

2025 6th International Conference on Advancements in Computational Sciences (ICACS 2025)

**Lahore, Pakistan
18-19 February 2025**



**IEEE Catalog Number: CFP25FUA-POD
ISBN: 979-8-3315-3304-5**

**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:	CFP25FUA-POD
ISBN (Print-On-Demand):	979-8-3315-3304-5
ISBN (Online):	979-8-3315-3303-8

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

Contents

1	Advancing Wi-Fi Intrusion Detection Systems with Machine Learning Techniques for Enhanced Classification of Wireless Attacks	1
2	Faceswap Finder: A Fusion-Based Deepfake Detection Technique	8
3	Enhancing IoT Healthcare Security with Post-Quantum Cryptography: A Performance and Case Study Analysis	14
4	A Predictive Model for Early Effort Estimation of Mobile Games	22
5	Physical Exergames Movements and Pattern Recognition using Convolutional Neural Network	29
6	Enhancing Credit Card Fraud Detection with Hybrid Sampling and Machine Learning Models	37
7	Programming for the Next Generation: Transitioning from Traditional Models to Large Language Models in Coding Education for Kids	44
8	Optimizing Cervical Lesion Detection Using Deep Learning with Particle Swarm Optimization	50
9	Hybrid Deep Learning Aerial Framework for Road Scene Objects Segmentation and Classification	57
10	Detecting Cross-Domain Ambiguity in Requirements through Natural Language Processing: A Systematic Literature Review	65
11	A Proposed Software Deployment Model (SDM) for IT Practitioners	72
12	Analyzing and Visualizing Urdu News Articles Using NLP and Concept Graphs	79
13	Hybrid Human Interaction Recognition Using Feature Extraction and Deep Neural Network	84
14	Microaneurysm Detection for Early Diagnosis Using Advanced Image Processing and a Lightweight Feature Pyramid Network	92
15	Deep Learning and Shape-Driven Combined Approach for Breast Cancer Tumor Segmentation	99
16	Multimodal Deep Learning Framework for Enhanced Semantic Scene Classification Using RGB-D Images	105
17	Evaluating Feature Prioritization in a Reduced Feature Set Using Explainable AI for Intracranial Aneurysm Classification	113
18	A Lightweight Approach for Detection of Software Design Smells	120

19 Drone Surveillance for Intelligent Multi-Vehicles Monitoring and Classification	124
20 Towards a Stable Cluster-Based Routing Algorithm for Safety Traffic Communication in Vehicular Ad Hoc Networks	130
21 Enhanced Sign Language Recognition and Translation Framework Utilizing CNN-LSTM for Healthcare Integration	138
22 BAP: Innovative Approach to Integrate Machine Learning for Researcher's Ranking through Parameters Assessment	146
23 Intelligent Transportation Surveillance via YOLOv9 and NASNet over Aerial Imagery	153
24 IoT-Based Smartphone Sensors for Accurate Locomotion and Localization Recognition	161
25 Disabled Rehabilitation Monitoring and Patients Healthcare Recognition using Machine Learning	168
26 Implementation of Lean Management in Software Project Management	175
27 Automated Software Requirements Prioritization Using Natural Language Processing	180
28 Reversing the Irreversible LSB Steganography: Transformative Advances in Reversible Data Hiding	187
29 Off the Grid and Under the Radar: The Next Generation of Digital Privacy Tools	195
30 Mastering Concealment: Dual-Veil and the Evolution of Secure Data Transmission	203
31 LSB Matching Steganography: Elevating Security Beyond Conventional Boundaries	211
32 Tuning Language Models for Medical Interviews with Pediatric and Juvenile Patients	219
33 Improving Text Classification by Fusing Linguistic and Semantic Features	227
34 Multi-Vehicles Classification on Aerial Images using ResNet and Transformer Networks	235
35 Indoor Smart Home Action Recognition over Multi-videos Surveillance System	242
36 Wearable Sensors-based Activity Classification for Intelligent Healthcare Monitoring	249

37 Enhancing Mobile Usability: Heuristics for Reducing Battery Consumption	256
38 Human Emotion Recognition from EEG-brain Signals using Enhanced Machine Learning Method	264
39 A Comparative Analysis of Machine Learning Algorithms for Facial Paralysis Detection	271
40 A Meta-Model to Support Compatibility Testing of Cross-Browser Web Application	278