

2025 IEEE International Conference on Blockchain and Distributed Systems Security (ICBDS 2025)

Kolhapur, India

30 October - 1 November 2025

Pages 1–465

IEEE Catalog Number:
ISBN:

CFP25AY5-POD
979-8-3315-5306-7



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:	CFP25AY5-POD
ISBN (Print-On-Demand):	979-8-3315-5306-7
ISBN (Online):	979-8-3315-5305-0

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 Secure Real Estate Property Registration Management System by Using Smart Contract and Blockchain Technology	1
<i>Madhiya Mirza, Ravi Jeswani, Vivek Pandey, Noman Ansari, Rahul Dubey, Pratima Yadav</i>	
Layer 2 Trade-Offs: Evaluating Privacy, Security, and Decentralization in Ethereum Scaling	8
<i>Varun Pareek, Karan Kumawat, Anunay Tiwari, Taruna Sunil</i>	
PoachingTracker: Secure Incident Logging and Tracking with Blockchain Technology	13
<i>Padma J, Lokhande Om Arun, Pratham Jethwani, Prikshit</i>	
Deep Learning at the Edge: Pushing AI Beyond the Cloud	19
<i>Madhav Sharma, Hukam Chand Saini, Akash Saxena, Samiksha Agarwal, Shalini Chaudhary</i> <i>Pushpendra Kumar Sikarwal</i>	
Bridging the Gap Between AI and Human Decision Making Using Deep Reinforcement Learning	23
<i>Madhav Sharma, Hukam Chand Saini, Akash Saxena, Samiksha Agarwal, Pushpendra kumar Sikarwal</i> <i>Pratibha Soni</i>	
SomnoGuide: AI Based Sleep Disorder Diagnosis	27
<i>Srinidhi Soundarrajan, Prachi Shedge, Samiksha Mahajan, Anuradha Yenikar, Nilesh Sable</i>	
Memecoin Price Forecasting on Solana and Base Chains: A Comparative Study of LSTM, CDP Agent and ELIZA OS with Interpretability Insights	33
<i>Ansh Goyanka, Shlok Khairnar, Harsh Jaisingpure, Anuradha Yenikar, Pranjal Pandit, Amar Buchade</i>	
DDoS Attack Detection in IoT Using Motion Behavior and Deep Learning	39
<i>Kavita Thorushe, K. R. Desai</i>	
Blockchain Based Secure Threat Detection Model for Industrial IoT Applications	45
<i>Varsha Prafull Patil, Sharada N. Ohatkar</i>	
Rose Flower's Quality Detection and Grading Based on Multi-Class Classification using Conditional GAN	56
<i>Jambukeshwar Pujari, Pramila Gadyannavar, Sheetal Gaikwad</i>	
Distributed AI/ML Models (Detecting Network Attacks with Distributed AI using TriBoostFedHyFedX Model)	62
<i>Vijaya Madhu Kanaga Sundaram</i>	
A Secure and Transparent Cold Chain Shipment Monitoring System Leveraging IoT and Blockchain	68
<i>Abishek S, Anirudh B Varma, Arnav Purohit, Sidarth M, Rolant Gini J</i>	
Encrypted Traffic Classification in Software-Defined Networks Using Machine Learning: A Comparative and Design-Oriented Approach	74
<i>Samish.N. Kamble, Ajay. D. Jadhav</i>	
Blockchain-Based Security Mechanism for Vehicle-to-Everything (V2X) Communication	80
<i>Vaishali G Waghmode, Madhuri J Siddharapu, Amruta R Patil, Madhav J Salunkhe</i>	
Real-World Scalability of PostgreSQL: Practical Techniques Use Case Study	85
<i>Jayraj Kiran Ladkat, Pranati Waghodekar</i>	

Blockchain-Enabled Market Integration: Transforming Agricultural Sales and Supply Chain Transparency	91
<i>Nayani Venkata Santhosh Rohan, Sushant Malik</i>	
Smart Secure: Security Assessment of Smart Home Using IoT	96
<i>K. U. Rahane, Gilatkar Ishita, Khatal Vaishnavi, Khose Vaishnavi, Hase Sakshi</i>	
Adaptive Hybrid Framework for Ransomware Detection Leveraging Federated Learning and ML Models	104
<i>Vaishali Girish Korade, Jyoti Bansode, Minakshi Retharekar, Aruna Kadam</i>	
Design and Implementation of a Secure Online Test Environment Using Real-Time User Verification	114
<i>Vishakha Shinde, Pratham Mewada, Jainish Kotadia, Shivam Patel</i>	
YOLOv9 Meets CBAM: A Real-Time Smart Traffic Signal System for Emergency Response Optimization	124
<i>Rohit Shitole, Aryan Shivatare, Jayant Shelke, Omraje Shendage, Vijay Rathod, Sujal Sune Dattatray Takale</i>	
Enhancing Law Enforcement with a Blockchain-Based Biometric System for Secure and Efficient Suspect Identification	130
<i>E. Leelavathi, K. Anuratha, Manoj Kumar D, Akash S, Balaji J</i>	
CertiChain: A Blockchain-Based System for Secure Certificate	135
<i>Madhura Eknath Sanap, Anvit D. Joshi, Harsh A. Joshi, Shivam R. Joshi, Ajinkya P. Junagade Aakanksha V. Kadam</i>	
AI Driven Electricity Demand Response System: Predictive Analytics and Dynamic Pricing Using LSTM	140
<i>Swati B. Bhonde, Avantika S. Ekhande, Gauri V. Dighe, Sakshi R. Deshmukh</i>	
Smart Contract Security - A Comprehensive Evaluation of Deep Learning based Mechanisms for Smart Contract Vulnerability Detection	146
<i>Deepa Mishra, Shraddha Phansalkar</i>	
Hybrid DL Models for Stock Market Analysis: A Comparative Survey of Feature Engineering, Ensemble Strategies, and Risk Metrics	155
<i>Ujjwal Mishra, Pankaj Chandre, Neeraj Saxena, Shruti Saxena</i>	
Secure Enterprise Authentication Using Continuous Behavioral Biometrics and Adaptive AI	162
<i>Srushty Chavan, Gauri Surale, Gayatri Khairnar, Harshita Wasnik, Priya Karemore, Prerna Humbe</i>	
Improving DDoS Detection Accuracy in IoT Networks Using Machine and Deep Learning Strategies - A Survey	167
<i>Jyotsna A Nanajkar, Sudhir B Lande, Shailendrakumar M Mukane</i>	
Elevating Cosmological Image Clarity with GAN-Based Super-Resolution	173
<i>Rohidas Balu Sangore, Jagannath E. Nalavade, Ramchandra Puji, Amar Buchade, Vikas S. Katakound</i>	
Intelligent AI-Driven GIS Mapping and Analysis System	177
<i>Sheela Chinchmalatpure, Chinmay Rane, Vaibhav Pujari, Rahi Dubewar, Sumit Pujari, Sachin Prasad</i>	

EduChainSentinel: A Blockchain-Integrated Real-Time Sentiment Analysis and Exam Proctoring System	184
<i>Tanvi R. Patil, Sonali Patil, Sayali Gurav, Siddheshwar V. Patil, Rajanigandha Patil, Sachin B. Takmare Shamal C. Desai, Priyanka Bhatmare</i>	
Community-Oriented Digital Learning via Adaptive Mentor-Ship and AI-Driven Personalization	190
<i>Sourabh Lawand, Shubham Sarwar, Padma Nimbhore, Harsh Basatwar, Arya Gandewar, Madhavi Nimkar</i>	
Improving Deepfake Detection Using Sparse Google Net	195
<i>Priyanka Koravi, Rajesh N. Phursule, Suhas G. Sapate</i>	
Evaluating Cyber Risk Insurance Frameworks: Bridging Cybersecurity Threats with Financial Risk Strategies Through Actuarial Modeling and Adaptive Resilience	200
<i>Hemant Nagesh Dusane, Mandar Karyakarte</i>	
LLM and Blockchain Based Digital Evidence Integrity System	207
<i>Aakash T, Kethsy Prabavathy</i>	
Adaptive Data Reduction and Generalization System Using Persona-Specific AI Agent	212
<i>Sumana Malkapuram, Kailashnath Reddy Kavalakuntla</i>	
A Hybrid Reinforcement Learning Based MaOABC-NSGA-II Framework for Hierarchical Clustered Many-Objective Distributed Power Flow Computation	216
<i>Abhishek Bajirao Katkar, Himmat Tukaram Jadhav</i>	
A Hybrid Bi-LSTM and Auxiliary CNN Model for Sentiment Analysis of Twitter Data	222
<i>Roma Rakesh Jain, Supriya O Rajankar, Madan B Mali, Suhas Gajanan Sapate</i>	
Fraud Detection in Decentralized Finance (DeFi) Transactions using ML and Smart Contracts	228
<i>Harsh Rudrawar, Sumitra A. Jakhete, Dhanashree Somani</i>	
Leveraging Post-Quantum Cryptography in Digital Signatures for Enhanced Security in Quantum Computing Threat	234
<i>Pavan Kurariya, Jahnavi Bodhankar, Santosh K Pandey</i>	
Blockchain-Enabled Drug Traceability: Evaluating Smart Contract Performance	240
<i>Rahul Konapure, Shankar Nawale</i>	
Role of Quantum Computing in Weather Prediction Models Through Pre-Parametrization	246
<i>Kallur V Vijayakumar, Madhukar K, Soumya Teggi, A.S. Chethan, Muneshwara M S</i>	
E-Vote 2.0: Strengthening Democracy Through Dual Blockchain Technology	253
<i>Muneshwara M S, Kallur V Vijayakumar, Chethan A.S, Vaishnavi, M Giridhar Rao, Swarhi Rao R</i>	
A Threat Modeling Approach for Securing Blockchain Framework	258
<i>Neelkumar K. Shah, Sachin Nandurkar, Mayur Lilhare, Mohammad Aziz Maalik, Indraveni Chebolu Niteshkumar Harne, Manoj Kumar Khare</i>	
Data-Driven Quality Assessment of Medicinal Plants using ML	270
<i>Bhagyashree D Lambture, Madhavi A. Pradhan</i>	
A Lightweight RF-XGBoost-LinearSVM Ensemble for High-Performance DDoS Attack Detection Using the CICDDoS2019 Dataset	276
<i>Sana Firoz Amin, Amit B. Jadhav, Pallavi Vasant Hatkar, Mrunmayee Mayuresh Bachate</i>	

Optimizing Farming Solutions: Leveraging IoT for Optimal Commodity Storage and AI for Price Analysis	282
<i>Mohit Wani, Yash Patil, Varsha Kshirsagar Deshpande, Raghavendra Bhalerao</i>	
MerkleDoc: A Privacy-Preserving Blockchain-Based Document Verification System	288
<i>Akshat Patil, Arya Manve, Aarya Lomte, Anshuman Dalmia, Ayush Gupta, Sunil Sangave</i>	
AI-Driven Learning Behavior Analysis for Adaptive Content Delivery and Enhanced Productivity	294
<i>Sampath. K, Murugan Kandaswamy, V. Ramu, Kabirdoss Devi, S. Venkatesan</i>	
Deep Learning for Stock Market Prediction: A Comparative Study of LSTM and Transformer-Based Models	300
<i>S. Venkatesan, Kabirdoss Devi, T.V. Ambuli, Sampath K., V. Ramu</i>	
Query Vault: Streamlining Information Extraction and Interaction Across PDFs and Video	306
<i>Snehal Rathi, Vijayshri Khedkar, Priyansh Chhajed, Gaurav Desai, Vijay Jha, Subhan Shaikh</i>	
Prediction of Diabetic Retinopathy using Deep Learning Techniques	312
<i>Tejashri V. Deokar, Shabnam F. Sayyad</i>	
Enhancing Time-Based One-Time Password (TOTP) Authentication with Post-Quantum Cryptography Using CRYSTALS-Dilithium	318
<i>Pavan Kurariya, Jahnavi Bodhankar, Anvit Shah</i>	
Blockchain-Enabled Customer Data Privacy for Trust-Centric Digital Marketing: A Framework for Transparency and Consent Management	325
<i>Pritibala Sudhakar Ingle, Rahul Diliprao Tamhane</i>	
LRS-Chain: A Permissioned Blockchain-Enabled Framework for Secure and Transparent Land Registry Systems	329
<i>Prity Rani, Pritam Rani, Rohit Shorya</i>	
Implementing IoT Technologies for Improved Patient Outcomes and Faster Response Times in Emergency Care: The Internet of Healthcare Things (IoHT)	335
<i>B. Lakshmi Dhevi, V. Samuthira Pandi, R. Deepa, G. Karthikeyan, Sravanthi, Maram Y. Al-Safarini</i>	
Enhanced Cybersecurity in Enterprise Circumstances: A Behavior-Based Procedure to ML-Based Insider Threat Detection	342
<i>Manoj Sethi, Venugopala Reddy Kasu, Bakkiyaraj Kanthimathi Malamuthu, Khaled Tawfiq Al-Assaf Amit Dutt, G Karthikeyan</i>	
Automated Very Large-Scale Integration (VLSI) Design using Artificial Intelligence: Energyconstrained Internet of Things (IoT) Edge Devices	348
<i>Sumalatha A, Mohammad Omar Sabri, Sunil Kumar J., Vijayanandh T., Lalitha J, Shanmugam N</i>	
Proof Without Exposure: High-Throughput Blockchain Transactions Via Privacy-Preserving Layer-2 Aggregation	354
<i>Ruchika Dungarani, Dhruv Patel, Nachiket Patel, Hrutva Doshi, Hardik Prajapati Pankaja Rajebhau Deshmukh</i>	
Reconstructing Online Trust: A Decentralized Blueprint for Honest Customer Reviews Using Blockchain Technology	365
<i>Surekha B. Mujumale, Pritibala Sudhakar Ingle</i>	

Comprehensive Analysis of Mitigation Strategies for Denial-of-Service Attacks on Smart Contracts	369
<i>Purnima Ahirao, Yogita Borse, Deepti Patole, Shreshtha Agarwal, Mehek Abhyankar, Kaustubh Nair</i>	
Design and Evaluation of a Quantum-Enabled Explainable AI System for Disease Risk Prediction in Healthcare	375
<i>Dattatray Raghunath Kale, Panil Jain, Tejal Deshpande, Sahil Ajamuddin Mujawar, Suhas Gajanan Sapate, Sumit Arun Hirve</i>	
Anomaly-Oriented Multi-Class Intrusion Detection Using Machine Learning and Ensemble Methods	381
<i>Arya Jadhav, Aadi Parkhi, Manas Bhise, Shrey Bhandari, Amar Buchade, Santosh Kumar</i>	
Decentralized Electronic Health Records using Ethereum and IPFS: A Blockchain-Based Secure Access Framework	389
<i>H. Harshavardhan, Shetty Vinith Vijay, Shravya P Shetty, Swaroop Shrinivas Salian, Shetty Krishma</i>	
Hybrid Deep Learning Fusion Approaches with Blockchain for Robust Multimodal Sentiment Analysis (MSA)	395
<i>Pralhad Gavali, Nandini Patil, Swati Ambi, Pooja Patil, Meghana Bandivadekar, Aditi Salokhe</i>	
MLSecOps: Protecting the ML Supply Chain by Identifying and Blocking Malicious Packages in MLOps Pipelines	401
<i>Shifa Shaikh, Rohit Suryawanshi</i>	
Revolutionizing Wearables with Energy Efficient Smart Clothing	407
<i>Anupriya, Paras Jain, Shivani Agarwal, Vishan Kumar Gupta, Kireet Joshi, Satish Kumar Mishra</i>	
Grid-Based Dynamic Password Authentication for Enhanced Security	413
<i>T.S. RajaRajaswari, Shaik Abu Saif, Baswa Rudra Teja, Saggurti Srujan Chowdary</i>	
Crypto-Agile Zero-Trust Access for Multi-Cloud via SDN, with PQC-QKD Key Orchestration	419
<i>Venkatesh H, Sashikanth Reddy Avula</i>	
Applications of Technologies Powered by the Internet of Medical Things: An Intelligent Health Environment for Remote Patient Care and the Management of Chronic Illnesses	424
<i>P. Arunachalam, A. Nallathambi, Yammani uma, Devisetty Maheswari, Somarouthu Lakshmi Srida, Yelchuri Vinitha</i>	
Implement Blockchain in Autonomous Vehicle Networks: Ensuring Route Optimization & Vehicle-to-Vehicle Communication Through Smart Contracts	430
<i>B. Lakshmi Dhevi, Viji K, K. Chitra, Mohammad Omar Sabri, Pacha Swathi, Kirubakaran</i>	
AIORTS: Harnessing the Power of Object Recognition and Tracking Systems for the Visually Impaired People using Artificial Intelligence	436
<i>C. Anitha, J Vaishnavi, D. Sundaranarayana, A. Sowmiya, Primmia D R, Lakshmi Priya</i>	
Malware Detection using Explainable AI	442
<i>S. Kanimozhi, Poomathi Raja L, Praveen Kumar A, Priyadharsan N</i>	
An Empirical Study of Elastic Weight Consolidation on CNNs and LSTMs for Continual Learning	448
<i>Devashish Bhardi, Tanish Khot, Pratik Survase, Sumitra Jakhete, Suhas Sapate, Sunil J Raykar</i>	
Intelligent Threat Detection: Leveraging GANs for Adaptive Cybersecurity	453
<i>Sneha Kanawade, Sonali Patil</i>	

Advancements and Challenges in 3D Mesh Data Hiding: A Survey of Traditional and ML Techniques	460
<i>Amit Verma, Bhogeswar Borah</i>	
Secure Healthcare Predictions via Homomorphic Encryption: A Privacy-Centric Framework	466
<i>Ashwini Kunal Bhavsar, Jaya Nag Mathur, Alaknanda S. Patil, Shweta G. Lilhare</i>	
<i>Abhijit Hanumantrao Khadke, Vishal Borate</i>	
AI-Based System for Assessing and Ranking Code Efficiency	471
<i>Sarala Ashok Dabhade, Vishal Borate, Ashutosh Bhavsar, Snehal Nathankar, Pallavi Patil, Rajdeep Das</i>	
Energy-Aware Decision Making in VM Migration via Q-Learning	478
<i>Ankam Abhinaya, Suram Bharath Kumar, Rishi Thummala, M.A. Jabbar</i>	
SCR Argo Farms: Integrating Emerging Technologies for Transparent and Intelligent Dairy Operations	484
<i>Shiwangi, Krishtina, Shivani, Deepa, Kavita Sharma, SRN Reddy</i>	
A Data-Driven Machine Learning Approach for Behavioral Customer Churn Forecasting in E-Commerce	490
<i>Nikita Thakur, Rohit Bajaj</i>	
Use of Large Language Models and AI Chatbots in the Indian Legal System and the E-Courts	496
<i>Sudhir Kumar Rajput, Vishal Gupta, Jagdish Chandra Patni</i>	
Comparative Study of Generative Deep Learning for Malicious Node Detection in IoV	501
<i>Rohit Kumar, Priyanka Basak, Jagdish Chandra Patni</i>	
PCDF: Phishing Attack Using Cyrillic Homograph Domain Forgery	508
<i>Rohit Kumar, Priyanka Basak, Jagdish Chandra Patni</i>	
Performance-Driven Scheduling of Independent Tasks in Heterogeneous Computing Systems	513
<i>CH. Rushikesh, D. Sri Sai, D. Naveen Reddy, R. Karthikeyan, M.A. Jabbar</i>	
A Two-Stage Unsupervised Hybrid Approach for Customer Segmentation using Ensemble Algorithm: Noise-Aware Preprocessing using DBSCAN and Clustering with K-Means	519
<i>Nitish M. Shinde, Shantappa G. Gollagi</i>	
Predictive Crop Health Analytics via Sensor Fusion: Integrating Soil IoT, UAV Multispectral Data, and Machine Learning	526
<i>Anand Kadam, Nagsen Bansod, Shalini Bakal, Samadhan Ghodke, Farooque Shaikh, Sachin Shelke</i>	
An Early Breast Cancer Detection Using Deep Learning Technique	531
<i>M Saravanapandian, K Pratibha Shivani, P Ranjith Kumar, B Mohan, R Jenitha, S Ramasamy</i>	
Secure and Smart Food Quality Assessment Using Blockchain ML Classifiers and Metaheuristic Optimization	537
<i>Femimol R, Nalini Joseph L</i>	
Deep Learning and Blockchain-Based Multi-Crop Classification Framework for Food Quality Assessment	543
<i>Femimol R, Nalini Joseph L</i>	
Enhancing Cluster-Based Information Retrieval through Reusable Clusters and NoSQL Storage	549
<i>Vilas Khedekar, Nitin More</i>	

Empowering Digital Rights: Real-Time Detection of Piracy Channels on Telegram Using Machine Learning and Network Analysis	555
<i>Gaurav Dhanwate, Archana Jadhav, Indrajit Lavate, Samarth Bawage, Rushikesh Aghavane, Dipali Patil</i>	
Real Semantics: Detecting and Understanding Floating-Point Precision Errors in Programs	561
<i>Shreya G. Tendulkar</i>	
QUADRA - a Quantum-Resistant Distributed Resilient Architecture for Secure and Inclusive Digital Public Infrastructure	567
<i>Mondikathi Chiranjeevi, N.MD. Bilal, Jafar Ali Ibrahim Syed Masood, N. S. Kalyan Chakravarthy, Netrananda Behera</i>	
A Real-Time Blockchain and PUF-Integrated Authentication Framework with AI-Based Anomaly Detection for Secure Wireless Medical Sensor Networks	573
<i>Karthick M, Irfana Farhath I, Asaraf Ali A, Bhavya R, Vaishnavi V S</i>	
A Practical Decentralized Donation Based Crowdfunding Platform Using Block-Chain for Education and Medical Expenses	577
<i>Habibur Rahaman, Md. Musfiqur Rahman Akib, Mohammad Rifat Chowdhury</i>	
“CryptoKalp”: A Tool for Cryptocurrency Investigation	581
<i>Sanjita Jain, Rupprashik Khare, Samyak Lahire, Chaitali Patil</i>	
Blockchain Based E-Vault for Legal Records Using Pinata	586
<i>Leelavathi E, Sharmila P, Kamali K, Vijayari R, Swathi V</i>	
Ontology-Driven Hybrid Optimization With SVNN for Secure Schizophrenia Data Classification in Cloud Environment	591
<i>Nandkishor Karlekar, Anup Dange</i>	
PhishSecure: Enhancing web Safety with ML	596
<i>Chetana Shravage, Shubhangi Vairagar, Priya Metri, Sunita Patil, Shreya C. Jaygude, Pradnya P. Sonawane, Pradnya D. Kudwe, Siddheshwari S. Patil</i>	
Blockchain-Enhanced Chain of Custody for Digital Forensic Evidence Management	602
<i>Renu Mishra, Premnarayan Arya, Mamta Narwaria, Inderpreet Kaur</i>	
AI-Driven Cybersecurity: Predictive Insights Into Attack Patterns and Effective Preventive Strategies	607
<i>Suhas Chavan, Rajneeshkaur Sachdeo</i>	
EHR Cybersecurity Threats and Solutions	611
<i>Madhuri Kethari, Rajneeshkaur Sachdeo</i>	
Lyapunov–Sylvester Stability Analysis of Machine Learning Enhanced LEACH Protocols in WSN	616
<i>Neelam Swami, Jeetu Sharma</i>	
Proactive Congestion Detection and Video QoE Preservation Over QUIC Using LSTM	622
<i>Sarika Patil, Shilpa Gaikwad</i>	
A Deep Learning Approach for Thyroid Cancer Detection Using Sparse Auxiliary Convolutional Neural Networks	628
<i>Rutuja G. Shelke, Vijayshree A. More, Javed Sayyad</i>	

Lightweight Deep Reinforcement Learning Framework for Secure Dynamic Session Key Generation in LoRaWAN Networks	634
<i>Talari Ashok, Sabout Nagaraju</i>	
AI-Powered IoT Solutions for Employee Tracking and Environmental Monitoring in Smart Construction	640
<i>G. Manikandan, K. Thilagavathi, Rakesh. S, Jagruti Nandkumar Kadu, Vidya Kallappa Khobare Preethimathi. L</i>	
AI-Driven Sustainability Marketing for Building Consumer Trust and Green Product Adoption in Pharmaceutical Firms	646
<i>J. Niruba Rani, Sree Mathi S, Sumyutha L, Surya V, Swetha S, Thangavel R</i>	
Fraud Detection in Financial Transactions Using Graph Neural Networks	652
<i>Mohanraj M, Kamesh A, Maduvant S P, Raghu Muthu Vishal S, Rishin Nethaji S</i>	
Apply Machine Learning to Augmented Reality (AR) Applications: Recognizing Scenery and Tracking Objects for Interactive Learning and Gaming Conditions	657
<i>V. Samuthira Pandi, R. Jennie Bharathi, Anandhi K, Ashraf Shaqadan, T Nagini, G. Karthikeyan</i>	
Avya: The Smart Echo of Plant Wellness	663
<i>Krishna Prasad K, Dhanya Nagaraj Balekai, Dhanyashree, Esha V Shetty, Vaishali U</i>	
Design and Implementation of a Microcontroller Based Real Time Carbon Emission Monitoring System	669
<i>Snehal Rathi, Vijayshri Khedkar, Yash Satyavijay Baraskar, Shravani Kurkute</i>	
A Relative Analysis of Enhanced Machine Learning Algorithm SVM & Decision Tree to Predict Smart Grid Stability	674
<i>V. Dharani, Srinivasa Varma, Sandeep Dwarkanath Pande, Soumitra Das, Sk Hasane Ahammad Krunal Pawar</i>	
Smart Aquaculture: Real-Time Water Quality Monitoring using IoT and Wireless Sensor Networks	678
<i>Aravindan C, Guna Palanivel, Gokul S, Praveen V, Shalini. D</i>	
Application of Selective Forgetting to Determine Disruptive Events in Data Streams: Enhancing Memory Efficiency, Accuracy, and Real-Time Monitoring	685
<i>G. Rajalakshmi, C. Amuthadevi</i>	
Data-Driven LMS Analytics for Enhancing Student Performance in EdTech Platforms	691
<i>Pavithra C R, Hari Haran C, Hari Shanker R, Nithish Kumar M, Nivetha I</i>	
Machine Learning Approaches to Predict Employee Retention in the Textile and Apparel Industry	697
<i>A. Nagalaxmi, Gowtham K, Kaviyarasu M, Dineshkumar M, Dineshkumar B</i>	
Assessment of Sentiment in Tweets by Nature-Inspired Metaheuristics Algorithms based Feature Selection	703
<i>Anitha S, S. Santhosh Baboo, Mary Metilda</i>	
Design of Dynamic Wireless Power Transfer System for Electric Vehicle	710
<i>D Abdul Kalam, Syed Abdul Hafeez, Sandeep Dwarkanath Pande, Jarupula Somlal, Mallanagouda Biradar Shivakumar Honawad</i>	
Development of Control Strategy for an Energy Efficient Heating Ventilation and Air Conditioning System	715
<i>R B R Prakash, Sravani Ravipudi, Sk Hasane, Soumitra Das, Sandeep Dwarkanath Pande, Sandip Kahate</i>	

A Unified Theoretical Framework and Comparative Analysis of Adversarial Attacks and Defenses for Threat Detection Systems	720
<i>Mrudula Makarand Joshi, Vijay Anand R, Madala Guru Brahmam</i>	
Blockchain-Enabled Intellectual Property Management: A Comprehensive Framework for Digital Rights Protection	726
<i>Sourav Narvekar, Sonali Patil, Prastuti Motghare, Tejashreeraje Panaskar, Rohit Pawar</i>	
Bibliometric Analysis of Authentication Systems for Products Using Near Field Communication & Blockchain Technology	732
<i>Pratik Jagdale, Sonali Pati, Deepali Naik</i>	
NextGen Security: A Secure and Decentralized Authentication Protocol using Non-Transferable Blockchain-Based Tokens	738
<i>Shivakumar M, Rakshitha N, Ruqsar, Sahana M, Yashwanthi P</i>	
Few-Shot Multimodal Behavioral Biometrics Using Lightweight Spatio-Temporal Transformers	744
<i>M. Senthil Kumar, N. Syed Riyas, V. Venu Sarathy, T. Mahendrael</i>	
Enhancing Data Security in Public Cloud With Blockchain and Biometric Authentication	749
<i>M. Senthil Kumar, A Akilash, A Alagu Sruthi Bharathi, A Aloy Gnanan</i>	
VISHGUARD - A Voice Phishing Detector	754
<i>E. Rajkumar, R. Abirami, S. Bharath Krishna, K. Krishna Prasadh</i>	
Real-Time File Integrity Detection System	760
<i>E. Rajkumar, S.J. Santhosh, M. Saranraj, D. Hariharan</i>	
Cloud Based Multi-Layer Security Architecture for E-Health Care Records using Deduplication	767
<i>Salman, Sunil Bhutada, Saadik Khan</i>	
Ensemble Surrogate Archive-Assisted Artificial Bee Colony-NSGA-II Metaheuristics for Multi-Modal Optimal Power Flow Framework	773
<i>Abhishek Katkar, Pravin Jadhav, Abhijeet Redekar, Himmat Jadhav</i>	
Multi-Modal Machine Learning for Blockchain Fraud Detection: Integrating Graph Neural Networks with Explainable AI	779
<i>Vedansh Muni, Priyansh Patel, Pratiksha Mehta, Meet Kothari, Ajitkumar Gudekar</i>	
Securing MRI Images by Stego-Crypto Lightweight Encryption	786
<i>K. R. Nandhashree, M. Senthil Kumar, M. Abimanyu, B. Hemachandran, K. Surya</i>	
Lightweight LLMs in Mental Healthcare: Systematic Review of Federated Learning, Compression, and Privacy Enhancement	792
<i>Poonam Hadke, Sonali Patil</i>	
Ransomware Detection and Mitigation Using Sandbox Security	798
<i>M. Senthil Kumar, J. Sharika, K. Sri Varshan, K. Yasmin</i>	
Privacy-Preserving Glaucoma Detection Through Blockchain-Enabled Federated Deep Learning	802
<i>Trupesh Patel, Rajesh Gupta, Sudeep Tanwar</i>	
Enhancing Trust and Transparency in Digital Forensics and Incident Response using Explainable AI (XAI): An Extensive Survey	808
<i>Pallavi Shingade, Prashant Dhotre, Prashant Kharat</i>	

A Secure Framework for Academic Certificate Authentication on Ethereum Blockchain	813
<i>Sourav Narvekar, Sonali Patil, Prastuti Motghare, Tejashreeraje Panaskar, Rohit Pawar</i>	
Unified Framework for Multi-Method Image Forgery Detection	819
<i>S. Giridharan, M. Senthil Kumar, M. Niddeshkumar, R. Naveenkumar, S. Vigneshwaran, K. Madhesh</i>	
AIML Based Optimization and Integrity of Hydro Power Plant	826
<i>Sheela A, Navneeth S, Yokeshwaran M, Sanjeevei A</i>	
Investigation on Satellite-Image for Classification Using Intelligent Soft Computing Techniques- an Environment Approach	830
<i>Akanksha Sharma, Shakti Raj Chopra, Suhas Gajanan Sapate, Prashant Basavaraj Bhagawati Keerti Raju Kanada</i>	
Real-Time Threat Detection and Incident Response Using ML	836
<i>C. Jesifca Cinthamani, R. Manoharan, S. Srivenkatesh, P. Yogesh</i>	
Real-Time Maize Disease Identification Using Vision Transformer and Conditional Convolution	841
<i>Ramesh Reddy Donapati, Vijaya Kumar Gurralla, Yapakayala Srinivas</i>	
Bibliometric Analysis of Literature Based on Blockchain-Based Federated Learning for Privacy-Preserving AI Models	848
<i>Saurabh V. Magdum, Sonali Patil, Deepali Naik</i>	
Simulation Model for Several Blockchain Systems using Queueing Theory	854
<i>Shivani Agarwal, Paras Jain, Garima Sharma, Tanveen Kaur Bhatia, Meenakshi Kandpal Vishan Kumar Gupta</i>	
Machine Learning for Loan Default Mitigation with Six Sigma	860
<i>Aadit Mali, Mayuresh Argulwar, Riddhi Mirajkar, Manisha Mali, Anushka Pardeshi, Swapnil Chaudhari</i>	
Denial of Service Detection for System Security Using Machine Learning	865
<i>T. Sathya, M. Senthil Kumar, M. Mohamed Sarjun, N. Monish, G. Subramani</i>	
Accelerating SAP HANA Performance with Azure NetApp Files	869
<i>Balamuralikrishnan Anbalagan, Sheetal Joyce, Ramesh Mani, Venkata Ramana Reddy Bussu Govindaraja Babu Komarina, Vijay Mane, Arya Doshi</i>	
SAP Cloud ECS: A Study On Its Benefits and Challenges for Enterprise Cloud Adoption	875
<i>Arunkumar Pasumarthi, Ramesh Mani, Sankar Thambireddy, Kannan Kumarasamy, Vijay Mane Chinmay Inamdar</i>	
AEP-M: AI-Enhanced Anonymous E-Payment for Mobile Devices using ARM Trust Zone and Divisible E-Cash	881
<i>Vimal Teja Manne</i>	
Decentralized Payment Optimization for Scalable Microservice Transactions	888
<i>Vimal Teja Manne</i>	
Development of an Data Validation Tool: A Web-Based Framework for Automated Data Validation and Analysis	894
<i>Aviral Pathak, Harsh Selukar, Kedar Thakare, Parth Yadav, Sampada Wazalwar</i>	

Voice Disorder Detection and Classification Using 1D-CNN and Bidirectional Long Short-Term Memory	900
<i>Narendra Wagdarikar, Sonal Jagtap</i>	
EyeSpy: A Real-Time AI-Powered Multi-Camera Facial Recognition Surveillance System	905
<i>Supriya Mahadevkar, Aneeka Jain, Prisha Vohra, Sheetal Borhade, Pulkit Shrivastava</i>	
<i>Ramidi Rithikaa Redde</i>	
Enhanced Hybrid Deep Learning Model for Cybersecurity Threat Detection Using CNN-Bi-LSTM and Feature Optimization	911
<i>Rajendran Satheeskumar, Namburi Teja, Kopparapu Siva Hemanth Kumar, Jalukuri Gopi, Vipparla Chetan</i>	
<i>Yalla Jeevan Nagendra Kumar, Dodda Venkata Reddy</i>	
Hybrid Model for Secure Number Plate Detection and Authentication Using SSD, Decision Tree, HMM — Mapped to Authentication Key-Based Algorithm Results	917
<i>Punam U. Rajput, Sandeep B. Vanjale</i>	
Leveraging ERC-20 Tokens for Incentivized Data Labeling on a Decentralized Blockchain Platform	922
<i>Swapnil Shinde, Amar Buchade, Gajanan Arsalwad, Nakul Sharma, Nagaraju Bogiri, Sumit Hirve</i>	
Weighted Confidence Scoring for Context-Aware Emotion Recognition using Fine-Tuned DeBERTa	928
<i>Sumitra A. Jakhete, Nilima Kulkarni</i>	