IEEE Wireless Communications and Networking Conference 2018
16-18 April 2018
Barcelona

IEEE WCNC is the premier event for wireless communications researchers, industry professionals, and academics interested in the latest development and design of wireless systems and networks. Sponsored by the IEEE Communications Society, IEEE WCNC has a long history of bringing together industry, academia, and regulatory bodies. In 2018, the city of Barcelona will become the center of the wireless world by hosting IEEE WCNC'18. The conference will include technical sessions, tutorials, workshops, and technology/business panels. You are invited to submit papers in all areas of wireless communications and networks. Potential topics include, but are not limited to:

Track 1: PHY and Fundamentals
- Channel modeling, characterization and estimation
- Modulation, coding, diversity, equalization, synchronization
- OFDM, multi-carrier modulation, waveform design
- Interference modeling, management, cancellation and alignment
- PHY strategies for low-rate, sporadic and asynchronous communications
- MIMO, massive MIMO and cloud-RAN
- Cooperative, device-to-device and multi-hop communication
- Cognitive radio, spectrum sensing
- Content caching and storage in wireless networks
- PHY layer design for cellular, wireless LAN, ad hoc and sensor networks
- Energy efficient and energy harvesting PHY layer design
- Joint information and energy transmission
- PHY layer security and privacy, ultra-wideband, mmWave and sub-THz communication
- Information-theoretic aspects of wireless communications
- Signal processing for wireless communications
- Molecular and nano communications

Track 2: MAC and Cross-Layer Design
- Wireless MAC protocols for 5G: design, analysis, and optimization
- Cognitive and cooperative MAC
- MAC for mesh, ad hoc, relay and sensor networks
- Scheduling and radio resource management
- Cross-layer MAC design
- Software defined radio, RFID MAC
- QoS support and energy efficient MAC
- MAC protocol for energy harvesting wireless networks
- MAC design for multitier cellular/small cell networks
- Multiple access in machine-to-machine communication
- MAC for cloud-RAN
- MAC protocols for molecular and nano networks
- MAC protocols for mmWave networks
- Full-duplex MAC design
- Cross-layer design for massive MIMO and multiuser MIMO networks

Track 3: Wireless Networks
- Software-defined mobile/wireless networks
- Wireless Network Functions Virtualization
- Virtual network management and orchestration
- Mobile cloud
- Fog computing and networking
- Mobile Edge Computing
- Mesh, relay, sensor and ad hoc networks
- Routing in wireless networks
- Cognitive radio and networking
- Resource management and optimization
- Big Data enabled Self-Organized Networking
- Mobile big data and network data analytics
- Integrated Wireless/Optical networks
- Mobility, location, and handoff management
- Multimedia QoS and traffic management
- Wireless broadcast, multicast and streaming
- Congestion and admission control
- Wireless network security and privacy
- Mobile social networks
- Wireless network measurements and characterization

Track 4: Emerging Technologies, Architectures and Services
- Mobile/Wireless network support for vertical industries
- Adaptive content distribution in on-demand services
- Context and location-aware wireless services and applications
- User-centric networks and adaptive services
- Wireless body area networks and e-health services
- Intelligent transportation systems
- Dynamic sensor networks for urban applications
- Wireless emergency and security systems
- Ultra-reliable communication
- Enabling regulations, standards, spectrum management
- Hybrid licensed/unlicensed spectrum access schemes (e. g. licensed-assisted access)
- Technologies, architectures and enabling business models for rural communications
- Satellite-based mobile access and backhaul
- Hybrid satellite-terrestrial networks
- Full duplexing
- Joint access and backhaul schemes
- Testbed and prototype implementation of wireless services

CALL FOR TUTORIALS AND WORKSHOPS
Proposals for tutorials and workshops are solicited on hot topics for future wireless communications systems and applications.

CALL FOR PANELS
Panel proposals are also solicited on technical, business and policy-related issues and opportunities for the wireless communications industry.

Accepted and presented papers will be published in the IEEE WCNC 2018 Conference Proceedings.

IMPORTANT DATES

Paper Submission Deadline:	September 15, 2017
Notification of Acceptance:	December 15, 2017
Camera-Ready Submission:	January 12, 2018
Tutorial Proposals:	September 15, 2017
Workshop Proposals:	Separate Call-for-Proposals
Panel Proposals:	September 15, 2017

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