

BiOCAS 2025



21st IEEE CONFERENCE ON BIOMDICAL CIRCUITS AND SYSTEMS

October 16-18, 2025
Abu Dhabi, UAE

CONFERENCE THEME:
Biomedical Circuits and Systems for Precision Medicine

About BioCAS

BioCAS is a premier international forum for presenting interdisciplinary research and development activities at the crossroads of medicine, life sciences, physical sciences and engineering that shape tomorrow's medical devices and healthcare systems. This conference brings together members of our communities to broaden their knowledge in emerging areas of research at the interface of life sciences and circuits and systems engineering. BioCAS features a multidisciplinary three-day single-track program covering topics in Biomedical Technologies and Applications as well as Emerging Technologies.

Biomedical Technologies

- Biosensor Devices and Interface Circuits.
- Body Area/Sensor Networks and Wireless Health Monitoring.
- Implantable and Wearable Health Devices and systems.
- Bio-Inspired and Neuromorphic Circuits and Systems.
- Electronics for Neuroscience.
- Innovative Circuits for Medical Applications.
- Biofeedback, Neuromodulation, and Closed-loop Systems.
- Assistive, Rehabilitation, and Quality of Life Technologies.
- Biotelemetry and Energy Harvesting/Scavenging Circuits and Systems.
- Lab-on-Chip / BioMEMS / Point-of-Care Device.

Biomedical Applications

- Artificial Intelligence of Things (AIoT) for Healthcare.
- Biomedical Imaging and Image Processing.
- Bio-signal Recording, Processing, and Machine Learning.
- Multimodal Medical Wearables.
- Medical Information Systems and Bioinformatics.

Emerging Technologies

- Flexible Devices and Circuits for Biomedical Applications.
- Brain-computer Interfaces.
- Large-language Models for Healthcare.

Submission Guidelines

Prospective authors are invited to submit full length papers (in standard IEEE double-column format) in a maximum of 5 pages, of which 4 are for technical content including text, figures, and references (if any), and with an optional 5th page containing only references. Papers must be submitted electronically in PDF format through 2025.ieee-biocas.org.

ORGANIZING COMMITTEE

GENERAL CO-CHAIRS

Mohamad Sawan
Westlake University, China

Ibrahim (Abe) M. Elfadel
Khalifa University, UAE

Pedram Mohseni
Case Western Reserve
University, USA

Zhihua Wang
Tsinghua University, China

TECHNICAL PROGRAM CO-CHAIRS

Pamela Abshire
University of Maryland,
College Park, USA

Mohamed Atef
UAE University, UAE

Minkyu Je
KAIST, Korea

2025.ieee-biocas.org

IMPORTANT DATES

June 6, 2025
Special Session
Proposals

June 6, 2025
Regular Paper
Submission

June 27, 2025
Live Demo
Submission

August 1, 2025
Author
Notification

September 5, 2025
Camera-Ready Paper Submission
and Author Registration