2023 International Conference on Device Intelligence, Computing and Communication Technologies (DICCT 2023)

Dehradun, India 17-18 March 2023



IEEE Catalog Number: ISBN:

CFP23CJ9-POD 978-1-6654-7492-4

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:	CFP23CJ9-POD
ISBN (Print-On-Demand):	978-1-6654-7492-4
ISBN (Online):	978-1-6654-7491-7

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

S.No.	Paper Title	Page No.
1.	Comparative Study of Various Breath Assist Devices and the Effect of Sleep Apnea (SA) Among the Indian Population.	1-6
2.	Internet of Things (IoT) Based Cost Effective Weather Monitoring Station.	7-11
3.	Machine Learning Based Techniques for Node Localization in WSN: A Survey	12-17
4.	Impact of Ge Mole Fraction on the Performance of Si1-xGex/InAs Charged Plasma-Based JLTFET	18-21
5.	Impact of Parasitic Resistance on Modelling and Performance of Solar Photovoltaic Module	22-27
6.	FPGA Implementation of Chaotic Oscillators	28-33
7.	4-trit CNFET-based Arithmetic Logic Unit	34-38
8.	10-bit SAR ADC for Biomedical Sensor Applications	39-43
9.	In-Memory Half Adder Computation using CNTFET transistors in 8T SRAM	44-49
10.	Absorber Layer Doping Concentration Optimization of Lead-Free Cs2CuSbCl6 Perovskite Solar Cells for Improved Efficiency.	50-53
11.	A Paradigm Shift towards Computer Vision	54-58
12.	Performance evaluation of FiWi based OCDMA system	59-62
13.	Unmanned Aerial Vehicles (UAVs): Evaluation of OLSR, DSDV, AODV, and DSR Dynamic Routing Protocols	63-68
14.	The Enhancement in Road Safety using Different Image Detection and Recognition Techniques: - A State of Art	69-74
15.	Design of Frequency Domain Metric for Evaluation of Mode Decomposition Algorithms	75-79
16.	High Gain, Compact Design Integrated With FSS As Superstrate In Patch Antenna For Sub6 Ghz 5G Application	80-85
17.	Applications of IoT in Retail: A Systematic Review	86-89
18.	Monitoring flash flood using Optical and Microwave Sensor dataset:- A case study of Cachar district, Assam (India)	90-94
19.	Design and Investigation of Stacked Nanosheet Transistor Parameters for Analog Performance	95-99
20.	Effect of Wfin, Hfin and Lg on the performance of 14-nm FinFET for analog and RF applications	100-104
21.	Analysis of Heart Disease Prediction using Various Machine Learning Techniques: A Review Study	105-109
22.	Recent Advancements in Structural Health Monitoring using Optical Sensor	110-114
23.	Comparative Analysis of Static and Mobile Anchors in Sensor Localization	115-120
24.	Review and Performance Analysis of Inductorless Charge Pumps for Low-Power Applications	121-124

25.	Implementation of Digital Applications Using Efficient CML based designs	125-130
26.	Isolation Enhancement in a Two-Element MIMO Antenna Using Electromagnetic Metamaterial	131-135
27.	A Low Power Feedback Cutting 8T SRAM Cell for Improved Stability	136-140
28.	Analysis of AlGaN/GaN Interface Traps in Enhancement-mode p-GaN HEMT	141-145
29.	Algorithm Trading through Application Programming Interface (API) in Indian Stock Market	146-149
30.	Simulation Study of a Compact UWB Antenna for Detection of Breast Tumors using Microwave Imaging Technique	150-154
31.	Enhancement of Security Posture in Smart Farming: Challenges and Proposed Solution	155-159
32.	Analysis of Attack Patterns and Cyber Threats in Healthcare Sector	160-165
33.	Performance Evaluation and Analysis of IoT Network using KNN and SVM	166-170
34.	A Characterization Study of Mutual Coupling between Rectangular Microstrip Patch Antennas	171-175
35.	Design Process Of Wideband Power Amplifier In The L-Band Frequency Range	176-181
36.	Development of IoT Enabled Framework for LPG Gas Leakage Detection and Weight Monitoring System	182-187
37.	Ev-MDP : A Novel Metaheuristic Technique for Heart Disease Detection	188-191
38.	Secrecy Outage Probability of NOMA Network under Amplify-and-Forward Scheme	192-196
39.	Distribution of Nanomachines over Nano-networks	197-202
40.	Disorientation of Path of Birds Due to Electromagnetic Waves	203-207
41.	A study on intensity of sound for variable frequency (165Hz to 210Hz)	208-211
42.	The Future IoT: The Current Generation 5G and Next Generation 6G and 7G Technologies	212-217
43.	Python And Opencv For Sign Language Recognition	218-222
44.	Dynamics of business and opportunities for employability using predictive modeling tools of Machine Learning and R programming	223-228
45.	Effect of channel Variation on DC Performance parameters of MOS and DTMOS technologies	229-233
46.	Dimensionality Reduction of Multivariate Images Using the Linear & Nonlinear Approach	234-237
47.	Ring Oscillators based All Digital Phase Locked Loop: A Comparative Study	238-242
48.	SECURITY IN INTERNET OF THINGS: AN OVERVIEW	243-248
49.	Controlling the Ambipolar Current by using Graded Drain doped TFET	249-252
50.	IoT Enabled Low-Cost Real-Time Remote Air Quality Monitoring and Forecasting System	253-258

51.	A Systematic Literature Review: Approach Toward Blockchain Future Research Trends	259-264
52.	Based on RDWT and SVD Arnold Transform: A Strong and Secure Image Watermarking Method	265-269
53.	Improving Pronunciation of the Students of Uttarakhand Region using Pre-Defined	270-274
54.	Artificial Intelligence Based Handwriting Digit Recognition (HDR) - A Technical Review	275-278
55.	Performance Evaluation of Wireless Fading Channels for Indoor Applications	279-283
56.	Performance Assessment of Multivariate Statistical and Bagging Ensembles in Landslide Susceptibility Mapping: Case Study of National Highway-10	284-289
57.	Comparative study of Structures of Electrochromic Device for Flexible Electrochromic Display	290-295
58.	Ensemble Approach To Solve Multiple Skin Disease Classification Using Deep Learning	296-301
59.	Mammographic mass Classification using DL based ROI segmentation and ML based Classification	302-306
60.	Plant Leaf Disease Classification Using Convolutional Neural Network on FPGA	307-311
61.	Fusion of Artificial Intelligence and 5G in defining Future UAV Technologies - A Review	312-316
62.	Bibliometric Analysis of White- Collar crimes-Concept and Development using Artificial Intelligence	317-320
63.	Applying Machine Learning & Knowledge Discovery to Intelligent Agent-Based Recommendation for Online Learning Systems	321-325
64.	Conformal UWB Antenna with enhanced gain characteristics using Mu-Negative Metamaterial	326-330
65.	Classification and Prediction of Kashmiri Apple Plant by using Deep Learning Techniques	331-335
66.	Synthetic Image Generation for Visual Particle Size Distribution Estimation based on U-NET Convolutional Networks	336-341
67.	A Wide Band Circularly Polarized CSRR Loaded Patch Antenna for ISM And C-Band Applications	342-345
68.	Four Legged Parallel Manipulator for Autonomous Delivery Robot	346-350
69.	Performance of CNN for different facial expression images with varying input dataset sizes	351-355
70.	Using the Indian MST Radar Noise-Level Observations of Stratosphere-Troposphere Replace Were Made Over the Tropical Station Gadanki	356-360
71.	A Comparative Study on the Effectiveness of Various Machine Learning Paradigms in Image Recognition and Predictive Modelling	361-366
72.	A Hybrid Mel Frequency Cepstral Coefficients and Bayesian Gaussian Mixure Model for Voice based Authentication Websites	367-370
73.	Comprehensive approach of real time web-based face recognition system using Haar Cascade and LBPH algorithm	371-376
74.	Prediction and Detection of Nutrition Deficiency using Machine learning	377-381
75.	Detection of lung disease using an efficient image classification technique	382-386
76.	Comparing Classifiers for Recognizing the Emotions by extracting the Spectral Features of Speech Using Machine Learning	387-391

77.	A Comprehensive Analysis of the Architecture of Static Random Access Memory Utilizing CMOS for Mobile Applications	392-395
78.	Vector Auto-Regression Based Predictive model for Smart Meter	396-400
79.	Efficient Centroid Based Distance Monitoring System Using Deep Learning	401-405
80.	Gain enhancement in UWB antenna using AMC reflector for wireless applications	406-410
81.	Design and Investigation of graphene based 2×2 CPW feed Vivaldi MIMO Antenna for THz Applications	411-415
82.	A novel Compact RHCP Antenna with wide 3 dB AR bandwidth for S-band IRNSS application	416-421
83.	Low-Cost Blind-Aid Stick to prevent Accidents of Visually Impaired People	422-427
84.	Anomaly Detection in Image Processing using Artificial Intelligence	428-432
85.	Field Effect Transistor (FET)-Sensor for Biological Applications	433-438
86.	Analysis of Performance Parameters and Gate Line Spacing Variation of Vertical Organic LightEmitting Transistors	439-444
87.	Leveraging the Power of 'Modeling and Computer Simulation' for Education: An Exploration of its Potential for Improved Learning Outcomes and Enhanced Student Engagement	445-450
88.	Interpolative AMBTC based Reversible Data Hiding In Encrypted Images using Rhombus Mean	451-456
89.	Computerized Face Mask Detection System Using Deep CNN and Transfer Learning	457-462
90.	Principal Component Analysis of Key Gases in Transformer Oil using DGA Data	463-467
91.	A Unique Metaheuristic Algorithm for Human Urbanisation	468-471
92.	Evaluating the impact of smart city on land use efficiency in Dehradun district by using GIS and Remote sensing Techniques	472-476
93.	Federated learning: Applications, Security hazards and Defense measures	477-482
94.	An innovative wheelchair for quadreplegic patient using IoT	483-487
95.	VLSI Architectures for Video Salient Object Detection using 3D DTCWT	488-493
96.	Strengthening Data Security of India using a mixed approach of Cryptography and Steganography Techniques: A Review	494-499
97.	Extreme Gradient Boost Classifier based Credit Card Fraud Detection Model	500-504
98.	Community Detection in Networks: A Comparative study	505-510
99.	Adaptive-Optimal Control for Reconfigurable Robots	511-514
100.	Analysis of Organic Thin Film Transistor based ALU	515-519
101.	Study of Tsallis Distribution of Plasma inside Paul Trap using 3D Color-Map Plots	520-525
102.	Machine Learning Based Theoretical and Experimental Analysis of DDoS Attacks in Cloud Computing	526-531

103.	Integrating Global and Local Features for Efficient Face Identification Using Deep CNN Classifier	532-536
104.	Spatial Channel Attention based Change Detection in Synthetic Aperture Radar Images	537-541
105.	RGB-D Dataset: The Impact of Yoga and Gym Exercise for Human Activity Recognition	542-545
106.	Standalone SEIG using Smart Meta-Heuristic Algorithm to Optimize its Performance and Loadability	546-551
107.	Steerable Pyramid based Multi Scale Fusion algorithm for Single Image Dehazing	552-557
108.	Performance Analysis of Nature-Inspired Optimization Algorithms for Chronic Disease Prediction	558-563
109.	DDoS Attacks Analysis with Cyber Data Forensics using Weighted Logistic Regression and Random Forest	564-569
110.	Design and analysis of a source pocket dual material hetero dielectric double gate TFET for improved performance	570-574
111.	Improved Channel Model of UAV to UAV Millimeter Wave Link Under Hovering Fluctuations and Doppler Effect	575-580
112.	Simulation Analysis of High-k Dielectric Junction less FET for Reduction of Subthreshold Leakage Current	581-585
113.	IEEE 802.11 DCF MAC Protocol for CR-Enabled WLAN in AdHoc and Infrastructure modes	586-590
114.	Localization in Precision Agriculture: A Machine Learning Perspective	591-596
115.	VGG-16 based Gait Recognition using Skeleton Features	597-601
116.	Machine Learning Thyroid Model for Prediction System	602-607
117.	An Improved Video Recommendation System for IoT Devices Using Federated Learning	608-613
118.	Deep Learning Approach for Detection of Diabetic Retinopathy	614-618
119.	An Analysis of Crop Recommendation Systems Employing Diverse Machine Learning Methodologies	619-624
120.	ASD diagnosis in children, adults, and adolescents using various machine learning techniques	625-630
121.	Conventional Current Reference Generation Strategies for Grid-Connected Distributed Energy Sources	631-634
122.	Development of Lane and Zebra Crossing Marker Detection Algorithms	635-638
123.	A Hybrid FA for High Performance Arithmetic Application	639-642
124.	EfficientNet-based Image Captioning System	643-647
125.	Optimization of PV array with PID controller and MPPT(P&O)	648-652
126.	Metaheuristic Algorithm Implementation for PV Array Reconfiguration under Realistic Moving Cloud Condition	653-658
127.	Time Series Anomaly Detection System with Linear Neural Network and Autoencoder	659-662