

2025 8th World Engineering Conference on Contemporary Technologies (WECON 2025)

**Rajpura, Punjab, India
10-11 October 2025**

IEEE Catalog Number:
ISBN:

CFP25G26-POD
979-8-3315-9362-9



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:	CFP25G26-POD
ISBN (Print-On-Demand):	979-8-3315-9362-9
ISBN (Online):	979-8-3315-9361-2

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

Impact of Milking Animals on Socio-Economic and Ethical Dimensions of Society	1
<i>D.K. Chaturvedi, Achal Mogla</i>	
Cache-Augmented Multimodal Sentiment Detection Using Embedding Systems	6
<i>V Srilakshmi, G Uday Kiran, S Sai Sreeja, V Varun Reddy, V Karthik, P Sridar Chowdary</i>	
Cache-Optimized Shared Embedding Space For Seamless Cross-Modal Search	11
<i>G Uday Kiran, V Srilakshmi, G Padmini, K Sri Snigdha, K Siva Praneetha</i>	
SmartEV: Bridging Charging Infrastructure Gaps with Machine Learning and Real-Time Interactive Navigation Systems	18
<i>Mallhar Karkhanis, Kanishk Jindal, Jeet Suchak, Hemlata Goyal</i>	
The Frontier of Emotion Detection: Advances, Open Issues and a Deep Learning Perspective	23
<i>Megha Kapalia, Amanpreet Kaur, Neha Sharma</i>	
Evaluation of Electropollution in Non-Gaussian Channels Using Non-Free-Space Propagation	31
<i>M Ravi Sankar, Gavini Sreelatha, Sreedhar Kollem, T. Venkatakrishnamoorthy, D. Maithili, M Dharani</i>	
Optimized QCA Implementation of Reversible Feynman, Toffoli, Peres, and Double Feynman Gates	37
<i>Saakshi P Aayasya, V Ramesh Kumar</i>	
Enhanced Partial Discharge Classification Using Ensemble Learning: A Comparative Analysis of Random Forest and XGBoost Approaches	43
<i>V C Rafeetha, Shashank H Joshi, G M Madhu, C Vyjayanthi</i>	
Efficient Real-Time Object Detection for Indoor Navigation Using Dual YOLO-SSD Networks and MobileNet Backbone	48
<i>N. Deepa, Manpreet Kaur, Maneesha Singh, Tanmaya Arora, Shivani Sharma, Sneha Kumari Eshaan Gupta</i>	
A Bibliometric Analysis of Trends of Machine Learning Research in Children's Mental Health and Online Gaming Disorder	55
<i>Swati Singh, Dharmendra Kumar, Vijaylakshmi Sajwan</i>	
A Novel Hybrid Machine Learning Strategy for Early Oral Cancer Detection	61
<i>Princy Tyagi, Santosh Rani, Shivani, Abhishek Saini</i>	
Palm2Precision: Anemia Detection through Palm Images	68
<i>R. Girija, Manpreet Kaur, Maneesha Singh, Alok Kumar, Naveen Gill, Aditya Nagar, Tanishk</i>	
Ultrasound-Based Thyroid Nodule Classification Using GoogleNet and Xception Ensemble with CNN-LSTM Hybridization	73
<i>Smitirekha Behuria, Sujata Swain</i>	
Identification of Factors behind High-Risk Pregnancies in Rural Punjab, India using Machine Learning	79
<i>Gurnoor Shergill, Gaganpreet Kaur</i>	
Memory-Aware Scheduling in Constrained Environments	85
<i>Bhavana Nare</i>	

Performance Evaluation of Plant Leaf Disease Detection using Structural Modification of the Traditional Convolutional Neural Networks	92
<i>Apoorva Sharma, Kalpna Guleria, Shagun Sharma</i>	
An Optimized Lightweight Deep Neural Architecture for Precise Localization and Classification of Oral Squamous Cell Carcinoma Lesions	98
<i>Shalini Nehra, Sudershan Singh Negi, Satyam Srivastava, Gaurav Purohit</i>	
A DNN-Driven Approach For Cyberattack Classification In IoT Systems Using Edge-IIoTset	105
<i>Banu Partap Singh, Ashu Taneja</i>	
A Noval CU-Shaped Antenna for Sub-6 GHz 5G NR n77 Applications	111
<i>Jeevan Jyoti, Nitin Kumar Saluja, Shivani Malhotra, Nitika Dhingra</i>	
Social Media Influence in Culinary Branding: The Role of Food Vloggers on YouTube	117
<i>Hansen Fernando Sugama, Jason Daniel Sutanto, Verrell Marsel Liandri Kartawaria, Dian Kurnianingrum Kania Alma Tiara</i>	
Nano Influencers and Their Impact on Beauty Product Purchase Intentions Among Gen-Z in Indonesia	122
<i>Levinka Esthaliani, Iston Dwija Utama</i>	
Evaluating Functional Coverage of Accelerator Design for DT-based ML Implementations	128
<i>Ayush Dixit, Raushan Kumar, Abhishek Yadav, Binod Kumar</i>	
Smart Bowl: A Smart and Efficient ESP32-Based Solution for Timely Pet Food Distribution	135
<i>Balthu Deekshitha, Gunda Srinija, Mohammed Irfan Ali, Harish Babu Gade, Venkata Krishna Odugu</i>	
A Secure Blockchain-Driven Model for Identity Preservation and Missing Person Tracing in Post-Disaster Scenarios	143
<i>Anil Gupta</i>	
Energy-Aware 2D FIR Filter Design Using Approximate Multipliers and Circular Coefficient Symmetry	149
<i>Venkata Krishna Odugu, Harish Babu Gade, U Appala Raju, Kancharla Suresh, Manish Kumar Singla Bharti Sharma</i>	
Measurement of Effective Atomic Number (Z_{eff}) and Electron Density in Superconductor (YBCO) accompanied by analysis of Am-241-Irradiated Zirconia	157
<i>Manoj Kumar Gupta, Bhavnesh, Baltej Singh Sidhu, Amrit Singh, Sanjay Kumar Singh, K. S. Kahlon</i>	
A Comparative Analysis of Deep Learning Approaches for Predicting Drug Target Interaction	163
<i>Shivani Bhargav, Surbhi Gupta</i>	
AI Driven Framework for Personalized Diabetes Assessment using Multimodal Clinical Data	168
<i>Nalla Navatha, Kachi Anvesh, Akula Revanth, Swati Singh, Cheruku Pramod, A. Ramesh Babu</i>	
Enhancing College Events with CEMS: A TechDriven Approach for Organization and Engagement	173
<i>Katukam Saketh, Ganesh B Regulwar, Lakkarsu Hemanth, M. Abhishek, Mittapally Neehar Kumar Sreenivasulu Gogula</i>	
Voice-Based Parkinson's Disease Stage Classification	178
<i>Gottumukala Gayathri, Ganesh B Regulwar, Sreeja Vanga, Arukala Pradeep, V.Muni Shekhar Nikhila Kathirisetty</i>	

Designing a Structured Educational Data for AI: A Dataset for Outcome-Based Learning and Assessment	184
<i>Javed Khan Sheikh, Hemant Kumar Soni</i>	
Optimizing Crop Recommendation Systems: A Multi-Domain Comparative Analysis of classification using Machine Learning	190
<i>Kachi Anvesh, Saroja Kumar Rout, Sumaiya Shaikh, Polisetty Swetha, Chinthala. Dhanalaxmi Tonta Ishverya</i>	
USDA-Unsupervised Domain Adaptive Prediction Model for Ischemic Stroke Assessment	196
<i>Manjeet Singh, Mehak Mengi</i>	
Real Time Object Detection using Yolo and Open CV	201
<i>Sumathi Pawar, K Suma, Geethalaxmi, Vasanth Nayak, K Ankitha, Prashanthi Ks</i>	
Deep Ensemble-Based Multi-Class Classification of Sports Injuries Using EMG and Kinematic Features	207
<i>Gurmeet Kaur, Yogesh Kumar</i>	
Predictive Modelling of Cardiovascular Disease Risk Based on Lifestyle Using Machine Learning Techniques	213
<i>Fardeen Mansoori, Harminder Kaur, Khushi Chauhan, Isha Jakhad</i>	
Optimized Image-Based Disease Detection: Evaluating the Effects of Preprocessing, Annotation Methods, and Dataset Variability	221
<i>Harold Y. Bangalisan, J. Adeline Sneha, V. Sivakumar</i>	
Enhanced Text Extraction from Low-Quality Legacy Documents Using TrOCR Assisted by Line Detection	230
<i>A Kirti Meghana, Harsh Gupta, Preeti Dubey</i>	
Lightweight QoS-Aware Workflow Scheduling for Efficient Task Execution in Cloud Environments	239
<i>Vishalika</i>	
The Effect of Gamification Features in Increasing User Interaction on Online Shopping Applications	245
<i>Fauzan Mohammad, Yogi Pratama Hutagalung, Adele Mailangkay</i>	
Cerebrovascular Disease Classification with LSTM Networks: A Deep Learning Framework for Discriminating Time-Series Signals	253
<i>Suryansh Malhotra, Nikita, Jyoti Yadav</i>	
Drug Identification using Graph Neural Network(GNN) for Cancer	258
<i>Beetukuru Madhavan, Appala Akhila, Bitla Pavan, M.A. Jabbar</i>	
Review of AI in Serious Games for Education based on STEM: Science, Technology, Engineering and Mathematics	263
<i>B Karthick, Meenu Khurana, Sushil Kumar Narang</i>	
Performance Analysis of Voltage-Controlled Ring, Current-Starved, and LC-Tank Oscillators in CMOS Phase-Locked Loop Design	272
<i>Abhishek Kumar, Kashish Thakur, Rajeevan Chandel</i>	
AI/ML based Modelling of Floating Offshore Wind Turbine Performance using Data Analytics within Python Framework	278
<i>Hemaraju Pollayi</i>	

A Fourth-Order Low-Power Filter With Improved Figure of Merit for Wearable Biomedical Applications	283
<i>Naman Garg, Diksha Thakur, Aryan Choudhary, Deepika Bansal</i>	