



CEEC 2018



**10TH COMPUTER SCIENCE AND ELECTRONIC ENGINEERING CONFERENCE,
19TH–21ST SEPTEMBER 2018, UNIVERSITY OF ESSEX**

SPECIAL SESSION ON

SIGNAL PROCESSING ADVANCES IN MODERN ENGINEERING SYSTEMS

CALL FOR PAPERS

Cutting edge technologies for the generation, transformation, and interpretation of information are enabled by the analysis and modeling of data representation of physical events. These techniques are studied and developed under the branch of electrical engineering known as Signal Processing. This track covers the theoretical and practical aspects of signal processing systems, analog and digital. This special session challenges in providing a valuable opportunity for signal processing researchers and practitioners to collaborate, elaborate and gain advanced knowledge in a wide variety of application areas with a common interest in improving signal processing in every aspect behind our digital lives, such as speech and audio processing, hearing aids, image processing and analysis, wearables, data science, autonomous driving and communications systems and networks.

Researchers are hereby invited to submit a full paper (**5–6 pages**) detailing their research, or a short paper (**max 4 pages**) describing their work-in-progress. All submitted papers will be subject to peer reviewing by at least two reviewers for technical merit, significance and relevance to the topics. Paper preparation guidelines are available in the [author information webpage for CEEC'18](#). Submission implies the willingness of at least one author per paper to register, attend the conference and present the paper. Proceedings will be submitted to **IEEE Xplore** after the conference for publication. Authors of selected articles will be invited to submit an extended version to a **Special Issue of the Computers Journal**.

This special session welcomes submissions of computational methods applied (but not limited) to the following topics:

- Signal processing in control communications systems
- 3-D Image processing systems
- Signal processing in security applications
- Signal processing in energy and power systems
- Signal processing for social media networks
- Seismic signal processing
- Graph-theoretic signal processing
- Big data processing
- Multimedia transmission, indexing and retrieval systems
- Real-time DSP architecture implementations
- Soft computing methods in modelling
- Neural networks
- Fuzzy techniques (single or multiple objective)
- Hybrids of soft computing systems
- Smart systems, sensors, actuators and distributed systems
- Intelligent agents Real-time aspects of intelligent control
- Constructive algorithms
- Structures for soft-computing
- Parallel processing
- Reconfigurable control (FPGA or Multi-core)
- Signal processing in optical communications systems
- Stereoscopic movie processing systems
- Signal processing in digital finance systems
- Signal processing in genomics and bioengineering
- Neural signal processing
- Statistical signal processing
- Artificial intelligence systems (algorithmic and architectural)
- Heterogeneous information processing
- Signal processing of control networking systems
- Adaptive systems identification
- Robust control systems
- Evolutionary computing
- Emerging soft computing techniques
- Hybrid uses of conventional and soft-computing methods
- Fault management and knowledge processing and representation
- Training and adaptation algorithms
- Architectures for real-time soft-control

IMPORTANT DATES

Paper Submission deadline: 25th June 2018

Notification of acceptance: 20th July 2018

Camera-ready Manuscript: 6th August 2018

Registration deadline: 13th August 2018

Please find more information at the CEEC 2018 webpage: <http://www.ceec.uk>