IEEE WCNC is the premier wireless event for 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 2013, the paradisiacal city of Shanghai, China will become the wireless capital by hosting IEEE WCNC 2013.

IEEE WCNC 2013 will include technical sessions, tutorials, workshops, exhibitions and technology and business panels. You are invited to submit papers in all areas of wireless communications, networks, services, and applications. Potential topics are solicited in, but are not limited to, the following categories:

I. PHY TRACK
- Cognitive radio network and dynamic spectrum access
- Multihop, cooperative and distributed communications
- Modulation, channel coding, diversity
- Equalization, synchronization
- Space-time, MIMO, adaptive antennas
- OFDM/OFDMA, CDMA, spread spectrum
- Channel modeling and characterization
- Interference management and MUD
- Iterative techniques
- Information-theoretic aspects of wireless communications
- Signal processing for wireless communications
- Ultra-Wide Bandwidth communications
- Multi-cell cooperation and processing

II. MAC TRACK
- MAC design for multiple access techniques
- Cognitive radio and cooperative MAC
- Collaborative algorithms
- MAC for mesh, ad hoc, relay, and sensor networks
- Network information theory
- Radio resource management and allocation, scheduling
- Energy efficient MAC design, cross-layer security and design
- Software defined radio, RFID
- Adaptability and reconfigurability
- Wireless MAC protocols: design and analysis
- MAC protocol for 3G/4G Systems, WiMAX, WLAN, WPAN
- QoS provisioning in MAC

III. NETWORKS TRACK
- Position location
- Energy efficient network protocol design
- Mobility, location, and handoff modeling and management
- Wireless routing
- Clustering in mesh, relay, sensor, and ad hoc networks
- Network coding in mesh, relay, sensor, and ad hoc networks
- Multimedia QoS and traffic management
- Wireless broadcast, multicast, and streaming
- Congestion and admission control
- Wireless network security and privacy
- Interworking heterogeneous wireless/wireline networks
- Vehicle-to-vehicle communication

IV. SERVICES & APPLICATIONS TRACK
- Emerging wireless/mobile applications
- Context and location-aware wireless services & applications
- Wireless telemedicine and e-health services
- Intelligent transportation systems
- Cognitive radio and sensor-based applications
- Content distribution in wireless home environment
- Wireless emergency and security systems
- Service oriented architectures, service portability
- SIP based services, multimedia, QoS support, middleware
- Innovative user interfaces, peer-to-peer services for multimedia
- Dynamic services, autonomic services
- Regulations, standards, spectrum management
- Personalization, service discovery, profiles and profiling

CALL FOR PANELS
Proposals are solicited for technology/business application panels in the above topical areas or others related to business and policy-related issues and opportunities for the wireless communications industry.

CALL FOR TUTORIALS/WORKSHOPS
Proposals for half/full day tutorials/workshops are solicited based on the topics listed above or others related to issues and opportunities for the future of wireless systems and applications.

IMPORTANT DATES
- Full Paper Submission: 22 September 2012
- Workshop Proposal Submission: 8 July 2012
- Tutorial Proposal Submission: 22 September 2012
- Panel Proposal Submission: 22 September 2012
- Acceptance Notification: 8 December 2012
- Final Camera Ready Copy: 8 January 2013

General Chair: Xiaohu You, Southeast University
Vice-chair: Zhengmao Li, China Mobile Inc
Vice-chair: Xi Zhang, Texas A&M University

TPC Chair: Jiangzhou Wang, University of Kent
Vice-chair: Hsiao-Hwa Chen, National Cheng Kung University
Vice-chair: Lie-Liang Yang, University of Southampton
IEEE WCNC 2013 OPENS REGISTRATION FOR LEADING WIRELESS & NETWORKING EVENT TO BE HELD 7 – 10 APRIL 2013 IN SHANGHAI, CHINA

The IEEE Wireless Communications & Networking Conference (WCNC) has initiated the registration process for its next annual meeting to be held 7 – 10 April 2013 in Shanghai, China. With accommodations currently available at the Oriental Riverside Hotel directly connected to the Shanghai International Convention Center, this year’s event ties together the numerous amenities of mainland China’s “showpiece” cultural, technological and financial center with the next stage of visionary research, services and applications that are actively furthering worldwide business, entertainment and social practices.

“As one of the world’s leading commercial and industrial centers, Shanghai offers the perfect locale for discussing and advancing the next generation of wireless technologies that are actively reshaping the lives of more than seven billion people worldwide,” says Professor Xiaohu You, IEEE WCNC 2013 General Chairman. “We are committed to providing the highest-quality schedule of presentations, while offering attendees the opportunity to experience the City’s truly stunning blend of modern, traditional, western and oriental amenities.”

Scheduled to include more than 850 technical and executive presentations, IEEE WCNC 2013 will open Sunday, 7 April with a full day of tutorials and workshops devoted to topics such as “Cooperative Wireless Communications,” “Mobility Management in Future Wireless Networks,” “Game-Theoretic Techniques for the Energy Efficiency of Wireless Communications,” “Visible Light Communication,” “Mobile Cloud Computing & Networking” and “Future gReen End-to-End Wireless Networks (FREENET).”

Monday, 8 April will then mark the start of the conference’s executive and technical program detailing the entire range of next-stage digital cellular, PCS, multimedia, channel modeling, radio resource management, green networking and emerging mobile applications. Also highlighting this agenda will be the keynote addresses of numerous world-renowned researchers and corporate communications leaders like:

• Professor Fumiyuki Adachi of Tohoku University in Japan, who will address the newest developments in gigabit wireless technology research in his presentation titled “Spectrum & Energy-Efficient Distributed Antenna Network for Future Wireless Communications.” This will include methods for achieving higher-than-1Gbps broadband data transmissions and implementing distributed antenna network (DAN) architectures that significantly reduce the transmit power of wireless networks

• Dr. Chih-Lin I, Chief Scientist of China Mobile Inc., who will speak on “Towards Green & Soft” and the efforts of China Mobile to deliver a technical roadmap for accommodating his country’s network capacities, which are dramatically expected to increase with 1000x traffic loads by 2020. Other talking points will cover the creation of green, energy-efficient networks composed of soft elements used to further support extremely high-density, yet low-cost and low-power deployments of the latest network communications

• Professor Victor O.K. Li of the University of Hong Kong in China, who will ask “Can Wireless Technologies Save the Environment?” and then speak about the challenges and opportunities presented by the advancement and proliferation of the latest wireless technologies. This includes applications such as cloud computing, web applications, global information systems and the Internet, which have fueled a major increase in electric power consumption, as well as devices like MP3 players, personal computers and smartphones that have created huge disposal problems worldwide

• Dr. Wen Tong, Wireless CTO of Huawei, who will discuss “Progress Toward the Future of Mobile Broadband Communications” and the need to fundamentally improve spectrum efficiency and re-architect radio networking protocols and infrastructures

• Professor P. R. Kumar of Texas A&M University, who will address “A Clean Slate Approach to Wireless Networks Security,” while proposing a theoretical framework for reversing the paradigm of placing design and performance above security. In his talk, Prof. Kumar will also highlight the protocols necessary for enabling good nodes and provably secure and nearly optimal functioning networks in hostile environments

Still under development and soon to be announced is the IEEE WCNC 2013 business panel and technical program, which will consist of the presentation of hundreds of original papers. All of the papers, which were selected after a rigorous review process that included over 1,800 submissions from scores of countries, will cover the entire range of wireless communications and networking topics. Among the many previously discussed subjects are “A WSN Solution for Light Aircraft Pilot Health Monitoring,” “Clustering Methods for Base Station Cooperation,” “Green Resource Allocation for MIMO-OFDM Relay Networks,” “Machine-to-Machine Communications in OFDMA Cellular Networks,” “Mobile Sensor Scheduling for Timely Sweep Coverage,” “Radio Imaging by Cooperative Wireless Networks,” and “Controlling Self-healing Cellular Networks Using Fuzzy Logic.”

For more information on IEEE WCNC 2013, including registration and patronage details as well as ongoing conference updates, please visit www.ieee-wcnc.org/2013 or contact Heather Ann Sweeney of the IEEE Communications Society at h.sweeney@comsoc.org. All visitors to the IEEE WCNC 2013 website are also invited to reach out to friends and colleagues through the conference’s Twitter, Facebook and LinkedIn pages.