

2025 International Conference on Visual Analytics and Data Visualization (ICVADV 2025)

**Tirunelveli, India
4-6 March 2025**

Pages 1-790



**IEEE Catalog Number: CFP25VQ6-POD
ISBN: 979-8-3315-2140-0**

**Copyright © 2025 by the Institute of Electrical and Electronics Engineers, Inc.
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:	CFP25VQ6-POD
ISBN (Print-On-Demand):	979-8-3315-2140-0
ISBN (Online):	979-8-3315-2139-4

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

CURRAN ASSOCIATES INC.
proceedings
.com

International Conference on Visual Analytics and Data Visualization

ICVADV-2025

4-6, March 2025

Table of Contents

S.No	Paper Title/ Author Name	Page. No
1	Weather Data Analysis and Visualization using PySpark and PowerBI Bivanshu Dash, Garv Khatri, Abhijat Sinha, Gouthaman P	1
2	Fuzzy Feature Engineering Integrated Artificial Neural Network for Stock Market Index Prediction S. T Surulivel, K. Ajithkumar, Ashfaq Sultan M, S. Selvabaskar	7
3	AI-Powered Real-Time Big Data Analytics for ICU Resource Management S. Kalaichelvi, N. Mohankumar, C. Uthayakumar, Barkathulla. A, K. S. Manojee, S. Murugan	14
4	Preprocessing and Visualisation of Dataset for Neonatal Sepsis Prediction using MIMIC-IV Madhura Devendra Ranade	20
5	Sentiment Analysis in Financial Markets: Using NLP to Predict Stock Price from News and Social Media Data Surulivel S T, Ashfaq Sultan M, Ajithkumar K, Selvabaskar S	25
6	VisionAid Smart Cane: A Guardian in Mobility for the Visually Impaired R. Sarala, Shobika R J, Keerthiga J S	30
7	Visual Analytics for Smart Decision-Making: Techniques, Applications, and Future Directions D. Prabhu, M. Dhivya, A. Gowridurga, M. Dinesh Babu, T. P Anish, Siva Subramanian R	37
8	A Data-Driven Approach for Early Detection and Prevention of Diabetes Mellitus using Machine Learning B Nithya, V Asha, Sreeja S P, Amit Yadav V, Aditya M, Abhishek Rai	44
9	Optimizing Social Media Management and Content Marketing: A Strategic Approach to Meeting Organic Digital Demands Sachin swami, Ranjana Mishra, Neha Dixit, Preeti pandey	50
10	A Comparative Analysis of Traffic Analysis Frameworks in Software- Defined Networking Gorli Uday Kumar, Prabu. U, Yadlapalli Leelakrishna, Pagadam Siddu, Geetha. V	58
11	Educational Data Mining for Predicting Academic Outcomes using Ensemble Techniques Hemanth Reddy Alavala, Vontela Kartheek Reddy, Vubbara Chaitri Reddy, Paramasivam C, T K Ramesh	63
12	Enhancing Customer Experience in Retail for Adaptive Store Layouts with Reinforcement Learning P. Suresh, Dr T Sivakumar, N. Revathy, M. Pandi	69
13	Advancing NICU Monitoring with IoT and Real-Time AI Analytics N. Vini Antony Grace, S Balakrishna Reddy, Sahaya Lenin D, N. Mohankumar, L. M. Merlin Livingston, M. Rajmohan	75
14	A Simple Framework for Predicting Student Dropout Analysis using Data Mining Algorithms E. Balraj, P. Manikandan, P. Sakthivel	81
15	AI-Powered Fitness Transformation using YOLOv8 Technology	88

	A Kalaiselvi, K. G. Shanthi, R Dhivya Praba, S. Sujay, M. Surya, S. Vekash	
16	Advancing Hate Speech Detection: A Multilingual System using LLAMA-2 for Real-Time Analysis of Audio, Video, and Text Content MD Talha, J A M Rexie	95
17	Multimodal RAG for Enhanced Information Retrieval and Generation in Retail Kailash Thiyagarajan	102
18	Comparison of Machine Learning Models for Injury Prediction in Athletes Suganiya Murugan, S. Pradeep Kumar, Kalaiarasi G, B. Saritha, B. Rubini	107
19	HSLNF: Hybrid Socio-Legal Neural Framework for Data Analysis R. Arun Kumar, S. K. Kamalakhannan, Asha Sundaram,	113
20	Automated Tuning of HPL Benchmark Parameters for Supercomputers Renju Rajeev	120
21	Analysis of Market Trends with Sentimental Analysis using Word2Vec and GloVe Senthil Pandi S, Kumar P, Harinisubashree S, Helen Shalini A	125
22	Design, Analysis and Verification of AMBA AXI4.0 Aashima, Lalit Mohan Saini	131
23	Telemedicine Platforms with Cloud-based AI-Driven Diagnostics in Hospitals S. Thangalakshmi, N. Mohankumar, L. N. Jayanthi, Blessy Y M, R. Meenakshi, M. Rajmohan	137
24	Adaptive Real-Time Vehicle Usage Patterns with Cloud-Enabled Bayesian Networks Blessy Y M, Raveendra N Amarnath, D. Antony Joseph Rajan, Dillibai. R, Aarthi. S. T, T. R. GaneshBabu	144
25	Edge Artificial Intelligence for Real-Time Decision Making using NVIDIA Jetson Orin, Google Coral Edge TPU and 6G for Privacy and Scalability J. V. Anchitaalagammai, S. Kavitha, R. Buurvidha, T. S. Santhiya, M. Devi Roopa, S. Sri Sankari	150
26	Personalized Compression Therapy Plans using Cloud Computing and ML Analytics S. Srinivasan, Pramod Pandey, M. Arulprakash, K Umapathy, R. Amutha, M. Rajmohan	156
27	Step-Wise Working Status for Next-Generation Smart Cities: Integrating Fog and Edge Computing Solutions L Sherin Beevi, V. Nehru, Joe Prathap, P. M, W. Vinil Dani	162
28	Autoencoder based Noise Cancellation for Real-Time Audio Enhancement Baskaran M, Jeevabarathi S, Kamalesh B, Kumar P	168
29	Natural Language Processing-Driven Learning Platform for Personalized Education Subitsha R S, Vetrivel M, Shrimaulik N, Saravanan K	174
30	Cloud-Enabled Regression Model for Enhanced Patient Authentication Systems K. Sindhuja, Thanalakshmi S, Jai Ganesh B, S. Muthumarilakshmi, T. R. Ganeshbabu, S. Sujatha	181
31	A Hybrid B-Tree and Enhanced Merkle Hash Tree Approach for Secure Cloud Data Management Thiruneelakandan. S, Sherin Eliyas, Sathish Kumar M,	187

32	Enhancing Supply Chain Resilience: Integrating Blockchain for Transparency and Risk Mitigation in Logistics M. Siva Ramkumar, Arun M, Gokul Gopan, Jayant Giri, Khaled Al-Qawasmi	194
33	Improving E-Commerce Fraud Detection: A GAN and Reinforcement Learning Approach Integrated with Personality Analysis for Secure Digital Economy Deependra Nath Pathak, Ankit Kumar, Kriti Srivastava, Radha Ranjan, Kirandeep Kaur, Ramanjeet Singh	201
34	Real Time Eavesdropping Attack Detection by Multivariate Correlation Analysis T. Mukilan, C. M. Sairam, J. Tamilarasan, K. C. Mohanraj	207
35	Phishing URL Detection using Naive Bayes Classification: A Robust Method for Accurate Detection Epifelward Niño O. Amora	212
36	Etherdoc: Ensuring Security & Integrity for Digital Certificates using Blockchain Mohanakrishnan S, S. Gokila	218
37	Deep Learning-Driven Cryptanalysis in Modern Encryption Systems Venkateswaran Radhakrishnan, Vijayakumari Rodda, S. Sowmiya, Abdur Rahman Sarker, R. Palanikumar, R. Asokan	226
38	Improving Handwritten Stenography Recognition using Domain Specific Encoding and Synthetic Data Augmentation S. Nivetha, C. Bala Kamatchi	231
39	CNN-based Circular Economy in E-Waste Management with Blockchain and IoT Integration P. Santhuja, Suresh A	237
40	Evaluation of ML Models using SMOTE and Feature Scaling for Intrusion Detection System(IDS) V Asha, M T Vasumathi, Arpana Prasad, Yuvaraj V, Yazhini A P, Mora Sivani	243
41	Decoding Cyber Identity Theft Through the Innovative ShieldCyNet Framework A. Sivanandam, B. Lavaraju, Asha Sundaram	250
42	Secure Attendance System Leveraging Machine Learning and Blockchain R Daniel, Akhila Nidumolu, Kumara Sai Manikonda, Manoj Kumar Movva, Sivani Majji	257
43	Optimizing Supply Chain Security using ACO and Blockchain: Integrating Root of Trust, Unclonable Functions, and SBOM for Cybersecurity L Sherin Beevi, Ponsy R K Sathia Bhama, J Albert Vijayan, Joe Prathap, P. M. W Vinil Dani, J. Premalatha	264
44	Multi-Factor Authentication for Secured Financial Transactions through Spatio-TGCN Model Bhagwan Jagwani, Abbasov Habib Hasan, Kuldeep Agnihotri, Khushbu Jain, Anvesh Perada, D. Gobinath	270
45	A Novel Approach to Steganography and its Countermeasures Against Deep Learning and MITM Attacks Atharva Ashok Patil, Renu Dhir, Indu Sounkhla	276
46	Detecting Short Address Vulnerabilities in Ethereum Gangula Surendar, Neha Bagga	283
47	Dynamic Resource Provisioning for 5G Networks: Comparative Analysis of Various Fuzzy Logic based Approaches for Efficient	289

	Resource Allocation Divya Chennupalle, Desham Mahitha, G Nithin, Penumarty Krishna Mohan, Supriya M, Reena Panwar	
48	Enhanced Security Framework for Gray-Hole Attack Prevention in Vehicular Networks S. Vimalnath, Midhun R, Kavinesh A S, Karvendan P, Kishore K	296
49	Distributed Intrusion Detection System using Kafka and Spark Streaming Kotyada Mohan Kiran Kumar, M. Vivek Srikar Reddy, Supriya M	302
50	Analysis of Rate Adaptation Algorithms in 5G D2D Wireless Link M Joseph Auxilius Jude, K Kodeeswari, N Mohamed Riyas, M Murugavel, S Monisha	310
51	Advanced Energy Consumption Prediction for Smart Cities using Meta-Learning Layers Neeraja B, Wendrila Biswas, M. Sreelaxmi, Bhagyashree Shailesh Firake, Jayshree Suhas Wasnik, Rashmi Abhay Kamde,	317
52	Metaheuristic Approaches for Energy Efficiency and Network Lifetime Optimization in Wireless Sensor Networks A. S. Sai Puneeth Theja, S. Swarnalatha, B. Shoban Babu	323
53	Deep Learning based Channel State Estimation for Enhancing 6G Communication L. R. Priya, S. Allwin Devaraj, Valli Suseela, Abitha Jency. T	332
54	Improving Mall Traffic Flow with IoT and Reinforcement Learning Techniques in Footfall Analytics S. Muthumarakshmi, A. Sairam, N. Mohankumar, D. Hemalatha, S. Velmurugan, T. R. GaneshBabu	339
55	Smart Tunnel Traffic Control System using IoT and Machine Learning Subramani V, Vishnu Kumar S, Rishikanth S R, Ramadoss Poonkuzhali	345
56	Review on the Real-Time Mapping of Autonomous Vehicles: Technologies and Challenges Paveithra C, Jaivasanthan U, Kirubasankar K	352
57	Real-Time Monitoring of Patient Movement and Restraint Usage in Healthcare Settings with IoT and Deep Learning Model S. Dhanalakshmi, L. N. Jayanthi, P. Sangeetha, J. Bhuvana Gowri, S. Karthikeyan, M. Rajmohan	360
58	IoT based Seat Adjustable Health Monitoring Wheelchair System by Utilizing Piezoelectric Crystal and Solar Energy Kishore S, Jagathratchagan T, Hari Sankar V, Srinivasan S	366
59	IoT-Enhanced Airborne Pathogen Surveillance in Healthcare Environments using Deep Generative Networks Prabhu V S, Satheeshkumar Sekar, S. Dhanalakshmi, N. Mohankumar, B. Gopi, S. Murugan	373
60	A Comparative Analysis of IoT Platform Tools: Security and Scalability Preferences in Device Management using AHP Maheswari S, N. Rajkumar, R. Geetha, Kalakuntla Theja, M. Malleswari, Jose Anand A	380
61	Electric Vehicle Battery Parameters Monitoring System using IoT Dharaneesh V M, Aruna S, Hariprasath E, Somasundaram PL	386
62	IoT-Enhanced Smart Attendance System by Integrating Mobile Application, NodeMCU ESP8266, Computer Vision Nivethitha Devi, Krishoth N, Joshua J	392
63	Internet of Things (IoT) based Wearable Device for Monitoring Women Health A Kavitha, Aarthi A, Dhanusha R, Dhanusri R P, Indhuja V	398

64	An Intelligent Internet of Things based Health Care Hospital Management of Medical Waste and its Segregation Thiagarajan Kittappa, T. Padmavathi, Kumuda P. R, G. B. Suresh, G. Murugesan, Revathi V	405
65	IoT and Machine Learning for Efficient Truck Overload Detection and Prevention Nandhakumar C, Priyanka M M, Raguna Devi R, Santhiya I, Shalini K M	409
66	IoT-Enabled Smart Soil Monitoring System with Crop and Fertilizer Recommendations Venkata Sudhakar Chowdam, Peddamallu Sri Harsha Reddy, Siddani Likhitha, Shaik Nazma, Parathu Eswar Sai	412
67	IoT-based AI-Driven Solutions for Automated Classification and Segregation of Ayurvedic Leaves in Agricultural Applications R. Sathya, M. Shivaani, V. Nikitha Vardhini, D. Ramya dharshini, S.Parthiban, K. S. Manojee	420
68	Parking Reservation and Smart Allocation using IoT JaiAmudhan Dhakshinamoorthy, VishwaVarshini Viswanathan, Yamuneswar Annadurai, V. P. Dhivya	427
69	Optimized MobileNet Architecture for Accurate and Efficient Wildlife Classification in IoT Applications T. Jaya, Gopika M, Hemkumar R, Srigitha S. Nath	435
70	IoT-Driven Robotic System for Enhanced Nighttime Perimeter Security and Real-Time Surveillance in Smart Environments J Jayachitra, A Aslam Khan, V Yuvaraj	440
71	IoT-Driven Predictive Analytics for Precision Harvest Timing with LightGBM Models S. Lourdu Jame, Chitra Sabapathy Ranganathan, S. K. Saravanan, Bharat Tidke, E. Punarselvam, M. Rajmohan	446
72	IoT based EV Multiple Fault Detection and Battery Management Shanmugavadivel G, Nathan S, Raguladhithiya S, Rakesh C	452
73	AI based Early Detection of Parkinson's and Alzheimer's Disease using EEG Signals K. Sunil Kumar, Suneetha Madduluri, Manoj Kumar Myakala, K R Anudeep Laxmikanth	456
74	Simulation of Health Monitoring and Tracking System for Vessels using LabVIEW & Proteus R. Mythili, Revathi D, Naveen R, Santhosh M, Manikandan R, Vigneshwaran P	462
75	Simulation and Performance Analysis of a Microstrip Patch Antenna using Coplanar Waveguide (Cpw) Feed Mary Joy Kinol. A, Thaj Mary Delsy T, Marshiana. D, Krishnamoorthy. N. R	469
76	Design and Analysis of Non-Invasive RF Microwave based Sensor for Water Quality Monitoring Karthikeyan K, Sujitha R, Sanjai B	476
77	Optimizing Air Pollution Prediction in Urban Environments using a Hybrid RNN-PBO Model with IoT Data Prajul Mohandas, Subramanian P, Surendran R	480
78	SVD Processor to Minimize the Number of Rotations in JACOBI Algorithm Sudhakar K, Balaji N, Tharunkumar R B,	488
79	Development of Solar Powered 21-Level Transformer-Less Multilevel Inverter	495

	B. SharmilaDevi, M. P. Prasanna Venkatesh, S. Sulochini, T. Sudhakaran, R. Srinithi	
80	Intelligent Battery Management Strategy Kamalraj VR, Dharshine B, Archana J, Dhanush V, Indhumathi R	499
81	AI Circuit Builder: Bridging Language & Logic Saffron Dionysius T, Rakesh G, Jasmine Mystica K	506
82	Performance Analysis of Wallace Multiplier using Novel Approximate 4:2 Compressors Bhavani Dantuluri, Bala Sindhuri Kandula, Siva Sri Tirumala, Sai Teja Thumuluri, Srinu Tatikonda, Varshitha Battu	513
83	Navigating the Future: Lane Line Detection for Autonomous and Non-Autonomous Vehicles Kamali Kanmani K, Vanitha S, Rajeswari A. M	521
84	Quantum based Grover's Algorithm and Graph Coloring in Unstructured Searches for Bit String Validation Vinodhkumar. S, Pravin. P, Kumar. P	528
85	Gaussian Process Regression-Driven SOC Estimation for High-Gain DC-DC Converters in EV Applications G Pandu Ranga Reddy, Bandi Mahalakshmi, Mangali Yella Pushpavathi, Battini Sravani	533
86	Low-Power Approximate Computing-based VLSI Architecture for Biomedical Signal Processing A. Sathiya, B. Prabhavathy, A Balasupramani, Amutha A, L. Kavitha, R Saravanakumar	541
87	Greenhouse Environment Monitoring using Raspberry Pi Ritam Biswas, Aman Pandey, Suganiya Murugan	549
88	A Power Efficient Sleepy- Keeper and Lector Leakage Control Technique based on SRAM Memory Sulthana Begam J, S. Praveen Kumar, T. Aravind, S. Ramya	555
89	Transforming Sentimental Analysis: Applying Deep Learning with BERT and GPT for X Data Insights Manthan S Varma, Soma Ghosh	561
90	Delay-Phase Optimization for Hybrid Precoding in Wide Band Massive MIMO System Sivakumar T, Dinesh V, Gowsik T, Ajay Raghav R, Mahendran V	567
91	Power Quality Improvement for EV Charging Station using Modified Bridgeless LUO Converter M. Hariprabhu, Adithya Muruges. J, Ajay. K, Gokulakrishna. K	575
92	MATLAB-based Railway Safety System Mariselavam V, Sachin K, Sethupathi S, Sibichakaravarthy KS	582
93	Smart Energy Forecasting: Energy Consumption Prediction in Data Centers Kanapareddy Nithin Kumar, Chethan C, S. Priya	586
94	Autonomous Fire-Fighting Robot with Night Vision Capabilities Amit Kumar Singh, Gurjot Singh, Dankan Gowda V, Archi Kothari, Aman Kumar	594
95	Performance Analysis of ML Algorithm for Solar PV Fault Diagnosis Selvabharathi S, Manish B, Reethika G, Vengatesh Prabhu P, PL. Somasundharam	601
96	Hybrid Solar-Wind Energy System with Enhanced Power Optimization using Nature-Inspired Egret Swarm Algorithm L. Anbazhagan, CH Hussaian Basha, G. Dheepak, Thenmozhi P, S. Nachimuthu, D. Pushpalatha	605

97	Underwater Corrosive Material Identification and Image Enhancement Keerthana N V, Srija V, Poornima Devi R, Roopini B, Sharumathi J M	614
98	Low Power Wearable ECG and Health Monitoring System for Multiple-patient P. T. Sivagurunathan, Keerthana S P, Lakshana K, Madhusri J	620
99	Innovative VLSI Design for High- Energy Efficiency Approximate Reverse Carry Save Adders Aravind Kumar M K, Karthick M, Kishore S, Poovarasan R	624
100	Predictive Maintenance for Electric Motors, RPM Data, Machine Learning for Proactive Life Cycle Management Mamilla Chetan Kumar, D. Brindha, Ettedi Rishwanth Reddy	630
101	Fine-Tuning an LLM using QLORA and PEFT with RLHF Dataset T Grace Shalini, P Geetha, Yugabharathi R, Arsath R	638
102	Machine Learning Approach to Sleep Stage Classification based on EEG Signal Arpana Prasad, V Asha, M T Vasumathi, A. Kalaivani, Aniket Kumar, Arpita S Kulkarni	645
103	Hardware Intrusion Detection using FPGA Saravanan. S, Poornima. R, Samyuktha. V, Sandeep P	650
104	Investigation of Metamaterial Microstrip Patch Antenna for Efficient Terahertz Communication D. Sathish Kumar, Balakrishna Venkatesh. SP, Jai Sudharshini. S, Fayaz Ahammed. M, Bala Abinesh. R, S. Dhanasekar	657
105	Real-Time Risk Alert System for Oliguric Dialysis Patients using Arduino Sridevi. A, Kirubashini. P, Lakshitha S. M, Keerthana. D, Kiruthiga. M	663
106	GPS and IoT-based Zone-Specific Vehicle Speed Control System Prakash N B, Vinslet Mercy J, Gopika G, Meruthula M K, P. Samuel Pakianathan, Bindhu A	669
107	Development of VSS-FOCV, and IC MPPT Controllers for PEMFC Systems Gurijala Sreedhar, CH Hussaian Basha, Shaik. Rafikiran, AVV Sudhakar, Faisal Alsaif, S. Senthilkumar	676
108	Modeling of a Fuel Cell with Boost Converter using Artificial Neural Network Gaddala Anusha, AVV. Sudhakar, Shaik. Rafikiran, Ram Ragotheram Deshmukh, CH Hussaian Basha,	683
109	Design of A Kickback Noise Reduction Technique for Dynamic Comparators based on XOR-NMOS Switches G. Snehalatha, Saiteja Chennoji, Sai Lohitha Yele, Sindhu Sri Bakna	691
110	Design and Evaluation of a Hybrid Adder Employing the Power Gating Method Sowmiya. K, S. Praveen Kumar, T. Aravind, S. Ramya	698
111	Design and Analysis of Multiband MIMO Antenna for WLAN Applications in Portable Electronics D. Denceli, M. Noorjahan, A. Subbulakshmi	703
112	Predicting Heavy Metal Ion Concentrations in Water to Prevent Future Neurological Outbreaks T Grace Shalini, P Geetha, Sumanth Talasila, Shravan Chowdary	710
113	Implementation of FIR Filter using Multiplexer based Truncated Multiplier and Approximate Adders Konidala Yogitha Bali, N. Ashok Kumar	718

114	Fraud Detection in Financial Transaction using GNN V. sivakumar, Akash Kumar Verma, Piyush Kumar, Nitesh Saw, V. Hari krishnan	724
115	Harnessing Naive Bayes for Accurate Classification of Sleep Disorders: A Data-Driven Approach M. Mohanraj, Praveen Kumar S, Ranjith Kumar R, Vimal Raj M	731
116	Automated Blood Group Detection System using Image Processing for Non-Invasive Antigen Feature Extraction and Classification Bala Weslin D, S. Sophia	736
117	Autism Spectrum Disorder Detection using Convolutional Neural Network V. Angel Petricia, Jacksy M, Bhavadharani R	743
118	A Comparative Analysis of Stress Level in Men and Women through Machine Learning Classifier T. M. Saravanan, J. Kaviyavarshini, N. K. Abhirami, S. Dhivya Shree	749
119	Stock Price Prediction using LSTM with Toeplitz Matrix-Driven Feature Extraction for Enhanced Forecasting Accuracy Kanchana R, F. Mary Harin Fernandez,	756
120	Leveraging Nature-Inspired Algorithms for Feature Selection in Sentiment Analysis: An Evaluation of Particle Swarm Optimization Effectiveness Dwiz Dua, Avtar Singh	761
121	Novel Approaches to Heart Disease Detection with TabNet and FT Transformer Models Sravana Kumar Komma, Nagagopiraju Vullam, Grandhi Siva Sankar, Pedapudi Vijaya Bhaskar, A. Lakshmanarao, E. Sreedevi	768
122	Early Detection of Road Traffic Injuries with IoT Sensor Networks and K-Nearest Neighbors Algorithm L. N. Jayanthi, Kishore Verma S, R. Usha, G. Sekar, V. T. Lakshmi, N. Mohankumar	773
123	Predictive Analysis of Kidney Diseases with Artificial Intelligence and Data Science G Eswar, C Hariharan, S Lavein, V Akilandeswari	779
124	Enhancing Real Time Hand Gesture Recognition Through Ensemble Voting Method Sri Hari R, Kishore M. S, Karthikeyan B, Sreeja T, Jaya Prakash T	785
125	Zero-Shot Speech-to-Speech Summarization using Unsupervised Learning and Generative Models S. Dinesh@Dhanabalan, S. Praveen Kumar, R. Ragupathy,	791
126	Multiclass Skin Lesion Classification using Capsule Network with Dynamic Routing Divya M, Ukeshwaran G, Vimal K B	798
127	OCR Text Recognition and Recommendation using Machine Learning Janani M, Laya H, Mathishree B	804
128	A Review on Object Detection in Traffic Scenarios using Deep Learning Models Kiranmai R, Deeptha R, K. Purnachand	808
129	Enhanced Real-Time Pothole Detection using YOLOv8 with EfficientNet Backbone: A Deep Learning Approach for Road Safety Riya George, Ambiliy Francis, Binet Rose Devassy	816
130	Enhancing Data Security Through Cryptographic Transformation using a Graph CNN and LSTM based Model Yamini Kalva, Senthil Kumar. S, Senthilnathan S, A. Sasi Kumar, Kavitha C T, Srikanth Pulipeti	824

131	Enhanced Crop Yield Predictions Amid Climate Change to Improve Agriculture with SwinTrans-ATT based Model K. Gowsic, A. Ashwini, M. Arul Sankar, R. Balamurugan	830
132	Design and Development of a Mobile Application for Direct Agricultural Market Access G. Manikandan, Nivetha S B, Sri Siva Swathika S T, Narmthaa J B, Srijhha RM	836
133	Deep Learning for Real-Time Malware Detection and Classification Shantanu Sudhir Gujar	846
134	AI and Cloud for Real-Time Evaluation of Sports Injury Severity and Recovery Blessy Y M, Palaniraj Rajidurai Parvathy, Kishore Verma S, B.Sreedevi, S. Jayaprakash, S. Murugan	851
135	A Novel Approach on Detecting Deep Fake Imagery in Images and Videos Duraimurugan N, Kumar P, Jayaprakash R	857
136	Enhancing E-Commerce using Fashion Recommendation System Vinodh Kumar S, Kumar P, Saravanan S	864
137	Non- Intrusive Load Monitoring Techniques for Intelligent Energy Management: A Comparative Study of FHMM and LSTM Approach N. Rajkumar, Anitha Govindaram, R. Geetha, Subhamathi A S F, Nithya S, Jose Anand A	869
138	Continuous Sign Language Recognition and Translation using Deep Learning Approach Rakesh Kumar M, Kumar P, Vaseekaran R	875
139	AI based Efficient Analysis and Monitoring of Sugarcane Buds Detection and Leaf Disease Classification Ananthajothi K, Kumar P, Koteeswaran V	881
140	Integrated Deep Learning Framework for Automated Glaucoma Detection, Optic Disc/ Cup Segmentation, and CDR Calculation Tina Brivitha K J, Sophia S	887
141	Image Analysis for Historical Knowledge Discovery and Preservation Sakthivel K, Ashwin J, Poongodi K, Oviya S	895
142	Drone Cyber Attack Detection through Machine Learning Sophia S, Getzi Jeba Leelipushpam paulraj, Devanshu Kumar	901
143	Lightweight Contextual LLMs for IoT Data Interpretation in Smart Cities Tamilarasan Kannadasan	909
144	Automating Brain Hemorrhage Detection through Deep Learning Approaches Shakina Princess S, Vignesh. R,	915
145	Contextual Aligned Tamil Sign Language Retrieval System with Semantic Masked Transformer S Thillai Sivakavi, R I Minu	922
146	VisionAid: Enhancing Accessibility for the Visually Impaired with YOLO and gTTS Bhagya Lakshmi Raghupathy, Nithyashri J	928
147	Exploring Depression and Co-Dependency among Spouses of Individuals with Alcohol Use Disorder Padmapriya D, Mahalakshmi M, Manisha V, Manju S, Suganya M, Ajith M	935
148	Enhancing Master Data Management Within Enterprise Resource Planning Systems using Artificial Intelligence for Optimized Business	941

	Processes Sachin More, Sampath Kumar Mucherla	
149	AI- Powered Emotion Recognition: A Multimodal Approach to Analyzing Human Sentiment Shalma H, Shreya Mukherjee, Jainulabudeen S A K, Borra Surya Thirumal Reddy, Bhanu Budhati, Nakka Shiva Krishna	947
150	Design of A Squaring Architecture based on Yavadunam Sutra of Vedic Mathematics C. Gangaiah Yadav, G. Sreenivasula Reddy, K.Venkata Subba Reddy	955
151	Explainable AI-Driven Heart Disease Prediction R Bhuvaneswari, P Kumar, S Kaviya	959
152	A Predictive Modelling for Breast Cancer Classification using Machine Learning Technique Aradhana Pattnaik, Junali Jasmine Jena, Jay Prakash Singh, Amiya Ranjan Panda, Anjan Bandyopadhyay, Mahendra Kumar Gourisaria	965
153	Implementation of Automated Tolls with License Plate Recognition using YOLO Manoj M, Ganesh C, Girinath D, Gayathri V, Shibi Kannan A	971
154	Realtime Forestfire Detection and Alerting System S. Vasuki, K. Jegatheeswaran, C. Karthick, S. Karthikeyan, R. S. Mahendrarvarman	978
155	Machine Learning-Driven Hybrid Adaptive Beamforming for Efficient Interference Mitigation in Dense Wireless Sensor Networks P. Loganathan, A. T. Priyeshkumar, K. Kodeeswari, K Jose Reena, I. Poonguzhali, M. Balaji	984
156	Deep Learning-based 3D Indoor Room Layout Prediction with ConvBi-LSTM Models Narendra Mohan, Manoj Kumar	991
157	A Review on Development of Farmers Disease Diagnostic and Reporting using Machine Learning Techniques Mores M Mukhedkar, Vaishali V Thorat, Bhakti A Mukhedkar, Sonali V Jadhav, Nitin A Dawande, Chetana V Thorat	997
158	Software Tools and Evaluation Models for Visual Analytics: Trends, Challenges, and Future Directions Srikanth Lakumarapu, P. Ruba Sudha, P. J. Beslin Pajila, K. Sasirekha, R. Vinoth, Siva Subramanian R	1001
159	Multi-Model Deep Learning Framework for Plant Disease Detection and Classification using YOLOv5, Xception, and DenseNet Kunal K. Meshram, Sarika Khandelwal, Jyoti kumre	1008
160	Utilizing Attention based Machine Learning Models for Improved Demand Forecasting in Supply Chains M. Ramya Krishna, Mohammad Alifa Firdhos Farheen, D. Leela Kalyani	1017
161	Hybrid Deep Learning Architecture for Accurate Brain Tumor Classification R Bhuvaneswari, Madhan B, Mohamed Basman M	1022
162	Health Guard: Patient Records and Wellness Detection J. Jeya A. Celin, Abhinaya Nakirikanti, Vadlamudi Pavani, Sravani Namburu, Anamika	1027
163	Enhancing Pupil Detection Accuracy for Medical Diagnostics using PINNs Combined with VGG19 D. Gokulavani, J. Mohana	1032
164	Machine Learning-based Predictive Framework for Road Accident Severity Classification and Real-Time Risk Assessment	1038

	V. Aswin Kumar, GR. Habi Radhan, R. S. Amshavalli, R. Rajalakshmi, N. Jeenath Shafana	
165	Performance Analysis of Tea Leaf Disease Detection by Utilizing Hybrid ResNet and BiLSTM Aadith A, Muthukumaran N, Abijith N, Aravind S, Jeevaparakash M	1045
166	Real Time Adaptive Routing for Efficient Urban Mobility I. Karthika, D. Pushpalatha, Infant Hilda D, Dheenadhayalan S, Mukilan K, Hariprasaath S	1052
167	Deep Learning based Wearable Sensor System for Realtime Cardia Monitoring and Anomaly Detection During Sleep Kayathri T L, Sabari J, Sanjai S, Prasanth V	1059
168	Detection of Road Accident using Dense Convolutional Network Devi Prasad Karthik P, Enrique Jasper P, Shiny R M	1067
169	Reinforcement Learning Algorithm Implementation for Wideband Beam Tracking Siva Kumar T, Srihari M, Sethuprian V M, Srivelan M, Sharath C	1073
170	Ensembled DNN Model based Enhancing Quality Education: Evaluating the Impact of Mindfulness of Students D. Anuradha, Asha Sundaram	1079
171	Hybrid DenseNet-RF Model for Automatic Crime Detection and Data-Driven Policymaking M. Dhinesh, K. Kirubakaran, E. Venugopal	1086
172	AccuMediaNet: Ensemble Deep Learning Model based Media Accountability and Reporting Sornalakshmi R. R, Asha Sundaram, Murugan Ramu	1093
173	Exploring Machine Learning and Deep Learning for Brain Tumor Detection: A Review Uma Vishwakarma, Pritaj Yadav, Anurag Jain	1099
174	Automatic Weed Detection and Removal using AI K. Kishore Babu, D. Sharada Mani, P. Seetha Lakshmi, B. Suresh, D. V. Ashok, Mohana Prasad Mendu	1106
175	Explainable AI for Gastrointestinal Disease Detection using Ensemble Deep Learning Techniques Sale George Gideon, P. Joyce Beryl Princess	1113
176	Ethereum Transaction Anomaly Detection by Integrating Machine Learning Models and Fuzzy Networks for Enhanced Security and Real-time Monitoring Mantri Christ Elison, Martin Victor K, Gifton Paul Immanuel	1120
177	Health Centric Driver Safety and Vehicle Speed Optimization System Nivishna S, Sneha R, Sunmathi S, Yakshini M	1128
178	Understanding Plant Leaf Diseases: A Review, Analysis, Exploration of Techniques and Technologies Thirumalasetty Nagalakshmi, M Sambasivudu, Thota Siva Ratna Sai	1135
179	Machine Learning for Mental Health Prediction from Social Media Activity S. Mohanraj, R. Ramesh Krishna, M. Shan Adams, C. Nallusamy	1141
180	Lightweight Deep Learning Model for Wireless Capsule Endoscopy Image Classification using SqueezeNet S. Gandhimathi alias Usha, P. Uma Maheswari, M. Jeya Priya, V. Jeeva lakshmi, D. Harsha	1146
181	Deep Learning for Neurological Brain Disorder Classifications Karthick M, Krishna N S, Jemima Havila Catherine A	1152

182	Identification of Abnormal Activities in Surveillance Scenes using Deep Auto Encoder and Sequential Extreme Learning Machine Rahul Chiranjeevi. V, Malathi. D	1158
183	CNN-Powered Deep Learning Framework for Advanced Image Steganography and Data Security S. K. Sameer Pasha, K. Ajay, N. Harish, S. Sreenu	1164
184	Guiding Autonomous Vehicles in Challenging Weather using Machine Learning Techniques S. Pavithran, R. Praveenraj, M. K. Vishnupriyan, S. ArulMurugan	1169
185	Enhancing Alzheimer's Disease Detection using Optimized Attribute Selection and Random Forest Classifier for Improved Accuracy A. Sathiya, CH Hussaian Basha, Vasanth. S, Jasphin Jeni Sharmila P, Prabakaran S, R. Indhumathi	1174
186	Enhancing AR and VR Experiences using Deep Waveform Prediction Network for High-Speed Wireless Communication A. Sivanandam, Abishek Ram. M, Sandra Susan Sukumon, Dipthiy Sree. R, Sandeep Vishal. S	1180
187	A Deep Learning Framework with Attention Mechanism for the Classification of Mild Cognitive Impairment using Brain MRI T. Illakiya, B. Vidhya, S. Prince Chelladurai, S. Hariprasad	1188
188	A Study on Smart Assistive Stick for Visually Impaired Individuals Megajai. K. Y, Nithish Kumar. P, Lakshmi prabha. K	1195
189	Real Time Sentiment Analysis and Categorisation of News Articles using VADER and SVM Indhumathi S, F. Mary Harin Fernandez	1201
190	Automated Diabetic Foot Ulcer Detection using Hybrid Short Term Memory Architecture S. Gandhimathi Alias Usha, P. Uma Maheswari, Dharshini S, Hemaroopa B, Nikila S, Angela M	1208
191	Hybrid Fuzzy Logic-based Explainable Models for Assessing Student Academic Outcomes M. Viveka, N. Shanmuga Priya	1214
192	Enhancing Social Media Integrity: A Machine Learning-based Rumor Identification System Utilizing CNN for Accurate Real-Time Tweet Analysis Joe Leon J, Angelin Jeba	1220
193	Deep Learning and Computer Vision based Smart Intercom Device for the Deaf and Mute People Rusmitha J, Sri Hari Nivas S, Srihari G, C. Rajasekaran	1227
194	Deep Learning Architectures for Accurate and Scalable Nitrogen Deficiency Detection in Rice Plants E. Lakshmi Priya, R. Perumalraja	1233
195	Review: Machine Learning based Lung Diseases Classification by using Chest X-Ray Image S. K. Imam Basha, S. Jana	1241
196	Deep Learning for Diabetic Retinopathy: A SqueezeNet-based Approach with Data Augmentation for Enhanced Detection Babu Rao K, Sridevi N, Homer Benny Bandela, Kiran Kumar Reddy Penubaka, P Ram Kishore Kumar Reddy, P Lakshmi Supriya	1246
197	AI-Powered Dynamic Task Allocation for Agile Work Environments J. Gayathri, Nevashine S, Deeksha H. U, Sahana Ashok, Nithyasree R, S. Divya	1253
198	ONCS: Experimental Design to Predict Students Electronic Gadget Addiction using Optimized Neural Classification Scheme	1260

	J. Gayathri, M Linto Mohan, V. Kaviya, Gopika P, Nitheesh Muruges, Jayavishwaraj K	
199	An Approach to Develop Missing Child Identification System using Deep Learning Methodologies Kumar P, Senthil Pandi S, Monisha D, Nivethitha Chowthri	1267
200	Optimizing Neural Machine Translation Workflows using Queuing Theory K. Kavitha, S. Maragathasundari, K. Karthikeyan, C. Swedheetha	1272
201	NeoCareNet: A Deep Learning Framework for Assessing Legal Accessibility to Neonatal and Postnatal Health Care Services Alwin Fredrick Y, Isha Bhavanti, Eniya. B, S. Bharghavi, Janani. A, Marilyn Belauh A	1278
202	Optimizing Smart City Infrastructure using 5G Edge AI with Adaptive Multi-Agent Reinforcement Learning K. Dhatchayani, R. Shubavathy, G. R. Reshma, Amalya Eunice A, Dharshini Sundar, D. Vezhaventhan	1286
203	Speech-based Dementia Prediction using Artificial Intelligence Chettiyar Vani Vivekanand, Shamini Nayagam, Sreena Rajeev	1293
204	MNCL: Empirical Development of Human Action Recognition based on Postures using Modified Neural Classification Logic S. Rama Krishna, M. Pavithra, Arul Prasath A, Jayendra Gopal Thatipudi, Gopinath D, K. Rajkumar	1299
205	AI-Powered MRI Scan Analysis for Enhanced Patient Hospitality: Real-Time Report Generation for Faster Diagnosis – A Systematic Review M. Jaganath, G. Ramya Shri, B. I. Bharani, S. G. Manoj Kumar, S. Saravana Haris, B. Karneya	1307
206	Integration of Chemometric Analysis and Machine Learning for Predictive Classification of Raisin Quality Gokul Padmanaban, Princy Suganthi Bai S	1312
207	Development of Class Topper Optimized Transfer Learning-Mobile Net Classifier Model for Effective Skin Cancer Classification Rebekah A, Rajakumar G, K. Lakshmi Narayanan	1319
208	Implementation of ANFIS Assisted Modified CNN Classifier for Autism Spectrum Disorder Detection Benny Richard A, J. Friska, K. Lakshmi Narayanan	1322
209	Optimal Placement of Solar Power Plant by using MOTHFLAME Algorithm K. Karthikeyan, A. George Klington	1327
210	Optimal Placement of Solar Power Plant by using AVOA Algorithm A. George Klington, A. Cordelia Sumathy, K. Karthikeyan	1331
211	Novel Approach for Early-Stage Ovarian Cancer Prediction and Reducing Recurrence: A Comprehensive Review Rajesh Daruvuri, Balaram Puli, Pandian Sundaramoorthy, Purushothapatnapu Naga Venkata VamsiLala, Jebaranjani B, R. Sathya	1337
212	Analysis the Bacterial Effect of Leaf using Colour Image Processing Nivethitha T, Sanjay P, Sudhir Siddharth E, Shruthika S, Sathana S	1344
213	A Machine Learning based Synergistic Swarm Drone System to Eradicate Locust Swarms: Project Mynah Ishaan S Surve	1350
214	Water Distribution Network for Irrigation using Artificial Neural Network (ANN) Algorithm Sankari M, Viveha R, Varshita Y	1358
215	AI Powered Ayurvedic Leaf Prediction and Disease Classification: A Comprehensive Analysis	1364

	R. Sathya, M. Suganthi, M. Trisha, E. Janani, S. Dhivya, R. V. Viswanathan	
216	A Novel Approach for Authenticating Churna Medicine using Transfer Learning S Gandhimathi Alias Usha, P Uma Maheswari, A Archita, K Bharathi	1371
217	OSE: Optimizing User Segmentation in E-Commerce using APRIORI Algorithm for Personalized Product Recommendations Sai prasanth B, Sathish kumar M	1376
218	Machine Learning-based Cardiovascular Disease Prediction: A Comparative Analysis of Classification Algorithms for Enhanced Diagnostic Accuracy Harsheeta Singh, Vanshaj Satija, Priyadharshini K	1384
219	Enhanced Transformers with Dilated Convolutional Attention for Predicting Lung Cancer Outcomes Senthilnathan Chidambaranathan, Pandian Sundaramoorthy, Balaram Puli, Rajesh Daruvuri, Purushothapatnapu Naga Venkata VamsiLala, R. Sathya	1392
220	Optimizing Cotton Yield Forecasting with Deep Learning and Multispectral Remote Sensing Porandla Srinivas, Suresh A	1399
221	Intelligent Autonomous Vehicle Driving using Convolutional Neural Networks R. Aruna, R J Dhanush, A Abinesh, R. Mathiyugan, R. Sathya	1405
222	Highly Accurate VGG-19 Model Optimized Deep Learning Classifier for Breast Cancer Identification and Sub Types Classification Subhikshaa Jayarani M, Kabilan R, Allwin Devaraj S	1410
223	Revolutionizing Mouse Cursor Control for Enhanced User Interaction L Sherin Beevi, Joe Prathap, P. M, Harsha G, Jeeva N, Jeevashree R, W Vinil Dani	1415
224	An Experimental Evaluation of Machine Learning Models for Basketball Performance Forecasting Arpana Prasad, V. Asha, N Mithili Devi, Arpith P A, Ashish M Kumar, Aravindh J	1421
225	An Enhanced Approach to Detect the Eight Stages of Osteoarthritis using Learning Algorithm Kumaragurubaran T, Madhumita P, Kavyashree B N, Senthil Pandi S	1426
226	Advanced AI-Powered Platform for Personalized Student Learning and Academic Enhancement Gollapudi Mounika, Abhinav Gaddi, Pranav Gaddi, Kominneni Varun, Kodumuri Vihar	1432
227	Personal Workout Trainer using MediaPipe and OpenCV for Real-Time Guidance and Feedback S. P. Priyanka, Sophia Janit	1438
228	DISASTER TRACK: AI-Driven Real-Time Monitoring and Instant Alerts for Emergency Response Narmatha B, Priyadharshini P, Arthi S, Malleswari M, Yasaswini M	1443
229	The Role of Features in Image Retrieval System: A Survey Gowmari M, Murugeswari G, Venkatalakshmi K	1451
230	Evaluation of Teacher Performance using HybPSO-FA– A Hybrid Approach Sanskriti Agarwal, Pitchika P N G Phani Kumar, Junali Jasmine Jena, Suchismita Das, Manas Ranjan Nayak, Mahendra Kumar Gourisaria	1456
231	Optimizing Crop Traits with ANN and Genetic Innovations for Sustainable Agriculture	1462

	Dr Radha Mahendran, Ramanakar Reddy Danda, Asma Anjum, Rashmi Abhay Kamde, Bhagyashree Shailesh Firake, Jayshree Suhas Wasnik	
232	Optimized Machine Learning Models for Lymphocytes Image Classification and Leukemia Detection M T Vasumathi, V Asha, Sukanya N S, C Lavanya, Bharath Gowda A, Bhoomika H	1469
233	AGRI PREDICT: AI based Crop Advisory System for Intelligent Agriculture Anand K, Adarsh R, Akshay Sundar S	1476
234	Optimizing Rugby Match Predictions using Advanced Machine Learning Techniques S P Sreeja, V Asha, Deepak A, Gowtham S, Gayathri K, Arpana Prasad	1482
235	A Deep Learning-based Hybrid Model for Enhancing Security B. Akshai Aanand, Frederick Ruby Helen, B. Lavaraju	1487
236	Diabetes Prediction using Ensembled Machine Learning Models Aparajita Mishra, Udit J. Monani, Suchismita Das, Mahendra kumar Gourisaria	1493
237	Co-Sketch: Drawing Together and Taking Notes Forever Siddharth Bhorge, Mayur Talewar, Sidhesh Goud	1499
238	Location-based Reminder and Emergency Alert System for Landslides M V Ezhil Dyana M V, Hari Poornima R, Jayashree M	1505
239	Deep Learning for Skin Cancer Detection – A Review N Raghava Rao, D Vasumathi	1510
240	RNN, GRU, and LSTM Model Analysis for AI-Powered Indian Stock Market Index Forecasting K. Rathna, S. Vinita Sushila Devi	1517
241	Ensemble-Driven Multilingual Sentiment Analysis Framework for Youtube Comments with Dashboard Dharini N, Madhuvanthi M, Aswini C S, Lakshya R, Triumbika M, Saranya N	1524
242	Personalized Content-based Movie Recommendation System: A Comparative Analysis B Nithya, Asha V, Sreeja S P, Abhay Aditya Sinha, Akash P, Akshay Bharadwaj S	1530
243	Skin Lesion Detection using Partial Differential Equations D. Sree Lakshmi, A. Divya, Gayathri Yadav Mugada, Tanusha Koduru, Mownika Bingi, Ishwarya Madupu	1535
244	Gestational Diabetes Prediction using ML Integrated with Web UI Shrija G, Sibi Prasa D, Hemalatha S	1541
245	News Categorization using Least Squares Twin Support Vector Machine A. Madhuri, K. Naga Divya, K. Varshini, K. Bhanu Harsha, K. Pujitha, K. Naga Praveen	1547
246	Optimized Financial Fraud Detection using SMOTE-Enhanced Ensemble Learning with CatBoost and LightGBM Ramu Yadavalli, Rani Poliseti	1554
247	Augmented Fusion Method for the Diagnosis of ILD and the Promotion of Better Clinical Results Vijaya Kishore, V, Kalpana, V, Chekuri Nalini, K. Gopi	1563
248	Hybrid Recommender Systems: Bridging Accuracy Gaps with Quantitative Evidence Diya Akshita Dhivakaran, Vishali Muralidharan, Balaraman Sundarambal, Kirubakaran N	1569
249	The Impact of Machine Learning Algorithms on Credit Card Fraud Detection: A Comparative Study	1576

	Mohamed Rusaam S, Nijanthan V, Muthukumaran N, Pratheeshba B, Riyas Ahamed M	
250	Enhanced Diabetes Prediction through Systematic Analysis of Machine Learning Techniques and Data Optimization Saroj Kumar Behera, Kedarnath Panda, M Vamsi Krishna, P Ram Kishore Kumar Reddy, P Lakshmi Supriya, Kiran Kumar Reddy Penubaka	1581