

IEEE International Conference on Communications  
IEEE ICC 2014  
*Communications: The Centrepont of the Digital Economy*  
10-14 June 2014, Sydney, Australia

### **Signal Processing for Communications Symposium**

Symposium Co-Chairs

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The 2014 IEEE International Conference on Communications (ICC) will be held in the beautiful city of Sydney, Australia between 10 and 14 June 2014. The theme of this flagship conference of IEEE Communications Society for 2014 is "*Communications: The Centrepont of the Digital Economy.*" The conference will feature a comprehensive technical program including twelve Symposia and a number of Tutorials and Workshops. IEEE ICC 2014 will also include an attractive expo program including keynote speakers, and Industry Forum & Exhibitions (IF&E). We invite you to submit your original technical papers, industry forum, workshop, and tutorial proposals to this event. Accepted and presented papers will be published in the IEEE ICC 2014 Conference Proceedings and in IEEE Xplore®. Full details of submission procedures are available at <http://www.ieee-icc.org/2014>.

### **Scope and Topics of Interest**

Smart signal processing has been the driving force behind the recent advancement in communication systems, characterized by higher speed, higher energy efficient and low cost. More and more signal processing algorithms are designed and modules developed to provide novel solutions to current and emerging communication systems. Considering the diverse and fast-growing nature of research in this field, the Signal Processing for Communications Symposium welcomes paper with original contributions in all relevant aspects of signal processing for communications and networking, including design, analysis, implementation, and application. The issues addressed in this symposium are broad, ranging from traditional transceiver design, to cross-layer optimization, state-of-the-art signal processing methodologies in prevalent and emerging communication systems, and application to new frontiers including cognitive radio and smart grid. Also of great interest are state-of-the-art signal processing methodologies, theories and practices in prevalent communication standards such as 3G/4G, LTE/LTA, WLAN, WMAN, WiMAX, UWB, DSRC and gigabit wireless. To ensure complete coverage of the advances in this field, the Signal Processing for Communications Symposium solicits original contributions in, but not limited to, the following topical areas:

- Adaptive Antennas and Beamforming
- Blind Signal Processing for Communications
- Channel Characterization, Estimation, Modeling and Equalization
- Multi-user Systems
- SISO, SIMO, MISO, MIMO Systems

- Single-carrier, OFDM and Multi-carrier Systems
- Novel Signal Processing in LTE/LTA and Other Emerging Systems
- New Signal Processing Techniques in CDMA or WCDMA
- Space-Time Processing and Decoding
- Signal Detection and Synchronization
- Software Defined and cognitive Radio
- Text, Speech, Image and Video Signal Processing
- Spectrum Shaping and Filters
- Signal Processing for Spatial, Temporal, Code and Spectral Diversities
- Transmitter, Receiver, Modulation and Coding Techniques
- Adaptive Signal Processing
- Human Communication Behavior, Emotion and Feeling Recognition
- Green and Sustainable Communication Techniques
- Fast Transforms and Algorithms for Communications and Signal Processing
- VLSI/ASIC/FPGA Circuits and Systems for Communications
- Signal Processing for Security and Cryptography
- Compressive Sensing and Compressive Sampling
- Localization and Positioning Techniques
- Communications test-bed development
- Advanced signal processing modules for smart grid

### **Submission Guidelines**

Prospective authors are invited to submit original technical papers by the deadline 15 September 2013 for publication in the IEEE ICC 2014 Conference Proceedings and for oral or poster presentation(s). All submissions should be written in English with a maximum paper length of Six (6) printed pages (10- point font) including figures without incurring additional page charges (maximum 1 additional page with over length page charge if accepted).

### **Standard IEEE Transactions templates for Microsoft Word or LaTeX formats found at**

<http://www.ieee.org/portal/pages/pubs/transactions/stylesheets.html>

### **Alternatively you can follow the sample instructions in template.pdf at**

<http://www.comsoc.org/confs/globecom/2008/downloads/template.pdf>

### **Only PDF files will be accepted for the review process and all submissions must be done through EDAS at**

<http://edas.info/>

### Short Biography of Co-Chairs

Dr. Tomohiko Taniguchi received his BSEE from the University of Tokyo, Tokyo, Japan in 1982, and joined Fujitsu Laboratories Limited, Kawasaki, Japan (received his Ph.D. from the University of Tokyo in 2006). From 1987 to 1988, he was a visiting scholar at Stanford University, Stanford, CA, USA; from 1996 to 2000, he was with Fujitsu Laboratories of America, Sunnyvale, CA, USA. He is currently with Fujitsu Laboratories Limited, Kawasaki, Japan, as a Research Principal. He has been active in the field of signal processing for more than 30 years. He is recognized for his

inventions in speech coding and DSP technologies, and holds essential patents for various international standards, such as ITU-T, MPEG, 3GPP, and 3GPP2. He is a recipient of several awards for his papers, patents, and contributions to academic society. Dr. Taniguchi is a Fellow of IEEE and IEICE.

Dr. Lingyang Song received the B.S. degree in communication engineering from Jilin University, China, in 2002, and the PhD in electronic engineering from the University of York, UK, in 2006. He then worked as a postdoctoral research fellow at the University of Oslo, Norway, and Harvard University, until rejoining Philips Research UK in March 2008. In May 2009, he joined the School of Electronics Engineering and Computer Science, Peking University, China, as a full professor. His main research interests include MIMO, cooperative communications, cognitive radio, and wireless ad hoc/sensor networks. He is co-inventor of a number of patents (standard contributions), and published extensively in his area. He received the best paper awards from five IEEE conferences. He is currently on the Editorial Board of IEEE Transactions on Wireless Communications, Journal of Network and Computer Applications, and IET Communications. He is the recipient of 2012 IEEE Asia Pacific (AP) Young Researcher Award. He is a senior member of IEEE.

Dr. Rose Qingyang Hu received the B.S. degree in Electrical Engineering from the University of Science and Technology of China, the M.S. degree in Mechanical Engineering from Polytechnic Institute of New York University, and the Ph.D. degree in Electrical Engineering from the University of Kansas. She has more than 10 years of R&D experience with Nortel, RIM and Intel as a technical manager, a senior wireless system architect, and a senior research scientist. Currently she is an associate professor with the Department of Electrical and Computer Engineering at Utah State University. Her current research interests include next-generation wireless communications, wireless network design and optimization, green radios, multimedia QoS/QoE, communication and information security, wireless system modeling and performance analysis. She has published extensively and holds numerous patents in her research areas. She is currently serving on the editorial boards for IEEE Wireless Communications Magazine, Security and Communication Networks Journal and Wireless Communications and Mobile Computing Journal. She has also been a guest editor for IEEE Communications Magazine, IEEE Wireless Communications Magazine, and IEEE Network Magazine. Dr. Hu is a senior member of IEEE and a member of Phi Kappa Phi and Epsilon Pi Epsilon Honor Societies.