2016 International Conference on Advances in Computing, Communication, & Automation (ICACCA 2016)

Spring Conference

Dehradun, India 8-9 April 2016



IEEE Catalog Number: ISBN: CFP16E49-POD 978-1-5090-0674-8

Copyright © 2016 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 publication is a representation of what appears in the IEEE Digital Libraries. Some format issues inherent in the e-media version may also appear in this print version.

IEEE Catalog Number:	CFP16E49-POD
ISBN (Print-On-Demand):	978-1-5090-0674-8
ISBN (Online):	978-1-5090-0673-1

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



International Conference on Advances in Computing, Communication and Automation (ICACCA -2016) Table of Contents

•	Message from Chief Patrons	viii- xii
٠	Message from Organizing Chair	xiii- xiv
•	Conference Organization	xv- xvii
•	Technical Program Committee	xviii- xix
٠	Reviewers	XX

High Performance Computing

1.	Determining best practices for windows server deployment in the cloud <i>Revathy Nair, Amit Sanwariya and Savita Shiwani,</i>	3
2.	7μm Core Diameter Fiber Sensor: A Solution For Efficient Strain Measurement Sumant Kumar, Sushil Kumar Mohapatra, Sakuntala Mahapatra and Ramesh Chandra Sahoo	8
3.	Design of High Performance 8-bit Vedic Multiplier Yogendri and Dr Anil Kumar Gupta	11
4.	Prediction of Multi-Response Parameters in Material Removal Processes using Soft Computing – A Review <i>Abhineet Saini, Deepam Goyal, Vanraj, B.S Pabla and S.S Dhami</i>	17
5.	Eradication of Elephant Mortality and Injury Due To Railway Accidents through Automatic Tracking and Alert System Nirit Datta, Saurabh Kumar, Ashutosh Mallick and Deepak Punetha	23

6.	Android Smartphone Vulnerabilities : A Survey Jignesh Joshi and Chandresh Parekh	27
7.	A Semi-Centralized Algorithm using Adaptive Gossip to Detect and Resolve Distributed Deadlocks	32
8.	A Comparative Analysis of SVM and its Stacking with other Classification Algorithm for Intrusion Detection	40
9.	Analysis of Adhoc Routing Protocols: A Retrospective view Vinay Rishiwal,Mitul Yadav,Omkar Singh,Mano Yadav	46
10.	. UML Based Web Modeling and Testing Singh Garima and Kaushik Manju	N/A

Advances in Communication, Network & Social Network Analysis

11. Secured Digital Image Watermarking with Discrete Cosine Transform and Discrete Wavelet Transform method <i>Ravi K Sheth and Dr V V Nath</i>	59
12. Overview on Synchronization in OFDM Systems Chandresh Parekh and Dr. Jayesh M Patel	64
13. An ideal ANFIS-Based Approach for Classification of Biomedical signals employing Wavelet Sub-band Energy-based characteristic features	70
14. Bit Error Rate Analysis of Wireless Sensor Nodes with Different Packet size and Distance Dinesh Sharma, Hitesh Arora, Harjit Pal Singh and Jatinder Pal Singh	76
15. Side Lobe and Grating Lobe Suppression in Stepped Frequency Pulse Train using Multi-Objective Optimization Algorithms <i>Vinod Kumar and Ajit Kumar Sahoo</i>	82
16. A Secure and Simplified Technique for Configuring SRAM based FPGA Abhishek Tiwari and Arti Noor	88
17. Outage Performance Analysis of Dual-Hop Multi-Relay Decode-And-Forward System for Asymmetric Fading Channels <i>Manoj Bisht and P Palanisamy</i>	92
18. TCAD Simulation of Germanium Source Doping-less Tunnel FET Ruchi Juyal and Sudakar Singh Chauhan	97
19. Comparison of performance of a mixed line rate optical WDM network using different modulations at 40Gbps <i>Rochak Bajpai, Sujata Sengar and Shree Singh</i>	100

20.	Intelligent Predictive Maintenance of Dynamic Systems using Condition Monitoring and Signal Processing Techniques - A Review	103
21.	Generation of Display Characters on Flat Cathode Ray Tubes for Avionics Precision Displays <i>Pooja Verma and Vinod Karar</i>	109
22.	A Cup-Shaped Slotted Microstrip Antenna for UWB Applications	115
23.	Optimized Network Selection During Handover using Analytic Hierarchy Process in 4G Network Tanu Goyal and Sakshi Kaushal	119
24.	A Small Patch Antenna for UHF RFID Reader Devices Hardeep Singh Saini, Abhishek Thakur, Rajesh Kumar , Gourav Chehal and Naveen Kumar	123
25.	A Wideband Planar inverted F Antenna for Wireless Communication Devices Surender Rana, Abhishek Thakur, Hardeep Singh Saini, Rajesh Kumar and Naveen Kumar	127
26.	Security Issues in Wireless Sensor Networks: Current Research and Challenges Parli Baijnath Hari and Shailendra Narayan Singh	130
27.	A Review on Sink Mobility Aware Fast and Efficient Data Gathering in Wireless Sensor Networks	136
28.	A Cognitive Based Approach for Building Detection from High Resolution Satellite Images Naveen Chandra, Jayanta Kumar Ghosh and Ashu Sharma	140
29.	Optimization Techniques for Fresnel Lens based Nano-Solarcell : A Review Akansha Sharma and Deepak Punetha	145
30.	Grounded and Finite Height Metallic Post Integrated Rectangular Microstrip Antenna to Improve Polarization Purity over Whole Elevation Angle <i>Subhradeep Chakraborty, Rakshapada Poddar, Sudipta Chattopadhyay and Arun Bag</i>	149
Inte	elligent Control System	
31.		153
32.		159
33.	Monalisa Joshi, Jagriti Uniyal and Pradeep K Juneja Set point tracking capability and comparative response of the PI-PD controller with PI, PD and PID controller	165
34.	Optimization Technique to Mitigate the Losses in Single Phase Induction Motor Suyash Sharma, Bhavesh Gaur and Deepak Punetha	171

	35.	Adaptive Speed Control of BLDC Motor with Effective Starting and Minimized Cost and Core Loss Abhishek Sharma, Himanshu Negi and Deepak Punetha	175
	36.	Frequent Subgraph Mining Algorithms for Single Large Graphs- A Brief Survey	179
	37.	Integral error based controller design & performance analysis for a TOPDT process Alka Patel, Pradeep Kumar Juneja, Mayank Chaturvedi and Sagar Rawat	185
	38.	Set-point tracking capability comparison of PI and PID controllers for a FOPDT process model Pradeep Kumar Juneja, Mayank Chaturvedi, Manik Gupta and Nitesh Shah	190
	39.	Optimization Techniques for Effective Energy Conservation in a Three Floored Building Megha Gupta and Aditi Bisht	194
	40.	Remote Home Surveillance System Sushant Kumar and Dr. Ss Solanki	199
	41.	Realisation of DVCC based Operational Amplifier and its Bandpass Filter Application Anuj Upadhyay and Kirat Pal	203
	42.	Design of Linear Quadratic Regulator for Rotary Inverted Pendulum Using LabVIEW Kashika Chhabra and Mohd. Rihan	208
	43.	Optimal Economic Analysis of Hybrid Renewable Energy System	. 213
A	rt	ificial Intelligence & Image processing	
	44.	Scantime Antivirus Evasion AndMalware Deployment Using Silent-SFX Shashi Bhushan, Dr. Pramod Kumar Amit Kumar and Vibhor Sharma	218
	45.	Design of focused crawler for information retrieval of Indian origin Academicians Manish Kumar, Rajesh Bhatia, Apoorva Ohri and Aditya Kohli	222
	46.	Social Media a New Vector for Cyber Attack Rakesh Singh Kunwar and Priyanka Sharma	228
	47.	Location Based Information Hiding Hartej Singh and Daljit Singh Bangar	233
	48.	Performance of AODV Protocol for H-MANETs Vinay Rishiwal, Sandeep Kumar Agarwal and Mano Yadav	237
	49.	A Preventive Approach to Mitigate the Effects of Gray Hole Attack using Genetic Algorithm <i>Gurleen Kaur</i>	241
	50.	Approaches of Artificial Intelligence in Biomedical Image	• / •

 Processing - A Leading Tool Between Computer Vision & Biological Vision
 249

 Shruti Shukla, Ashish Lakhmani and Dr. Ambuj Agarwal

51. A Zone Based Improved Disk Scheduling Algorithm	255
Cloud Computing	
52. DevOps Culture and its impact on Cloud Delivery and Software Development Prabal Mahanta, Anil Kumar Pole, Vittalraya Shenoy Adige and Rajkumar M	. 260
53. Load Balancing in Cloud Data Center Using Modified Active Monitoring Load Balancer Ankit Kumar and Mala Kalra	. 266
54. Analyzing Processing Overhead of Type-0 Hypervisor for Cloud Gaming	271
55. Critical Path Based Scheduling Algorithm for Workflow Applications in Cloud Computing Jailalita, Sarbjeet Singh and Maitreyee Dutta	276
56. Min-Parent: An Effective Approach to Enhance Resource Utilization in Cloud Environmen <i>Raj Kumar, Mala Kalra, Sudeep Tanwar, Sudhanshu Tyagi and Neeraj Kumar</i>	t 282
Author Index	288