IEEE SARNOFF SYMPOSIUM 2015

# Conference Agenda

ORGANIZING COMMITTEE APPROVED
8/19/2015

# Conference Agenda

| Sunday, September 20, 2015 | | | |
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| 8 am to 5:00 pm | Registration | | |
| 9:30 – 12:30 pm | Tutorial 1: **Spectrum for 5G Cellular Systems**<br>Reza Arefi, Director of Spectrum Strategy, Intel Corporation | Tutorial 2a: **Distributed Computing on GENI: Hadoop in a Slice (Network virtualization and cloud)**<br>Paul Ruth, Anirban Mandal, Rennaissance Computing Institute, UNC Chapel Hill | Tutorial 3: TBA |
| *Lunch Break (1.5 hours)* | | | |
| 2:00 – 5:00 pm | Tutorial 4: **Integrating Packet and Circuit into Optical Switching Domain**<br>Hiroaki Harai, National Institute of Information and Communications Technology, Tokyo, Japan | Tutorial 5: **Juniper Networks OpenContrail "Hands-on" Technical Overview (SDN - HANDS-ON)**<br>Mike Langdon, Juniper | Tutorial 2b: **Distributed Computing on GENI: Hadoop in a Slice (HANDS-ON)**<br>Paul Ruth, Anirban Mandal, Rennaissance Computing Institute, UNC Chapel Hill |

| Monday, September 21, 2015 | | | |
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| 8:00 am to 5:00 pm | Registration | | |
| 9:00 am to 9:15 am | Opening Ceremony & Welcome Message | | |
| 9:15 am to 10:00 am | **Keynote 1:** Marcus Weldon, President, Alcatel-Lucent Bell Labs | | |
| *Coffee Break (10 minutes)* | | | |
| 10: 10 am to 11:10 pm | **Network Performance I** | **Network Design I** | **Wireless Physical Layer I** |
| Technical Papers | **TP1**: Low-Complexity Collision Detection Scheme Using Pseudo- | **TP4:** Predicting Home Network Problems Using Diverse Data | **TP7:** Low complexity timing synchronization and channel estimation |

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| | Coded ON-OFF Pilot Transmission Per-Packet for Wireless Sensor Networks<br>**TP2:** MDSA: Multi-Dimensional Slotted Aloha MAC Protocol for Low-Collision High-Throughput Wireless Communication Systems<br>**TP3:** Virtual Radio Access Network Opportunities and Challenges | **TP5**: Introducing Contactless Assessment of Heart Rate Variability Using High Speed Video Camera<br>**TP6:** Reduced-complexity Sphere Decoding Algorithm Based on Adaptive Radius in Each Dimension | for DVB-T2 over long echo channels<br>**TP8:** Forecasting of Throughput across Heterogeneous Boundaries in Wireless Communications - Algorithm and Performance<br>**TP9:** Long-term Application-Level Wireless Link Quality Prediction |
| 11:15 am to 11:45 am | **Invited Talk 1:** Biswanath Mukherjee, University of California-Davis | | |
| 11:45 am to 12:15 pm | **Invited Talk 2:** Sudhir Dixit, Vice Chair, World Wide Research Forum | | |
| 12:15 pm to 1:15 pm | ***Lunch Talk*** *– Bill Bayne, CEO Transit Wireless* | | |
| 1:15 pm to 2:00 pm | **Keynote 2:** Sanjay Macwan, SVP and CTO of NBC Universal Media Labs | | |
| *Coffee Break (10 minutes)* | | | |
| 2:10 pm to 3:10 pm | **4G/5G Communications** | **Wireless Sensor Networks I** | **Optical Network Communication** |
| Technical Papers | **TP10:** Optimized Metric Clipping Decoder Design for Impulsive Noise Channels at High Signal-to-Noise Ratios<br>**TP11:** Limiting the Power of 4G Dynamic Green Cellular Networks: Impact on Capacity and Quality of Service<br>**TP12:** Quality of Service Management in 5G Broadband Converged Networks | **TP13:** An Experimental Study of Small World Network Model for Wireless Networks<br>**TP14:** Real-time Evacuating Routing during Earthquake using a Sensor Network in an Indoor Environment<br>**TP15:** Modeling Realism in Wireless Simulations | **TP16:** High-performance quantum well amplifiers for the WDM system<br>**TP17:** Understanding the Impact of Circular Wavelength Conversion on the Performance of Synchronous WDM Optical Packet Switches<br>**TP18:** Analysis of Internal ROADM Protection |
| 3:15 pm to 3:45 pm | **Invited Talk 3:** Venky Krishnaswamy, President, Avaya Labs | | |

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| 3:45 pm to 4:15 pm | **Invited Talk 4:** Martin Körling, President, Ericsson Labs | | |
| 4:15 pm to 4:45 pm | **Invited Talk 5:** Gagan Puranik, Director SDN Architecture, Verizon | | |
| 4:45 pm to 5:15 pm | **Invited Talk 6:** Rita Marty, Executive Director, AT&T CSO | | |
| 5:15 pm to 6:30 pm | **Panel Session 1 - 5G: Challenges and Opportunities**<br>Sudhir Dixit - HP (Moderator)<br>Robert Fish - VP IEEE Communication Society Standards<br>Ivan Seskar - WINLAB, Rutgers University<br>Seshadri Mohan - University of Arkansas<br>Dr. Xiao Feng Qi - Huawei | | |
| 6:30 pm – 9:00 pm | Reception/Dinner Banquet | | |
| **Tuesday, September 22, 2015** | | | |
| 8:00 am to 5:00 pm | Registration | | |
| 9:15 am to 10:00 am | **Keynote 3:** Steve Wright, ETSI NFV ISG Chairman (AT&T Services) | | |
| *Coffee Break (10 minutes)* | | | |
| 10:10 am to 11:10 am | **Network Performance II** | **Network Design II** | **Wireless Physical Layer II** |
| Technical Papers | **TP19:** RAM-Based Micro-Architecture for a High-Throughput Interconnection Network<br>**TP20:** On Guaranteeing the Quality of Service of Conformant Traffic in Excess Bandwidth Allocation for Shared Access Networks<br>**TP21:** NetANPI: a network selection mechanism for LTE traffic offloading based on the Analytic Network Process | **TP22:** A 2.48Gb/s FPGA-based QC-LDPC Decoder: An Algorithmic Compiler Implementation<br>**TP23:** Product Rating Prediction Using Centrality Measures in Social Networks<br>**TP24:** An Automated Topological Analysis of Multiple Routing Configurations | **TP25:** Secondary User Scheduling in Cognitive Radio Networks with Transmit Beamforming for Interference Mitigation<br>**TP26:** Radio Resource Dimensioning in a Centralized Ad-Hoc Maritime MIMO LTE Network<br>**TP27:** Performance Investigation of Non-Hermitian Symmetry OFDM Based MIMO OWC Systems Using Different Imaging Receivers |
| 11:15 am to 11:45 am | **Invited Talk 7:** Dipankar Raychaudhuri, Director, Winlab | | |
| 11:45 am to 12:15 pm | **Invited Talk 8:** Donald H. Sebastian, President, NJ Innovation Institute | | |
| 12:15 pm to 1:15 pm | *Lunch & Poster Session* | | |

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| 1:15 pm to 2:00 pm | **Keynote 4:** Nirwan Ansari, Professor, NJIT | | |
| *Coffee Break (10 minutes)* | | | |
| 2:10 pm to 3:10 pm | **Cloud/Data Center Network** | **Security** | **Wireless Sensor Networks II** |
| Technical Papers | **TP28:** Power-aware Admission Control and Virtual Machine Allocation for Cloud Applications<br>**TP29:** Per-Packet Load Balancing in Data Center Networks<br>**TP30:** Network Virtualization Over SLICE Networks | **TP31:** Vulnerability Analysis and Verification for LTE Initial Synchronization Mechanism<br>**TP32:** Experimental and Theoretical Modeling of DNP3 Attacks in Smart Grids<br>**TP33:** Impact of Software Obfuscation on Susceptibility to Return-Oriented Programming Attacks | **TP34:** Community Based Sensing: A Test Bed for Environment Air Quality Monitoring using Smartphone paired Sensors<br>**TP35:** Byzantine Failure Detection in Wireless Ad-Hoc Networks<br>**TP36:** Experimental Study of Hierarchical Software Defined Radio Controlled Wireless Sensor Network |
| 3:15 pm to 3:45 pm | **Invited Talk 9:** Narayan Menon, VP at Xcellair | | |
| 3:45 pm to 4:15 pm | **Invited Talk 10:** Yuanqiu Luo, Principal Architect, Huawei | | |
| 4:15 pm to 4:45 pm | **Invited Talk 11:** Anupam Joshi, Professor, University of Maryland, Baltimore County | | |
| 4:45 pm to 6:15 pm | **Panel Session 2** - **SDN and NFV Based Carrier Network Transformation Strategies and Deployment Considerations**<br>Subir Das - Applied Communication Sciences (Moderator)<br>Steven Nurenberg - AT&T<br>Martin Körling, President of Ericsson Labs<br>Mark Clougherty - Alcatel Lucent<br>Alec Brusilovs- Interdigital<br>Douglas M. Freimuth - IBM | | |
| 6:15 pm – 6:30 pm | Closing Ceremony (Awards, Vote of Thanks) | | |