

2024 International Conference on Computational Intelligence and Computing Applications (ICCICA 2024)

**Samalkha, India
23-24 May 2024**



**IEEE Catalog Number: CFP24AR0-POD
ISBN: 979-8-3503-0645-3**

**Copyright © 2024 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:	CFP24AR0-POD
ISBN (Print-On-Demand):	979-8-3503-0645-3
ISBN (Online):	979-8-3503-0644-6

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

C O N T E N T S

	<i>Chief Patron, Patrons, Chairs and Co-Conveners</i>	
	<i>Editorial Board, Advisory Committee, Technical Programme Committee, IEEE Oversight Committee, Local Organizing Committee and Website / Content Development Committee</i>	
	<i>Preface</i>	Page No
1.	Pre-Examination of Breast Cancer Dataset Using Exploratory Data Analysis (EDA) Approach Tajinder Kumar,Manoj Arora,Vikram Verma,Sachin Lalar,Shashi Bhushan	1
2.	National Telecom Volunteer: Utilizing A Machine Learning Model To Predict Cellphone Network Coverage Using Big Data Analysis From Data Collected Through Crowdsourcing Himanshu Sharma,Atul Joshi	8
3.	Machine Learning Role in Internet of Things (IoT) Based Research: A Review Gaurav saxena, Priyank singhal, Vipin Khattri	18
4.	Federated Learning Empowered Breast Cancer detection in Images: A YOLO and ResNet-50 Fusion Approach Naresh Kumar Trivedi,Sachin Jain,Suresh Kaswan,Vishal Jain	24
5.	Human-Artificial Intelligence Collaboration in HR: Applications and Challenges Neema Gupta,Mukesh Joshi,Ambuj Kumar Agarwal,Muklesh Kumar Tiwari	30
6.	Hybrid Radial Basis Function and Support Vector Machine Model for Precise Breast Cancer Diagnosis Rishabh Sharma,Praney Madan,Shanmugasundaram Hariharan,Shubham Mahajan	35
7.	Deep Learning-based Multiclass Skin Disease Classification: Comparative Assessment of VGG19, YOLOv3, and MobileNet Rishabh Sharma,Pancham Cajla,Shanmugasundaram Hariharan,Shubham Mahajan	39
8.	Improving Public Security: Application of YOLOv7 for Vehicle Detection Rishabh Sharma,Prabhat Sharma,Shanmugasundaram Hariharan,Shubham Mahajan	43
9.	Stock Price Prediction Using ARIMA: A Study on AAPL, MSFT, NFLX, and GOOGL Stocks Rishabh Sharma,Rajeev Sharma,Shanmugasundaram Hariharan	47
10.	Dehazing Algorithms for Improved Visibility: Comparative Analysis Vinay Uniyal,Sanskar Baluni,Anupam Kothari,,Sachin Aswal,Vikrant Sharma,Satvik Vats	51
11.	AI Guardian on the Road: Harnessing Machine Learning for Two-Wheeler Helmet Detection Kartikeya Bhatt,Abhishek Joshi,Gaurav Singh,Vikrant Sharma,Satvik Vats	59
12.	Ultrasonic Based Engine Oil Condition Monitoring System Neeraj Khera,Anitya Saxena,Manik Chowdhary	65
13.	Optimizing Cloud Applications with DevOps Ishu Gaur,Srishti Rai,Utkarsh Tiwari, Shiraz Khurana	68
14.	Optimizing Crop Predictions: A Machine Learning Approach Incorporating Environmental Parameters and Nutrient Management Aditi Sabharwal,S. R. N. Reddy	75

15.	Towards Robust Fake News Detection: An Empirical Investigation of Preprocessing and Modeling Techniques Anirban Porya, Varun Singh, Bam Bahadur Sinha	80
16.	Revolutionizing Cyber Security Incident Response with Smart Contract Shanu Khare, Vinod Prakash, Navjot Singh Talwandi, Punit Soni, Surender Kumar	86
17.	Classification of Electroencephalography Bio Signals based on Motor Imagery Rashika Balachndran, Irraivan Elamvazuthi, Azrina A Aziz, Amaramalar Selvi Naicker, Khoo Ching Soong, Hanani Abdul Manan, Elango Natarajan, Upasana Lakhina	91
18.	Enhanced Decision Support System for Financial Risk Assessment Using Hybrid Fuzzy Logic and Machine Learning Taranjot Kaur, Kavita Rani, Payal Thakur, Navjot Singh Talwandi	97
19.	Predicting Landslides with Machine Learning: A Data-Driven Approach Karan Sarawagi, Khushwant Viridi, Navjot Singh Talwandi	103
20.	MultiPhased Technique for Enhancing Security in Data Center Environment Ashishkumar Gangwar, Upasana Lakhina, Rashmi Vashisth	109
21.	A Review of Conventional Techniques used for Optimized Utilization of Resources in Blockchain Network SUNNY KUHAR, Sukhdip Singh	117
22.	Deep Learning for accurate Plant Disease Classification using RESNet50: A Comprehensive Approach Manish Kumar, Abhilaksh Arora, Arnab Deb, Anup Lal Yadav	125
23.	NLP-Enabled Bot for Managing Third-Party Risk Yash Mohta, Umang Singh, Ashima Arya	131
24.	Evolving Landscapes: A Comprehensive Analysis of Educational Technology Websites and Strategies for Enhanced Effectiveness Akash Bulla, Shivam Pandey, Diwakar Tiwari, Anup Lal Yadav	136
25.	Bibliometric Mapping of Theme and Trends of IoT and Cloud in the Field of Education Gaurav Sharma, Vikas Juneja, Savita Khurana, Ritu Sheoran	142
26.	An Enhanced DarkNet53-based YOLOv3 Feature Pyramid Network for Real-Time Object Detection Shagun Sharma, Kalpna Guleria, Sunita Tiwari, Sushil Kumar	148
27.	An Early Detection of Parkinson's Disease using Machine Learning and Deep Learning Models Shagun Sharma, Kalpna Guleria, Rajni Sobti	154
28.	Kidnapped Vehicle Using Particle Filters-Self-Driving Car Nanodegree Dr Sunil Dhull, Payal Thakur, Yashwant Singh Sangwan, Navjot Singh Talwandi, Rajender Kumar, Surender Kumar	160
29.	Impact of Tuning Parameters for Diagnosing Knee Osteoporosis: A Comparative Study Saumya Kumar, Puneet Goswami, Shivani Batra	164
30.	Design and Development of Visual Error Detection System (VEDS) Leveraging Convolutional Neural Networks for Early Detection of Ocular Abnormalities to mitigate vision-related complications Kaivaram Sivarama Krishna, Bommala Deepak Kumar, Morumpalli Deekshith Reddy, Ch. Saketh, Sreevidya B., Rajesh M.	170

31.	Design and Development of a Secured Framework equipped with GI Tagging and Blockchain for enhanced data security and transparency in healthcare operations, for effective management of resources in Government Hospitals Anjali Chennupati,Bhamidipati Prahas,Bharadwaj Aaditya Ghali,Sreevidya B.,Rajesh M.	176
32.	A Critical Analysis for Detection of Parkinson's Disease Based On Voice Signals Prabhjot Kaur,Meenu Gupta,Rakesh Kumar,Ahmed J. Obaid	181
33.	Securing Sustainable Energy Trading: An RSA-Encrypted IoT Solution for Smart Meter Data Transmission Vipina Valsan,Keerthan K K,Devnath N S,Anirudh Ajithkumar,Adarsh Sasikumar	187
34.	Performance Evaluation of Cotton Leaf Disease Detection Using Deep Learning Models Gulbir Singh, Ritu Aggarwal, Vivek Bhatnagar, Suneet Kumar, Shiv Ashish Dhondiyal	193
35.	Role of AI in Enhancing Health Insurance Penetration in Rural India Gulbir Singh, Ritu Aggarwal, Suneet Kumar, Shally Nagpal, Shiv Ashish Dhondiyal	198
36.	Malware Detection in IoT Devices Using Machine Learning Deepika Singh,Dr Shiraz Khurana	203
37.	AI-Driven Stress Analysis and Management: A Novel Approach Leveraging OpenAI and NoSQL Databases to empower students in Stress Management and promote Overall Student Well-being and Academic Progression B.Akhileswar Reddy,G.Someswara Reddy,K.Lokesh,Sreevidya B.,Rajesh.M	210
38.	Multimodal Data Extraction & Fusion for Health Monitoring System and Early Diagnosis Kulvinder Singh,Piyush,Ritik Kumar,Sonal Chhabra,Nidhip Goomer,Aanchal Kashyap	216
39.	Enhancing the Security of Multimodal Fused Data with Blockchain Piyush,Kulvinder Singh,Ritik Kumar,Sonal Chhabra,Aanchal Kashyap,Nidhip Goomer	221
40.	ENHANCING CROP PRODUCTIVITY THROUGH EARLY PLANT DISEASE IDENTIFICATION Deepanshu Goel,Anshul,Garvit Chauhan,Aditya Singh,Meeta Chaudhary	226
41.	AI-Powered Energy Consumption Optimization for Smart Homes Using IoT Naman Raj,Amisha Sinha,Shubhansh Bharddwaj,Anup Lal Yadav	231
42.	AI-Driven Sleep Apnea Detection and Prediction Kulvinder Singh,Aashita Mehta,Akshat Chaudhary	237
43.	A Proposed Method to Extend One-Bit of the Parallel Interface in A Digital to Analog Conversion Circuit by Adding an External Device Hatesh Shyan,Manisha,Kulvinder Singh	242
44.	Predicting Mobile Prices with Machine Learning Techniques Deepak Singh Rana,Shiv Ashish Dhondiyal,Sumeshwar Singh,Sanjeev Kukreti,Ashish Dhyani	248
45.	Adversarial Threats in Machine Learning: A Critical Analysis Suman Chahar,Isha Dhingra,Sonali Gupta,Kuldeep Singh Kaswan	253

46.	Flood Risk Analysis through Computer Vision and Geometric Correction Approach Nita Nimbarte,Tanmayee Gedam,Bharati Masram,Archana Tiwari,Sanjay Balamwar	259
47.	Hybrid Algorithm to Upgrade Voltage Stability Index and Real Power Loss Reduction Using Reconfiguration in Radial Distribution System Surender Singh,Ravi	263
48.	Secure Communication over IoT Networks using Mutual Authentication Dinesh Chander Verma,Amit Chopra,Kanika,Vinita Kaushik,Jaspreet Kaur	269
49.	Improving the Longevity of Wireless Sensor Networks(WSNs) via FCMA: Fuzzy-C Means Clustering with A-Star Approach Esha Rani,Ashwani Kush	275
50.	AI for Tourism: Pioneering New Frontiers in the Industry Mitu Sehgal,Ashima Arya,Shivani Gaba,Shally Nagpal	280
51.	Comparative Analysis of Deep Learning Approaches for Detecting Copy-Move Forgery VIJAY BHARTI,DR ROHINI GOEL	286
52.	Effective Machine Learning Model for Disease Identification and Classification of Mango Leaves Sandeep Kumar,Bhupesh Gupta,Richa Grover,Mohit Chhabra	292
53.	Air Quality Monitoring System for Campus Sustainability Shilpi Gupta, ,Rajat Gupta, Puranjan Sharma, Neeraj Gupta	297
54.	Survey of Cloud Computing with Role of Machine Learning Meenakshi Chaudhary, Puneet Banga	303
55.	Knowledge Navigator – Guiding You Through Your Learning Journey Using AI Anup Lal Yadav,Navjot Singh Talwandi,Sunny Kuhar,Munish Kumar	309
56.	DocAssist: Signature Perception system using Deep Learning Pooja Sharma,Ishika Miglani,Lucky	317
57.	YTBlend: YouTube Video Recommendations System Kulvinder Singh, Tanu Sharma, Anup Lal Yadav, Jaya Rani	323
58.	Hyperspectral remote sensing of Forest fire Breakouts: A review Ms.Pooja Dahiya, Kavita Rathi	329
59.	Advance Facial Analysis: A Hybrid Approach with CNNs, SVMs, and Random Forest for Age and Gender Estimation Kulvinder Singh,Balkar Singh	335
60.	IoT Driven Bioelectrical Signal Detection and Monitoring System Megha Chakole,Ishwari Ainchwar,Vaishnavi Budhe,Anikeit Babhale,Atharav Katolkar,Sanjay Dorle	341
61.	Deep Learning-based Enhanced Security in Cyber- Physical Systems: A Multi-Attack Perspective Sandeep Singh Bindra,Alankrita Aggarwal	347
62.	Tokenizing Art Unpacking the Impact of Non-Fungible Tokens (NFTs) on Ownership Paradigms Atishay Jain,Megha Joshi,Adarsh Kumar Rishiraj,Prabhjot Kaur	353
63.	DevConnect: Knowledge Sharing Social Platform Mayank Jindal,Rahul Tomer,Deepti Dhingra,Anju Gandhi,Aakanksha Mahajan	361

64.	CodeXchange: Leaping Into the Future of AI-Powered Code Editing Mihir Agrawal,Jatin Goyal,Mradul Goyal,Pratham Sukhija,Jaya Sharma,D.Franklin Vinod	367
65.	Blockchain-powered Healthcare: Revolutionizing Security and Privacy in IoT-based Systems Deepak Singla,Sanjeev Kumar,Deepti Dhingra,Anju Gandhi	375
66.	Emotionally Intelligent EdTech: A CNN Perspective Mehak Goel,Akshat Mittal,Mitu Sehgal	381
67.	Elegant Techniques and Methods for Blockchain-Powered Electronic Voting Systems Parvez Rahi,Ajay Pal Singh,Inderjeet Singh,Manav Verma,Mannat Thakur	387
68.	A Hierarchical Multi-modal Content-Based approach to Graph-based Recommendation System Sorabh Gupta,Amit Kumar Bindal,Devendra Prasad,Neeraj Raheja	394
69.	LSTM Networks for Improved Stock Price Prediction: A Comparison of Apple, Microsoft, and Amazon Stocks Inderjeet Singh,Suvigya Yadav,Yash Mahajan,Mohd. Vaqui,Ekansh Bhardwaj,,	400
70.	Artificial Intelligence in Pharmaceutical Drug Delivery Gaurav Agrawal,Shiva Tushir,Sonia Narwal,Daisy Arora,Kavita Sangwan,,	406
71.	An Effective Stage of Preprocessing Design for Identifying Mango Leaf Disease via Hybrid Filtration Urvinder Kaur,Sandeep Kumar,Harinder Kaur,Rashmi Makkar,Suman Kumari,,	411
72.	Inferencing Age and Gender from Facial Images Deepakshi Singhla,Nitisha Aggarwal,Neeraj Gupta,,,	418
73.	Motor Imagery Features Selection with Grey Wolf Optimization for Brain Computer Interface Pawan,Rohtash Dhiman,Jasbir Singh Saini,Ankur Saxena,Vikash Sharma,,	424
74.	Taxonomy of Diverse Soft Computing Techniques for Various Applications Harinder kaur, Neeraj Raheja, Amit Kumar Bindal,,,	429
75.	A Comparative Analysis for Short and Long-Term Time Series for Energy Consumption Predictions Neetu Chauhan, Shweta Bansal, Meenakshi Malik,,,	436
76.	TriMod Fusion for Multi-Modal Lung Tumor Diagnosis Dr Vinod Kumar,Dr Upasana Lakhina,Dr Bharti,Er Prabhneet Singh,Er Ankita Sharma,,	442
77.	Enhancing E-Commerce Engagement: Exploring AR and VR-Based Marketing Strategies Ritesh Raj,Kuldeep Kumar,Aditya Prakash,Abhishek Kumar,Sujata Kumari, Guddu Kumar	448
78.	Potential of Artificial Intelligence in Healthcare Sector Suman Khurana,Ajay Malik,Sonia Narwal,Gaurav Agarwal,Kavita Sangwan,,	454
79.	Intelligent Crop Selection and Soil Nutrient Management Using Machine Learning sujal sethi,upasana lakhina	459
80.	Exploring EMG Signals for Prosthetic Control and Gesture Recognition: Advancements, Applications, and Future Directions Sweety Tushir,Neetu Verma,Krishan Kumar	465

81.	Optimizing Handwritten Digit Recognition with CNN and Data Augmentation Strategies Anjani Gupta,Dhyanendra Jain,Parul Phoghat	470
82.	Enhancing Breast Cancer Diagnosis with Logistic Regression Pratham Singh Rana, Kalpana, Soham Kr Modi, Chahat, Anup Lal Yadav	476
83.	Translation English To Punjabi: A Concise Review of Significant Approaches Muskan Srivastava,Nishchay Malik,Adarshita Gupta,Megha Chhabra,Shaveta Khepra,Ali Imam Abidi	483
84.	Integrating NLP with Random Forest for Emotion Detection Mansi Bhati,Kanika Sharma, Dhyanendra Jain, Anjani Gupta,Shruti Agarwal	489
85.	Comparative Study of General Intelligence in relation to Adaptive Intelligence with Impact of Adaptive Learning on Learners Archana Sharma, Purnima Gupta,Abhihek Mishra	495
86.	Innovative Deep Learning Methods for Soil Classification and Crop Yield Prediction Soham Kr Modi,Chahat Garg,Anup Lal Yadav,Kalpana Garg,Pratham Singh Rana	502
87.	Smart City: Practice of Artificial Intelligence, Robotics and Internet of Things Suresh Chand Gupta,Deepak Kumar,Ved Parkash,Sandeep Singh Bindra	509
88.	Exploring Innovations in Speech Recognition: An in-depth Analysis and Real-world Applications Dishank Kumar Yadav,Chirag Sharma,Archay Singh,Dev Sriwal,Sanjeev Kumar	514
89.	Virtual Drive: Immersive VR-Controlled Car with Real-Time Interaction and Live Video Feed Shweta Jain,Anju Gandhi,Stuti Mehla,Rishit Aggarwal,Tanu Kwatra	519
90.	Recommending Graduate Admission Using Ensemble Model Namrata Sukhija,Dr Mainaz Faridi	526
91.	eKart: A Cloud-Based E-commerce Platform for Shopping deployed on AWS Gogineni Ashrith Sai,Konda Reddy Balaji Reddy,Kothuru Gurunadh,Thanakanti Ganesh Madhav, Beena B.M,	531
92.	Real-time Detection of Students' Cellphone Usage During Lectures and Behavioral Analysis Geetanjali Kale,Atharva Choudhari,Rushi Balapure,Samiksha Sarode,Madhuri Wakode	536
93.	Exploiting the domain of Deep Learning for Brain Tumor Classification: A Comprehensive Overview Vikram Verma,Alankrita Aggarwal	541
94.	Crop Yield Prediction using Remote Sensing: A Review Mamta Kumari, Suman, Devendra Prasad	547
95.	Utilising Deep Learning Convolutional Models for the Classification of Brain Tumors in Human Through Image Analysis Nishith thakkar,Devanshu pathak,Harin thakkar,Dr Shanti Verma	553
96.	Impact of Climate Change on Rainfall Pattern by using Ridge Regression Analysis Rahul Grover,Siddhartha Sharma	558
97.	Utilizing Fuzzy Logic in MATLAB for visualizing Risk Factors associated with Cardiovascular Attacks Parvez Rahi,Ajay Pal Singh,Inderjeet Singh,Mannat Thakur,Yash Mahajan	564