2020 International Conference on Communication, Computing and Industry 4.0 (C2I4 2020)

Bangalore, India 17-18 December 2020



IEEE Catalog Number: CFP20Y51-POD ISBN:

978-1-7281-8313-8

Copyright © 2020 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:
 CFP20Y51-POD

 ISBN (Print-On-Demand):
 978-1-7281-8313-8

 ISBN (Online):
 978-1-7281-8312-1

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

Sno	Title of the Paper and Author Name	Page
1	Low-Cost FPGA Based Emulator for Spacecraft Power Systems Hardware in	1
	Loop testing	
	Sreekumar V and Pradeep K Peter	
2	Neighbourhood Based Bi-Level Contrast Adjustment for Underwater Image	7
	Enhancement Using Modified Particle Swarm Optimization	
	Shouvik Paul, Sourav De, and Sandip Dey	
3	Discrete Sliding Mode Controlled Cuk Converter for PV fed Highly Transient	13
	Loads	
	Viji K, K Chitra, and Buvana D	
4	CNN based Categorization of respiratory sounds using spectral descriptors	18
	S.Jayalakshmy, B.Lakshmi Priya, and N.Kavya	
5	A Printed Array of High-gain Fractal Antennas for X-band Applications	23
	Kalyan Sundar Kola and Anirban Chatterjee	
6	Use of Image Processing Techniques to Investigate the Behaviour of Driven Piles	29
	G. Sreelakshmi and M.N.Asha	
7	Sparse Channel Estimation for MIMO Index Modulated OFDM Based	35
	Underwater Acoustic Communications	
	Mhd Tahssin Altabbaa	
8	A Study of Segmentation Techniques to Detect Leukaemia in Microscopic Blood	41
	Smear Images	
	Ashwini P. Patil	
9	Tumor parameter estimation by steady-state and transient thermal analysis of	47
	semi-circular breast model with four density compositions	
	Deepika Singh and Ashutosh Kumar Singh	
10	Carrying Capacity Based Air Quality Management at an Industrial area	54
	Smaranika Panda	
11	Breast Cancer Prediction Analysis using Machine Learning Algorithms	60
	Vinayak A. Telsang and Kavyashree Hegde	
12	Analysis of SWIPT Receiver	65
	Subrata Kumar Rout, Gagarin Biswal, Hemanta Kumar Sahu, and Pradeep Minz	
13	Performance Analysis of Robust Reference Current Tracking Controllers for	71
	Single Phase LCL-type Grid Connected Converter through Active Damping	
	Approach	
	Shaletta Elias, Supritha S, and Hemachandra Gudimindla	
14	Constraint Governed Association Rule Mining for Identification of Strong SNPs	77
	to Classify Autism Data	
	Dr. Umme Salma M and Praveen Kumar Matt Rajashekar	
15	Reservoir Inflow Prediction using Multi-model Ensemble System	82
	Kishore S, Ganesh Swaroop V, and Prasad B S	
16	Pilot Assisted MIMO OFDM-IM Design for Doubly Selective Underwater	88
	Acoustic Systems	
	Mhd Tahssin Altabbaa	
17	Sparse Channel Estimation Algorithm for Doubly Selective MIMO OFDM-Based	93
	UWAC Systems With Double Focusing	
	Mhd Tahssin Altabbaa	