

2026 2nd International Conference on Big Data & Machine Learning (ICBDML 2026)

**Bhopal, India
27-28 February 2026
Pages 1–592**

IEEE Catalog Number: CFP26UL6-POD
ISBN: 979-8-3195-3092-9



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:	CFP26UL6-POD
ISBN (Print-On-Demand):	979-8-3195-3092-9
ISBN (Online):	979-8-3195-3091-2

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

Machine Learning based Hybrid Technique for Cyber Attack Prediction in VANET	1
<i>Sumana Achar, M D Nandeesh, Tejaswini S, Bijendra Singh, Sadia Khan, Rovin Tiwari</i>	
IoT-Based Automated Irrigation and Environmental Monitoring for Precision Agriculture	7
<i>S Hemalatha, M Priyadharshini, H Priyadharshini</i>	
A Deep Learning Approach to Evaluating Gram Yield Under Customized Fertilizer Regimes via UAV-Multispectral Imaging	11
<i>Pramod Kumar Patel, J. S. Rawat, Rakam Prashanth, Raj Kumar Dhakad, Jinendra Birla Leena Shrivastava</i>	
Flavorful Swaps: A Contextual Adversarial Learning Approach for Intelligent Ingredient Substitution	17
<i>V. D. Ambeth Kumar, Sekar K, Ramesh Prabhakaran R, Arunkumar M, Deependra S, Dheepa T</i>	
Early Detection of Hypokinetic Rigid Syndrome Through Vocal Biomarker Analysis Using Convolutional Neural Networks	22
<i>Rohan Dhumane, Rahul Bhandekar, Prashant Tarone, Nilesh Nagrale, Jayesh Bisen, Jiwan N. Dehankar Nutan Dhande</i>	
Efficient prediction of Lung disease using Transfer learning and VGG16 deep learning model	28
<i>Vishal Kumar, Pochampally Chandra Sekhar Reddy, Jakhongir Norkulov, Rakhmatova Dilbar Anorgul Ashirova, C.Anusuya, B.Venkataramanaiah</i>	
Explainable Credit Card Fraud Detection via Imbalance Mitigation and LightGBM with SHAP Attribution	33
<i>Rudraprasad Ammanaghatta Shivananda, Virendra Singh Chawra, Faiz Mohiuddin Mulla, Anshul Bakode Vivek Kumar, Davinder Singh Gill</i>	
Design of an IoT-Based Hydroponic System Using Reinforcement Learning with Grey Wolf Optimization	39
<i>S. Dhivagar, Stephenraj M A, C. Santha Kumar, Evanjaline Jones J, Elavarasan S, Jayavishnu A S</i>	
IoT-Driven Smart Farming: A Hybrid TabNet-Tab Transformer Recommendation Approach	45
<i>T. Satheesh, S. Jhanuvarshini, M. K. Krithik, N. Subashree</i>	
Federated Learning Models for Privacy-Preserving Cybersecurity in Distributed Networks	52
<i>Swati Devliyal, Sree Pranathi Pallela, Usha C R, Surabhi Shankar, D Sai Niharika, Atul Singla</i>	
Toward Trustworthy AI in Mental Health: A Hybrid Explainable Ensemble Model for Depression Screening	58
<i>Richa Datta, Bhupesh Gupta</i>	
Digital Twin-Assisted BER Modeling of Wireless Optical Communication Systems Under Atmospheric Turbulence	63
<i>Ritu Gupta, Aayush Shrivastava, Nikhat Raza Khan, Lalit Kumar, Sameeksha Verma, Rishav Kumar</i>	
An IoT-Enabled Real-Time Student Learning Environment for Continuous Monitoring and Personalized Feedback	69
<i>Amit Kumar Chandanan, Shweta Bansal, Alok Jain, Shuchi Bhadula, Lakshmi S.R, Yogesh Ramaswamy</i>	

Multi-Model Time-Series Forecasting Framework for Stock Price Prediction Using Statistical and Deep Learning Techniques	75
<i>Shekar Vollem, Faiz Mohiuddin Mulla, Anuj Kumar Shah, Saiprakash Kodela, Mandeep Kaur, Vivek Kumar</i>	
Time-Series Forecasting of Cloud Resource Utilization Using Hybrid LSTM Models	81
<i>Vijayachandar Sanikal</i>	
A Reliable and Accurate Face Swap Deepfake video Detection using Multi - Model AI/ML system	87
<i>Saravanan N, Meenakshidevi P, Nandhini T, Arulsakthi R, Balachandran R, Surendhiran P</i>	
Implementation of Intelligent Deep Learning Approach for Multiple Class Stress Identification by using Observed Variable Heart Signals	94
<i>P.M.S.S. Chandu, M.Giri, Kondapalli Niharika</i>	
Pixel-vs Feature-Level SAR-Optical Fusion for Land Cover Mapping	100
<i>Akshansh Rana, Bhavneet Kaur, Deepika</i>	
Optimal Prediction of Cyberbullying Among University Students on Social Media Platforms	106
<i>Namrata, Javed Wasim, Varun Malik</i>	
Contextual Zero Day Attack Simulation and QoS Driven Resilience Engineering for Multi Cloud Systems	112
<i>Sarika Shamsundar Joshi, Supriya S. Sawwashere, S. V. Sonekar, Ashutosh Lanjewar, MirzaBaig</i>	
A Hybrid Optimization-Machine Learning Model for Job Satisfaction and OCB in Evolving Work Environments	117
<i>Marri Madhavi, Sudha Vemaraju, Apeksha Garg</i>	
An Intelligent NLP-Based Framework for Automated Depression Detection in Social Media Networks	123
<i>Swati Jain Kansal, Nanhay Singh</i>	
Explainable Multimodal LLMs for Intelligent Human–Machine Interaction	129
<i>Kishore Subramanya Hebbar</i>	
Harnessing Large Language Models for Next-Generation Artificial Intelligence Applications	135
<i>Navin Garg, Sasikanth Yangalasetty, Tharakesavulu Vangalapat, Mina Kumari, Mahesh Basavaraj Manish Gupta</i>	
Energy Aware Traffic Engineering: Optimizing Data Center Efficiency Through AI Driven Flow Steering	141
<i>Krishna Suman Dara</i>	
ML-Driven Secure Network Architecture for IoT-Enabled Environments	147
<i>Vishwanath Hiremath</i>	
Self-Reflective Agentic Large Language Models for Long-Horizon Enterprise Decision Automation	153
<i>Narasimha Rao Boinapalli</i>	
HDLIDF: Design and Implementation of Hybrid Deep Learning Approach to identification of Deep fake from Images	159
<i>J. Sridhar, Dr.M.Giri, Nallagondur Varsha Reddy, Thatipathri Tharun, Siddilingam Pragathi Gurunath D.G. Surya</i>	
Enhancing EEG Data Quality with Explainable AI-Based Artifact Detection Models	165
<i>Shweta Bansal, Rajesh Kumar Verma, Amit Dutt, Rohan Verma, Apoorva Busad, R. P. Ram Kumar</i>	

A Real-Time Smart Learning Management System with Automated Performance Analytics and Adaptive Content Recommendation	171
<i>Sai Vamsi Chennupati, Swetha B, Pawan Kumar, Ginni Nijhawan, Darshan Singh, D Sai Niharika</i>	
Multi-Modal Perception for Intelligent Robotic Systems	177
<i>Amandeep Nagpal, Sanjeev Kukreti, Pawan Kumar, Sanjoy Das, A. Samatha, Nitika Vats Doohan</i>	
Hybrid Multi-Scale CNN and Vision Transformer Model for Accurate Skin Lesion Classification	183
<i>Ramanujam E, Sekar K, Sangeetha K, Niranjana S, Madhu Mitha M, Nithya Shree A K</i>	
A Review of Reinforcement Learning Frameworks for Adaptive and Privacy-Preserving PDAs	189
<i>Abhishek N Biradar, Pooja S Kiragi, Veeresh Angadi, Chiranth P, Achyuth Kasyap P, Sandhya N</i>	
Early-Stage Retinopathy of Prematurity Diagnosis System	195
<i>Murugan R, Sekar K, Dheepa T, Abhirami M, Catherine Celina D, Deepak Varma B</i>	
Bridging Knowledge and Reasoning: The Role of Large Language Models in AI Evolution	201
<i>Manish Gupta, Dibyhash Bordoloi, Peraschi Selvan Subramanian, Poornima Ediga, Mina Kumari Sandhya N</i>	
Optimization-Enabled Information Management Architecture for Smart Digital Enterprises	207
<i>Pramod Muppala, Sruthi P, Seema Raj, Lavish Kansal, Neha Tripathi, Ruchita Singhania</i>	
AI-Based Information Management and Resource Optimization for High-Performance Computing Environments	213
<i>Pramod Muppala, Raghava M S, Peraschi Selvan Subramanian, Swati, Amit Dutt, Dinesh C Dobhal</i>	
An AI-Driven Cyber-Physical Control System for Real-Time Environmental Monitoring and Disaster Management	219
<i>Sorabh Lakhanpal, Navneet Kumar Rajpoot, Poornima Ediga, Manjula G, Dilraj Preet Kaur Ashish Kumar Singhal</i>	
Adaptive Control and Optimization Strategies for Autonomous Cyber-Physical Systems in Dynamic Environments	225
<i>Seema Raj, Alok Jain, Hemant Singh Pokhariya, Vandana Roy, Sumithra Devi K. A, Poornima Ediga</i>	
Harnessing Large Language Models for Next-Generation Artificial Intelligence Applications	231
<i>Navin Garg, Sasikanth Yangalasetty, Tharakesavulu Vangalapat, Mina Kumari, Mahesh Basavaraj Manish Gupta</i>	
Optimizing Deepfake Detection Transformer on FaceForensics++: A Hyperparameter Grid Search Study	237
<i>Preeti Rana, Lalit Kumar, Ritu Gupta, Surbhi Dhiman, Vikas Bagga, Bhavika Gupta</i>	
Contrastive Learning for Multimodal Anomaly Detection in IoT Systems	244
<i>Manjot Kaur Sidhu, Gollanapalli V Prasad, Fareesa Firdouse, Shubham Soni, Neera Batra</i>	
Ocular Disease Classification and Diabetic Retinopathy Detection using Convolutional Neural Networks	250
<i>Malti Rani, Amit Kumar Goyal, Sonali Dash</i>	
Reducing Bias in Skin Image Analysis for Pre-Diabetes Prediction Using Multimodal Transformers	256
<i>Ravinder Kaur, Swetta Kukreja</i>	

An Interpretable Deep Learning Approach for Complex Time-Series Classification	264
<i>Gaurav Pushkarna, Mohd Shuaib, M. Shamila, Mamatha A, Ritu Ahluwalia, Vandana Batra</i>	
Investigating Genomic Insights and Smart Biomaterial–Based Biosensing Using Data Science Approaches for Advancing Precision Oncology Treatments	270
<i>Sadaf A. Ansari, Irfan Altaf Ansari, Shabina Anjum, Nikhil Mangrulkar</i> <i>Hrushikesh Madhukar Panchabudhe, Prashant Khobragade</i>	
Air-Drawing and Gesture Recognition using Machine Learning	276
<i>Manish Jain, Shivanshi Singh, Jeet Soham Desai, Rebakah Geddam</i>	
Foundational Study of Topological Indicators and Neural Vision Models for Enhanced UAV Navigation	282
<i>Kush Saraf, Rudra Patel, Lithika Saravanakumar</i>	
Weather Prediction and Cyclone Classification using Deep Learning on the LSCIDMR Dataset	288
<i>Yash Chavda, Saiyoni Shah, Sanju Kumar, Rebakah Geddam</i>	
Deep Semantic Feature Learning and Efficient Indexing for Content-Based Image Retrieval	294
<i>Khushbu Devi Tiwari, Swati Khanve, Nitya Khare, Vinay Lowanshi</i>	
A Comprehensive Survey on Fine-Tuning Diffusion Models in Healthcare	299
<i>Bela Shrimali, Rudra Raval, Heny Chauhan, Prit Shah, Vedant Patel</i>	
BrainArcNet: Attention-Enhanced InceptionResNetV2 with ArcFace for Accurate Brain Tumor Classification from MRI Scans	305
<i>Snega S, Manikandan J, Shalom Judi Pushpam L</i>	
MRI Brain Tumor Segmentation Using Segmentation-Guided Deep Ensembles with Self-Supervised Learning	311
<i>S. Dilli Babu, G. Hitesh Chowdary, G. Gangadhar Reddy, J. Rachana, K. Sai Malavika</i>	
An Integrated Big Data Analytics Framework for Intelligent Financial Technology Systems	317
<i>Hardik Patel</i>	
An AI-Driven Optimization Framework for Sustainable E-Waste Management and Resource Utilization	323
<i>Priyanka Chauhan, Deepak Kumar Adhana, Mayank Saxena</i>	
AI-driven Adaptive Traffic Signal Control using Computer Vision and Reinforcement Learning for Emergency Vehicle Prioritization over Fixed-Time Systems	329
<i>Karuppanasamy K, Jothimani M, Mahendran P, Kabilan R, Nithya Sri D, Karventhan K L</i>	
XAI-Driven Sleep Apnea Detection: Enhancing Transparency in ECG-Based AI Models	335
<i>Kuldeep Kumar Mishra, Anubhav Sharma, Manoj Chopra, Nikhat Raza, Shivani Tiwari, Nishesh Nigam</i>	
Comprehensive Review on Satellite-Based Crop Monitoring and Weed Detection Techniques, Challenges and Future Trends for Smart Agriculture	341
<i>S. Girinath, V. Anantha Natarajan</i>	
An Interactive Learning Model for Higher Educational Institution's (HEIs)	347
<i>V. Akilandeswari, K. Arunasakthi, P. Kanishka, V. Kaviya Sree, S. Swetha</i>	

An AI-Driven Framework for Sigmoid Colon Cancer Diagnosis Using XGBoost and Deep Convolutional Neural Networks	353
<i>Rahul J. Teradal, Chetana Yalamalli, Radhika P. Giraddi, Sanika Amrolkar, Akanksha A. Hundre Pradnya M. Shetti</i>	
Smart Choking Detection Framework for Dementia Care	359
<i>Pavithra S, Poornima N, Sneha M, Yogavarshini K G</i>	
Multimodal Image Captioning with Transformer-based Dual Attention	366
<i>Lekshmi R Nair, K. Namitha</i>	
Real-Time Student Learning and Evaluation System Using Intelligent Analytics and Predictive Performance Modeling	372
<i>Geetanjli Khambra, Rashi Saxena, Vandana Batra, G Yamini, Ginni Nijhawan, Kuldeep Nautiyal</i>	
Advanced EEG Signal Processing Techniques for Accurate Diagnosis of Neurological and Psychiatric Disorders	378
<i>Pankaj Agrawal, Lavish Kansal, Noor Mohd, Shivaprasad Ashok Chikop, Poornima Ediga Sowmini Bandaru</i>	
AI-Driven Soil Health Digital Twin for Predictive Irrigation and Nutrient Sustainability	384
<i>P.M Kavitha, Immanuel B, Christ Benny P</i>	
Telemedicine as a Driver of Equitable Healthcare Delivery in Low-Resource and Rural Communities	390
<i>Vandana Roy, Swati, Amandeep Nagpal, Yuvraj Joshi, Deepthi R, A. Samatha</i>	
Analytical Modeling of Microstrip Antenna using Green House Analysis	396
<i>Rajesh Kumar Nema, Veena Upadhyay, Pramod Patel, Preeti Verma, Kavita Barahar, Amit Nema</i>	
Dynamic Short-Text Clustering Algorithms - A Comprehensive Survey	401
<i>Christy K T, Bibal Benifa J V</i>	
An End-to-End Agentic AI Architecture for Autonomous Control in 5G/6G Non-Terrestrial Networks	407
<i>Venkatesh Gokulraju</i>	
Self-Healing and Self-Optimizing Network Control in 5G/6G-NTN Using Agentic AI Agents	413
<i>Venkatesh Gokulraju</i>	
AI-Driven Spectrum Management for Resilient and Efficient Satellite Communications	419
<i>Venkatesh Gokulraju</i>	
Federated Learning Models for Privacy-Preserving Cybersecurity in Distributed Networks	425
<i>Swati Devliyal, Sree Pranathi Pallela, Usha C R, Surabhi Shankar, D Sai Niharika, Atul Singla</i>	
Adversarial Machine Learning Attacks and Defenses in Next-Generation Cybersecurity Applications	431
<i>Navdeep Singh, Akanksha Kapruwan, Sree Pranathi Pallela, Shilpa M, Sruthi P, Neetu Chauhan</i>	
Enhancing Cyber Threat Intelligence through Hybrid AI Models and Big Data Analytics	437
<i>Kathiresan Jayabalan, H Pal Thethi, Ramesh Singh Rawat, Sree Pranathi Pallela, Nunna Rama Chandu Pooja Vats</i>	
Blockchain-Based Authentication and Access Control Mechanisms for Secure Cloud Computing	443
<i>Praveen Chouksey, Sai Vamsi Chennupati, H Pal Thethi, Mudit Mittal, Divya H N, Pooja Vats</i>	

A Data-Centric Optimization Strategy for Advanced Information Management Systems	449
<i>Pramod Muppala, Pawan Kumar, Lavish Kansal, Sumit Pundir, Indu B, Yogesh Ramaswamy</i>	
An IoT-Enabled Real-Time Student Learning Environment for Continuous Monitoring and Personalized Feedback	455
<i>Amit Kumar Chandanan, Shweta Bansal, Alok Jain, Shuchi Bhadula, Lakshmi S. R, Yogesh Ramaswamy</i>	
Real-Time Cognitive and Academic Performance Tracking System for Adaptive E-Learning Applications	461
<i>D Sai Niharika, Shatraboina Shashank, Pankaj Agrawal, Alok Jain, Ankur Choudhary, S R V Prasad Reddy</i>	
Context-Aware Human Behavior Recognition using an Ensemble Classifier with Fuzzy Logic Fusion of Facial, Postural, and Scene Features	467
<i>Abha Jain, Rajiv Singh, Swati Nigam</i>	
AI-Powered Real-Time Student Learning System for Intelligent Curriculum Adaptation and Engagement Optimization	475
<i>Somnath Banerjee, Seema Raj, S. Saravanan, Sowmini Bandaru, Manish Gupta, Akshita Patwal</i>	
Multimodal Physiological Signal Analysis for Stress, Fatigue, and Cognitive Load Monitoring in Healthcare	481
<i>Yogesh Dubey, Pappu Kumar, Abhishek Kumar Chandel, Shivani Vishwakarma</i>	
Intelligent Network Traffic Classification Using Deep Learning for Cloud Security	487
<i>Diganta Sengupta, D Sai Niharika, Rajesh M, Balpreet Singh, Aditya Joshi, Prabhakar Bhandari</i>	
Energy-Aware Deep Neural Networks for Resource-Constrained Devices	493
<i>M. Shamila, Gaurav Pushkarna, Vandana Rawat, Vandana Roy, K Deepashree, Surabhi Shankar</i>	
Efficient Fine-Tuning Strategies for LLMs in Low-Resource Environments	499
<i>Satyanarayana Gudimetla, Gazal Sharma, Afsar Jahan, Deepa Mathew K, Anshu Malhotra, K. Adilakshmi</i>	
A Review on Phishing Email Detection Using Domain Analysis and Transformer-Based Explainability	505
<i>P.M. Kavitha, Bharath Chandra Akkina, Ruthy Shalom Perikala</i>	
Intelligent Cloud Architecture for AI-Driven Data Processing and Decision Support	511
<i>Hardik Patel</i>	
Blockchain-Integrated Supply Chain Models for Improved Efficiency and Security	517
<i>Sruthi P, Deepesh Tamrakar, Pankaj Agrawal, H Pal Thethi, Chitransh Bose, Swathi A</i>	
Transforming Supply Chain Management with Blockchain-Enabled Transparency	523
<i>P. Deepthi, Harsha H N, Vikas Rathi, Surabhi Shankar, Sorabh Lakhanpal, Meenakshi Maindola</i>	
A Multi-Objective Optimization Model for Efficient Information Management and Knowledge Engineering	529
<i>Varsha Mittal, Ashish Mishra, Arpitha Vasudev, K. Adilakshmi, Pankaj Agrawal, Nitin Bhardwaj</i>	
Swin transformer and reinforcement learning for accurate sex classification in pediatric hand radiographs	535
<i>Nikhat Raza Khan, Harpreet Kaur, Varun Malik, Shweta Singh, Priyanka Singh, Chetna Devkar</i>	
Enhancing Generalization in Deep Models through Dynamic Feature Regularization	541
<i>Shweta Bansal, M. Shamila, Gaurav Pushkarna, Amal Shanker Shukla, Vijaya Lakshmi Inamdar Ritu Ahluwalia</i>	

AI-Driven Image Quality Enhancement for Low-Dose CT	547
<i>Sekar K, Dheepa T, Bavishya K, Kavitha T, Kavya Sudha S, Malaya Dutta Borah</i>	
Secure Software-Defined Networking (SDN) Using ML-Driven Threat Prediction	552
<i>Balaji Salem Balasundram, Yogesh Ramaswamy, Balpreet Singh, Jaishankar Bhatt, Prabhakar Bhandari Soumya George</i>	
A Machine Learning–Based Computational Framework for Analyzing Noun Formation in the Bodo Language	558
<i>Bilipang Daimary, Jwngsar Brahma, Udayan Borah, Amula Boro, Purno Brahma, Nihwr Narzary</i>	
Green Chemistry and Eco-Friendly Pharmacy Innovations: Advancing Sustainable Drug Development and Pharmaceutical Practice	564
<i>Pooja Sethi, Randeep Singh, Lalit Kumar, Santosh Kumar, Sumit Mittal, Preeti Rana</i>	
An Optimization Based Approach for Non-Intrusive Load Monitoring Using Synthetic Household Power Profiles	570
<i>Shyam Agarwal, Priyamvada Chandel</i>	
Hybrid Wind-Solar Grid Integrated Energy System Simulation with MPPT Control In Matlab/Simulink	575
<i>Indrajeet Kumar, Sonali R.Nandanwar, Saket Bihari, Anand Singh, Sandeep Kumar Wasnik, Sonu Ahirwar</i>	
Improved control method based photovoltaic single stage water pumping system design	581
<i>Indrajeet Kumar, Sonali R. Nandanwar, Saket Bihari, Anand Singh, Sandeep Kumar Wasnik, Sonu Ahirwar</i>	
Analyzing the Impact of Weather Conditions on Solar Power Generation Using Machine Learning	587
<i>Bela Shrimali, Yash Chavda, Saiyoni Shah, Rebakah Geddam, Priyanshu Thakkar, Divyaraj Vaghela</i>	
A YOLO - MVit Based Hybrid Approach for Deepfake Videos Detection Using Facial Features	593
<i>Parveen Kaur, Chirag Sharma</i>	
Temporal and Spatial Patterns in Solar Irradiance and Meteorological Factors: Insights from Plataforma Solar de Almeria	599
<i>Teresa Mahima Dass, Akshra Tiwari, Madan Singh, Bosco Paul</i>	
Cloud-Enabled Secure Framework for Real-Time Healthcare Data Access and Coordination	605
<i>Vinay Kalvapalli, Mokshagna Kandrathi, Kuricheti Baji, L Lavanya, N Purushotham</i>	
Transforming Global Finance with SAP S/4HANA Cloud: Real-Time Data and Analytics for Financial Unification and Compliance	614
<i>Surendra Annanki</i>	
Bridging Knowledge and Reasoning: The Role of Large Language Models in AI Evolution	620
<i>Manish Gupta, Dibyahash Bordoloi, Peraschi Selvan Subramanian, Poornima Ediga, Mina Kumari Sandhya N</i>	
Quantum-Enhanced Hybrid Variational Neural Network for IoT Intrusion Detection	626
<i>Aayush Shrivastava, Nikhat Raza Khan, Ashish Singhal, Lalit Kumar, Amit Bindal, Sameeksha Verma</i>	
Scene-Aware Detector–Descriptor Adaptation for Offline SfM-Based 3D Reconstruction	632
<i>Vamshidhar Reddy Parupally</i>	
Advances in Breast Cancer Cytology Image Analysis: A Comprehensive Review of Segmentation, Classification, and Dataset Integration Approaches	638
<i>Sunil Kureel, Vijayshri Chaurasia, Saurabh Gupta, Mamta Patankar</i>	

Data-driven Prediction of California Bearing Ratio Using Fuzzy C-Means Clustering	644
<i>Yogesh Iyer Murthy, Nikhat Raza Khan, Syed Rameez Ali, Rajesh Tiwari, Shalini Dubey, Priya Shrivastava</i>	
Adaptive Machine Learning Protocol for DDoS Attack Detection in Cloud Computing	652
<i>Kedar Nath Singh, Kuldeep Kumar Kushwaha, Balwant Singh Raghuwanshi, Ashok Kumar Mishra Manish Kumar Suman, Abhishek Purohit</i>	
Multi-Sensor Smart Dustbin for Automated Waste Segregation: Design and Deployment in Urban Environments	658
<i>Immanuel Prabakaran S, Himanshi Phour, Ancy. S, S Afrin Banu, Sushma G, S. Suganya</i>	
Small Models, Big Insights: Compact Vision– Language Intelligence for Biomedical Imaging	663
<i>Himanshi Kirar, Vibha Tiwari, Sunil Shukla</i>	
Multi-Modal Deep Learning Framework for Chest Radiology: Integrating Images and Textual Reports for Enhanced Multi-Label Disease Classification	669
<i>Shantilal Bhayal, Lokendra Singh Songare, Harsh Pratap Singh</i>	
A Deep Learning Framework for Multi-Disease Diagnosis using Medical Imaging and Clinical Data	674
<i>Harsh Pratap Singh, Sandeep Govindrao Panchal, Nagendra Singh, Sachin Sahu, Shantilal Bhayal Urmila Mahor</i>	
FraudPredictor: A Real-Time Transaction Analysis Machine Learning Model	679
<i>Soma Vaishnavi, B.K. Aishwarya, K. Vamshi, M.Sunil Kumar</i>	
AI-Augmented Healthcare Communication: A Review of Large Language Model Healthcare Agents and Generative AI in EHR Integration	686
<i>Shivam Tyagi, Amit Kumar Goyal, Deepti Sharma</i>	
Enhancing Pathology Diagnostics with Deep Learning and Feature Attribution	692
<i>Dayanshi Jain, Anjal Bijghavane, Aman Dubey, Vijayshri Chaurasia, J. S. Yadav</i>	
Securing Identities Without Cryptography: A Survey of Alternative Authentication Mechanisms	698
<i>Gajendra Singh Rajput, Harsh Pratap Singh</i>	
Stock Price Prediction Using Tensorflow	704
<i>M.Kavitha, Thanish S, Surya K, Sudharshan M R</i>	
Impact of Temporal Granularity on Detecting Pump-and-Dump Schemes in Cryptocurrency Markets	709
<i>Priyanka Muppuri</i>	
Rain Fall Prediction in Liberia Using Machine Learning Algorithms: A Data Driven Approach to Support Agricultural Planning and Disaster Management	716
<i>Russell McGill</i>	
Strategic Business Approaches to Enhancing Security in Banking Operations	721
<i>Priyanka Muppuri</i>	
IoT-Based Automated Irrigation and Environmental Monitoring for Precision Agriculture	728
<i>S Hemalatha, M Priyadharshini, H Priyadharshini</i>	
Advancing Crop Health Through Integrated Machine Learning Models for Enhanced Disease Detection and Diagnosis	732
<i>Kurhe Prajakta, Dashore Pankaj</i>	

A Unified TSN and Beamforming Framework for Ultra-Low Latency Mobility in 6G mm Wave XL-MIMO Systems	738
<i>CH. Nagaraju, C. Venkatesh, Shaik Karimullah, Chennuru Shaik Sana, Uppusetty Varshitha Menta Venkata Naresh, Vallepu Venkata Ganesh Kumar</i>	
Explainable Artificial Intelligence for Crop Yield Prediction Using Agro-Climatic Data	745
<i>Gurmeet Kaur, Ashanand, Rupinder Singh, Preet Kamal, Rakhi Dua, Kamlesh Kukreti</i>	
Machine Learning-Based Crop Yield Forecasting Using IoT-Enabled Agriculture: Design, Simulation, and Analysis	752
<i>Kalpana C, Sanjay K, Mohammed Aakef S</i>	
A Web-Based Sustainable Carbon Emission Analysis System with Predictive Analytics for Climate-Aware Decision Making	757
<i>Kalpana C, Dhavala V D M Adithya Naidu, S G Jathin</i>	
A Comparative Analysis of Machine Learning (ML) and Deep Learning (ML) Models for Epileptic Seizure Detection from electroencephalogram (EEG) Signals	763
<i>Nirav Narendrakumar Modh, Jarnail Singh, Rupinder Singh, Sachin Kumar, Rahul Chauhan Harvinder Singh</i>	
Plant Leaf Disease Localization Using Grad-CAM	769
<i>Kalpana C, K. Kumar Varma, Y. Satyanarayana</i>	
Detection of Chronic Respiratory Diseases Using a Deep Learning- Based CXR Framework	775
<i>N Aravindhraj, N Shanthi, M Muthuraja, Y S Shalini, Sharan Prasath, T Vishal</i>	
Survey of AI and Cytological Techniques for Cancer Subclassification and Diagnosis	782
<i>Saurabh Gupta, Vijayshri Chaurasia, Sunil Kureel, Mamta Patankar</i>	
AutoRDH-Net: A Hybrid Autoencoder–LSTM Model for MRI Brain Tumor Image Analysis	789
<i>S. Fayaz Begum, K.Architha, S.Charan Raj, N.Girieswar Reddy, P.Bhagya Lakshmi, J.Hima Bindhu</i>	
Design and Performance Analysis of a Broadband Miniaturized Blade Monopole Antenna with Enhanced Impedance Matching	795
<i>Kasigari Prasad, C.Chandrakala, T.Veeresh, P.Ankitha, D.Guru Jithendra Reddy</i>	
Decentralized Accountability in Federated Learning: Design and Critique of a Smart Contract-Based Reputation Mechanism	800
<i>Abi B Abraham, Akshra Tiwari, Vandana Mehndiratta</i>	
A Wireless Wearable Communication System for Physically Challenged Individuals using Bluetooth Technology	806
<i>Y. Pavan Kumar Reddy, K. Shankar, M. Ravi Kishore, Y. Sunanda, A. Swapna, K. Shirisha</i>	
Optimal Financial Portfolio Management Using Deep Transfer Learning with Real-Time Financial Data in Cloud Computing Platform	811
<i>Shailesh Sayarmal Chaudhary</i>	
Forgery Detection In Natural Images Using CNN	817
<i>Srilaxmi G. K, Pallavi K. N</i>	

Design And Implementation of a Privacy-Preserving, Multi-Tenant Cloud Voting System with Blockchain-Assisted Voter Anonymity and End-to-End Auditability	824
<i>Allu Venkata Sai, N. Purushotham, Sanapureddy Pallavi, Telugu Akula Nanda Sai, Aguru Venkat Sai Javvaji Venkatarao</i>	
A Secure Blockchain Approach to Improve Data Sharing and Usability in Healthcare Networks	832
<i>Samala Yashaswi, N.Purushotham, Sattu Prem Sai, Nandimandalam Mahendra Raju, Oruganti Monika Javvaji VenkatRao</i>	
Deep Learning-Based Intelligent Intrusion Detection System For The Internet Of Medical Things	839
<i>B. Rama Subba Reddy, Munagala Kotthakapa Sarath Kumar Reddy, Ponnaganti Baba Ganesh Raghavarapu Naga Sai Rusheek, Soleti Venkatasatyakarthik</i>	
Enhancing Sentiment Classification Accuracy in Myanmar YouTube Comments Using a Hybrid CNN-BiLSTM Attention Model	846
<i>Y. Thanush Reddy, K.Suvarchala, N. Sri Charan Goud, Varun Sarda</i>	
Multi-Task Learning Framework for Simultaneous Detection of Crop Disease, Yield Estimation, and Climatic Risk Classification Using Multisource Agricultural Big Data	853
<i>Rashi Saxena, Atul Singla, Yogesh Lohumi, Mina Kumari, Orchu Venkata Koteswararoa Ashish Kumar Singhal</i>	
Federated Learning-Based Brain Tumor Segmentation Using 3D U-Net and DeepLabV3 Architectures	859
<i>Kalpana C, Pronomi Roy, Adarsh S Nair</i>	
Real-Time Multimodal Sign Language to Speech Translation System	865
<i>B. Rama Subba Reddy, D.Ganesh, Gadwala Shaik Mahammad Abdulla, Gollapudi Venkata Nandini Gantla Ram Satish, Gurram Chenchu Rakesh</i>	
PhishGuard: Immediate Detection and Notification of Phishing Attempts	871
<i>Priyanka Singh, Chetna Devkar, Anamika Tiwari, Bhawana Dwivedi, Purnima Pandey, Kalpana Rai</i>	
Intelligent Dynamic Positioning Strategy for Sensor Networks subject to Information Dropout during Handover Using Wavelet Neural Network	877
<i>Vishwalata Bagal, A.V.Patil</i>	
Machine Learning-Based Phishing URL Detection with Homoglyph Analysis	884
<i>Swati Joshi, Aayush Kumar, Sumit Pundir, Ashish Garg</i>	
An Explainable Deep Learning Framework for Risk-Based Internal Auditing and Transaction Anomaly Detection	891
<i>Md Maksudul Amin</i>	
Deepdiabetic: Identification of Diabetic Eye Diseases Using DNN	897
<i>Thota Navya, Asad Baba, Sadawar Shekar, Gadam Sumalatha, Nanduri Tejasree, Sumera Jabeen</i>	
Classification of Laryngeal Cancer Image Using the Vision Transformer and the Swin Transformer	903
<i>Rajesh Tiwari, Jitendra Singh Thakur</i>	
Optimal User-Driven Performance Governance for Server-Side Rendered Web Applications	909
<i>Harshendra Gite</i>	
Real vs. Fake Face Classification Using Convolutional Neural Networks	915
<i>Preeti Rana, Chirag Mongia, Lalit Kumar, Subodh Bansal, Vikas Bagga, Rohini Bawa</i>	

Optimization-Enabled Information Management Architecture for Smart Digital Enterprises	920
<i>Pramod Muppala, Sruthi P, Seema Raj, Lavish Kansal, Neha Tripathi, Ruchita Singhanian</i>	
Machine Learning-Based Customer Segmentation and Targeting for Marketing Optimization	926
<i>Anu Bansal, Nitish Arora, Lalit Kumar, Ajit Bansal, Palvinder Singh, Preeti Rana</i>	
End-to-End Deep Learning-Based Communication System Using Autoencoders	931
<i>Ashima Shahi, Himanshu Sharma, Birinderjit Singh kalyan, Shanky Goyal</i>	
Scalable and secure cloud architectures for IoT-enabled healthcare systems	936
<i>Ronish Patel, Sudheekar Reddy Pothireddy, Noopur Sharma</i>	
XAI for Automated Prediction Model for Cyber Incident Response and Security Support in Cloud	942
<i>Chandra Shekar Reddy Avula</i>	
Data Replication and Protection Mechanism for Secure Distributed Cloud Databases	948
<i>Divyaraj Singh Jatav, Chandra Shekar Reddy Avula</i>	
Data-driven Prediction of California Bearing Ratio Using Fuzzy C-Means Clustering	954
<i>Yogesh Iyer Murthy, Nikhat Raza Khan, Syed Rameez Ali, Rajesh Tiwari, Shalini Dubey, Priya Shrivastava</i>	
Multi-Scale Feature-Driven Quantum Learning Framework for Automated Bone Fracture Diagnosis	962
<i>S. B. Goyal, Nikhat Raza Khan, Varun Malik, Yogesh Iyer Murthy, Priya Shrivastava</i> <i>Manjari Singh Rathore</i>	
An Optimized Hybrid Deep Learning Model for Environmental Sound Recognition Employing Channel Attention Mechanism	968
<i>Nikhat Raza Khan, S. B. Goyal, Varun Malik, Syed Rameez Ali, Priya Shrivastava, Yogesh Iyer Murthy</i>	
Advancing Critical Infrastructure Protection Through ML-Driven Generative AI for Economic Security and Operational Insight	974
<i>Viswaprakash Yammanur, Veera Venkata Ramana Murthy Bokka, Venkata Raja Ravi Kumar Gelle</i> <i>Venkata Siva Prasad Maddala</i>	
Real-Time Unified Spam Detection System for Email and SMS	980
<i>Badal Singh, Rishab Mishra, Krishnakant Nagina, Syed Rameez Ali, Rajesh Tiwari, Nikhat Raza Khan</i>	
FraudPredictor: A Real-Time Transaction Analysis Machine Learning Model	986
<i>Soma Vaishnavi, B.K. Aishwarya, K.Vamshi, M.Sunil Kumar</i>	
A Unified Deep Learning-Based Architecture for Real-Time Monitoring and Classification of Fungal and Viral Crop Infections in Precision Agriculture	993
<i>Mukesh Singh, Pooja Vats, Shiva Sumanth Reddy, Sowmini Bandaru, R. P. Ram Kumar, Amit Dutt</i>	
Federated Learning-Driven Crop Disease Diagnosis Framework to Ensure Privacy-Preserving Predictive Modeling Across Distributed Agricultural Zones	999
<i>Balpreet Singh, Arnav Kotiyal, Pawan Kumar, Usha K C, Nitika Vats Doohan, R. P. Ram Kumar</i>	
Multi-Task Learning Framework for Simultaneous Detection of Crop Disease, Yield Estimation, and Climatic Risk Classification Using Multisource Agricultural Big Data	1005
<i>Rashi Saxena, Atul Singla, Yogesh Lohumi, Mina Kumari, Orchu Venkata Koteswararoa</i> <i>Ashish Kumar Singhal</i>	
Harnessing Big Data Analytics for Effective Public Health Surveillance and Policy Development	1011
<i>Dilraj Preet Kaur, A. Samatha, Chandrashekar G, Navdeep Singh, Ruchira Rawat, Nitika Vats Doohan</i>	

Exploring Explainable AI for Transformer-Based Deepfake Detection and its Resistance to Adversarial Attacks	1017
<i>Nagendra Singh, Priyanka Gupta, Harsh Pratap Singh, Ajit More, Mohammed Ahtesham Farooqui Shashi Prabhat Ranjan</i>	
Blockchain-Enabled Cyber-Physical Systems for Secure and Transparent Data Exchange Across Distributed Networks	1023
<i>Pramod Mehra, Dilraj Preet Kaur, Vikas Rathi, Dasari Bhulakshmi, Sruthi P, Sorabh Lakhanpal</i>	
Optimization Accuracy of Crime Rate Prediction using K-Mean and Random Forest based Machine Learning	1029
<i>Nikita Namdev, Ritu Prasad, Arjun Rajput, Saurabh Karsoliya</i>	
Adaptive Transfer Learning of STFT-Based Uterine EMG Spectrograms for Proactive Prediction of Preterm Birth	1034
<i>Mohan Raj S, Jayaprakash B, Gnanaprakasam C N</i>	
Graph Neural Networks and Machine Learning Approaches for Property Prediction in Materials Science	1040
<i>Sheenam Middha</i>	
PaudhRog: Plant Leaf Disease Detection using Transfer Learning with InceptionResNetV2	1044
<i>Sheenam Middha, Abhay Kumar</i>	
Foundational Study of Topological Indicators and Neural Vision Models for Enhanced UAV Navigation	1049
<i>Kush Saraf, Rudra Patel, Lithika Saravanakumar</i>	
An Empirical Study on Vulnerability Detection Using Word Embedding and Machine Learning Models on CVE Datasets	1055
<i>Puninder Kaur, K R Ramkumar, Amanpreet Kaur</i>	
Mamba-SHAP Hybrid Framework for Explainable PCOS Detection from Clinical and Hormonal Data	1060
<i>Mathu Mozhi S P, Nithyasri B, Hepsy Ajibah A S</i>	
Real-Time Food Products Nutrition Analysis Using Deep Learning	1067
<i>G. Visalaxi, Yoganandhan M, Yogeshwaran S, Tharun Kaarthik G</i>	
Prediction and Detection of Dementia Disease - A Review	1073
<i>Yogika Sharma, Aayush Shrivastva, Amit Kumar Bindal</i>	
CAP-FL: A Context-Aware Personalized Federated Learning Framework for Next-Word Prediction	1079
<i>S. Ramya, Swathi K, Tamil Vasanth G K, Tharani G</i>	
A Multi-Stage XAI-Enhanced Transformer Model for Bias-Aware Decision Making in Financial Fraud Detection	1085
<i>Yuvaraj Duraisamy, Rabins Porwal, Kshamta Chauhan, P. Ramya, Kunal, Sribidhya Mohanty</i>	
AI-Driven Predictive Modeling for Cardiovascular Disease Risk Assessment Using Multi-Source Patient Data	1091
<i>Tumu Rajasekhar Babu, Rabins Porwal, S. Keerthi, Kanchana M, Manoj Singh Adhikari, Vipasha Abrol</i>	
Artificial Intelligence for Sustainable Agriculture and Improved Nutritional Outcomes	1097
<i>Bhawmesh Kumar, Rajesh Kumar Verma, K. Adilakshmi, Mahalakshmi G, Swati Swati, Atul Singla</i>	

Machine Learning Based Short Term Load Forecasting Using APSLDC Operational and Weather Data	1103
<i>K N S K Santhosh, R Tamilkodi, Adireddy Ramesh</i>	
Domain-Adapted Large Language Models for Knowledge-Intensive Tasks	1110
<i>Saravanan Raj, Neetu Chauhan, Kavyashree B, Yogesh Ramaswamy, Nitin Bhardwaj, Gagan Deep Singh</i>	
Hybrid Multi-Scale CNN and Vision Transformer Model for Accurate Skin Lesion Classification	1116
<i>Ramanujam E, Sekar K, Sangeetha K, Niranjana S, Madhu Mitha M, Nithya Shree A K</i>	
Medical Insurance Pricing and Affordability: Patterns, Risks, Cost Drivers	1122
<i>Vishesh Mehta, Ayush Panchal, Kunjan Shah, Shruti Purohit</i>	
Hourly Weather Forecasting by Machine Learning Methods over Delhi	1128
<i>Kush Saraf, Lithika Saravanakumar, Kunjan Shah, Rebakah Geddam</i>	
An Explainable Dual-Stage AI Framework for Brain Tumor Classification and Segmentation	1134
<i>Sekar K, Murugan R, Dheepa T, Sangeetha K, Dhiya Darshini S, Hariharan A</i>	
Data-Driven Approaches for Dementia Prognosis Using Machine Learning Techniques	1140
<i>Rebakah Geddam, Hemant Ghayvat, Samuel Paul</i>	
Ensemble Strategies for LLM-based Text Summarization: A Timing-Based Framework	1146
<i>Rooz Munjal, Sonali Goyal</i>	
Optimizing Neural Machine Translation: Enhancing Data and Decoding Efficiency	1152
<i>Dhruv Mojila</i>	
LLM Orchestration with Geometry-Aware Memory	1157
<i>Dhruv Mojila</i>	
Affective Intelligence-Enhanced Visual Content Summarization for Context-Rich Video Understanding	1164
<i>Kumar P, Hari Sainath C</i>	
Predicting Crop Yields using Deep Learning Models and Multi-Source Agricultural Data	1170
<i>Kumar P, Hari Sainath C</i>	
A Comparative Study of Deep Learning Algorithms in Enhancing the Operational Efficacy of UAV-Based Pest Control	1175
<i>Pramod Kumar Patel, Shilpa Jain, Rishi Kushwah, Aishwarya Laxmi, Ritu Raikwar, J. S. Rawat</i>	