2025 25th International Conference on Digital Signal Processing

25th DSP 2025

25-27 June 2025 · Costa Navarino · Messinia · Greece

CALL FOR PAPERS

The 25th International Conference on Digital Signal Processing (DSP 2025), technically co-sponsored by the IEEE Signal Processing Society, the EURASIP and the APSIPA, will take place from June 25–27, 2025, in Costa Navarino, Messinia, located in the picturesque southwest Peloponnese, Greece. As the longest-running conference in the field of digital signal processing, DSP 2025 continues a legacy that began in London in 1967, traveling through iconic locations such as Florence, Nicosia, Limassol, Santorini, Cardiff, Corfu, Hong Kong, Singapore, Beijing, Shanghai, and most recently, Rhodes in 2023. The conference aims to unite leading experts from academia and industry to share the latest advances and discoveries in digital signal processing and analysis.

DSP 2025 addresses both the theory and practical applications of filtering, coding, transmission, estimation, detection, analysis, recognition, synthesis, recording, and reproduction of signals using digital techniques and devices. The term "signal" encompasses a wide range of domains, including audio, video, speech, image, communication, geophysical, sonar, radar, medical, musical, and other types of signals. Relevant topics align with the fields covered by IEEE Transactions on Signal Processing, IEEE Transactions on Image Processing, IEEE Transactions on Medical Imaging, IEEE Journal of Selected Topics in Signal Processing, IEEE Open Journal of Signal Processing, IEEE Transactions on Multimedia, and IEEE Transactions on Information Forensics and Security.

The program will feature presentations of novel research theories, applications, and results through lecture, poster and plenary sessions. Special Sessions organised by internationally recognised experts in the area constitute the basis of DSP conferences. The theme of DSP 2025 is **"Deepfake Signals, Images and Videos".**

Topics of interest include, but are not limited to:

AI and Machine Learning in Signal Processing
- Application of AI and ML techniques for signal processing
- Advances in deep learning models for image and video analysis
- Explainable AI in signal and image processing

Biomedical Signal Processing
- Biomedical Signal and Image Processing
- Brain-Computer Interface
- Genomic Signal Processing
- Signal Processing in Genomics and Proteomics

Digital and Multirate Signal Processing
- Adaptive Signal Processing
- Digital and Multirate Signal Processing
- Digital Filter Design and Implementation
- Multidimensional Filters and Transforms
- Multiresolution Signal Processing
- Multiway Signal Processing
- Theory and Applications of Transforms
- Time-Frequency Analysis and Representation
- Statistical Signal Processing

Emerging Technologies in Signal Processing
- Quantum signal processing
- Neuromorphic computing
- Signal processing in AR/VR applications

Human-Computer Interaction
- Gesture and facial expression recognition
- Signal processing for augmented and virtual reality
- Multimodal interfaces combining audio, visual, and haptic signals

Sensor Array and Multichannel Processing
- Array Signal Processing
- Signal Processing for Smart Sensors and Systems
- Compressive Sensing

Signal Processing for Communications
- Geophysical/Radar/Sonar Signal Processing
- MIMO Signal Processing

Signal Processing for Audio/Image/Video
- Audio/Speech/Music Processing & Coding
- Digital Photography
- HDR Imaging
- Image and Multidimensional Signal Processing
- Image/Video Indexing, Search and Retrieval
- Image/Video Compression and Coding Standards
- Image/Video Content Analysis
- Image/Video Processing Techniques
- 3D Image Processing and Applications
- Mobile Imaging and Image Quality
- Real-Time Signal/Image/Video Processing
- Video Surveillance and Transportation Imaging
- Digital Watermarking and Data Hiding

Other Areas and Applications
- Big Data
- Cognitive Signal Processing
- DSP Education
- Nonlinear Signals and Systems
- Information Forensics and Security
- Internet of Things (IoT)
- Social Signal Processing & Affective Computing
- Signal and System Modelling
- Signal Processing of Financial Data
- VLSI Architectures and Implementations for DSP

PAPER SUBMISSION

The official language of the Conference is English. Prospective authors are invited to submit full-length papers (up to 4 pages for technical content including figures, tables, references and one optional 5th page containing references only). IEEE templates for the paper format, and "no show" policy do apply. Authors should indicate one or more of the above listed categories that best describe the topic of the paper, as well as their preference (if any) regarding lecture or poster presentation. Lecture and poster sessions are treated equally in terms of the review process. Submitted papers will be reviewed by a minimum of two independent reviewers using a single-blind peer review process, where the identities of the reviewers are not known to the authors, but the reviewers know the identities of the authors. Accepted papers will be submitted for inclusion in IEEE Xplore subject to compliance with IEEE Xplore's scope and quality requirements. Beyond the technical program, a rich social program will be offered to the participants and their companions. It will provide an opportunity to meet colleagues and friends against a backdrop of outstanding natural beauty and rich cultural heritage in one of the world's most renowned international destinations.

IMPORTANT DATES

- Submission of full papers – **Mar 10, 2025** (extended)
- Notification of acceptance – Apr 10, 2025
- Author advance registration – Apr 25, 2025
- Camera-ready paper submission – May 5, 2025

https://2025.ic-dsp.org/

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