IEEE Consumer Communications & Networking Conference (CCNC)
Held in conjunction with the International Consumer Electronics Show, Las Vegas January 09-12, 2015

Call for Papers for Wireless Communication Track

Scope and Motivation

The Wireless Communications Track covers all aspects related to wireless communications and its applications, with a focus on topics related to physical layer (PHY), MAC layer, cross-layer, and physical layer-related network analysis and design. High quality papers reporting on novel and practical solutions to PHY, MAC, networking and cross-layer design in wireless communication systems are encouraged. In addition, papers on field tests and measurements, field trials and applications from both industry and academia are of special interest.

Main Topics of Interest

The Wireless Communications Track seeks original contributions related to the following topics:

Physical layer topics:

- Channel estimation & synchronization techniques; Channel state information feedback techniques
- Channel and network interference characterization and modeling; Radio resource management and interference control; Interference management, alignment and cancellation, inter-cell interference coordination (ICIC), and coordinated multi-point transmission (CoMP)
- Physical-layer aspects of cellular networks such as LTE, 5G and IMT; MIMO, multi-user MIMO, and Massive MIMO, Distributed Antenna Systems.
- Modulation, coding, and diversity techniques; OFDM and multi-carrier systems; Signal design (waveform design, pilot design, preamble design, etc.)

Cross-layer topics:

- Device-to-device and machine-to-machine communications; Distributed multipoint, relay assisted, and cooperative communications

- Heterogeneous and femtocell networks
- Ultra-dense networks
- Hybrid wireless communication systems (e.g. satellite/terrestrial hybrids)
- Multiple access techniques and air interfaces (CDMA, TDMA, FDMA, OFDMA)
- Opportunistic and dynamic spectrum access; Coexistence in unlicensed spectra; Cognitive Radio
- Advanced, wireless local-area networks (LANs), personal area networks (PANs), and body area networks (BANs)
- Physical-layer and network coding

Wireless systems:

- Security issues related to wireless communications
- Localization techniques
- RFID and its applications
- Simultaneous Wireless Information and Power Transfer (SWIPT)
- Wireless solutions for Flying Ad Hoc Networks (FANET)
- Ultra-wideband (UWB) and millimeter wave communications
- Underwater wireless communications
- Wireless multimedia and quality of service (QoS)
- Visible Light Communications
- Wireless communications testbed development
- Field tests and measurements
- Standardization of wireless systems

The best papers of the track will be selected for a special issue on IEEE Transaction on Consumer Electronics and on Computer Communication that will be organized in the next months.

Track Chairs:

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