



# Seventh International Symposium on Networking and Wireless Communications

In association with 13<sup>th</sup> International Conference on Information Technology: New Generations (ITNG 2016)

## Part of ITNG 2015

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[www.itng.info](http://www.itng.info)

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The scope of the wireless communications technology includes but not limited to two-way radio, cellular communications, personal communications, multi-media communications, antennas, propagation, cognitive radio, dynamic spectrum allocation, and security issues. The author submissions include algorithms, modeling, applications, security issues, and adaptive capabilities to meet the current customer requirements of operating environments, missions and constraints.

The Symposium invites the authors to submit their research articles that explore design, development, applications, and operations of wireless networks. The topics of the tracks include but not limited to:

### Dynamic Spectrum Access

**Chair:** Pao-Ann Hsiung, [hpa@computer.org](mailto:hpa@computer.org)

- Cognitive radio, ultra-wideband, sensor-based applications
- Cognitive Networks including Cross-Layer Perspective, interference management, Dynamic spectrum Access, scaling laws, Game models, spectrum sharing games, etc.
- Wireless energy and security systems
- OFDM, CDMA, spread spectrum
- Channel modeling and characterization
- Physical layer algorithms
- Applications of Genetic algorithms, neural networks, and game models
- Parallelization of spectrum access
- Environment development and tool usage

### Modeling, Algorithms, and Performance Evaluation in Wireless Ad Hoc Networks

**Chair:** Fahim Awan, [fawan@uet.edu.pk](mailto:fawan@uet.edu.pk)

- Methods and tools for Ad Hoc Networks
- Performance modeling and analysis in Wireless Ad Hoc Networks
- Routing, broadcasting and multicasting in Ad Hoc Networks
- Energy-efficient protocols for Ad Hoc Networks
- Resource management, quality of service, and routing in Ad Hoc and Sensor Networks
- Fault-tolerance and reliability issues in Ad Hoc and Sensor networks
- Power control and management in Wireless Sensor Networks
- Security in Ad Hoc and Sensor networks
- Scalability issues and time synchronization techniques in Ad Hoc and Sensor Network
- Design issues in sensor networks applications, such as solar sensors, soil moisture sensors
- Sensor Cloud and its integration

### Sensor networks and Security

**Chair:** Prasanthi S, [s.prasanthi@gmail.com](mailto:s.prasanthi@gmail.com);

- Real-time issues in sensor networks
- Sensor network applications and deployment experiences
- Sensor network protocols and architectures

- Operating systems and middleware for sensor networks
- Distributed sensing and control
- Power management
- Detection, classification, and estimation
- Localization and time synchronization
- Security and privacy

### **RF-based Localization: Novel system approaches, technologies and algorithms**

**Chair:** Fangyang Shen, fangyangshen@gmail.com

- Modeling, Algorithms, and Performance Evaluation
- Wireless Home Communication and Networking
- Measurements and Experimental Research
- Interference Cancellation, Characterization and Avoidance for Cognitive Radio
- Multi-Hop and Cooperative Communications
- OFDM, CDMA, Spread Spectrum
- Space-Time, MIMO, Adaptive Antennas, Network Coding, Cooperative Communications and Other Novel Techniques
- Channel Modeling and Characterization
- Information-Theoretic Aspects of Wireless Communications, Capacity, Throughput, Outage, Coverage
- Ultra-Wide Bandwidth Communication
- Machine Learning, Estimation and Processing Techniques for Wireless Communications
- Mobile and Wireless IP, Congestion and Admission Control

### **Mobile Ad hoc Networks (MANET) and WiMAX**

**Chair:** Natarajan Meghanathan, natarajan.meghanathan@jsums.edu

- Call Admission Control and Traffic Scheduling in WiMAX and MANET
- Quality of Service and Fairness Provisioning in Broadband Wireless Access (BWA) and MANET
- Multimedia over Broadband Wireless Access
- Mesh and Relay Networks in WiMAX
- Cross layer support and Radio Resource Management in BWA and MANET
- MAC protocols in WiMAX and IPv6 compatibility
- MIMO and OFDMA in WiMAX
- Downlink/Uplink Resource Management in BWA
- PMP/Mesh mode in BWA
- Bandwidth Allocation Algorithms for BWA
- Next Generation Broadband Wireless Access
- Spatial Reuse and QoS Routing in WiMAX and MANET
- Neural- Genetic algorithms for Scheduling Problems for WiMAX and MANET
- Selfish Misbehaviour in WiMAX and MANET
- Hidden and Exposed Terminal Problems in MANET
- Virtual Administration in MANET
- Fixed and Mobile WiMAX

### **Software Architecture for wireless communications**

**Chairs:** Sarmistha Neogy, sarmisthaneogy@gmail.com

- Smart wireless reconfigurable wireless communication devices
- Cognitive Networks
- Protocols design
- Cross-layer design
- Sensor networks and security

### **Cloud Computing**

**Chair:** Kekkonen Tuomas, Tuomas.Kekkonen@vtt.fi; Yenumula Reddy, ybreddy@gram.edu

- Architecture, standards, Delivery models, Cloud monitoring, QoS for cloud applications, cloud education
- Security, Privacy, reliability, and Compliance Management
- Testing, adaption, and delivery

- Trouble shooting and best practices
- Cloud optimization and automation
- High performance cloud computing
- Distributed management of cloud computing
- Cost management, modeling, and pricing
- Cloud and future
- Cloud event monitoring data interchange
- Hypervisor and virtual machine monitoring
- Hypervisor security -Virtual machine migration security
- Cloud infrastructure management for customer
- Investigative support and traceability in data migration

### **Hadoop Distributed Systems and Big Data management**

Chair: Yenumula Reddy, [ybreddy@gram.edu](mailto:ybreddy@gram.edu); Jaruwan Mesit, [mesitj@gram.edu](mailto:mesitj@gram.edu)

The analysis of Big Data is important in Government, business, health and beyond. Researching various models to process the big data and its security is very important. The track invites the authors to submit their research articles that explore design, development, applications, and operations of big data. The topics of the track include but not limited to:

- Theoretical Models for Big Data
- New Big Data Standards
- High performance parallel computing platforms for Big Data
- Energy efficient computing for Big Data
- Big Data Architecture, design, scalability and efficiency
- Threat and Vulnerability Analysis
- Trust, Reliability, Security and Privacy in networks and data
- Encrypted Information Retrieval
- Cryptographic Algorithms
- Attacks and Counter Measures
- Intrusion Detection and Response
- Identity Management and Key Management
- Computational modeling and Data Integration

### **Paper Submission:**

Papers must be of high quality, unpublished, and currently not accepted or under review by another conference, workshop, or journal. All submissions must include author names and complete mailing addresses (including telephone number, fax number, and the email address). Extra charges will apply if final version of the paper exceeds six pages. The paper must be in the **CPS** format and submit through <https://www.softconf.com/h/itng2016/>. You can also email your paper to track chair with the subject line set as "ITNG 2016".

### **Evaluation Process:**

All papers will be reviewed by at least two independent reviewers. Papers will be evaluated for originality, technical content, language clarity, and significance to the conference. Accepted papers will be included in the conference proceedings.

### **Important Dates:**

**Submission Deadline:** **November 13, 2015**

**Author Notification by:** **December 18, 2015**

**Advance Registration:** **January 15, 2016**

**Camera Ready:** **February 19, 2016**

Submit your papers through ITNG 2016 website [www.itng.info](http://www.itng.info)