Call for Papers

13th International Conference on Signal Processing and Communication Systems, ICSPCS'2019
Surfers Paradise, Australia 16-18 December 2019

Communication Systems worldwide have provided a rapidly growing and useful range of services and are continuing to evolve using a multitude of Signal Processing techniques. The 13th International Conference on Signal Processing and Communication Systems, ICSPCS'2019, follows the very successful ICSPCS'2017 and ICSPCS'2018. A major objective of the Conference will be to pursue the progression from communication and information theory through to the implementation, evaluation and performance improvement of practical communication systems using signal processing technology. The Conference is also planned to be a forum for presenting research into topics ranging from those of the physical layer to the application layer. All aspects of the protocols and processes required for the future communication systems to operate better and the applications to utilize the full potential offered by the current and the emerging networking infrastructure are also encompassed. Papers dealing with signal processing for 5G and beyond and for minimizing energy use (Green Communications) are very welcome, too. Similarly the conference welcomes papers concerns with protocols for the Internet of Things (IoT) and Smart Grid. In addition, we expect that, as during the previous events, there will be several papers dealing with image, video and audio processing for multimedia, medical and forensic applications, with the security of networks and information transmitted and stored, as well as other unconventional applications of signal processing and/or telecommunications modeling techniques. For submission guidelines, please follow the 'Submission Guidelines' button at the top of the conference web page.

Each of the submitted papers will receive 3 independent reviews and it is expected that the acceptance rate will be around 30 to 40% and not exceed 50%.

As in the previous years, the conference is technically co-sponsored by the IEEE Communications Society. Accepted and presented papers will be published in the conference proceedings and submitted to IEEE Xplore as well as other Abstracting and Indexing (A&I) databases.

Previously unpublished contributions to the following technical areas, but not limited to, are solicited:

Networking
- Traffic modelling
- Protocols
- Embedded Internet devices
- Internet of ‘Things’
- Resource and information management
- Adaptive QoS provisioning
- Smart grid communications
- Emerging technologies

Wireless Networks
- 5G systems and beyond
- Wireless sensors, systems, and networks
- Delay and disruption tolerant networks
- Cognitive radio networks and emerging technologies
- NOMA and spectrum management
- Cross Layer Design
- Mesh Networks
- Cooperative and Intermittent Networks
- Wireless privacy, security and routing techniques
- RFID devices and systems
- Infrared and visible light communications
- Body area and nano-networks
- Test-beds and new applications

Information Security
- Security primitives and algorithms
- Security of wireless and distribution networks
- Security of sensor networks
- Authentication and authorization
- Encryption
- Data integrity
- Physical layer security

Novel applications of Signal Processing and Communication Theory
- Bio-signaling
- Molecular communications
- Inter- and intra-cellular communications
- Modeling of biological processes
- Biological and chemical sensors
- Synthetic biology
- Bio-informatics
- Medical imaging
- Financial modelling
- Data mining
- Forensic applications
- Traffic modelling

Fixed networks
- Optical networks and switching
- Network architectures and equipment
- Programmable networks
- Peer-to-peer networking
- Network gaming
- New and enhanced services

Communication theory and techniques
- Channel measurements and modelling
- Coding and modulation techniques
- MIMO – theory and trials
- Spread Spectrum and multicarrier systems
- NOMA – theory and applications
- Space-time coding
- Diversity techniques
- Ultra-Wideband Communications
- Antennas and propagation

Multimedia signal processing
- Streamed multimedia applications
- Algorithms and implementations
- Image audio and video processing
- Audio and speech processing
- Error concealment techniques
- Management of multimedia services
- Test-beds and trials
- Multimedia games

Ranging and Localization
- Indoor Positioning Technologies and Techniques
- Radio-based Positioning Systems
- Ranging and Localization Algorithms
- Vehicle/Robot Navigation
- Hybrid Positioning and Communication
- RFID Localization/Communication
- UWB Ranging and Localization

DSP algorithms and hardware implementations
- DSP implementation in hardware
- Parallel acceleration techniques
- DSP algorithms
- Smart antennas and tracking
- Signal separation

Important Dates:
- Full Paper Submission Deadline: Extended until: 21 July 2019
- Notification of acceptance: 15 September 2019
- Camera-Ready Copy: 15 October 2019
- Early/Authors Registration: 15 October 2019

Chair of the Organizing Committee:
Prof. John McEachen,
Naval Postgraduate School, Monterey, USA

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Cubesats and smallsats systems
- Network architectures, middleware integration, data management
- Antenna design and processing
- Integrated vehicle systems and robotics
- High speed, low latency, multi-stream data techniques
- Availability, certification, and spaceflight qualification for wireless devices/systems
- Propagation modeling and channel description
- Optical communication systems
- Large-scale networking of mega constellations
- Seamless handovers among satellites