

Call for Papers for *Signal Processing for Communications Symposium*

Scope and Motivation:

Signal processing plays a pivotal role in the development of modern communication technologies. Advanced signal processing algorithms are designed and modules are developed to provide innovative solutions to contemporary and emerging communication systems. Considering the diverse and fast-growing nature of research in this field, the Signal Processing for Communications symposium welcomes original contributions in all relevant aspects of signal processing for communications and networking, including design, analysis, implementation, and application.

Main Topics of Interest:

The issues covered in the Signal Processing for Communications symposium are broad, spanning from traditional transceiver design to state-of-the-art signal processing methodologies in contemporary and emerging communication systems, and application to new frontiers including cognitive radio and smart grid. Our intention is to provide a comprehensive coverage of signal processing methodologies, theories and practices in prevalent and next-generation communication systems and networks. Topics of interest to the Signal Processing for Communications symposium include, but are not limited to:

- Channel estimation, equalization
- Signal detection and synchronization
- Novel architectures for signal demodulation and decoding
- Signal processing for single-carrier, OFDM and OFDMA systems
- Signal processing for spread-spectrum, CDMA, ultra-wideband systems
- Multi-antenna (SIMO, MISO, MIMO, Massive MIMO) and multi-user systems
- Distributed, decentralized, and cooperative signal processing in networked systems
- Compressive sensing algorithms
- Signal processing techniques for commercial/standardized (LTE, LTE/A, WiMAX etc.) and other emerging systems
- Waveform design for 5G systems, full-duplex technology
- Signal processing for interference cancellation
- Signal processing for sensor networks
- Signal processing for software defined and cognitive radio
- Adaptive antennas and beamforming

- Signal processing for green communications, communications powered by energy harvesters and wireless power transmissions
- Signal processing for security and cryptography
- Signal processing for optical communications
- Signal processing for Nano (molecular and EM) communications
- Signal processing for millimeter and Tera-Hz communication systems
- VLSI/ASIC/FPGA circuits and systems for communications
- Multimedia (Speech, image and video) signal processing
- Signal processing for smart grid and powerline communications
- Localization, positioning and tracking techniques
- Signal processing for big data
- Machine learning, and stochastic geometry-based signal processing for 5G

Sponsoring Technical Committees:

- Signal Processing & Communications Electronics
- Wireless Communications

How to Submit a Paper:

The IEEE Globecom 2015 website provides full instructions on how to submit papers. The desired symposium would have to be selected during submission. **The deadline for submission of papers is 1 April 2015. Unlike recent ICC's and Globecom's, the deadline will be strictly observed and requests for extensions shall not be entertained.**

Symposium Co-Chairs:

- Himal A. Suraweera, University of Peradeniya, Sri Lanka, himal@ee.pdn.ac.lk
- Kyung S. Kwak, Inha University, South Korea, kskwak@inha.ac.kr

Biographies:



Himal A. Suraweera (IEEE M'07) received the Ph.D. degree from Monash University, Australia in 2007. He is a Senior Lecturer at the Department of Electrical & Electronic Engineering, University of Peradeniya, Sri Lanka. From January 2011 to May 2013, he was a Post-Doctoral Research Associate the Singapore University of Technology and Design, Singapore. From July 2009 to January 2011, he was with the Department of Electrical and Computer Engineering, National University of Singapore, Singapore as a Research Fellow. From February 2007 to June 2009, he worked at Victoria University, Australia as a research fellow.

His academic achievements include receiving the University Mollie Holman medal and the Faculty of Engineering Kenneth Hunt medal upon graduating from the Monash University, the IEEE ComSoc Asia-Pacific Outstanding Young Researcher Award in 2011 and the WCSP Best Paper Award in 2013. He received an IEEE COMMUNICATIONS LETTERS exemplary reviewer certificate in 2009, two IEEE WIRELESS COMMUNICATIONS LETTERS exemplary reviewer certificates in 2012, 2013 and an IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY Top Reviewer Award in 2013.

Dr. Suraweera currently serves on the Editorial Board of IEEE COMMUNICATIONS LETTERS. His research interests are in the areas of wireless communications, signal processing for communications and communication theory, in particular, relay networks, energy harvesting communications, physical layer security, cognitive radio and MIMO systems.



Kyung S. Kwak received his Ph.D from the University of California at San Diego in 1988. He worked with Hughes Network Systems, San Diego, California from 1988 to 1989 and with the IBM Network Analysis Center at Research Triangle Park, North Carolina from 1989 to 1990. Since then, he has been with the School of Information and Communication Engineering, Inha University, Korea as a Professor. He had been the chair of the School of Electrical and Computer Engineering from 1999 to 2000 and the Dean of the Graduate School of Information Technology and Telecommunications from 2001 to 2002 and the Director of UWB Wireless Communications Research Center, a national IT research center, Korea since 2003. In 2006, he served as the President of the Korean Institute of Communication Sciences (KICS), and in 2009, the President of the Korea Institute of Intelligent Transport Systems (KITS). In

1993, he received the Engineering College Achievement Award from Inha University, and a service award from the Institute of Electronics Engineers of Korea (IEEK). In 1996 and 1999 he received distinguished service awards from KICS. He received the LG Paper Award in 1998, and the Motorola Paper Award in 2000. He received Awards of research achievements on UWB radio technology research and development from the Minister of Information & Communication, Prime Minister, and President of Korea in 2005 and 2006, respectively. Also, in 2007, he received the Haedong Paper Award and in 2009, the Haedong Scientific Award of research achievement. In 2008, he was elected as an Inha Fellow Professor (IFP). His research interests include multiple access communication systems, mobile & UWB radio systems, future Internet of Things, and sensor networks. Dr. Kwak is a member of IEEE, IEICE, KICS, KITS and IEEK.

TPC Members (Tentative)

Tadeusz A. Wysocki, University of Nebraska-Lincoln, USA
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