

IEEE ANTS 2014

Dec. 14-17, 2014, New Delhi, INDIA

8th IEEE International Conference on
Advanced Networks and
Telecommunications Systems (ANTS)



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PROGRAM AT-A-GLANCE

Day 1

Sunday, Dec. 14, 2014

Room / Venue	Duration	TUTORIALS
Conference	09:00 a.m. - 01:15 p.m.	T1: Basics of Sensor Networks and Security Issues, Dharma P. Agarwal , Univ of Cincinnati
Meeting	09:00 a.m. - 01:15 p.m.	T2: Emerging Trends in Cloud computing and Role of NFV and SDN for next generation networks, Laxman, B. , Freescale
	01:15 p.m. - 02:00 p.m.	LUNCH
Conference	02:00 p.m. - 06:15 p.m.	T3: Optical Networking and the Future Internet, Byrav Ramamurthy , Univ of Nebraska-Lincoln
Meeting	02:00 p.m. - 06:15 p.m.	T4: Information Centric Networks: the Internet of the future, by Anantha Simha, Hemant Kumar Rath, Samar Shailendra, Bighnaraj Panigrahi and Rajan MA , TCS

Day 2

Monday, Dec. 15, 2014

Auditorium	09:00 a.m. - 05:00 p.m.	Registration
Auditorium	09:00 a.m. - 10:30 a.m.	Inauguration Session and Keynote Talk 1: Vipin Tyagi , Director, C-Dot, New Delhi, Future of Telecom and Technology: Role of C-Dot (and India)
	10:30 a.m. - 10:45 a.m.	Tea / Coffee Break (Sponsored by C-DOT)
Auditorium	10:45 a.m. - 11:05 a.m.	Invited Talk 1: Device-to-Device (D2D) Communication and Offloading - A step towards 5G, Anantha Simha
Auditorium	11:05 a.m. - 11:25 a.m.	Invited Talk 2: Context Aware, Policy based approaches to (Network) Security, Anupam Joshi , Oros Family Chair Professor, Director, UMBC Center for Cybersecurity, Visiting Professor, IIT Delhi
Auditorium	11:25 a.m. - 01:15 p.m.	Track 1: Session 1A: Broadband Wireless Networks I
Conference	11:25 a.m. - 01:10 p.m.	Track 2: Session 1B: Optical Networks I
	01:15 p.m. - 02:15 p.m.	LUNCH
	02:15 p.m. - 04:30 p.m.	
Auditorium	02:15 p.m. - 03:00 p.m.	Keynote Talk 2: Inder Monga , Chief Technologist and R&D Area Lead, Esnet, Exploring new architectures - SDN and NDN

Day 2**Monday, Dec. 15, 2014**

Auditorium	03:00 p.m. - 04:30 p.m.	Panel 1: Technology, Policy Challenges & Solutions to enable the Digital India Vision
	04:30 p.m. - 04:45 p.m.	Tea / Coffee Break
Auditorium	04:45 p.m. - 06:35 p.m.	Track 1: Session 2A: Wireless Sensor Networks
Conference	04:45 p.m. - 06:35 p.m.	Track 2: Session 2B: Cognitive Radio Networks

Day 3**Tuesday, Dec. 16, 2014**

Auditorium	09:00 a.m. - 05:00 p.m.	Registration
Auditorium	09:00 a.m. - 09:45 a.m.	Keynote Talk 3: R.K. Shevgaonkar , Director, IIT Delhi, Photonics Crystals in Optical Communication
Auditorium	09:50 a.m. - 11:15 a.m.	Track 1: Session 3A: Wireless LAN
Conference	09:50 a.m. - 11:15 a.m.	Track 2: Session 3B: Network Security
Auditorium	11:15 a.m. - 11:35 a.m.	Invited Talk 3: Photonic Integration & Fast Shared Mesh Protection - Key Enablers for the Next Phase of Optical Build out in India, Prsanjeet Khuntia , Country Head, India sales at Infinera.
	11:35 a.m. - 11:50 a.m.	Tea/Coffee Break
Auditorium	11:50 a.m. - 01:15 p.m.	Panel 2: Next Generation Optical Transport Network Evolution & Challenges
	01:15 p.m. - 02:15 p.m.	LUNCH
Auditorium	02:15 p.m. - 03:00 p.m.	Keynote Talk 4: Shyamasundar , FIEEE, FACM, Senior Professor and JC Bose , National Fellow, Faculty of Technology & Computer Science, TIFR, Mumbai, Towards a Foundation of Security of SCADA
Conference	03:00 p.m. - 04:00 p.m.	Ph.D. Student Forum
Foyer	03:00 p.m. - 04:00 p.m.	Poster Session
Foyer	03:00 p.m. - 04:00 p.m.	Demo/Exhibits
	04:00 p.m. - 04:15 p.m.	Tea/Coffee Break
Auditorium	04:15 p.m. - 04:35 p.m.	Invited Talk 4: Deterministic Wireless for Internet of Things, Mukesh Taneja , Principal Engineer, Cisco Systems, India
Auditorium	04:35 p.m. - 06:25 p.m.	Track 1: Session 4A: Software Defined Networks
Conference	04:35 p.m. - 06:25 p.m.	Track 2: Session 4B: Broadband Wireless Networks II
	07:15 p.m. - 09:00 p.m.	Conference Banquet Dinner

Day 4**Wednesday, Dec. 17, 2014**

Auditorium	09:00 a.m. - 05:00 p.m.	Registration
Auditorium	09:00 a.m. - 09:45 a.m.	Keynote Talk 5: T. A. Gonsalves , Director, IIT, Mandi, Musings on the Future Cloud in India
Auditorium	09:50 a.m. - 11:10 a.m.	Track 1: Session 5A: Transport Networks
Conference	09:50 a.m. - 11:15 a.m.	Track 2: Session 5B: Optical Networks II
	11:15 a.m. - 11:30 a.m.	Tea / Coffee Break
Auditorium	11:30 a.m. - 01:00 p.m.	Panel 3: IoT / Cloud Computing: Accelerators for Emerging Economies
	01:00 p.m. - 02:00 p.m.	LUNCH
Auditorium	02:00 p.m. - 02:45 p.m.	Keynote Talk: Uday Desai , Director, IIT Hyderabad, CPS and IoT: Smarter Societies.

Auditorium 02:50 p.m. - 04.20 p.m. Track 1: Session 6A: Broadband Wireless Networks III

Conference 02:50 p.m. - 04.40 p.m. Track 2: Session 6B: Network Applications

Auditorium 04:45 p.m. - 05:00 p.m. Concluding Ceremony

05:00 p.m. - 05:15 p.m. Tea/Coffee Break

Tutorials

Morning Session - Sunday, Dec. 14, 2014, 9:00 AM - 1:15 PM

T1: Basics of Sensor Networks and Security Issues, Dharma P. Agarwal, Univ of Cincinnati

T2: Emerging Trends in Cloud computing and Role of NFV and SDN for next generation networks, Laxman, B., Freescale

Afternoon Session - Sunday, Dec. 14, 2014, 2:00 PM - 6:15 PM

T3: Optical Networking and the Future Internet, Byrav Ramamurthy, Univ of Nebraska-Lincoln

T4: Information Centric Networks: the Internet of the future, Anantha Simha, Hemant Kumar Rath, Samar Shailendra, Bighnaraj Panigrahi and Rajan MA, TCS

Keynote Addresses (Auditorium)

- Monday, December 15, 9:45 AM - 10:30 AM, K1: Keynote Talk: Future of Telecom and Technology: Role of CDOT (and India), Vipin Tyagi, Director, Centre for Development of Telematics (C-DOT)
- Monday, December 15, 2:15 PM - 3:00 PM, K2: Keynote Talk - Exploring new architectures - SDN and NDN, Inder Monga, Chief Technologist and R&D Area Lead, ESnet
- Tuesday, December 16, 9:00 AM - 9:45 AM K3: Keynote Talk Title: Photonics Crystals in Optical Communication, R.K. Shevgaonkar, Director, IIT Delhi
- Tuesday, December 16, 2:15 PM - 3:00 PM, K4: Keynote Talk - Towards a Foundation of Security of SCADA, Shyamasundar, Senior Professor and JC Bose National Fellow, Tata Institute of Fundamental Research
- Wednesday, December 17, 9:00 AM - 9:45 AM, K5: Keynote Talk - Musings on the Future Cloud in India, T.A. Gonsalves, Director, IIT, Mandi
- Wednesday, December 17, 2:00 PM - 2:45 PM, K6: Keynote Talk: CPS and IoT: Smarter Societies, Uday Desai, Director, IIT Hyderabad

Invited Talks (Auditorium)

- Monday, December 15, 10:45 AM - 11:05 AM, I1: Invited Talk: Device-to-Device (D2D) Communication and Offloading - A step towards 5G, Anantha Simha, Principal Research Scientist, CTO Networks Lab, TCS,
- Monday, December 15, 11:05 AM - 11:25 AM, 2: Invited Talk: Context Aware, Policy based approaches to (Network) Security, Anupam Joshi, Oros Family Chair Professor, Director, UMBC Center for Cybersecurity,
- Tuesday, December 16, 11:15 AM - 11:35 AM, I3: Invited Talk: Photonic Integration & Fast Shared Mesh Protection - Key Enablers for the Next Phase of Optical Build out in India, Prasanjeet Khuntia, Country Head, India sales at Infinera
- Tuesday, December 16, 4:15 PM - 4:35 PM, I4: Invited Talk: Deterministic Wireless for Internet of Things, Mukesh Taneja, Principal Engineer, Cisco Systems, India.

Technical Paper Session

Details are available at: Technical Program Sessions. Authors are requested to contact the Technical Program / General Co-Chairs if there are any questions/concerns.

(15/12/2014, 11:25am - 01:15pm, Session 1A, Auditorium)

Session 1A

Broadband Wireless Networks I

Session Chair: Debabrata Das, IIIT, Bangalore, India

- | | | |
|---|--|---|
| 1 | LTE Multicast Communication for Demand Response in Smart Grids | Abhishek Roy (Samsung Electronics, Korea); Navrati Saxena (Sungkyunkwan University, Korea); Radha Kandoori (Sungkyunkwan University, Korea) |
| 2 | A Novel Access Scheme for IoT Communications in LTE-Advanced Network | Prashant Wali (IIIT Bangalore, India); Debabrata Das (IIIT Bangalore, India) |
| 3 | Optimal Resource Allocation Scheme for LTE-A Systems with Carrier Aggregation | Madan K Pande (IIT, Bangalore, India); Giuseppe Piro (Politecnico di Bari, Italy) |
| 4 | Simulative Analysis of Multimedia Traffic over LTE with Real Time Scenarios in Network Simulator-3 | Nandu T S and Boopala Krishnan (Sri Sathya Sai Institute of Higher Learning, India); Kopparthi Harsha Theja and Bibhuti Pattnaik (SSSIHL, India); Anil P (SSSIHL, India); Siva Sankara Sai Sanagapati (SSSIHL, India) |
| 5 | Walking Artifacts Mitigation for Improved Heading Estimation in a Reduced Multi-Sensor Configuration | Deepak Bhatt (Samsung Research India-Bangalore, India); Swarna Babu (Samsung Research Institute Bangalore, India) |

(15/12/2014, 11:25am - 01:10pm, Session 1B, Conference Room)

Session 1B

Optical Networks

Session Chair: Matteo Fiorani, KTH Royal Institute of Technology, Sweden

- | | | |
|---|--|--|
| 1 | A novel OLT protection for hybrid WDM-TDM optical access networks | Anirban Kanungoe and Goutam Das (IIT Kharagpur, India) |
| 2 | Parallel Circuit Provisioning in ESnet's OSCARS | Jeremy M. Plante, Dylan A.P. Davis and Vinod M. Vokkarane (Univ. of Massachusetts Lowell, USA) |
| 3 | An Efficient Traffic Grooming Policy for Heterogeneous WDM Mesh Networks | Asima Bhattacharya (Mara-Ison Information Services Pvt. Ltd., India); Amit Kumar Saha (IIES&T, India); Monish Chatterjee (Asansol Engineering College & West Bengal University of Technology, India) |

(15/12/2014, 11:25am - 01:10pm, Session 1B, Conference Room)

Session 1B

Optical Networks

Session Chair: Matteo Fiorani, KTH Royal Institute of Technology, Sweden

- 4 Design of CapEx-Efficient IP-over-WDM Network using Auxiliary-Matrix based Heuristic
- 5 Cost-Efficient Live VM Migration Based on Varying Electricity Cost in Optical Cloud Networks

Suman Kr. Dey (IIT Patna, India); Aneek Adhya (IIT, Patna, India)

Abhishek Gupta (University of California Davis, USA); Uttam Mandal (UOC, Davis, USA); Pulak Chowdhury (UOC, Davis & Ennetix Inc., USA); Massimo Tornatore (Politecnico di Milano & University of California, Davis, Italy); Biswanath Mukherjee (UOC, Davis, USA)

(15/12/2014, 4:45pm - 6:35pm, Session2A, Auditorium)

Session 2A

Wireless Sensor Networks

Session Chair: Venkatesh Sarangan, TCS Innovations Lab, Chennai, India

- 1 Forwarding and Routing Cluster-Based Protocol for Wireless Sensor Networks
- 2 Development of a Wireless Sensor Network for Animal Management: Experiences with Moosense
- 3 Power Efficient Event Detection Scheme in Wireless Sensor Networks for Railway Bridge Health Monitoring System
- 4 Dynamic and Adaptive Data Caching Mechanism for Virtualization within Sensor-Cloud
- 5 A Microstrip Antenna at UWB Frequencies for Body Wearable Wireless Devices

Randriatsiferana Rivo Sitraka, A. (University of La Réunion & Energy Electronic and Process Laboratory, France); Frederic Alicalapa and Antilay Herimpitia T. C. (University of La Reunion, France); Richard Lorion (University La Réunion, France)

Sanat Sarangi, Akshat Bisht and Vijay Rao (IIT, Delhi, India); Subrat Kar (IIT, Delhi, India); Tushar Kumar Mohanty and Anand Prakash Ruhil (National Dairy Research Institute Karnal, India)

Soumendu Ghosh, Maroju Suman and Raja Datta (Indian Institute of Technology Kharagpur, India); Prabir Kumar Biswas (I. I. T. Kharagpur, India)

Sudip Misra (Indian Institute of Technology-Kharagpur, India); Subarna Chatterjee (Junior Research Fellow, India)

Karthik Varshini and T Rama Rao (SRM University, India)

(15/12/2014, 4:45pm - 6:35pm, Session2B, Conference Room)

Session 2B

Cognitive Radio Networks

Session Chair: Adrish Banerjee, IIT Kanpur, India

- 1 On Lifetime Centric Routing and Power Allocation in BER Constrained Cognitive Radio Ad Hoc Networks
- 2 Opportunistic Interference Alignment in Cognitive Multi-User MIMO Relay Networks
- 3 Energy Detection Based Cooperative Spectrum Sensing using Fuzzy Conditional Entropy Maximization
- 4 Immuno-Neural Network for Spectrum Prediction
- 5 Cognitive correlation of source-destination pair in a video conference network using call attributes

Surajit Basak (Guru Nanak Institute of Technology, Kolkata, India); Tamaghna Acharya (Indian Institute of Engineering Science and Technology Shibpur, India)

Manish Mandloi (IIT, Indore, India); Vimal Bhatia (Openwave Systems, United Kingdom)

Avik Banerjee and Santi Prasad Maity (Indian Institute of Engineering Science and Technology Shibpur, India)

Periola A Ayodele (University of Cape Town & Communications Research Group, South Africa); Olabisi Emmanuel Falowo (University of Cape Town, South Africa)

Sumit Goswami (DRDO, Ministry of Defence, India); Sudip Misra (IIT, Kharagpur, India); Saurabh Jain (Presto Infosolutions Pvt Limited, India)

(16/12/2014, 9:50am - 11:15am, Session3A, Auditorium)

Session 3A

Wireless LAN

Session Chair: Santi Prasad Maity, IIES&T, Shibpur, India

- 1 Gap-free Load Balancing in Wireless LAN Networks using Cell Breathing Technique
- 2 Early Detection of VoIP Network Flows based on Sub-Flow Statistical Characteristics of Flows using Machine Learning Techniques
- 3 A Scheme for Improving the Performance of Network Coding Technique
- 4 An improved auto configuration protocol variation by improvising MANET conf

Ihan Demirci (Marmara University & TUB TAK, Turkey); Omer Korcak (Marmara University, Turkey)

Tejmani Sinam, Ngasham Nandarani Devi, Pradeep Lamabam and Tilokchan Irengbam (Manipur University, India); Sukumar Nandi (IIT, Guwahati, India)

Purnendu Pandey and Neetesh Purohit (Indian Institute of Information Technology, India)

Amit Munjal (Indian Institute of Technology, Kanpur, India); Yatindra N Singh (IIT Kanpur, India)

(16/12/2014, 9:50am - 11:15am, Session3B, Conference Room)

Session 3B

Network Security

Session Chair: Sudip Misra, IIT Kharagpur, India

- 1 Block the Blocker: A Blocker-Tag Agnostic ALOHA-Based Tag Reading Protocol in Dense RFID System
- 2 Securing Intra-communication in 6LoWPAN: A PKI Integrated Scheme
- 3 A Quantum Diffie-Hellman Protocol Using Commuting Transformations
- 4 Limits On Detecting Eavesdropper in QKD Protocols

Veeramani Mahendran (University of Oklahoma, USA); Chandrika Satyavolu (The Univ. of Oklahoma, USA); Sridhar Radhakrishnan (University of Oklahoma, USA); Venkatesh Sarangan (TCS, India)

Sumit Goswami (IIT Kharagpur, India); Sudip Misra (IIT Kharagpur, India); Chaynika Taneja (DRDO, Ministry of Defence, India); Anandarup Mukherjee (IIT Kharagpur & IEEE, India)

Pranav Subramaniam and Abhishek Parakh (University of Nebraska at Omaha, USA)

Pranav Subramaniam and Abhishek Parakh (University of Nebraska at Omaha, USA)

(16/12/2014, 3:00pm - 4:00pm, Foyer)

Posters Session

Session Chair: Swades De, IIT Delhi and Bheemarjuna Reddy, IIT Hyderabad

- 1 MobiCoStream: Real-time Collaborative Video Upstream for Mobile Augmented Reality Applications
- 2 Circularly Polarized Dual Band Microstrip Antenna for Vehicular Wireless Communication Networks
- 3 Enhanced Optical Power Budget in DDO-OFDM-PON and CO-OFDM-PON System Using Frequency Diversity
- 4 Evaluating Polynomial Regression Based Data Aggregation in Body Area Networks

Narendra N, Pavan Reddy, Kriti Kumar, Ashley Varghese, Prashanth Swamy, Girish Chandra and P. Balamuralidhar (Tata Consultancy Services, India)

Ramya R (SRM University India); T Rama Rao (SRM University, India)

Pravindra Kumar and Anand Srivastava (IIT Mandi, India)

Andrew Knox, Suryadip Chakraborty and Dharma P Agrawal (University of Cincinnati, USA)

Posters Session

- | | | |
|----|---|---|
| 5 | A Variable Rate Multi-User CI/GO-OFDMA Scheme over Frequency Selective Channel | Abdul Rauf Khan (IIT Patna, India); Preetam Kumar (IIT, Patna, India); Vijay Mukati (IIT PATNA, India) |
| 6 | Cooperative Sensing and Allocation Scheme Using IEEE 802.22-Standard | Satajeet Biswas (Jadavpur University, India); Sourodeep Biswas (Kalyani Govt Engg College, India); Amitava Mukherjee (IBM India Pvt Ltd, Calcutta, India); Mrinal Kanti Naskar (Jadavpur Univ, India) |
| 7 | Novel Framework for Data Collection in Wireless Sensor Networks Using Flying Sensors | Prateek Mathur (Aalborg Univ, Denmark); Rasmus Hjorth Nielsen (Cisco Systems, USA); Neeli Rashmi Prasad (Center for TeleInfrastructure (CTIF), Denmark); Ramjee Prasad (Aalborg Univ, Denmark) |
| 8 | Novel Energy Model To Analyze The Effect of MAC & Network Parameters on Asynchronous IEEE 802.15.4 Multi-hop Wireless Networks Lifetime | Rajavaraprasad Yerra (IIT Hyderabad & Mhrd, India); Pachamuthu Rajalakshmi (Indian Institute of Technology Hyderabad, India) |
| 9 | Multi-layer Energy Savings in Optical Core Networks | Lin Liu, Sara El Alaoui and Byrav Ramamurthy (University of Nebraska-Lincoln, USA) |
| 10 | Exploiting Multiple Antenna Cognitive Radio System for Cooperative Spectrum Sharing | Ankush Vashistha (Malviya National Institute of Technology, India); Shubha Sharma (IIIT Delhi, India); Vivek A Bohara (IIIT- Delhi), India) |

(16/12/2014, 4:35pm - 6:25pm, Session 4A, Auditorium)

Session 4A

Software Defined Networks

- 1 Application-Aware Software-Defined EPON Access Network
- 2 Caching Using Software-Defined Networking in LTE Networks
- 3 On Multipath Routing Algorithm for Software Defined Networks
- 4 Communication Overhead of an OpenFlow Wireless Mesh Network
- 5 Cross Stratum Optimization Algorithms for Network and Application Resources

Session Chair: Vinod Sharma, IISc, Bangalore, India

- Divya Chitimala (University of California Davis, USA); Saigopal Thota (UOC, Davis, USA); Saadet Savas (UOC, Davis, USA); Pulak Chowdhury ((UOC, Davis & Ennetix Inc., USA); Massimo Tornatore (Politecnico di Milano & (UOC, Davis, Italy); Sang Soo Lee, Han Hyub Lee and Soomyung Park (ETRI, Korea); Biswanath Mukherjee (UOC, Davis, USA)
- Jose Costa-Requena, Maël Kimmerlin and Jukka M J Manner (Aalto University, Finland)
- Siddharth Kulkarni (IIT, Jodhpur, India); Venkataramana Badarla (IIT, Jodhpur, India)
- Arun Kp and Abhishek Chakraborty (IISST, India); Manoj Bs (IIOSS&T & CIT&IT, India)
- Veena S (PESIT, Bangalore, India); Ram P Rustagi (India & PES Institute of Technology, India); Balasubramanya Murthy (VTU, India); Ravi Bobba (Kirusa Software Pvt. Ltd., India)

(16/12/2014, 4:35pm - 6:25pm, Session 4B, Conference Room)

Session 4B

Broadband Wireless Networks II

- 1 QoS Associated Path Selection in Wireless Mesh Networks
- 2 Performance Analysis of Multi-party Conferencing in IMS using Vacation Queues
- 3 Phantom Cell Realization in LTE and its performance analysis
- 4 Optimal Placement of Femto Base Stations in Enterprise Femtocell Networks
- 5 Detection of Faulty Interswitch Links in 2-D Mesh Network-on-Chips

Session Chair: Nabanita Das, ISI, Kolkata, India

- Sandip Chakraborty (IIT, Guwahati, India); Sukumar and (IIT, Guwahati, India)
- Garima Mishra (IIT Delhi, India); Subrat Kar (IIT, Delhi, India); Dharmaraja Selvamuthu (IIT Delhi, India)
- Hatim Lokhandwala and Vanlin Sathya (IIT, Hyd, India); Bheemarjuna Reddy Tamma (IIT Hyd, India)
- Milind Tahalani (IIT, Kharagpur, India); Vanlin Sathya (IIT, Hyderabad, India); Arun Ramamurthy (IIT Hyderabad, India); Suhas Shastry (R. V. C. E, India); Mukesh Giluka (IIT, Hyderabad, India); Bheemarjuna Reddy Tamma (IIT, Hyderabad, India)
- Biswajit R Bhowmik (IIT Guwahati, India)

(17/12/2014, 9:50am - 11:10am, Session5A, Auditorium)

Session 5A

Transport Networks

- 1 Challenges for 5G Transport Networks
- 2 Segment Routing based Traffic Engineering for Energy Efficient Backbone Networks
- 3 Network Adaptability under Resource Crunch
- 4 Doing More with Less: Multiple-Link Failure Resiliency Using Shared Mesh Protection

Session Chair: Krishna Sivalingam, IIT Madras, India

- Matteo Fiorani and Paolo Monti (KTH Royal Institute of Technology, Sweden); Björn Skubic (Ericsson AB, Sweden); Jonas Mårtensson (Acreo AB, Sweden); Luca Valcarengi and Piero Castoldi (Scuola Superiore Sant'Anna, Italy); Lena Wosinska (KTH Royal Institute of Technology, Sweden)
- Radu Carpa (ENS de Lyon, France); Olivier Gluck (LIP, Ens Lyon, France); Laurent Lefevre (INRIA, France)
- Abhishek Roy, M. Farhan Habib and Biswanath Mukherjee (University of California, Davis, USA)
- Soumya Roy (Infinera, India); Srivatsan Balasubramanian (Infinera Corporation, India); Sudhindra Kota and Parameshwara Gowda (Infinera, India)

(17/12/2014, 9:50am - 11:15pm, Session5B, Conference Room)

Session 5B

Optical Networks II

- 1 Modulation-aware Multipath Routing and Spectrum Allocation in Elastic Optical Networks
- 2 Effect of Pointing Error on Cooperative Free Space Optical Communication Systems Under Different Channel Conditions
- 3 Transmission Impairments in Long-Reach WDM-PON using RSOA-based ONUs
- 4 Photonic Integration - Path Towards Energy Efficient Optical Transport Networks

Session Chair: Anand Srivastava, IIT Mandi, India

- Neha Kadu, Sunny Shakya and Xiaojun Cao (Georgia State University, USA)
- Vineeta Dubey, Devi Chadha and Vinod Chandra (IIT, Delhi, India)
- Sourav Mondal and Swathi Reddy (IIT, Kharagpur, India); Goutam Das (IIT Kharagpur, India); Debasish Datta (IIT, Kharagpur, India)
- Anuj Malik (Infinera, USA); Thomas Neel (Infinera, USA); Onur Turkcu (Univ. California, Riverside, USA); Steve Hand and Serge Melle (Infinera, USA)

(17/12/2014, 2:50pm - 4:20pm, Session 6A, Auditorium)

Session 6A

Broadband Wireless Networks III

- 1 QoS Provisioning for Multiple Femtocells via Game Theory
- 2 Cache-Induced Hybrid CoMP in Wireless Video Streaming Networks
- 3 A Game Theory-based Distributed Power Control Algorithm for Femtocells
- 4 On the TDMA with Imprecise Propagation Delay Information

Session Chair: Ömer Korçak, Marmara University, Turkey

- SVadingadu Udaya Sankar and Vinod Sharma (Indian Institute of Science, India)
- Woojin Kim (SungKyunkwan University, Korea); Hae Sol Lee (SungKyungKwan University, Korea); Dong In Kim (Sungkyunkwan University (SKKU), Korea)
- Henry Shyllon and Seshadri Mohan (University of Arkansas at Little Rock, USA)
- Priyatosh Mandal (Centre for Development of Telematics, New Delhi, India)

(17/12/2014, 2:50pm - 4:40pm, Session 6B, Conference Room)

Session 6B

Network Applications

- 1 Geo-Intelligence based Terrain-aware mobile Backhaul Planning for Rural India
- 2 Geo-Intelligence based Carbon Footprint Monitoring and prediction of suitable Renewable Energy Technology system for Mobile Towers
- 3 Integrated Network Coding and Caching Information-Centric Networks
- 4 Universal Caching Model and Markov-based Cache Analysis for Information Centric Networks
- 5 PECSNET: The Next Generation Pervasive and Context aware Social Network

Session Chair: Anuj Malik, Infinera, USA

- Pankaj Kumar Dalela (C-DOT, India); Saurabh Basu & Sabyasachi Majumdar (Research Engineer, India); Arun Yadav (C-DOT, India); Arpit Singh and Nidhi Nagpal (Rsh. Engr, India); Vipin Tyagi (C-DOT, India)
- Pankaj Kumar Dalela, Saurabh Basu, Arpit Singh, Sabyasachi Majumdar, Nidhi Nagpal and Vipin Tyagi (C-DOT, India)
- Abhiram Ravi (Indian Institute of Technology Madras, India); Parmesh Ramanathan (University of Wisconsin at Madison, USA); Krishna M. Sivalingam (Indian Institute of Technology Madras, India)
- Bighnaraj Panigrahi (Tata Consultancy Services, India); Samar Shailendra (TCS Innovation Labs, India); Hemant Kumar Rath and Anantha Simha (Tata Consultancy Services, India)
- Debopam Acharya & Divya Lohani (Shiv Nadar Univ. India); Hyo-Joo Han (Georgia Southern Univ,

Panels (Auditorium)

1. Panel 1, Dec. 15, Monday, 3:00 PM - 4:30 PM : Technology, Policy Challenges & Solutions to enable the Digital India Vision.
Moderator: Pamela Kumar, HP
Panelists: Vipin Tyagi (CDOT); Subrat Kar (IIT Delhi); Bipin Kumar (RIL); Krishna Sirohi (i2TB); Amitava Mukherjee (IBM)
2. Panel 2, Dec. 16, Tuesday, 11:50 AM - 1:15 PM: Next Generation Optical Transport and Access Network: Evolution & Challenges
Moderator: Anuj Malik, Infinera
Panelists: Prasanjeet (Infinera); Anand Srivastava (IIT Mandi); Vijay Gopalakrishna (Colt); Byrav Ramamurthy (UNL)
3. Panel 3, Dec. 17, Wednesday, 11:30 AM - 1:00 PM: IoT / Cloud Computing: Accelerators for Emerging Economies
Moderator: Mukesh Taneja, Cisco
Panelists: Timothy A. Gonsalves (IIT Mandi); Balamurali (TCS); Sudhir Dixit (HP); Shashank Dara (Cisco)

Ph.D. Student Forum (Conference Room)

(16/12/2014, 3:00pm - 4:00pm, Auditorium) Chair: Sandip Chakraborty, IIT Guwahati, India

1. Title: Prediction and Analysis of Cascades on Twitter
Author: Mona Gupta, IIT Delhi
2. Title: Quantitative Analysis of Internet Traffic for TCP and Hop-by-Hop Congestion Control
Author: Sneha Kiran Thombre, IIT Guwahati
3. Title: An Intelligent Mobility Management for Device to Device (D2D) Communication in 5G
Author: Pavan Mishra, NIT Raipur, Sanjay Kumar Biswas, San Diego State University
4. Title: Cross Layer QoS Aware Multi Rate Routing Protocol for Ad hoc Network
Author: Mahadev Gawas, BITS-Pilani Goa

Demos / Exhibits (Foyer)

1. **Demonstration of Body Area Networks with IoT for e-Health monitoring**
Boopala Krishnan, Bibhuti Pattnaik, Sri Harsha Palla, Kopparthi HarshaTheja, Siva Sankara Sai Sanagapati (Sri Sathya Sai Institute of Higher Learning, India) and Jai Ganesh (SSSIHL, India)
2. **Demonstration of All-optical Switching Using a Biophotonic Material**
Santosh Balivada, Sri Krishna Chaitanya Kotha, Govardan C (SSSIHL, India); Anil P (SSSIHL, India); Siva Sankara Sai Sanagapati (SSSIHL, India)

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