IEEE

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IEEE SiPS2025 Hong Kong

IEEE Workshop on Signal Processing Systems

1-4 November 2025, Kowloon, Hong Kong



The 38^{th} IEEE International Workshop on Signal Processing Systems (SiPS) is a premier international forum in the area of design, implementation and application 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.

Call for Papers

Authors are invited to submit papers in the following areas, but not limited to:

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

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 implementation

Hardware Implementation of Signal Processing Systems:
- Low power/complexity signal processing circuits & applications
- FPGA and reconfigurable architecture-based systems
- System-on-chip and network-on-chip
- VLSI for sensor network and RF identification systems
- Quantum signal processing
- Neuromorphic computing
- Edge and embedded computing

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
- Radar, sonar and acoustic sensing systems
- Robotics and autonomous systems
- Sensor arrays and networks and their applications
- Signal processing for non-volatile memory systems
- Wireless communications and internet of things
- Signal processing for mixed-signal technologies

Machine Learning and AI for Signal Processing:
- Circuits and systems for AI
- Resource-efficient machine learning and AI
- Tools/platforms for AI
- Hardware/neuromorphic accelerators
- Hardware/software co-design and automation for AI
- Applications of generative AI and foundation models

Other Emerging Topics in Signal Processing Systems

Important Dates

Tutorial Proposals:
30^{th} June 2025
Special Session Proposals:
30^{th} June 2025
Technical Papers Deadline:
~~1^{st} June 2025~~ 30^{th} June 2025
Notification of Acceptance:
15^{th} August 2025
Final Manuscript Submission:
1^{st} September 2025
Advance Registration Deadline:
8^{th} September 2025

For Submission Details, Visit:
events.polyu.edu.hk/sips2025

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