2018 4th International Conference on Applied and Theoretical **Computing and Communication** Technology (iCATccT 2018)

Mangalore, India **6 – 8 September 2018**



IEEE Catalog Number:

CFP18D66-POD **ISBN**: 978-1-5386-7707-0

Copyright © 2018 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:
 CFP18D66-POD

 ISBN (Print-On-Demand):
 978-1-5386-7707-0

 ISBN (Online):
 978-1-5386-7706-3

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



Technical Programme

Session 1.1	Theoretical Computer Science I
Date/Time	September 6, 2018 (Thursday) 02:15 - 03:45 hrs
Venue	Room Number -001
Chairs	Dr. Mohideen Badhusha S , Sr. Professor, dept. of CSE, AIET N.V Subba Reddy , Professor Department of Computer Science & Engineering Manipal Institute of Technology
Algorithm for using NLP with Extremely Small Text Datasets1	

- Jaideep Rao, Neil Daftary, Aditya Desai and Reeta Koshy
- 072 Performance Prediction of Configurable softwares using Machine learning approach.....7 Tanuja Shailesh, Ashalatha Nayak and Devi Prasad
- 099 Image Encryption using Discrete Rajan Transform.....N/A S. Vairaprakash and A. Shenbagavalli
- 103 Comparative Exploration and Reliability Inferences of Component based Software Reusability System....N/A T.Rajani Devi and B.Rama
- 110 Fuzzy Inference based Secure Localization Against Wormhole Attack in Wireless Sensor Network.....18 Sharada Kori, Krishnamurthy G N and Nandini Sidnal
- 182 An Approach to Predict Protein Secondary Structure using Deep Learning in Spark based Bigdata Computing Framework.....25 X. Leo Dencelin and T. Ramkumar

Session 1.2	Applications of Communication I
Date/Time	September 6, 2018 (Thursday) 02:15 - 03:45 hrs
Venue	Room Number -002
Chairs	Dr. Manjunatha D.V, HOD & Sr.Professor, dept. of ECE, AIET Dr. Bore Gowda S B, Professor Department of Electronics & Communication Engineering Manipal Institute of Technology

- 019 A Toyota Logo Penta-band Antenna loaded with pi and inverted L-shaped Slots for Multiple Wireless Applications.....31 Tanweer Ali, Abhishek Kavinamoole, Subhash B K and Rajashekhar C. Biradar
- 022 A Compact Multiband Antenna loaded with Etype unit cell DGS structure and H-shaped slot for WiMAX/WLAN Applications.....36

Tanweer Ali, Abhiram, Subhash B K and Rajashekhar C. Biradar

- 054 A Highly Compact Triple band Antenna for diverse Wireless Applications.....41 Tanweer Ali, Darshan, Subhash B K and Durga Prasad K
- A Survey on Efficient Spectrum Utilization for Future Wireless Networks using Cognitive Radio 074 Approach....47

Madan H.T and P I Basarkod

161 Rising Security Perils and Its Counter Steps In Internet of Things.....N/A KamalPreet Singh, Gaurav Mishra, Diwakar Kumar and Abhinav Kumar Singh

Session 1.3	SS: Big Data Analytics
Date/Time	September 6, 2018 (Thursday) 02:15 - 03:45 hrs
Venue	Room Number -103
Chairs	Dr. Sumith.N, Associate Professor, dept. of CSE, AIET Dr. Prema K V, Professor Department of Computer Science & Engineering Manipal Institute of Technology

- O37 An Example on Estimating Weibull Scale (eta) and Shape (beta) Parameters from Sample Failure
 Data.....60
 Shailesh K R
- 062 Result and Analysis of Hybrid cooperative Localization Scheme for Mobile Communication Network.....64
 Pavankumar D and H R Mahadevaswamy
- Big Data Security: A Progress Study of Current user Authentication Schemes.....68

 Thoyazan Sultan Algaradi and B. Rama
- Optimizing Information Approach which Exploits Information Available on the Web Pages Adequately.....N/A

 Mamta Sharma and Vijay Rana
- 178 Performance Analysis of Fuzzy Logic Controller based Control System For Variations in Span of Membership Functions.....80

 Ravindra Bhat and Shashikant Patil

Session 2.1	Computing Applications I
Date/Time	September 6, 2018 (Thursday) 04:00 - 05:30 hrs
Venue	Room Number -001
Chairs	Dr. Manjunatha Kotari, HOD & Professor, dept. of CSE, AIET N.V Subba Reddy, Professor Department of Computer Science & Engineering Manipal Institute of Technology

- Virtual Machine Provisioning and Resource Management Mechanisms for Dynamic Workloads.....88

 Usha Kirana S P and Demian Antony D'Mello
- O61 Secured Cloud Storage by Advanced Splitting and Encrypting Mechanism.....N/A Ganaraj K, Kishor Shivathaya, Arpana Shetty and Abdul Khader
- 129 Resourceful System-level Optimized Placement of Virtual Machines for Cloud Computing.....99
 Neha Tyagi, Ajay Rana and Vineet Kansal
- Smart Healthcare Analysis and Therapy for Voice Disorder using Cloud and Edge Computing.....103
 Chandrasekhara Reddy T, Gadicherla Sirisha and A Mallikarjuna Reddy
- Nano magnet Logic: A new era of Replacing Transistors.....107

 Dhruv Garg, Nitya Rakhra, Abha Thakral and Tanupriya Choudhury

Session 2.2	Communications Theory
Date/Time	September 6, 2018 (Thursday) 04:00 - 05:30 hrs
Venue	Room Number -002
Chairs	Dr. Roopa Lakshmi.R, Professor, dept. of ISE, AIET Dr. Prema K V, Professor Department of Computer Science & Engineering Manipal Institute of Technology

- O23 **Proposal for Enhancing Face Detection in Group Photos.....113** *Ramyashree and Venugopala P. S.*
- A Study of Process Calculus for Formal Verification and Analysis of Security Protocol.....119

 Annie Irfan, Manish Gaur and Surya Prakash Tripathi
- O86 **Design of Low Power and High Speed VLSI Domino Logic Circuit.....125**Praveen J, Aishwarya, Jagadish Venkatraman Naik, Kshithija and Mahesh Biradar
- 108 Authentic Face Detection and Encryption for Security Assurance.....131
 Lahari Vaidya and Veena Devi Shasthrimath V
- 158 Future of Banking Security and IoT: Blockchain Technology.....N/A Shubham Singhal, Deepa Gupta and Praveen Kumar

Session 2.3	Applications of Communication II
Date/Time	September 6, 2018 (Thursday) 04:00 - 05:30 hrs
Venue	Room Number -103
Chairs	Dr. Dattathreya , Dean Planning & Sr. Professor, dept. of ECE, AIET Dr. Bore Gowda S B , Professor Department of Electronics & Communication Engineering Manipal Institute of Technology
082 Design of	Effective Scheduling with delay constraint for Mobile Sink in Wireless Sensor

- 082 Design of Effective Scheduling with delay constraint for Mobile Sink in Wireless Sensor Networks.....143 Mallikarjun Mugli and A.M.Bhavikatti
- Object Recovery System using Wireless Sensor Networks for Smart Cities.....149

 K. S. Shivaprakasha and Latheesh Kumar U
- 113 Preventive & Predictive Maintenance of Telecommunication Equipment A Review.....154

 Mohammad Abiad, Seifedine Kadry and Sorin Ionescu
- 150 Radio Resources Access Occupancy Measurements and Analysis.....160 H.Srinivasa Murthy and Sudarson Jena
- 165 Relevance Feedback on Mobile Data using RapidMiner.....166
 Tanuj Pawar, Parul Kalra and Deepti Mehrotra

Session 3.1	SS: Computer Vision, Graphics and Image Processing I
Date/Time	September 7, 2018 (Friday) 10:00 - 11:30 hrs
Venue	Room Number -001
Chairs	Jayanthkumar Rathod.A, Professor & HOD, dept. of ISE, AIET Dr. Shashidhar G. Koolagudi , Professor Department of Computer Science & Engineering NITK-Surathkal
0.57	· D (HDD) I · · · · C I C · · · · · · · · · · · ·

- 057 **High Dynamic Range (HDR) Imaging using Color Gamut Mapping.....170**Prashanth N, Dattathreya, Pooja.Manjunath and Spurthi.H.T
- Directional Sparse Bayesian Attainments for Compressive Sensing with Appliance to Ultra High Definition (UHD) TV set.....N/A

 Pooja.Manjunath, Spurthi.H.T, Priyadarshan.C.S, Prashanth.N and Sateesh Kumar H.C
- O59 Compressive Sensing through Iterative Reweighted Optimization for Consumer Electronics Applications.....179

 Jeevitha.J.R, Yashaswini.H, Prashanth.N and Dattathreya
- 105 Efficacy of Computer Vision Technique to Identify and Extrapolate the Tuberculosis Bacilli.....184 Vishakha Yadav and Thippeswamy G
- 116 Design and Analysis for Automated Personality Classification.....N/A
 Siddharth Bhaskar

Session 3.2	Computing Applications II
Date/Time	September 7, 2018 (Friday) 10:00 - 11:30 hrs
Venue	Room Number -002
Chairs	Dr. Sumith.N, Associate Professor, dept. of CSE, AIET Dr. Geetha V, Professor Department of Information Technology NITK-Surathkal

- O38 A Concept of Energy Efficient LED Lighting using Power-over-Ethernet (PoE) Technology.....193
 Shailesh K R
- 077 **A Hybrid Technique for Brain Tumor Detection and Classification.....195** *Kruttika Jain, Akanksha Joshi, Shivani Kaushal and Prachi Natu*
- 102 **Autobot: Leveraging Cloud Service to enable IOT Connected Robotic Automaton.....201** Gireesh Babu C N, Thungamani M, Pushpa S K and Muneshwara M S
- Review of the In-Vivo Staining Materials and Imaging Adjuncts in Detection of Oral Cancer.....N/A Rajashekhargouda C. Patil and Mahesh P. K.
- 136 Internet of Things (IoT) Security Threats and its Countermeasures.....N/A

 Mallikarjuna Reddy A, Srinivas Reddy K and Chandrasekhar Reddy T

Session 3.3	Applications of Communication III
Date/Time	September 7, 2018 (Friday) 10:00 - 11:30 hrs
Venue	Room Number -103
Chairs	Dr. Praveen.J , Dean Academic & Professor, dept. of ECE, AIET Dr. Muralidhar Kulkarni , Professor Department of Electronics & Communication Engineering NITK-Surathkal
	PW-FED Rhombus Shaped Patch Antenna using Rightangled Isosceles Triangle Fracta

- 1.....213 Murali Krishna Chintapanti and Krishna Kanth Varma Penmatsa
- 047 A Multiband Slotted Log Periodic Dipole Array Antenna Design using Giuseppe Peano Fractal Geometry.....218
 - P. Krishna Kanth Varma, Ch. Murali Krishna and P.V.Rama Raju
- A Compact Maple leaf Shaped Multiband Antenna Loaded with dodecagonal slot for Wireless 055 Applications.....227 Tanweer Ali, Ashish K and Subhash B K
- A Compact Planar Triple band slotted Antenna for Wireless Applications.....232 060 Imran Khan, Geetha D, Sudhindra K.R., Tanweer Ali and R.C. Biradar
- 070 Network Coverage Enhancement using Mobile Sensors for WSN.....237 Umesh M. Kulkarni, Harish H. Kenchannavar and Pooja Raju Joglekar
- 071 Secure Parallel Processing on Encrypted Cloud Data using Fully Homomorphic Encryption.....242 Rudragoud. S. Patil and Prabhuling Biradar

Session 4.1	Applications of Communication IV
Date/Time	September 7, 2018 (Friday) 11:45 - 01:15 hrs
Venue	Room Number -001
Chairs	Prof. Shankar, Associate Professor, dept. of ECE, AIET Dr. Muralidhar Kulkarni, Professor Department of Electronics & Communication Engineering NITK-Surathkal

- 042 Estimation and Visualization of 3D Orbits of GPS Satellites using GPS Navigation Data File and SP3 Data File....248
 - Ashok Singh Raj Purohit, Harshith Somanna PB, Anushree Shettigar, Apoorva D and Dattathreya
- 093 Location-Aware Resilient Hybrid Overlay Structures for Peer-to-Peer Video Streaming.....255 Uma Maheswari B and T.K. Ramesh
- 107 A Novel Algorithm for Antenna Azimuth Position Control System.....261 Laxmikant M. Deshpande and A.M.Bhavikatti
- 134 A Relay Node Scheme for Energy Redeemable and Network Lifespan Enhancement.....266 Achyutha Prasad N and C D Guruprakash
- 196 Cost Efficiency of Telecommunication Equipment- A Review.....275 Mohammad Abiad, Seifedine Kadry and Sorin Ionescu

Session 4.2	Theoretical Computer Science II
Date/Time	September 7, 2018 (Friday) 11:45 - 01:15 hrs
Venue	Room Number -002
Chairs	Dr. Roopalakshmi.R, Professor, dept. of ISE, AIET. Dr. Shashidhar G. Koolagudi , Professor Department of Computer Science & Engineering NITK-Surathkal
Measuring the Effectiveness of Government Schemes using Machine learning algorithms281 Amruta M Deshpande and Vidvadheesh I Pandurangi	

- Amruta M Deshpande and Vidyadheesh J Pandurangi
- 085 Big Data Strategies - A Review and Survey.....287 Riya Bakhtiani, Meet Gandhi, Prathamesh Churi and Poonam Gupta
- 092 Interactive Touch Screen using Augmented Reality.....294 Probuddho Chakraborty and Anip Shah
- Optical Character Recognition for Handwritten Forms with Dynamic Layout.....299 111 Anushri Arora and Aniruddh Chandratre
- 127 A Review on Community Detection Algorithms in Social Networks.....304 Puneet Kumar, Priyanka Chawla and Ajay Rana

Session 4.3	SS: Computer Vision, Graphics and Image Processing II
Date/Time	September 7, 2018 (Friday) 11:45 - 01:15 hrs
Venue	Room Number -103
Chairs	Dr. Mohideen Badhusha.S, Sr.Professor, dept. of CSE, AIET Dr. Geetha V, Professor Department of Information Technology NITK-Surathkal

- 120 An Invariant Multi-Scale Saliency Detection for 3D Mesh.....310 Abdallah El Chakik, Abdul Rahman El Sayed and Shadi Nohra
- 121 Skin Cancer Segmentation with Entropy PAL MCET using Gaussian Distribution.....315 Nancy A. Zreika, Ali El Zaart, Abdallah El Chakik and Toufic El Arwadi
- 130 Performance Analysis of Communication Management System based Smart Grid using Different Modulation Techniques.....321 Patcy Janice Gomes and Shrividya G.
- 145 Image Spectrum Segmentation for Lowpass and Highpass Filters.....327 Walaa Ali H. Jumiawi and Ali El-Zaart