2017 3rd International Conference on Applied and Theoretical Computing and Communication Technology (iCATccT 2017)

Tumkur, Karnataka, India
21-23 December 2017

IEEE Catalog Number: CFP17D66-POD
ISBN: 978-1-5386-1145-6

Copyright © 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: CFP17D66-POD
ISBN (Print-On-Demand): 978-1-5386-1145-6
ISBN (Online): 978-1-5386-1144-9

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

ID# **Technical Papers / Page #**

Session 1.1 Optical/ Satellite Communication

025 **Design and analysis of multiplexed FSO system with DPSK and Manchester coding** 1
Jagana Bihari Padhy and Bijayananda Patnaik

101 **Investigation of GDOP for IRNSS** 7
K.J. Manjunath, K.L.Sudha and S.K.Raman

107 **Enhanced Road Edge Detection (E-RED) for an Autonomous Planetary Rover** 13
Nandakishor Jahagirdar, Anand Hiremath, Sudeesh Balan and Mithileysh Sathiyanarayanan

019 **Impact of traffic burst on the behavior of TCP variants for different LTE downlink schedulers** 18
Adesh N. D. and Renuka A.

072 **A Reliable Fault Detection and Classification Scheme based on Wavelet transform and Ensemble of SVM for Microgrid Protection** 24
Murli Manohar, Ebha Koley and Subhojit Ghosh

Session 1.2 Computing Applications

030 **Automatic Sarcasm Detection Review** 29
Paras Dharwal and Tanupriya Choudhury

031 **Detecting Oral Cancer Using Fuzzy Logic** 35
Arushi Tetarbe and Tanupriya Chaudhary

032 **Image Enhancement of Old Manuscipts Using Machine Learning** 40
Rishabh kataria

033 **Challenges Faced by Cloud Computing** 50
Shouray Kumra and Tanupriya Choudhary

034 **Intellectual Performance Analysis Of Students by comparing various Data Mining Techniques** 57
Tanupriya Choudhury and Anoushka Jain Mail

129 **An Efficientsurvey to Detect Alzheimerusing Data Mining Techniques** 64
Tanupriya Choudhury

Session 1.3 Machine learning(I) /Image Processing

036 **Smart Detection of Rice Purity and its Grading** 71
Manohar M, Chatrapathy K and M S Sowmya

038 **Multiclass genetic programming based approach for classification of intrusions** 74
Sunitha Gp and Rio D'Souza

115 **Copy-Move Forgery Detection using Hybrid Transform and K-means Clustering Technique** 79
Tawheed Jan Shah and M. Tariq Banday

085 **Autonomous Photo Clicker and Website Up loader System** 84
Dhara Rangani, Nikunj V. Tahilramani and Vandana Talreja

127 **A Novel Approach for the Brain tumor detection and Classification using Support Vector Machine** 90
Shankaragowda B.B., Siddappa M. and Suresha M

Session 2.1 Theoretical Computer Science

012 **Design and performance analysis of multipliers using Kogge stone adder** 94
Aradhana Raju and Sudhir Kumar Sa

063 **Prototype Model to Improve the Quality of Disability Students Performance towards Mining Technology** 100
P.Saraswathi and N. Nagadeepa

095 **Low Power VLSI Architecture for LTEx Binary to Gray Converters** 104
U Ragavendran , M Ramkumarraja and M Ramachandran

113 **Automation Based Elevator Control System** 110
Dhara G. Rangani and Nikunj V. Tahilramani

106 **Data Rate Based Performance Analysis and Optimization of Bulk OUT Transactions in USB 3.0 SuperSpeed Protocol** 114
Adithya Rangan C.K. , Aravinda Holla K.y, Vikas Kulkarniz, Anurag Kumarx and Akshay Patil

120 **ECG Signal De-noising using Complementary Ensemble Empirical Mode Decomposition and Kalman Smoother** 120
Keshavamurthy T G and M. N. Eshwarappa

Session 2.2 Internet of Things (I)

041 **Smart Street Lights using IoT** 126
Lakshmana phaneenddra maguluri

075 **IOT Based Energy Efficient Security System** 132
Amreen Saba and Nagarathna

104 **Challenges and Opportunities of Integrating Internet of Things (IoT) and Light Fidelity (LiFi)** 137
Mithileysh Sathiyanarayanan,Vignesh Govindraj and Nandakishor Jahagirdar

014 **EH-mulSEP: Energy-Harvesting enabled Multi-level SEP Protocol for IoT-based Heterogeneous WSNs** 143
Antar Shaddad Abdul-Qawy and T. Srinivasulu

112 **MQTT Based Environment Monitoring In Factories for Employee Safety** 152
Ravi K Kodali and Aditya Valdas

057 **Challenges in Annotation and Domain Adaptation in Hindi POS Tagger: with Reference to Cricket** 156
Anupama Pandey, Srishti Singh, Atul Kr. Ojha and Girish Nath Jha

Session 2.3 Wireless Communication / Wireless Networks

093 **HSS: Health Supporting System Using Smart Intelligence** 161
Soundarya M ,Suraj K,Adarsh K and Ajay Prakash B.V

010 **Data Processing in Semantic Sensor Web: A Survey** 166
Lokesh B. Bhajantri and Pundalik. R

027 **Efficient Routing Algorithm for Disaster Recovery over Wireless Mesh Networks Based Comminication System** 171
Chinmay Chakraborty,Chaitany and Krishnan Gupta

110 **Coin Based Mobile Battery Charger with High Security** 176
Dhara G. Rangani and Nikunj V. Tahilramani

122 **An Ephemeral Investigation on Energy Proficiency Mechanisms in WSN** 180
Achyutha Prasad N and C D Guruprakash

Session 3.1 Internet of Things(II)

111 **MQTT Based Vehicle Accident Detection and Alert** 186
Ravi K Kodali and Shubhi Sahu

065 **Energy efficient Smart Street Light** 190
Kodali Ravi Kishore and Yerroju Subbachary

066 **IoT Based Smart Emergency Response System for Fire Hazards** 194
Kodali Ravikishore and Yerroju Subbachary

067 **Smart Solid Waste Management** 200
Ravi Kishore Kodali and Venkata Sundeep Kumar Gorantla

068 **Weather Tracking System using MQTT and SQLite** 205
Ravi Kishore Kodali and Venkata Sundeep Kumar Gorantla

096 **Smart Notice Board System** 209
Dhara G. Rangani and Nikunj V. Tahilramani

082 **Transforming Agriculture using the Internet of Things (IoT)** N/A
M. Shankar Lingama and A. M. Sudhakara

Session 3.2 Machine learning(II)/ Antennas

045 **Regression algorithms for efficient detection and prediction of DDoS attacks** 215
Gudipudi Dayanandam, E. Srinivasa Reddy and Dasari Bujji Babu

053 **Unsupervised feature learning using Deep learning approaches and applying on the image matching context** 220
Suyog Trivedi, Rajesh Kumar, Gopichand Agnihotram and Pradeep Naik

074 **Congestion Detection in Wireless Sensor Networks Using MLP and Classification by Regression** 226
Jayashri B. Madalgi and S. Anupama Kumar

099 **An Innovative Optimized Model to Anticipate Clients about Immigration in Telecom Industry** 232
Midde.Venkateswarlu Naik and Sareddy Shiva Reddy

103 **Protection policy in networked locations using machine learning and data science approach** 237
S. Sai Satyanarayana Reddy, Ramesh Shahabadkar, Ch. Mamatha and Priyadarshini Chatterjee

051 **Gain Enhancement of PIFA with DGS for Wireless Communication** 241
Prakriti Aggarwal, Parnika Saxena and Shuchismita Pani

052 **Analysis of PIFA With Improved Bandwidth & Gain For Wireless Application** 246
Parnika Saxena, Prakriti Aggarwal and Shuchismita Pani

Session 3.3 Applications of Communication

024 **Smart Street Lights using IoT** N/A
lakshmana phaneenddra maguluri, Yaswanth Sri Venkatesh Sorapalli, Lokesh kumar Nakkala and Venkat Tallari

088 **IOT Based Energy Efficient Security System** N/A
Amreen Saba and Nagarathna

125 **Challenges and Opportunities of Integrating Internet of Things (IoT) and Light Fidelity (LiFi)** N/A
Mithileysh Sathiyanarayanan,Vignesh Govindraj and Nandakishor Jahagirdar

020 **Role of Web Service in Internet of Things** 268
M. Thiyagarajan and Chaitanya Raveendra

086 **Security Against Morphed Speech based on Speaker Verification system** 271
Nikuj Tahilramani and Vandana Talreja

Session 4.1 Network Security

108 **Distributed Authentication and key Exchange Approach for Secure M2M Communications** 277
B. Sathyanarayana Murthy

035 **Group Diffie Hellman Key Exchange Algorithm Based Secure Group Communication** 281
Lavanya R and S V Sathyanarayana

015 **Securing IoT using Layer characteristics** 290
Anil Kaushik,Shail Talati, Varun Anand and Rishikesh Basu

011 **Range-Bound Pricing of Channels in Multichannel Multiuser Cognitive Radio Networks** 299
K. Annapurna and B. Seetha Ramanjaneyulu

089 **Building RMS for a RD using Wordnet** 304
Shete Padmini and G. A. Patil

039 **Teaching Formal Methods at Undergraduate/Graduate Level: The Three Perspectives** 310
Natasha Jeppu,Yogananda Jeppu and M K Kavitha Devi

Session 4.2 Applied Computing

097 **A comparative study on Load-balancing Algorithms for Cloud Environments** 316
Pushpa R and M. Siddappa

071 **Self-Organizing Maps Classification with Application to the Low-Frequency Magnetic Field Emitted by Portable Computers** 322
D. Brodić and Ivo R. Draganov

116 **Outlier Detection in Data Streams using MCOD Algorithm** 328
Vishnu vardhanreddy salimidi

062 **Directory Services for Identity and Access Management in Cloud Computing** 334
M. Tariq Banday and Saima Mehraj

130 **Practitioner's Guide for Building Effective Complex Enterprise Architecture in Digital Transformation** 338
Sreekumar Vobugari, Madhan Kumar Srinivasan and Somayajulu DVLN

029 **An Efficient Method to Predict Software Quality Using Soft Computing Techniques** 347
Ayush Rai, Tanupriya Choudhury, Sheetal Sharma and Kuo-Chang Ting

131 **An ISFET automated output calibration system implementation on reconfigurable FPGA device with MATLAB Artificial Intelligence interfacing** 354
Deepa Saini, Ajay Rupani, Gajendra Sujediya and Tushar Sharma

055 **san_sim: Factual and Efficient URL Text Similarity Algorithm** 359
Sandhya and Udayan Ghose

109 **Granularity based Image processing Eco system in Hadoop Predict the detailed results for different Medical Images** 365
Sunny B. Mohite and G. A. Patil2

Additional Papers:

An information divergence based approach to detect flooding DDoS attacks and Flash Crowds 251
Gursharanjeet Kaur, Sunny Behal, Shifali

Design and Simulation of FPGA based All Digital phase locked loop (ADPLL) 259
Shruti Edway, R K Manjunath

Analysis of Big Data Security Practices 264
Revathy P, Rajeswari Mukesh