2025 International Conference on Electronics, Computing, Communication and Control Technology (ICECCC 2025)

Bengaluru, India
1-2 May 2025

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

Table of Contents

239	41_ECCC_PID_554	Time Series Monitoring of Urban Lake Health Using Sentinel-2 Satellite Imagery: A Case Study from
245	42_ECCC_PID_563	Real-Time Hand Gesture Recognition System using MediaPipe, Spiking Convolution Neural Network and Bi-
249	43_ECCC_PID_568	A Hybrid deep learning based approach for Malware Detection and Classification
256	44_ECCC_PID_582	Machine Learning-Based Estimation of Correlated Color Temperature from Raw Image Data
261	45_ECCC_PID_586	VIRTUAL CAR SHOWROOM USING AUGMENTED REALITY
266	46_ECCC_PID_589	A Hybrid Genetic Algorithm and Large Language Model Approach for Agricultural Products Price
272	47_ECCC_PID_602	Robust Pulse Shaping and Noise Suppression in Gamma Spectrometry via Particle Filter
279	48_ECCC_PID_608	Combating Misinformation with NLP: Advances in Fake News Detection
286	49_ECCC_PID_609	Tampering Detection and Encryption: A Deep Learning Approach for Video Security
292	50_ECCC_PID_619	Seamless Real-time MPPT Implementation on a Microcontroller using MATLAB Simulink Embedded Code
298	51_ECCC_PID_623	Advanced Deep Learning Models for Satellite Image Analysis and Classification
307	52_ECCC_PID_650	Semi-Pipelined CORDIC Framework: FPGA and ASIC Implementation for real-time Applications
313	53_ECCC_PID_666	ResNet Fusion with GAN Augmentation: A Dual-Powered Model for Grape Leaf Diagnostics
319	54_ECCC_PID_697	Unified Payments Interface (UPI): Fraud and Prevention Strategies
325	55_ECCC_PID_727	Enhancing Fingerprint Recognition Using Convolutional Neural Networks: A Robust Approach to Image
330	56_ECCC_PID_744	Image and Video Transmission in Wildlife Sanctuaries using LoRa Technology
335	57_ECCC_PID_750	Early Detection of Heart Blockages: The Power of AI and Feedforward Neural Networks
341	58_ECCC_PID_851	Spherical Fourier Neural Operators for Modelling Electrostatic Potential and Ion Transport in Electrolyte
347	59_ECCC_PID_862	Enhancing Breast Cancer Diagnosis: A Hybrid Approach Using Neural Networks and Explainable AI
354	60_ECCC_PID_937	Optimized Community Connect: Fostering Change Through your lens using random forest and
360	61_ECCC_PID_942	Minimizing power loss by lowering the decline rate of refractive index in optical fiber communication
366	62_ECCC_PID_945	Multi-Pose Virtual Try-On with Identity and Clothing Detail Preservation using ResNet50, VGG16 and
374	63_ECCC_PID_979	A Comparative Analysis of DNN architectures for State of Charge Estimation using Deep Neural Networks
3 7 9	64_ECCC_PID_998	Development of a Multi-Level Inverter with Fuzzy Logic Control for Grid-Connected Photovoltaic Systems
385	65_ECCC_PID_1011	A smart Wi-Fi enabled IoT framework for Fishermen tracking and Communication
390	66_ECCC_PID_1045	A Hybrid Approach Combining YOLO and Visual Image Transformers for Automated Mark Digitization of
397	67_ECCC_PID_1055	Optimization And Performance Analysis of Pass Transistor based Decoder Design Using 18nm FinFET and
403	68_ECCC_PID_1080	Unified Model for Crop Optimization: Leveraging Deep Learning and XGBoost for Optimized Crop
409	69_ECCC_PID_1086	Enhancing AI-based Diagnostic Accuracy for Multi-Class Skin Lesion Detection
415	70_ECCC_PID_1118	Prompt Injection in Large Language Model Exploitation: A Security Perspective
423	71_ECCC_PID_1120	Farm-to-Folk: Leveraging Machine Learning for Efficient Agricultural Production, Supply Chain
428	72_ECCC_PID_1122	Lemon Leaf Disease Recognition using Vision Transformer Networks
434	73_ECCC_PID_1130	Health Prediction Based on Day-to-Day Life Activity using Machine Learning Approach
442	74_ECCC_PID_1135	Predictive vs Descriptive Segmentation: Markov and K-Means Clustering for RFM Analysis
451	75_ECCC_PID_1138	Analysis of Approximate Multipliers using FinFET
458	76_ECCC_PID_1161	Software Based Performance Evaluation of Data Encryption Algorithms
463	77_ECCC_PID_1167	SMART GLASSES WITH VOICE ASSISTANCE AND GPS FOR INDEPENDENT MOBILITY OF THE BLIND PEOPLE
470	78_ECCC_PID_1220	Video Anomaly Detection in Crime Analysis Using DenseNet-121
476	79_ECCC_PID_1221	An Intelligent Framework for Early Detection of Brain Strokes Using VGG16 and SVM
482	80_ECCC_PID_1222	Decentralized and Intelligent Waste Management System Using Blockchain and AI
488	81_ECCC_PID_1226	Lip Visual-to-Speech Synchronization using a Hybrid Deep Learning model with Conditional Random Fields
495	82_ECCC_PID_1230	Deep Learning-Enhanced Stability Control for Renewable Energy-Based Microgrids
501	83_ECCC_PID_1232	Deep Learning Enhanced Neuro imaging for Early Alzheimer's Risk Assessment