

2025 3rd International Conference on Recent Advances in Information Technology for Sustainable Development (ICRAIS 2025)

**Manipal, India
3-4 September 2025**



**IEEE Catalog Number: CFP25SZ0-POD
ISBN: 979-8-3315-0144-0**

**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:	CFP25SZ0-POD
ISBN (Print-On-Demand):	979-8-3315-0144-0
ISBN (Online):	979-8-3315-0143-3

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

About		i
Messages		ii-viii
Committee List		ix-xi
Reviewers' List		xii-xvii
Sl. No	Title of the paper and list of authors	Page. No.
1.	<i>IOT-Driven Flexible Road Divider System</i> Babitha Hemanth, Abhijeet, Raju Jagadeesh Rathod, Vilasram k Vilasram	1-5
2.	<i>Real Time Health and Geolocation Monitoring in Animals using a Multi-Sensor Collar</i> Babitha Hemanth, Athul Rai K, Dhanush G P, Thrisha, Vamshith	6-11
3.	<i>Smart Stroke Prediction and Risk Mitigation System Using Hybrid DL & TL Techniques</i> Dr.M.Giri, Dr.M.L.M. Prasad, Sathani Joshika,Bollini Jaswanth, Pacharla Giridhar,A.Harismitha	12-17
4.	<i>Hyper Charging Lane For EV Using Mutual Induction</i> Karthik MS, Venkata Ramana Rao S, Mahiban Lindsay N, Karthik N, Santhosh G, Sreeganasan A, Stutti Jain, Ardra A Nair	18-22
5.	<i>Enhancing Privacy through Federated Learning AI</i> Moulyya K B, Anisha P Rodrigues	23-27
6.	<i>Leveraging AI for Cyber Threat Defence</i> Shrusti M,Soniya M,Priyadarshini K S, Kanchana P, Kiran Raj K M	28-34
7.	<i>A Deep Meta Ensemble Approach for Credit Card Fraud Detection Using Hybrid Models and Advanced Resampling Techniques</i> Srashti D Shetty, Minu P Abraham	35-40
8.	<i>EfficientNetV2-ResNet50V2 Ensemble Framework for Parkinson's Disease Detection: Optimized Class Balancing and Test-Time Augmentation</i> Deepak N A, V R Tejas, N R Venkatesh Raju, Sagar Ganiga, Safwan Sayeed	41-46
9.	<i>Optimizing Nose and Lips Biometrics for Lightweight Authentication in Constrained Computing Environments</i> Nithin Kurup U G,Desai Karam Sreekantha	47-54
10.	<i>Automated Data Transfer Between Virtualized Advanced Driver Assistance Systems And In-Vehicle Infotainment Domains Over Data Distribution ServiCE</i> Ramakrishna Oggu, Megha S. Kumar, Prasad Patil	55-60
11.	<i>Pre-emptive Task Scheduling in V2I Systems Using RSUs for Improved Latency</i> Aswathy J, Kogul Raj A, Neha Ekanandan, Rithanya S, Megha S. Kumar	61-66
12.	<i>A Unified Computer Vision System for Multilingual Bidirectional Gesture Recognition: ASL and ISL</i> Sruthi K S, Sukshma Shetty, Sanya Pateel, Subhiksha, Shridevi	67-72

13.	<i>Matrix-Based Apriori Methods for Frequent Pattern Mining: An In-Depth Survey</i> Kalpana P, Sumathi P, Teena Jose, Deepa S, Raju Ramakrishna Gondkar	73-78
14.	<i>Understanding Chatbot Model Behavior Through Intent and Pattern-Based Dataset Evaluation</i> Sowmya P, Vasudeva	79-83
15.	<i>Texture and Color Feature Fusion for Automated Waste Classification using Machine Learning</i> Vijetha U, Pranavv Raja C P, Andrea Romson Fernandes	84-88
16.	<i>A Model-Based Design Approach Towards Software-Defined Vehicles with Service-Oriented Architecture</i> Tanuku SaiLakshmi Madhuri, Bala Vishnu J, Prasad Patil	89-94
17.	<i>Efficient Power Estimation and Analysis of Digital Circuits Using Machine Learning Techniques</i> Gurudatt B M, Gokul Krishnan V, H V Ravish Aradhya	95-100
18.	<i>Exploring Dataset Quality and Transferability in Malayalam NER Tasks Using BiLSTM</i> Athira Gopalakrishnan, K P Soman	101-106
19.	<i>Self-Driving Car Using Deep Learning and OpenCV</i> Pavan Kumar B M, K R Shwetha, Namitha K G, Shreyas S, Bharathi Malakreddy A, Manjunath Sargur Krishnamurthy R	107-112
20.	<i>Stock Price Prediction with Optimized XGBoost: A Comprehensive Benchmark Against Deep Learning Approaches</i> Aarya Shah, Shilpa Ankalaki	113-118
21.	<i>Safeguarding E-Voting with Blockchain: A Transparent and Reliable Solution</i> Manjula V, Mahammdsalman Warimani, Mohammed Zakir Bellary, Naveen kumar B, Asia Hazareena, Talha Shaikh	119-123
22.	<i>Emotion Detection from EEG Signals using Advanced Deep Learning Techniques</i> Amulya J, Dr. M. Shobha Rani	124-128
23.	<i>Examining Incel Ideology in Online Spaces with NLP Techniques</i> Tanmay Saxena, Nisha P. Shetty	129-137
24.	<i>Dynamic Credit Management Using Deep Q-Networks and Random Forest Feature Selection</i> Anand Raj Dubey, Aditya Raj Kashyap, Rustam Mahilane, Girish K K, Biswajit Bhowmik	138-143
25.	<i>Efficient MRI Reconstruction Through Singular Value Decomposition</i> Aparna V, Anitha H, Prakashini K, Rajesh G	144-148
26.	<i>Suicidal Text Detection Using Machine Learning and Large Language Model</i> Hemish Jain, Anukool Kashyap, Soubraylu Sivakumar, V Deeban Chakravarthy, P Selvaraju, Fitri Yakub	149-154

27.	<i>Paper IQ - An Explainable AI Approach for Research Paper Summarization and Categorization</i> Arnab Panda, Sumana M	155-159
28.	<i>Real-Time AI-Powered Detection and Geo-spatial Visualization of Lumpy Skin Disease in Livestock</i> Muthulakshmi M, P Selvaraj, V Damodaran, Sanjay S, Mavin Sandeep V, Sri Venkatesh S	160-165
29.	<i>Dynamic Threat Modelling and Vulnerability Assesment in Smart Microgrid</i> Soumya K T, Vinay Kumar Jadoun, Jayalakshmi N.S,	166-171
30.	<i>Block-Chain Based Certificate Issuance & Verification</i> Rahul, U Akshay Maiya, Annapurna D, Shashank S	172-177
31.	<i>Feature Late Fusion Multimodal for Detection of Polycystic Ovarian Syndrome</i> Kanish Mittal, Brajesh Nandan, M. Suresh, R. Madhura, K. Vijiyakumar, Soubraylu Sivakumar, Mehdi Samieiyeganeh	178-183
32.	<i>Efficient Vehicle Community formation for profit maximization in Vehicular Cloud Computing</i> Mohamed Facil T R	184-189
33.	<i>Design of a Koch-Fractal inspired Monopole Antenna for C-band and RFID Applications</i> Srivardan B, Tushar Kumar Singh, Sachin Naachimuthu E, Santhoshbharadhan B, Dhev Karthik M, Tanmaya Kumar Das	190-194
34.	<i>Toward Sustainable Energy Strategies: An Ensemble Deep Learning Framework for Crude Oil Futures Price Forecasting</i> Akanksha Sharma, Tushar Babulal Nandeshwar, Chandan Kumar Verma	195-200
35.	<i>NeuroNexus: Federated Learning for Scalable Brain Tumor MRI Analysis</i> Aman Dubey, Dr. J. S. Yadav	201-206
36.	<i>Preserving Privacy in Marketing: A Comparative Study of Synthetic Data for Personalized Campaign Generation</i> Shailendra Kumar Mishra, Aryan Rai, Aditya Ranjan, Ananmay Lohia, Mihir S Arya	207-212
37.	<i>Design and Development of a Virtual Gaming Console using Deep Learning techniques for Hand Rehabilitation</i> Vrinda Acharya, Hirakjyoti Roy, Surekha Kamath, Aneesha Acharya K	213-217
38.	<i>Hybrid Model for Sentence-Level Text Stylization Using Deep Generative Networks</i> Manjula Gururaj Rao, Vaikunta Pai T, Tarani S Kulkarni, Vajapeyayajula Sreelasya, Pragathi S Rao, Sthuthi S	218-223
39.	<i>Avatar Closet: An Augmented Reality Based Multi- Modal Virtual Try-On System for Fashion Retail</i>	224-228

	Sushma Vittal, Babitha Ganesh, Guruprasad Bhat, Sneha Shanbhag, Swati Shet, Vasudeva	
--	-----------------------------------------------------------------------------------------	--