CALL FOR PAPERS

IEEE International Conference on Signal, Information and Data Processing 2019 will be held on December 11-13, 2019 in Chongqing, China. It aims to introduce the latest technological development and academic research hot issues of Signal, Information and Data processing, as well as their applications. It will provide a platform for leading industrial and academic researchers to present their state-of-the-art accomplishment, discuss and share their experiences, and foresee future directions in the field of signal processing theories and applications. All submissions will be thoroughly peer-reviewed by experts based on originality, significance and clarity. All accepted papers will be published in the conference proceedings and be submitted to IEEE and IEEE Xplore. After the conference, the papers will be submitted to EI Compendex.

Important Dates

Paper Submission Deadline: 31 May 2019
Paper Acceptance Notification: 30 June 2019
Camera-ready Paper Submission: 31 July 2019
Registration Open Date: 1 July 2019
Conference Date: 11-13 December 2019

Honorary Chairs

Prof. Toshio Fukuda, IEEE President 2020, Japan
Prof. Jun Zhang, President of BIT, China
Prof. Erke Mao, Academician of CAE, China

General Chair

Prof. Teng Long, Vice President of BIT, China

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Chongqing is China's famous historical and cultural city. It is one of four municipalities in China and the most economically important city in West China. Located on the edge of the Yungui Plateau, and surrounded by small green capped mountains, Chongqing City is intersected by the Jialing River and the upper reaches of the Yangtze. Its Ba cultures, Three Gorges culture, the Three Kingdoms culture, and modern urban civilization make Chongqing feature in extremely rich cultural tourism resources. Also, Chongqing has the unique geographical conditions and the collecting of the mountains, water, forestry, spring, waterfall, hole, gorge; and the most outstanding peculiar natural tourism resource is canyon scenery. The Three Gorges (Qutang Gorge, Wu Gorge, Xiling Gorge) and Small Three Gorges are famous. Also, the Three Gorges Dam and the Gezhou Dam in Chongqing are world-famous.

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Technical Programme and Scope

（1）Speech, Audio, Acoustic and Sonar Processing
- Speech Enhancement, Recognition and Synthesis
- Audio Testing & Electro-Acoustics
- Sensor Array Signal Processing and Spatial Audio Processing
- Underwater Communication and Acoustic Images Processing

（2）Image, Video, and Multimedia Processing
- Sensing, Representation, and Modeling
- Image & Video Analysis and Understanding
- Image & Video Perception and Quality Models
- Stereoscopic, Multiview, and 3D Processing
- Multimodal Fusion and Processing
- Multimedia Algorithms, Standards, and Trends

（3）Signal Processing for Communications and Networks
- Machine Learning based PHY Layer Algorithms
- Reinforcement Learning for Radio Resource Allocation
- Information and Signal Processing for Pushing and Caching
- Deep Learning aided Lossy Data Compression
- Spectrum Sensing, Learning, and Monitoring
- In-network Computation and Signal Processing
- Joint Scheduling of Communication and Computation
- Mobile Edge Computing and Computation Offloading

（4）Remote Sensing and Signal Processing
- Multi-spectral and Hyperspectral Remote Sensing
- Active and Passive Microwave Remote Sensing
- Land, Oceans, Atmosphere, and Space Information Processing
- Remote Sensing Applications
- Spaceborne, Airborne and Terrestrial Platforms

（5）Sensor Array and Multichannel Signal Processing
- Direction of Arrival Estimation
- Adaptive Beamforming
- Space Time Adaptive Processing
- Frequency Diverse Array Processing
- MIMO Signal Processing
- Multichannel Imaging
- Distributed and Decentralized Signal Processing

（6）Artificial Intelligence for Signal Processing
- Supervised Learning for Signal Processing
- Unsupervised Learning for Signal Processing
- Learning Signal Representation Using Deep Learning
- Deep Learning for Natural Language Processing and Text Signal Processing
- Reinforcement Learning and Planning for Signal Processing
- Machine Learning in Multimedia Signal Processing

（7）Signal Processing for Big Data
- Big Data Acquisition and Pre-processing
- Big Data Transmission over Internet of Things
- Big Data Storage and Management
- Big Data Processing and Systems
- Big Data Analytics and Mining
- Big Data Security
- Big Data Applications

（8）Photon / Quantum Signal and Information Processing
- Microwave Photonic Processing, Sensing, and Measurements
- Microwave Photonic Beam Forming Techniques
- Radio over Fiber Techniques, Fiber-Wireless Communications, and 5G
- Quantum Sensing and Imaging
- Quantum Computing and Signal Processing
- Quantum Precision Measurement and Communication

（9）Bio-imaging and Biomedical Signal Processing
- Multimodality Imaging Fusion and Reconstruction
- Artificial Intelligence in Medical Imaging
- Brain Signal Processing
- Microscopic Data Processing
- Molecular Biology Data Processing

（10）Design and Implementation of Signal Processing Systems
- System Design Tools and Techniques for Signal Processing Systems
- Algorithm and Architecture Co-optimization
- Design Methods and Optimization for Signal Processing Systems
- Implementations of DSP Systems and Applications
- Mapping and Scheduling of Parallel and Real-Time Application
- Architectures and Hardware Design for Neural Network/AI Computation
- Fault-Tolerant Parallel and Real-Time Computing and System Design
- Low-Power Signal Processing

（11）Signal Processing Theory and Methods
- Intelligent Signal Processing
- Statistical Signal Processing
- Signal and System Modeling and Estimation
- Adaptive Filter Analysis and Design
- Sampling and Reconstruction
- Signal Processing over Graphs
- Dictionary Learning, Subspace, and Manifold Learning

（12）Signal Processing for Cyberspace Security
- Big Data Security and AI Security
- Information Hiding and Covert Communication
- Internet of Things Security and Mobile Security
- Vulnerability Mining and Malicious Code Analysis
- Industrial Control and Other Hardware Security
- Supply Chain Security and Other Security Technologies

（13）The Internet of Things
- Distributed Optimization for IoT
- Cognitive Techniques for IoT
- Massive Access Scheme in IoT
- Security Analysis and Physical Layer Security in IoT
- Localization for Devices in IoT
- AI Aided Issues in IoT

（14）GNSS Signal Processing and Positioning
- GNSS Receiver Architecture and Front-end Design
- GNSS Signal Tracking, Multipath and Jamming Suppression
- Multi-GNSS RTK and PPP Positioning
- PPP-RTK Corrections and Service Strategies
- GNSS with Low-cost Navigation Sensors
- Smartphones Capable of Recording Raw GNSS Measurements