuru Rajasekhar, M. Monisha</i>	
Multisource Data Fusion with Generative AI: Case Studies in Healthcare, Cybersecurity, and Autonomous Systems	807
<i>Devi Prasad Guda, Jatinder Singh, Tanvi Desai, Rakesh Kumar Pal, Md Habibur Rahman Rajalingam Malaiyalan, Rajit Nair</i>	
Blockchain-Powered Vehicle-to-Everything Communication for Next-Generation Intelligent Transportation Networks	813
<i>Bhulakshmi Makkena, Noori Memon, Sai Charan Madugula, Zein Bassam Bani Younes, Preeti Sharma Nair</i>	

Investigating Methods to Safeguard Facial Recognition and Other Biometric Data to Address Privacy Concerns Using Deep Learning	819
<i>Kummari Jyothsna, N. Srivani, Koppolu Yamuna Devi, Penugonda Anusha, P. Deekshith Chary Y. Ramkumar</i>	
Study of Encryption Techniques for Secure Computation on Images Without Compromising Privacy	824
<i>N. Srivani, Koppolu Yamuna Devi, Penugonda Anusha, P. Deekshith Chary, Y. Ram Kumar Kummari Jyothsna</i>	
Leveraging Pre-Trained Models and Transfer Learning Techniques to Improve Sentiment Analysis Performance with Limited Labelled Data Using Deep Learning	830
<i>Y. Ram Kumar, Kummari Jyothsna, N. Srivani, Koppolu Yamuna Devi, Penugonda Anusha P. Deekshith Chary</i>	
Exploring Sentiment Analysis Applications in Health Care Using Artificial Intelligence	835
<i>P. Deekshith Chary, Y. Ram Kumar, Kummari Jyothsna, N. Srivani, Koppolu Yamuna Devi Penugonda Anusha</i>	
Deep Learning for Transaction Anomaly Detection: Evaluating the Efficacy in Mitigating Banking Frauds	840
<i>Penugonda Anusha, P. Deekshith Chary, Y. Ram Kumar, Kummari Jyothsna, N. Srivani Koppolu Yamuna Devi</i>	
An Analysis of Deep Fake Technology, Including Pros, Cons, and Use Cases	845
<i>Koppolu Yamuna Devi, Penugonda Anusha, P. Deekshith Chary, Y. Ram Kumar, Kummari Jyothsna N. Srivani</i>	