2014 IEEE International Conference on Advanced Networks and Telecommunication Systems

(ANTS 2014)

New Delhi, India
14-17 December 2014
Monday, December 15

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Session 1A: Broadband Wireless Networks I

Room: Auditorium
Chair: Debabrata Das (International Institute of Information Technology - Bangalore, India)

**LTE Multicast Communication for Demand Response in Smart Grids** 1
Abhishek Roy (Samsung Electronics, Korea); Han-Seok Kim (Samsung Electronics Co., LTD., Korea); Navrati Saxena (Sungkyunkwan University & School of Information and Communication Eng., Korea); Radha Kandoori (Sungkyunkwan University, Korea)

**A Novel Access Scheme for IoT Communications in LTE-Advanced Network** 7
Prashant Wali (International Institute of Information Technology, India); Debabrata Das (International Institute of Information Technology - Bangalore, India)

**Optimal Resource Allocation Scheme for LTE-A Systems with Carrier Aggregation** 13
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**Simulative Analysis of Multimedia Traffic over LTE with Real Time Scenarios in Network Simulator-3** 19
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Chair: Matteo Fiorani (KTH Royal Institute of Technology, Sweden)

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**An Efficient Traffic Grooming Policy for Heterogeneous WDM Mesh Networks** 42
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Chair: Venkatesh Sarangan (Tata Consultancy Services, India)

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Experiences with Moosense
Sanat Sarangi, Akshat Bisht and Vijay Rao (Indian Institute of Technology Delhi, India); Subrat Kar (Indian Institute of Technology, Delhi, India); Tushar Kumar Mohanty and Anand Prakash Ruhil (National Dairy Research Institute Karnal, India)

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Railway Bridge Health Monitoring System
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Sumit Goswami (Defence Research and Development Organisation, Ministry of Defence, India); Sudip Misra (Indian Institute of Technology-Kharagpur, India); Saurabh Jain (Presto Infosolutions Pvt Limited,
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Session 3A: Wireless LAN

Room: Auditorium
Chair: Santi Prasad Maity (Bengal Engineering & Science University, Shibpur, India)

Gap-free Load Balancing in Wireless LAN Networks using Cell Breathing Technique
İhan Demirci (Marmara University & TÜBİTAK, Turkey); Omer Korcak (Marmara University, Turkey)

Tejmani Sinam, Ngasham Nandarani Devi, Pradeep Lamabam and Tilokchan Irenbgam (Manipur University, India); Sukumar Nandi (Indian Institute of Technology, Guwahati, India)

A Scheme for Improving the Performance of Network Coding Technique
Purnendu Pandey and Neetesh Purohit (Indian Institute of Information Technology, India)

An improved autoconfiguration protocol variation by improvising MANETconf
Amit Munjal (Indian Institute of Technology, Kanpur, India); Yatindra N Singh (IIT Kanpur, India)

Session 3B: Network Security

Room: Conference Room
Chair: Sudip Misra (Indian Institute of Technology-Kharagpur, India)

Block the Blocker: A Blocker-Tag Agnostic ALOHA-Based Tag Reading Protocol in Dense RFID System
Veeramani Mahendran (University of Oklahoma, USA); Chandrika Satyavolu (The University of Oklahoma, USA); Sridhar Radhakrishnan (University of Oklahoma, USA); Venkatesh Sarangan (Tata Consultancy Services, India)

Securing Intra-communication in 6LoWPAN: A PKI Integrated Scheme
Sumit Goswami (Indian Institute of Technology Kharagpur, India); Sudip Misra (Indian Institute of Technology-Kharagpur, India); Chaynika Taneja (Defence Research Development Organization, Ministry of Defence, India); Anandarup Mukherjee (Indian Institute of Technology, Kharagpur & IEEE, India)

A Quantum Diffie-Hellman Protocol Using Commuting Transformations
Pranav Subramaniam and Abhishek Parakh (University of Nebraska at Omaha, USA)

Limits On Detecting Eavesdropper in QKD Protocols
Pranav Subramaniam and Abhishek Parakh (University of Nebraska at Omaha, USA)

3:00 PM - 4:00 PM

Poster Session

Room: Conference Room
Chair: Bheemarjuna Reddy Tamma (IIT Hyderabad, India)

MobiCoStream: Real-time Collaborative Video Upstream for Mobile Augmented
Reality Applications
Narendra N, Pavan Reddy, Kriti Kumar, Ashley Varghese, Prashanth Swamy, Girish Chandra and P. Balamuralidhar (Tata Consultancy Services, India)

Circularly Polarized Dual Band Microstrip Antenna for Vehicular Wireless Communication Networks
Ramya R (13 th floor, Tech park, SRM University & SRM University, India); T Rama Rao (SRM University, India)

Enhanced Optical Power Budget in DDO-OFDM-PON and CO-OFDM-PON System Using Frequency Diversity
Pravindra Kumar and Anand Srivastava (I I T Mandi, India)

Evaluating Polynomial Regression Based Data Aggregation in Body Area Networks
Andrew Knox, Suryadip Chakraborty and Dharma P Agrawal (University of Cincinnati, USA)

A Variable Rate Multi-User CI/GO-OFDMA Scheme over Frequency Selective Channel
Vijay Mukati (IIT PATNA, India); Abdul Rauf Khan (IIT Patna, India); Veerender Bhimavarapu (IIT patna, India); Preetam Kumar (Indian Institute of Technology Patna, India)

Cooperative Sensing and Allocation Scheme Using IEEE 802.22-Standard
Satajeet Biswas (Jadavpur University, India); Sourodeep Biswas (Kalyani Government Engineering College, India); Amitava Mukherjee (IBM India Pvt Ltd, Calcutta, India); Mrinal Kanti Naskar (Jadavpur University, India)

Prateek Mathur (Aalborg University, Denmark); Rasmus Hjorth Nielsen (Cisco Systems, USA); Neeli Rashmi Prasad (Center for TeleInFrastructure (CTIF), Denmark); Ramjee Prasad (Aalborg University, Denmark)

Novel Energy Model To Analyze The Effect Of MAC And Network Parameters On Asynchronous IEEE 802.15.4 Multi-hop Wireless Networks Lifetime
Rajavaraprasad Yerra (IIT Hyderabad & Mrhd, India); Pachamuthu Rajalakshmi (Indian Institute of Technology Hyderabad, India)

Multi-layer Energy Savings in Optical Core Networks
Lin Liu, Sara El Alaoui and Byrav Ramamurthy (University of Nebraska-Lincoln, USA)

Exploiting Multiple Antenna Cognitive Radio System for Cooperative Spectrum Sharing
Ankush Vashistha (Indraprashta Institute of Information Technology, India); Shubha Sharma (IIIT Delhi, India); Vivek A Bohara (Indraprashta Institute of Information Technology, Delhi (IIIT-Delhi), India)

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Session 4A: Software Defined Networks

Room: Auditorium
Chair: Vinod Sharma (Indian Institute of Science, India)

Application-Aware Software-Defined EPON Access Network
Divya Chitimalla (University of California Davis, USA); Saigopal Thota (University of California, Davis, USA); Saadet Savas (University of California- Davis, USA); Pulak Chowdhury (University of California, Davis & Ennetix Inc., USA); Massimo Tornatore (Politecnico di Milano & University of California, Davis, Italy); Sang Soo Lee, Han Hyub Lee and Soomyung Park (ETRI, Korea); Biswanath Mukherjee (University of California, Davis, USA)

Caching Using Software-Defined Networking in LTE Networks
Jose Costa-Requena, Mael Kimmerlin and Jukka M J Manner (Aalto University, Finland)

On Multipath Routing Algorithm for Software Defined Networks 218
Siddharth Kulkarni (Indian Institute of Technology, Jodhpur, India); Venkataramana Badarla (Indian Institute of Technology Jodhpur, India)

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Session 4B: Broadband Wireless Networks II

Room: Conference Room
Chair: Nabanita Das (Indian Statistical Institute, India)

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Sandip Chakraborty (Indian Institute of Information Technology Guwahati, India); Sukumar Nandi (Indian Institute of Technology, Guwahati, India)

Performance Analysis of Multi-party Conferencing in IMS using Vacation Queues
Garima Mishra and Dharmaraja Selvamuthu (IIT Delhi, India); Subrat Kar (Indian Institute of Technology, Delhi, India)

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Biswajit R Bhowmik and Santosh Biswas (IIT Guwahati, India); Jatindra Kumar Deka (Indian Institute of Technology Guwahati, India)

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Session 5A: Transport Networks

Room: Conference Room
Chair: Nabanita Das (Indian Statistical Institute, India)

Challenges for 5G Transport Networks 266
Matteo Fiorani and Paolo Monti (KTH Royal Institute of Technology, Sweden); Björn Skubic (Ericsson AB, Sweden); Jonas Mårtensson (Acreo AB, Sweden); Luca Valcarenghi and Piero Castoldi (Scuola Superiore Sant'Anna, Italy); Lena Wosinska (KTH Royal Institute of Technology, Sweden)

Segment Routing based Traffic Engineering for Energy Efficient Backbone Networks
Radu Carpa (ENS de Lyon, France); Olivier Gluck (LIP, Ens Lyon, France); Laurent Lefevre (INRIA, France)

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Abhishek Roy, M. Farhan Habib and Biswanath Mukherjee (University of California, Davis, USA)
Doing More with Less: Multiple-Link Failure Resiliency Using Shared Mesh Protection
Soumya Roy (Infinera, USA); Srivatsan Balasubramanian, Sudhindra Kota and Parameshwara Gowda (Infinera, India)

Session 5B: Optical Networks II
Room: Conference Room
Chair: Anand Srivastava (I I T Mandi, India)

Modulation-aware Multipath Routing and Spectrum Allocation in Elastic Optical Networks
Neha Kadu, Sunny Shakya and Xiaojun Cao (Georgia State University, USA)

Effect of Pointing Error on Cooperative Free Space Optical Communication Systems Under Different Channel Conditions
Vineeta Dubey, Devi Chadha and Vinod Chandra (Indian Institute of Technology, Delhi, India)

Transmission Impairments in Long-Reach WDM-PON using RSOA-based ONUs
Sourav Mondal and Swathi Reddy (Indian Institute of Technology Kharagpur, India); Goutam Das (IIT Kharagpur, India); Debasish Datta (Indian Institute of Technology, Kharagpur, India)

Photonic Integration - Path Towards Energy Efficient Optical Transport
Anuj Malik (Infinera Corporation, USA); Thomas Neel (Infinera, USA); Onur Turkcu (University of California, Riverside, USA); Steve Hand and Serge Melle (Infinera, USA)

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Session 6A: Broadband Wireless Networks III
Room: Auditorium
Chair: Omer Korcak (Marmara University, Turkey)

QoS Provisioning for Multiple Femtocells via Game Theory
Vadingadu Udaya Sankar and Vinod Sharma (Indian Institute of Science, India)

Cache-Induced Hybrid CoMP in Wireless Video Streaming Networks
Woojin Kim (SungKyungKwan University, Korea); Hae Sol Lee (SungKyungKwan University, Korea); Dong In Kim (Sungkyunkwan University (SKKU), Korea)

A Game Theory-based Distributed Power Control Algorithm for Femtocells
Henry Shyllon and Seshadri Mohan (University of Arkansas at Little Rock, USA)

On the TDMA with Imprecise Propagation Delay Information
Priyatosh Mandal (Centre for Development of Telematics, New Delhi, India)

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Session 6B: Network Applications
Room: Conference Room
Chair: Anuj Malik (Infinera Corporation, USA)

Geo-Intelligence based Terrain-aware mobile Backhaul Planning for Rural India
Pankaj Kumar Dalela (C-DOT, India); Saurabh Basu and Sabyasachi Majumdar (Research Engineer, India); Arun Yadav (C-DOT, India); Arpit
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