IEEE SiPS 2022
IEEE Workshop on Signal Processing Systems

Towards Sustainable Systems
2-4 November 2022,
Rennes, France

CALL FOR PAPERS

The IEEE Workshop on Signal Processing Systems (SiPS) is a premier international forum in the area of design and implementation of signal processing systems. It addresses all aspects of architecture and design methods of these systems. Emphasis is on current and future challenges in research and development in both academia and industry.

SUBMITTING A PAPER

We invite prospective authors to submit original papers in areas including, but not limited to:

Theme of the Year: Towards Sustainable Systems
- Low energy systems
- Low environmental impact systems

Software Implementation of Signal Processing Systems
- Software on programmable digital signal processors
- Application-specific instruction-set processor (ASIP) architectures and systems
- SIMD, VLIW and multi-core CPU architectures
- GPU-based massively parallel implementations

Hardware Implementation of Signal Processing Systems
- Low-power signal processing circuits and applications
- High-performance VLSI systems
- FPGA and reconfigurable architecture-based systems
- System-on-chip and network-on-chip
- VLSI for sensor network and RF identification systems
- Processing-in-memory signal processing systems

Machine Learning for Signal Processing
- Circuits and systems for AI
- Deep learning/machine learning/AI algorithms
- Tools/platforms for AI
- Edge and cloud AI computing platforms
- Hardware/neuromorphic accelerators
- Hardware/software co-design and automation for AI

Design Methods of Signal Processing Systems
- Optimization of signal processing algorithms
- Compilers and tools for signal processing systems
- Algorithm-to-architecture transformation
- Dataflow-based design methodologies
- Error-tolerant techniques for signal processing

Signal Processing Application Systems
- Audio, speech, and language processing
- Biomedical signal processing and bioinformatics
- Image, video, and multimedia signal processing
- Information forensics, security, and cryptography
- Sensing and sensor signal processing
- Signal processing for non-volatile memory systems

- Latency-and power-constrained signal processing
- Wireless communications and MIMO systems
- Coding and compression
- Signal processing for mixed-signal technologies

Special sessions:
https://sips2022.insa-rennes.fr/special-sessions/

Submission Deadline
Conference track: April 30, 2022

Journal track: April 30, 2022

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