

Call for Papers

Signal Processing for Communications Track

The 23rd Asia-Pacific Conference on Communications

Perth, Australia, December 11-13, 2017

<http://www.apcc2017perth.org/>

Track Co-chairs

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Scope

Signal processing plays a pivotal role in today's communication systems. Designing communication systems with various objectives such as spectrum efficiency, energy efficiency, low latency, security, etc., necessitates the design of new signal processing schemes to achieve these goals. The scope of this track is the design, analysis and implementation of signal processing schemes for different communication systems. Topics of interest include, but are not limited to, are as follows.

Topics of Interest

1. Processes of the Image, Video and Speech for the communications
2. Signal processing for information forensics and security in communications
3. Signal processing for the underwater transceivers
4. Channel estimation, equalization
5. Signal detection and synchronization
6. Spectrum sensing, shaping, and management techniques
7. Novel architectures for signal demodulation and decoding
8. Signal processing for single-carrier, OFDM and OFDMA systems
9. Multi-antenna and multi-user systems
10. Distributed, decentralized, and cooperative signal processing in networked systems
11. Compressive sensing algorithms
12. Signal processing for commercial/standardized (LTE, LTE/A, WiMAX etc.) and other emerging systems
13. Waveform design and signal processing for 5G systems
14. Signal processing to support full-duplex
15. Signal processing for interference cancellation
16. Signal processing for sensor networks
17. Signal processing for software defined and cognitive radio
18. Adaptive antennas and beamforming
19. Signal processing for green communications, communications powered by energy harvesters and wireless power transmissions
20. Signal processing for security and cryptography
21. Signal processing for optical communications
22. Signal processing for Nano (molecular and electromagnetic) communications
23. Signal processing for millimeter and Tera-Hz communication systems
24. Signal processing for smart grid and powerline communications
25. Localization, positioning and tracking techniques

26. Machine learning applied to communication systems
27. Analysis approaches based on stochastic geometry
28. Signal processing for spread-spectrum, CDMA, ultra-wideband systems
29. Fast or low-complexity signal processing algorithms for ubiquitous communication technologies

Important Dates

Paper Submission:	28 July 2017
Acceptance Notification:	31 August 2017
Camera-ready Paper:	30 September 2017
Conference:	11-13 December 2017

Short biographies of Track Co-chairs

Tomoaki Ohtsuki, Keio University, Japan

Tomoaki Ohtsuki received the B.E., M.E., and Ph. D. degrees in Electrical Engineering from Keio University, Yokohama, Japan in 1990, 1992, and 1994, respectively. He is now a Professor at Keio University. He is engaged in research on wireless communications, optical communications, signal processing, and information theory. Dr. Ohtsuki is a recipient of the 1997 Inoue Research Award for Young Scientist, the 1997 Hiroshi Ando Memorial Young Engineering Award, Ericsson Young Scientist Award 2000, 2002 Funai Information and Science Award for Young Scientist, IEEE the 1st Asia-Pacific Young Researcher Award 2001, the 5th International Communication Foundation (ICF) Research Award, 2011 IEEE SPCE Outstanding Service Award, the 28th TELECOM System Technology Award, ETRI Journal's 2012 Best Reviewer Award, and 9th International Conference on Communications and Networking in China 2014 (CHINACOM '14) Best Paper Award. He served a Chair of IEEE Communications Society, Signal Processing for Communications and Electronics Technical Committee. He is now serving an editor of the IEEE Communications Surveys and Tutorials, and Elsevier Physical Communications and a Vice President of Communications Society of the IEICE. He is a senior member of the IEEE and a fellow of the IEICE.

Shengli Zhang, Shenzhen University, China

Shengli Zhang received his B. Eng. degree in electronic engineering and the M. Eng. degree in communication and information engineering from the University of Science and Technology of China (USTC), Hefei, China, in 2002 and 2005, respectively. He received his Ph.D in the Department of Information Engineering, the Chinese University of Hong Kong (CUHK), in 2008. After that, he joined the Communication Engineering Department, Shenzhen University. Now, he holds an associate professor there. From 2014.3 to 2015.3, he was a visiting associate professor at Stanford University. He is the pioneer of Physical-layer network coding (PNC). His research interests include physical layer network coding, interference cancellation, and cooperative wireless networks.

Pawel Dmochowski, Victoria University of Wellington, New Zealand

Pawel A. Dmochowski (S'02, M'07, SM'11) received a B.A.Sc (Eng. Physics) from the University of British Columbia in 1998, and M.Sc. and Ph.D. degrees from Queen's University, Kingston, Ontario in 2001 and 2006, respectively. He is currently a Senior Lecturer in the School of Engineering and Computer Science at Victoria University of Wellington, New Zealand. Prior to joining Victoria University of Wellington, he was a Natural Sciences and Engineering Research Council (NSERC) Visiting Fellow at the Communications Research Centre Canada. In 2014-2015 he was a Visiting Professor at Carleton University in Ottawa.

He is a Senior Member of the IEEE and the Chair of the IEEE Vehicular Technology Society Chapters Committee. He is currently serving as an Editor for IEEE Communications Letters and IEEE Wireless Communications Letters. His research interests include mmWave, Massive MIMO and Cognitive Radio systems.