2017 IEEE International Conference on Smart Technologies and Management for Computing, Communication, Controls, Energy and Materials (ICSTM 2017)

Chennai, India 2-4 August 2017



IEEE Catalog Number:

CFP17B55-POD 978-1-5090-5906-5

ISBN:

Copyright \odot 2017 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:
 CFP17B55-POD

 ISBN (Print-On-Demand):
 978-1-5090-5906-5

 ISBN (Online):
 978-1-5090-5905-8

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



Contents

COMPUTING

1.	WLAN Attendance Management System Vishal Naidu, Kumaresan Mudliar and Kailas Devadkar	3
2.	Disk Scheduling Sinewave Algorithm for Minimizing the Average Jump Rate of a Hard Drive Over its Lifetime Vishal Naidu, Kumaresan Mudliar and Kailas Devadkar	7
3.	Recognition of Power System Transients Based on Higher Order Statistical Moments using Empirical Mode Decomposition A. Das, S. Samanta, S. Alam, S. Kumar, D. Sengupta, R. Bose and S. Chatterjee	12
4.	Towards Changing the Paradigm of Software Development in Software Industries: An Emergence of Agile Software Development Swadha Gupta and Deepali Gouttam	18
5.	Fuzzy Based Intrusion Detection for Cluster Based Battlefield MANET W. Gracy Theresa and S. Sakthivel	22
6.	Sentiment Analysis of Online Tamil Contents using Recursive Neural Network Models Approach for Tamil Language R. Padmamala and V. Prema	28
7.	Smart Shoppe using Beacon Rajat Pugaliya, Jaydip Chabhadiya, Nirav Mistry and Ankit Prajapati	32
8.	Science, Technology and Innovation Exploration in Biophotonics through a Scientometric Approach Terry L. Ruas, Luciana Pereira and William I. Grosky	36
9.	Review Paper on Various Clustering Schemes Pratiksha Gupta and Kanika Sharma	44
10.	Secure Email Gateway Khandu Om	49
11.	Performance Analysis of Matrix and Graph Computations using Data Compression Techniques in MPI and Hadoop MapReduce in Big Data Framework Nagendla Ramakrishnaiah and Sirigiri Konda Reddy	54
12.	Abnormality Detection on Vital Parameters using Modified Weighted Average Method in Cloud N. Shravan, V. Vaidehi, D. Sangeetha, R. Remo Antony and R. Raghul Vaikundam	63
13.	Organizational Structure for Emergency Departments using OMAS Rasika Mallya and Snehalata Kothari	69
14.	A Mail Based Recommender System G. Kaushik Ram, N. Sai Kiran and S. Sudha	75
15.	Machine Learning based Rate Adaptation in DASH to Improve Quality of Experience Asim Rafiq Bhat and Sudesh Kumar Bhadu	82

16.	Pattern Analysis of Blooms Knowledge Level Students Performance using Association Rule Mining A. Parkavi and K. Lakshmi	90
17.	Feedback Relevance Base Semantic Query Processing Efficiency Analysis using Neural Networks P. Mohankumar	94
18.	Detecting Contextual Word Polarity using Aspect based Sentiment Analysis and Logistic Regression Roshna Rafeek and R. Remya	102
19.	Prediction of Breast Cancer using Voting Classifier Technique U. Karthik Kumar, M.B. Sai Nikhil and K. Sumangali	108
20.	Delivery Monitoring System for Teachers' Voice in Traditional Classrooms and Automatic Controlling System in Smart/Remote Classrooms K.R. Jayahari, B. Beenu and Kamal Bijlani	115
21.	Solution for Automating Teaching Environment Setup K.R. Jayahari, Sreelakshmi P Nair and Kamal Bijlani	122
22.	Predicting the Course Knowledge Level of Students using Data Mining Techniques A. Parkavi and K. Lakshmi	128
23.	Predictors of IT-Based Drivers of SOA Adoption: A Service Design View Supriya Pulparambil and Youcef Baghdadi	134
24.	Sentiment Analysis for Restaurant Rating K. Kaviya, C. Roshini, V. Vaidhehi and J. Dhalia Sweetlin	140
25.	Smart Traffic System using Raspberry Pi by Applying Dynamic Color Changer Algorithm K. Kishore Kumar, S. Durai, M. Thanjai Vadivel and K. Antony Kumar	146
26.	Adolescent Sheltered Tracking to Evade Quandary via Observant using Android App S. Ravikumar, S. Alex David, C. Saranya Jothi, V. Usha and K. Aanandha Saravanan	151
27.	Comparative Analysis of Hybrid Intelligent Controller based MPPT of Fuel Cell Power System M. Venkateshkumar and R. Indumathi	155
28.	Secure Online Examination by using Graphical Own Image Password Scheme Mahantesh Mathapati, T. Senthil Kumaran, A. Krishna Kumar and S. Vinoth Kumar	160
29.	Energy Efficiency of the Switch Ports Ritesh Kumar Ravi	165
30.	Wardrobe Advisor Technology (WAT) Guttikonda Nagateja, S. Hariprasath, V. Anitha and G. Hariharan	173
31.	A Novel Graphical Authentication System for Secure Banking Systems B. Aravindh, V.D. Ambeth Kumar, G. Harish and V. Siddartth	177
32.	Smart Garbage Monitoring and Clearance System using Internet of Things S. Vinoth Kumar, T. Senthil Kumaran, A. Krishna Kumar and Mahantesh Mathapati	184
33.	Analysis of Handoff Parameters in Cognitive Radio Networks on Coadunation of Wifi and Wimax Systems J. Josephine Dhivya and M. Ramaswami	190
34.	Cloud Enabled Media Streaming using Amazon Web Services V.D. Ambeth Kumar, V.D. Ashok Kumar, H. Divakar and R. Gokul	195

35.	A Heuristic Approach for Observing Outlying Points in Diabetes Data Set S. Anitha and M. Mary Metilda	199
36.	Analysis of Air Quality Indices using Fuzzy Inference System E. Swarna and M. Nirmala	203
37.	A Study on Improving the Distribution Enhancement of Airtel through Outlet Expansion V. Vijay Anand, C. Vijayabanu, V. Rengarajan, M. Sivakumar and V. Abarna Vaishaly	208
38.	Average Threshold Based Fractal Texture Feature Extraction on Multimodal Magnetic Resonance Brain Tumor Images D. Anithadevi and K. Perumal	216
39.	Speech to Text User Assistive Agent System for Impaired Person E. Saranya, B. Baron Sam and R. Sethuraman	221
40.	Entry and Exit Monitoring using License Plate Recognition A. Yovan Felix and A. Jesudoss and J. Albert Mayan	227
41.	Clustering of Data using Fuzzy C-Means (FCM) Algorithm with Aid of Gravitational Search Optimization R. Venkat and Pamidi Srinivasulu	232
42.	Human Relationships Analytics Based on Social Networks Pamidi Srinivasulu and Rayala Venkat	235
43.	Analysis of Transformer Faults using IOT Balaji Kamlaesan, K. Antony Kumar and S. Alex David	239
44.	A Survey on Various Data Mining Methods for Detecting Cancer Cells G. Tamilmani and S. Sivakumari	242
45.	Determination of Performance to Verify the Synthetic Identity Theft by Training the Neural Networks K. Veena and K. Meena	246
	COMMUNICATION	
46.	New Design for Phototherapy Device and Skin Colour Analysis M. Afnan Nabizath, S.Anshu Soumya, V. Boomitha, C. Meena and P. Sridharan	253
47.	Image Fusion at Pixel and Feature Levels Based on Pyramid Imaging B. Ashalatha and M. Babu Reddy	258
48.	Remote Health Assistance and Automatic Ambulance Service Suchandra Pal, Subhash Chandra Kumar, Raja Rajeswari and Kunja Bihari Swain	264
49.	On-Building Remote Controlled System for Several Home Appliances using ZIGBEE Trisha Ghosh, Sneha Tiwari and J. Sahay	268
50.	Detection of Epilepsy using Hilbert Transform and KNN Based Classifier Raj Vipani, Sambit Hore, Souryadeep Basak and Saibal Dutta	271
51.	Design of an Appropriate Manual cum Powered Wheelchair Sateesh Reddy Avutu, Dinesh Bhatia and B. Venkateswara Reddy	276
52.	Controlling the Motor Direction by Tilting of Head and using KNN Classifier to Identify the Pattern G. Akhil, I. Satyakumar, K. Sarath, M. Rahul and Prasanth M. Warrier	281

53.	Image Compression Techniques in Wireless Sensor Networks S. Aruna Deepthi, E. Sreenivasa Rao and M.N. Giri Prasad	286
54.	Productive and Economical Sorting of Objects by Low Resolution Camera Rushali Sahu, Manoj Kumar Swain, Kunja Bihari Swain and Rakesh Kumar Patnaik	290
55.	Bandwidth Enhancement of Microstrip Patch Antenna using Parasitic Patch Mekala Harinath Reddy, R.M. Joany, M. Jayasaichandra Reddy, M. Sugadev and E. Logashanmugam	295
56.	Reducing Electromagnetic Radiation Hazards using Resonators L. Meenu, S. Aiswarya and Sreedevi K. Menon	299
57.	Associated Sensor for Passive RFID Tags Powered by Harmonic Energy Harvester Athira S. Babu and Divya Chirayil	304
58.	Performance of MC-CDMA System with Various Orthogonal Spreading Codes in Multipath Rayleigh Fading Channel K. Sai Priyanjali and B. Seetha Ramanjaneyulu	309
59.	Petal Shaped Semicircular Resonator for RFID Tags M.L. Liya, Athul Shaji, V.M. Jayakrishnan and Aswathy Nair	313
60.	A Study on the use of Dipole Antennas for Base Station Applications Kedar Viswanathan, K.S. Harshini, Priyal Singh and G. Boopalan	317
61.	A Proposed Algorithm for Image Compression using Clustering Approach Himanshu Gupta and Pragya Sinha	322
62.	Design of 2-Port Penta Band, DECA Frequency Antenna using HFSS Operating at NATO C, L, S, C and X Bands J.L.N. Swathi and P. Siddaiah	326
63.	Hough Line Detection Algorithm on AEM of ENF Signal for Audio Authentication K. Vidyamol, Elza George and Jeslin P. Jo	331
64.	Smart Fault Location and Fault Classification in Transmission Line A.S. Neethu and T.S. Angel	339
65.	An Adjustable Cotangent Based Window Function for Designing an FIR Filter Mitun Shil, Talat Mahmud Osman Goni, Chandan Nath and Hrishi Rakshit	344
66.	A Single Layer Tri-Band Frequency Selective Surface for WiFi and Amateur Radio Applications Shaik Vahida and K. Shambavi	349
67.	An Amended Ant Colony Optimization Based Approach for Optimal Route Path Discovery in Wireless Sensor Network Jaskiranpreet Kaur and Guneet Kaur	353
68.	Inter-Provider VPN Network using Back-To-Back VRF and MP-eBGP Method B. Hima Chandana, Priya Darsini and M. Devi prasad	358
69.	A Neoteric Space Vector PWM Method for Multilevel Inverter using Image Processing Dinesh S. Wankhede and Mohan V. Aware	364
70.	CCSDS Packet Telemetry S. Shruthi, P. Pragathi, N. Shwetha and S. Swathi	371
71.	Optimized Router to Avoid Packet Drop Function I. Nalini, P. Gowri, Sankar and D. Ganeshbabu	377

CONTROLS

72.	Dynamic Traffic Control System Based on SONARS Juvvanapudi Akhil and Sai Krishna Aditya Parvatha	385
73.	Research on Application of Three-Port SNOP based on Dual Closed-Loop Control in Distribution Network Yuxin Hou, Yiming Xu, Zhiqiang Wang, Xingliang Chen and Huaiyu Cui	389
74.	Design & Implementation of Indoor Farming using Automated Aquaponics System M.N. Mamatha and S.N. Namratha	396
75.	Integrated Access Control and Video Surveillance Khandu Om	402
76.	Arduino Based Automated STICK GUIDE for a Visually Impaired Person Kunja Bihari Swain, Rakesh Kumar Patnaik, Suchandra Pal, Raja Rajeswari, Aparna Mishra and Charusmita Dash	407
77.	Fractional Filter IMC-PID Controller Design for an Unstable Inverted Pendulum System R. Ranganayakulu, G. Uday Bhaskar Babu and A. Seshagiri Rao	411
78.	A Novel Fire Extinguishing Robotic Vehicle Controlled by Android Application Kena Patel and Bhavna K. Pancholi	417
79.	Survey on Prioritized Multi Robot Path Planning Ram Kishan Dewangan, Anupam Shukla and W. Wilfred Godfrey	423
80.	Automation Framework Design to Enhance the Capabilities of IMS Functional Testing J.K. Yashodha, Gurusiddayya Hiremath and K. Nagamani	429
81.	DALI Based Light and Motor Control System for Movable Spot Luminaires L. Archana, Mohammad Yasin and R. Bhagya	433
82.	Performance Optimization of PID Controllers using Fuzzy Logic Sneha Mariam Sam and T.S. Angel	438
83.	Vision System for Coconut Farm Cable Robot Anu B. Titus, Thejas Narayanan and Gautham P. Das	443
84.	Semantic Segmentation for Robotic using Neuro-Fuzzy Network Technique Kanwaljit Kaur and Gurjit Singh	451
85.	A Literature Review on Analysis of Cause and Impact of Human Wildlife Conflict and the Preceding Techniques Implemented to Avoid Conflict T. Surya and S. Chitra Selvi	455
	ENERGY	
86.	Simulation of Generator Protection using Matlab M.V. Sudhakar and Lumesh Kumar Sahu	463
87.	Design of Snubber Circuit to Minimize Switching and Conduction Losses in Boost Converter Nikhil Gaurav and Shashwati Ray	470
88.	A Seven Switch All in One Power Electronic Topology for Converted Plug-in Hybrid Electric Vehicle P.K. Gujarathi, Varsha Shah and Makarand Lokhande	477

89.	Harnessing Green Energy for Smart Dustbin Sourangsu Mukherjee, Budhaditya Bhattacharyya and Neelkantha Banerjee	484
90.	A Novel Approach for Hydropower Generation Based on Giant Wheel Model Pamidi Srinivasulu, R. Venkat, K. Prabhakararao and A. Venkatraman	491
91.	Open Voltage of 2 – Port Network Power Line not Always Longer than Close Voltage Vineet Kumar	494
92.	Simulation of Microgrid with Load Management Pratik Kalkal and Vijay Kumar Garg	503
	MATERIALS	
93.	Molecular Docking Analysis of Imidazole Derivatives and Polybenzimidazole Analogs as Inhibitors of Superoxide Dismutase (SOD) and Xanthine Oxidase (XO) Vijayakumar Veeraragavan, Radhakrishnan Narayanaswamy and Rameshkumar Chidambaram	513
	AUTHOR INDEX	517