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

Communication Theory 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 Centrepoint 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
The Communication Theory Symposium will focus on the fundamentals of communications, with emphasis on wireless and wireline communications. The symposium welcomes original research works in these general areas, focusing on the physical layer as well as on the interactions with higher layers. Research papers on communication theory that relate to networking, genetics, bioinformatics, and quantum information processing are also welcome.

To ensure complete coverage of the advances in this field, the Communication Theory Symposium solicits original contributions in, but not limited to, the following topical areas:

- 60 GHz and sub-terahertz communications theory
- Adaptive Modulation and Coding
- CDMA and spread spectrum theory
- Channel Estimation
- Coding Theory
- Cognitive Radio
- Communication Theory in Ad-Hoc and Sensor Networks
- Cooperative Communications
- Cross Layer Design
- Detection and Estimation
- Distributed Processing

- Diversity and fading countermeasures
- Dynamic Spectrum Management
- Energy Efficient Communication
- Feedback in Communications
- Fundamentals of femtocell and picocell-enhanced cellular networks
- Interference management, cancellation, alignment, and avoidance
- Iterative Techniques, Detection and Decoding
- Joint Source/Channel Coding
- Multicarrier Transmission
- Multiple Access
- Multiple-Input Multiple-Output (MIMO) Communications
- Multiuser Detection
- Network Coding
- Network Information Theory
- Orthogonal Frequency Division Multiplexing (OFDM)
- Physical-Layer Security
- Radio Resource Management
- Source Coding and Data Compression
- Space-time Coding and Processing
- Synchronization
- Theoretical aspects of fiber-optical communications and free-space optical communications
- Theoretical aspects of power line communications
- Theory of compressed sensing
- Turbo and LDPC Codes
- Ultrawideband Communications

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/

Fulvio Babich received the doctoral degree, (Laurea), in Electrical Engineering, at the University of Trieste, on July 1984. After graduation he was with Telettra at the Research and Development Laboratories, and with

Zeltron, where he was a communication system engineer, responsible of the activities within the ESPRIT program. In 1992 he joined the University of Trieste, where he is Associate Professor of Digital Communications and Signals and Systems. His current research interests are in the field of wireless networks and personal communications. He is involved in channel modeling, multiple access techniques, channel encoding, error control techniques and cross-layer design. He has co-authored over 100 papers published in international journals and presented in leading international conferences. Fulvio Babich serves as reviewer for many international journals, has served as co-chair for the Communication Theory Symposium, ICC 2005, Seul, for the Wireless Communication Symposium, ICC 2011, Kyoto, and for the Wireless Communication Symposium, WCSP 2012, Huangshan, China. He is Senior Member of IEEE.

Bechir Hamdaoui received the Diploma of Graduate Engineer (1997) from the National School of Engineers at Tunis, Tunisia. He also received M.S. degrees in both Electrical and Computer Engineering (2002) and Computer Sciences (2004), and the Ph.D. degree in Computer Engineering (2005) all from the University of Wisconsin at Madison. In September of 2005, he joined the RTCL Lab at the University of Michigan at Ann Arbor as a postdoctoral researcher. Since September of 2007, he has been with the School of EECS at Oregon State University as an assistant professor. His current research focus is on cross-layer design, system performance modeling and analysis, and adaptive & cognitive communication technique development for next-generation wireless networks and communications systems. He has won the NSF CAREER Award (2009). He is presently an Associate Editor for IEEE Transactions on Vehicular Technology and *Wireless Communications and Computing Journal*. He served as the chair for the 2011 ACM MobiCom's Student Research Competition, and as the program chair/co-chair of the Pervasive Wireless Networking Workshop (PERCOM 2009), the WiMAX/WiBro Services and QoS Management Symposium (IWCMC 2009), the Broadband Wireless Access Symposium (IWCMC 2010), the Cooperative and Cognitive Networks Workshop (IWCMC 2011 and 2012), and the Internet of Things, Machine to Machine, and Smart Services Applications Workshop (CTS 2012 & 2013). He also served on program committees of several IEEE conferences (ICC, GLOBECOM, and PIMRC). He is a member of IEEE, IEEE Computer Society, IEEE Vehicular Society, and IEEE Communications Society.

Huaiyu Dai received the B.E. and M.S. degrees in electrical engineering from Tsinghua University, Beijing, China, in 1996 and 1998, respectively, and the Ph.D. degree in electrical engineering from Princeton University, Princeton, NJ in 2002. He was with Bell Labs, Lucent Technologies, Holmdel, NJ, during summer 2000, and with AT&T Labs-Research, Middletown, NJ, during summer 2001. Currently he is an Associate Professor of Electrical and Computer Engineering at NC State University, Raleigh. His research interests are in the general areas of communication systems and networks, advanced signal processing for digital communications, and communication theory and information theory. His current research focuses on networked information

processing and crosslayer design in wireless networks, cognitive radio networks, wireless security, and associated information-theoretic and computation-theoretic analysis.

He has served as editor of IEEE Transactions on Communications, Signal Processing, and Wireless Communications. He co-edited two special issues for EURASIP journals on distributed signal processing techniques for wireless sensor networks, and on multiuser information theory and related applications, respectively. He is co-chair for the Signal Processing for Communications Symposium at GLOBECOM 2013.