Call for Papers for
Signal Processing for Communications Symposium

Scope and Motivation:

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. The Signal Processing for Communications Symposium welcomes papers dealing with all aspects of novel development in theory, analysis, algorithm, modelling, simulation, implementation, experimentation, standardization and applications.

Of special interest are the design of novel algorithms and schemes for communication systems, performance analysis and practical implementation. The issues addressed in this symposium include, but are not limited to, estimation and detection, low-power, low-cost and low-complexity signal processing, cross-layer optimization, advanced beamforming, jointly optimal solutions for modulation, coding, synchronization and detection, channel modeling and its effects for transmitter/receiver adaptation and spectrum sensing.

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.

In addition to the conventional domain of communications signal processing, we also encourage papers that explore new frontiers. Examples include, but not limited to, the information fusion

for complex multi-modal, multi-sensor, multi-source, multi-user, multi-application and multi-platform communication systems; signal processing techniques that help the communication needs for people with disabilities.

Topics of Interest

- 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
- Multimedia Communication Technologies
- Spectrum Shaping and Filters
- Signal Processing for Spatial, Temporal, Code and Spectral Diversities
- Transmitter, Receiver, Modulation and Coding Techniques
- Adaptive Signal Processing
- Processing for Security and Privacy
- Collaborative Communication and Positioning
- Cognitive and Affective Computing
- Human Communication Behavior, Emotion and Feeling Recognition
- Sensor Information Fusion
- 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