

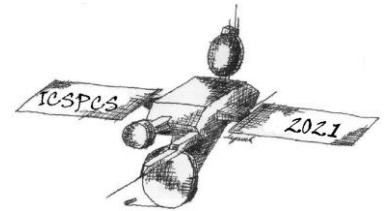
Call for Papers



15th International Conference on Signal Processing and Communication Systems, ICSPCS'2021

13 - 15 December 2021 – Virtual Conference

http://www.dspscs-witsp.com/icspcs_2021



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 15th International Conference on Signal Processing and Communication Systems, ICSPCS'2021, follows the very successful ICSPCS'2019 and ICSPCS'2020. 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 concerned with protocols for the Internet of Things (IoT) and Smart Grid, as well as all applications of Artificial Intelligence (AI).

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%.

Previously unpublished contributions to the following technical areas, but not limited to, are solicited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 and spectrum sensing
- NOMA and spectrum management
- RFID devices and systems
- Mesh Networks
- Cooperative and Intermittent Networks
- Wireless privacy, security and routing
- Infrared and visible light communications
- Body area and nano-networks
- Military Communications

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
- Software defined networks 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
- Software defined networks (SDN's)
- Peer-to-peer networking
- Network gaming
- New and enhanced services
- Test-beds and trials

Communication theory and techniques

- Channel measurements and modelling
- Coding and modulation techniques
- MIMO - theory and trials
- Multicarrier systems
- NOMA – theory and applications
- Space-time coding
- Diversity techniques
- Ultra-Wideband Communications
- Antennas and propagation
- Satellite communications

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
- 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



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Important Dates:

- **Full Paper Submission Deadline**
15 July 2021
- **Notification of acceptance:**
30 September 2021
- **Camera-Ready Copy:**
31 October 2021
- **Early/Authors Registration:**
31 October 2021

Chair of the Organizing Committee:

Prof: Olutayo Oyerinde,
University of the Witwatersrand,
Johannesburg, South Africa

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