## **2023 IEEE Fifth International Conference on Advances in Electronics, Computers and Communications (ICAECC 2023)**

Bengaluru, India **7-8 September 2023** 



**IEEE Catalog Number: ISBN**:

CFP2355W-POD 979-8-3503-0545-6

## Copyright © 2023 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:
 CFP2355W-POD

 ISBN (Print-On-Demand):
 979-8-3503-0545-6

 ISBN (Online):
 979-8-3503-0544-9

ISSN: 2640-8244

## 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 Content
Paper ID	Paper Title
1	Comparative study of popular Word embeddings and Deep Learning methods for tweets classification1
2	Fraud Detection in Banking Transactions using Ensemble Learning7
3	Designing a Full Stack Application for Integrated HORECA Management System: User-Centered Approach16
8	Sustainable Natural Resources Utilization Decision System for Better Society Using Vedic Scripture, Cloud Computing, and IoT23
9	Security and Privacy Aware Blockchain Technique for 6G Driven Vehicular Communication Network29
13	QuakeML: ML-Based Earthquake Prediction and Warning System35
16	Design and development of computational methodologies for Predicting Parkinson's Disease with Artificial Intelligence40
29	Camouflage surveillance system46
31	Optical Text Recognition in Nepali and Bengali: A Transformer based Approach51
62	A Comprehensive Survey of Cybercrime and Cybersecurity57
63	A Study of the ADHD-200 repository for Attention deficit Categorization using deep neural networks62
74	Space Exploration using Rover67
77	Water Speed Measurement Using Particle Tracking and OpenCV72
91	Energy Efficient Routing Protocol in Manet Using Eagle Search Algorithm77
94	Performance Analysis of Modified Dual Axis Solar Tracking System with LDR's for Home applications83
103	Virtual Meet Application with Content Recommendation88
113	Backtesting and Profitability Analysis of Algorithmic Trading Strategies94
119	Dynamic Hand Gesture Recognition for Video playback control101
125	Exploring the Cosmos: Utilizing Artificial Intelligence for Space Endeavors107
126	Phone Case Harnessing the Power of the Sun112
128	Implementation of Linear-regression based Machine learning model on a low-cost wearable microcontroller device for health emergency prediction117
129	A Survey of Speech Recognition Deep LearningMethods for Apraxia Of Speech DisfluencyIdentification Application121
130	Real Time Navigation System for Visually Impaired People126
134	Examination System Automation Using NLP131
136	Real Time Pothole Detection using Machine Learning and Edge Computing138
137	Semantic Segmentation of Aerial Images for Drones146
138 146	Weberator: A low code backend generator tool153
	Metaverse for RIT Campus – A 3D Tour158
147	Prediction of Diabetes Using Machine Learning Techniques163
148	LSTM based Hybrid Model for Improved E.coli Estimation in Laboratory Bioreactor167
155	Real-Time Vehicle Detection using YOLOv8 and Data Augmentation Approach172
157	Design and Implementation of Model Predictive Control for multilevel inverter based BDFIG-Wind power generation system under Grid Voltage Unbalance condition178

158	3D satellite visualization using the SGP4 algorithm187
161	Design and Evaluation of a Nanotechnology-Based Drug Delivery System for Enhanced Efficacy and Safety in Cancer Treatment192
165	Comparative Analysis Of Deep Learning Models For Human Fall Detection Using Skeleton Features From Video Surveillance System198
166	Speech Emotion Recognition using a Neural Network204
168	Critical Review on Heart Disease Prediction: A Machine Learning Approach208
172	Optical Character Recognition for Urdu Text: A Review of Techniques, Challenges, and Future Directions213
176	IoT-based Post-Surgical Monitoring System for Medical Rehabilitation221
177	First Principle Study on the Electronic and Optical Properties of KTaO3 for Optoelectronic Purposes229
179	The smart farming web application using Machine Learning approaches233
181	Emerging Paradigms: Student Perspectives on the Integration of Artificial Intelligence in Education248
182	Implementation of online real-time distributed machine learning254
183	A Survey on Use of Amazon Web Services by Engineering Students259
186	Biometric Door Access System Using Arduino265
187	Vision-Based Location Recognition for Visually Impaired People270
189	Fake News Detection Using Ensemble Approach277
191	Processing Delay Optimization for Data Intensive Applications for Fog/Cloud Computing using Double Reinforcement Learning283
201	Design and Optimization of Low-Power CMOS Inverter using LECTOR Technique with cadence288
202	Design of LQR Controller For a Flexible Launch Vehicle Using Modified Weighting Matrices292
211	Effective delivery of drugs to authenticated patients using Universal Robots298
217	Power Line Communication Based Sensor Data Acquisition & Monitoring System For Canal Automation302
223	Performance Analysis of FinFETs with different Fin structures311
225	Automated employee attendance monitoring using liveness face recognition and Geofencing in real time316
227	A Non-Invasive Method for Detection of Thyroid and Thyroid Dysfunction Diagnosis in Human Blood323
233	A Comprehensive Investigation on Real - Time Object Detection in Deep Learning329
242	Forecasting of Stock Volatility using Deep Learning Model with Likelihood-Based Loss Function334
244	An Adaptive Intrusion Detection System for IoT Networks using deep Learning340
253	Design and Analysis of Monopole Antenna with Band pass Filters346  A Fuzzy Controlled Interleaved Buck-Boost Power Factor Converter for Electric Vehicle Battery
233	
	Charging351
260 265	Charging351  A Compact Polyimide based antenna for 2.45 GHz WBAN Application357
260 265	
260	A Compact Polyimide based antenna for 2.45 GHz WBAN Application357

284	An Automated Workflow For Deepfake Detection385
291	GPS Based Automated Attendance System389
292	Health Fit system in Current Era using React JS394
297	Blockchain-Enhanced Privacy preserving Security scheme for Wireless Body Area Networks400
299	Assessing the performance of quantum gates in presence of Superposition state using IBMQ Server406
303	Performance Evaluation of Machine Learning Regression Algorithms for Soil Nitrogen Estimation411
306	Comparing Methods For Detecting And Mitigating Bias In Machine Learning Models416
313	EV's Battery Monitoring and Emergency Suppression system422
316	Investigation of Low-Cost Heater Configurations for Indium Tin Oxide-Based Gas Sensors427
321	Development of a Programmable Neuromuscular Electrical Stimulator432
339	NER for Extracting Tourist Attractions from Textual Information: A BERT-BiLSTM-CRF Approach436
341	IoT based Implementation of Gesture-Controlled Robot441
343	Stroke Prediction Using Machine Learning446
346	Traffic Sign Recognition using Convolutional Neural Network451
347	Double Reinforcement Learning Based Interactive GAN for Detection of Volumetric Attacks in Cloud Computing456
348	Network Based Analysis for Hiv-1 Significant Protein through Drug-Target Interaction: bioinformatics practices462
252	
353	Tamil Palm Leaf Character Recognition through Explainable AI: A Deep Learning Perspective470
354	A Scenario Based Data Catalogue For Autonomous Driving Assistance Systems Using Clustering477
356	ONE STOP MENTORSHIP (OSM) – A MOBILE APPLICATION FOR CAREER DEVELOPMENT483
357	SPYPARK- THE INNOVATIVE MOBILE APPLICATION FOR ONLINE PARKING RESERVATION488
358	Design and Development of a Visual - SLAM based Automated Guided Vehicle494
361	A Low Voltage And Low Power Analog Multiplier501
362	A Comparative Analysis And Classification Of Telugu Characters Extracted From Palm Leaves505
363	Enhanced Fusion Approach to Diagnose ILD and Improve Patient Outcomes511
364	Handwritten Character Recognition for Telugu Palm Leaf Images using Convolutional Neural Network517
365	Layout Analysis of Malayalam Palm Leaf Images with Fully Convolutional Networks525
366	Detection of Lung Cancer using Deep Learning based Convolution Neural Network Models532
368	Innovative Solution for Electric Vehicle Charging: The Hybrid Renewable Energy- Based Charging Station537
369	EVALUATION OF PERFORMANCE OF PV PANEL USING HYBRID COOLING TECHNIQUE544
370	Comparative Analysis of Deep Learning Models for Fashion Recommendation in E-commerce549
372	Anomaly detection in load forecasting using ARIMA and Autoencoder555
374	Improving Cardiovascular Prediction with Advanced Machine Learning and Deep Learning Approaches561
377	Land Registration System Using Blockchain – A Decentralized Application with IPFS & Ethereum567

378	SafeCuff: An Automated Cuff Pressure Monitoring and Control System for Enhanced Patient Safety
379	Enhancing Performance in Heterogeneous Computing: A Comparative Study of CUDA on GPUs and CPUs577
380	Scalable Design and Implementation IP for Advanced Extensible Interface (AXI) Protocol583
381	A Deep Learning Approach to Face Detection and Recognition in Group Photos Using OpenCV587
382	Design and Analysis of a Novel Sample and Hold Architecture Based on D-Latch: Performance Evaluation and Comparative Analysis591
384	Exploratory Data Analysis and Explainable Machine Learning for Classification of Maternal Health Risk Levels597
385	DFIR-Net: Convolutional neural networks with deep learning for content-based image retrieval605
391	A Novel Low-Dropout Regulator Architecture for Fast transient Response With Impedance Adaption in 9 nm CMOS Process609
392	Real Time Twitter Analytics with Apache Storm614
393	Enhancing Reversed Nested Miller Compensation of Three Stage Amplifier using Self Cascode and Fo Flipped Voltage Follower620
398	Improved Cybersecurity Framework based on truckingc heuristics algorithm for Detecting Malicious Devices in Fog Computing and Internet of Things (IoT) Environments624
402	Intrusive Detection in Nuclear Systems using Supervised and Unsupervised MI Methodologies633
405	Segmentation of Retinal Pigment Epithelium Layer in Retinal OCT Images639
411	Ensemble Learning Approach for Anomaly Detection in Crowd Scene Classification645
412	Design & Simulation Modelling of Constant Current & Constant Voltage Type of DC Fast Charging for Electric vehicle656
417	A novel approach to data hiding using high payload capacity661
425	Optimizing Dynamic Voltage Restoration: A Hybrid Approach with SMES Emulator and Battery Storage666
431	Implementing Strategic Games through Unity Framework672
434	Acute Lymphoblastic Leukaemia Diagnosis using EfficientNet B3 Transfer Learning Model678
437	FADA: Flooding Attack Defense AODV Protocol to counter Flooding Attack in MANET684
441	Exploring the Terrain: Mapping Keyword Co-Occurrence in Blockchain and Smart Contracts for Healthcare691
443	Breast Cancer Screening from Histopathology Images using Pre-trained Sequential Model696
447	Unveiling the Metaverse: A Paradigm Shift in the Future of Internet Interaction700
449	Optimization of Machine Learning Algorithms for Diabetes Prediction706
458	Exploratory data analysis of Vector Borne Diseases using Random Forest, Gradient Boosting, AdaBoos and XGBoost Pre-trained Models712
459	Yoga Pose Classification Using Input Image Dataset and Fine tuning it on MobileNet Model with Adade Optimizer717
462	Deep Learning-Based Approach for Pomegranate Fruit Bacterial Blight Disease Detection using Convolutional Neural Networks722
463	An Intelligent Deep Convolutional Neural Network for Classification of Coconut Leaf Disease728
466	A Comprehensive Review on Steganography Techniques for Text, Images and Audio734
	An approach to Analyzing the importance of Air Quality, Soil humidity and PH Level using WSNs in the