2021 International Conference on Advances in Computing and Communications (ICACC 2021)

Kochi, Kakkanad, India 21 – 23 October 2021



IEEE Catalog Number: CFP2111T-POD **ISBN:**

978-1-6654-3920-6

Copyright © 2021 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:	CFP2111T-POD
ISBN (Print-On-Demand):	978-1-6654-3920-6
ISBN (Online):	978-1-6654-3919-0

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

A Novel Design and Development of Self Maintained Solar Panel	
Gondu Vykunta Rao, S,Ch Santosh Kumar, Angirekula venkata Sivaprasad, Shaik Asma Sukthana, Aruna Bharathi M LORA BASED WIRELESS NETWORK FOR DISASTER RESCUE OPERATION	1
<i>Afaf Mohamed , Aishwarya Vithayathil, Ann Jacob, Chinju Merin Raju and Jaison Jacob</i> Improvement of security in Multi-Biometric Cryptosystem by Modulus Fuzzy Vault Algorithm	8
<i>Sreemol R, Santosh Kumar M B and Sreekumar A</i> A survey on deep learning architectures for effective crop data analytics	15
<i>Neenu Johnson, Santosh Kumar M.B. and Dhannia T</i> Implementation of AES To Encrypt and Decrypt Speech Using LUT With Mux Gates	22
<i>Kezia Teresa Augustine and Purushotham U</i> YOLOv5 based Open-Source UAV for human detection during Search And Rescue (SAR)	32
Sruthi M S, Manal Jaleel Poovathingal, Nandana V N, Lakshmi S, Mohamed Samshad and Sudeesh V S	38
Impact of Machine Learning Algorithms in Intrusion Detection Systems for Internet of Things	
<i>Jinsi Jose, Deepa V Jose, Karna Srinivasa Rao and Justin Janz</i> Design of a low power and high-speed Viterbi decoder using T-algorithm with normalization	44
Surya R, Karthi Balasubramanian and Yamuna B Learning to play football using Distributional Reinforcement learning and depthwise separable convolutional feature extraction	50
Aniruddha Datta, Swapnamoy Bhowmick and Kunal Kulkarni Vulnerability Analysis andTesting of Wireless Networks through Warstorming	56
<i>Mohit Taneja, Shrey Bhiwapurkar, Nikita Mohanty and Budhaditya Bhattacharyya</i> Real Time Static and Dynamic Hand Gestures Cognizance for Human Computer Interaction	64
<i>Ajith Jacob, Monish Koshy and Nisha K. K</i> Chess Moves Prediction using Deep Learning Neural Networks	72
<i>Hitanshu Panchal, Siddhant Mishra and Varsha Shrivastava</i> Design of a Fast Chase Algorithm based High Speed Turbo Product Code Decoder	78
J Hari Kishore, Yamuna B and Karthi Balasubramanian A Comparison on Instance Segmentation Models	84
Nipun Anoob, Sanju Jacob Ebey, Praveen P, Prasidh Prabudhan and Paul Augustine	89

Saline Solution Based Miniaturized Low Frequency Dipole for UAV based River Monitoring Systems	
Boopathi Vanavarayan S, Akash S, Aravind S, Raghunath B, and Sabarish Narayanan B Comorbidity Based Risk Prediction System for ARDS in COVID-19 Patients	94
<i>Nitin Rajesh, Vysakh Thachileth Poulose, Umesh P.L. and Renu Mary Daniel</i> Hyper Parameter Optimization of Convolutional Neural Networks for Breast Cancer Classification	98
<i>Sreekala K K and Jayakrushna Sahoo</i> Robust Attitude Control of Launch Vehicle using H infinity Controller	103
Keziah Elizabeth George, Angel Mary, Alka Mariyam Varghese, Meera Sivadas, Ambili Mohan and Akhil Santhosh A Low Power Hard Decision Decoder for BCH codes	109
Pranitha Garlapati, Yamuna B and Karthi Balasubramanian E-Quarantine: Remote Real Time Monitoring of COVID-19 Patients	115
<i>Vijay Vinod, Muhsin Ahamed Fazal, Tom K Thomas, Toney K Jose and Amitha Mathew</i> A novel forward filter feature selection algorithm based on Maximum Dual Interaction and Maximum Feature Relevance(MDIMFR) for Machine Learning	121
<i>Anitha M A and Sherly K K</i> A Study on Location Based Services and TTP based Privacy Preserving Techniques	125
<i>Gagandeep Kaur and Ruchika Gupta</i> Age and Spoof Detection from Fingerprints using Transfer Learning	132
Sonal Ayyappan, Navaneeth Asok and Nandu Shaji Image Encryption using Chaotic Map and Related Analysis	137
<i>Diya Achu Pradeep, Harsha A and Jaison Jacob</i> Network-on-Chip Routers for Efficient Dataflow Computing: A Survey	145
Ashish John, Josna V R and Piyoosh Purushothaman Nair Analysing Gender And Age Aspects of Cyberbullying Through Online Social Media	150
Mariya Raphel, Parvathi P J, Rizwana Yasmin Hashim, Rohan J Thevara and Deepasree Varma P	158
Semantic Malayalam Dialogue System for Covid-19 Question Answering Using Word Embedding And Cosine Similarity	
<i>Liji S K and Muhamed Ilyas P</i> Design of ESD Protection Circuits Dor LNA Using 65-nm CMOS Technology	166
Lakshmi Nair, Karthigha Balamurugan and Jayakumar M	172
Flood Detection Using Deep learning Vineeth V and Neeba E A	178

CMOS based variable gain LNA at V-Band

Nallagatla Roopika, Moheth M, Sure Vinod, P M Sanjana and Karthigha Balamurugan Various Approaches in Plant Species Identification and Plant Disease Detection Using Digital Images of Leaves	183
<i>Annie Augustine and Sherly K K</i> Copy-move Image Forgery Localization Using Deep Feature Pyramidal Network	190
Sabeena M, Lizy Abraham and Sreelekshmi P R Attention Span Detection for Online Lectures	197
<i>V. Karthikraj, Varsha Patil, Senthil Thanneermalai and Thirumalainambi Yadav</i> Freshness Estimator for Fruits and Vegetables Using MQ Sensors	203
Bala Naga Pranav S, Kaushek Kumar T R, Hari Prakash J, Sharan S and Ganesan M Securing Data Workflows: An Insight into Cloud Security	209
Anusha G Krishna, Divyansh Singh Rathore, Nidhi Sanjay Singh and Anitha H M Two Speed Modified Radix-4 Booth Multiplier With Different Adder Configurations	215
<i>Reshma V P and Adersh V R</i> Optimized Prosumer Consortium Model – Analysis	220
<i>Jithin K. Jose and M. R. Sindhu</i> Comparison of AlexNet and VGG16 For Analysis of Plant Leaf Disease	225
Dayana Mariya Tomy, Aleena Jaison, Aksa Christopher, Arun Tomy, Harsha A and Jaison Jacob Coreference Resolution for Ambiguous Pronoun with BERT and MLP	231
Rohan Nair, Vadla Niranjan Vara Prasad, Sreenadh A and Jyothisha J. Nair Identification of Drowning Victims in Freshwater Bodies using Drift Prediction and Image Processing based on Deep Learning	237
Anjana Unnikrishnan, A T Roshni, P R Anusha, Anju M Vinny and Anuraj C.K Real-time Vision-based Bangla Sign Language Detection using Convolutional Neural Network	242
<i>Riyad Bin Rafiq, S M Azizul Hakim and Thasina Tabashum</i> Garbage Collecting Robot using YOLOv3 Deep Learning Model	247
Akhila Assis, Aleena Rose Biju, Alisha N A, Amrutha Dhanadas and Nitheesh Kurian Advance 256-Bit AES Encryption with PlainText Partitioning	252
Surabhi P R and Meenu T V A Review on Battery Management system and its Application in Electric vehicle	257
Smaranika Mishra, Sarat Chandra Swain and Rajat Kumar Samantaray	260

Object Classification in Underwater SONAR Images using Transfer Learning Based Ensembled Model	
Divyabarathi G, Shailesh S and Judy M.V	266
Implementation of Low Complexity Signal TrackingLoop of a GPS Receiver Using CORDIC Algorithm	
Vishnu Vijay, Rohan Mathew George, Sneha Joe, Swetha Shajee Dominic, Riya Mary Joseph, Sherin Sunil Jose, Simi Zerine Sleeba and Arun Ashok	270
Memristor based Tunable Negative Group Delay Circuit	
Chithra Liz Palson, Sreelal R K, Dr. Deepti Das Krishna and Babita Roslind Jose	276
Generating Text to Realistic Image using Generative Adversarial Network	
Safa Hassan Ali K A and Chinchu Krishna S	280
AI-Farm: A crop recommendation system	
Abhinav Sharma, Muskaan Bhargava and Akshay Khanna	286
Author Index	