# XXIII POLISH CONFERENCE ON BIOCYBERNETICS AND BIOMEDICAL ENGINEERING

## IMPORTANT DATES

May 31, 2023 Abstract deadline

June 15, 2023
Abstract acceptance notification

**June 30, 2023** Final Submissions (camera ready abstracts)

September 26, 2023 Workshops



COMMITTEE OF BIOCYBERNETICS AND BIOMEDICAL ENGINEERING





Lodz University of Technology Institute of Electronics Institute of Material Science and Engineering

#### CHAIR

## Prof. Adam Liebert

Chair of the Committee of Biocybernetics and Biomedical Engineering of the Polish Academy of Sciences

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President of the Polish Society of Biomedical Engineering

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Institute of Electronics, Lodz University of Technology

## Dr. Artur Klepaczko, Dsc

Institute of Electronics, Lodz University of Technology

#### PATRONAGE



Prof. Józef Modelski, Polish National URSI Committee



Prof. Elżbieta Pamuła, Polish Society for Biomaterials



# CONTACT

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# WELCOME MESSAGE

In the year 2023 the Polish Conference on Biocybernetics and Biomedical Engineering (PCBBE) will be held in Łódź at the Lodz University of Technology from September 27th to 29th. The conference will be hosted by the Institute of Electronics in cooperation with the Institute of Material Science and Engineering. We plan to hold all sessions stationary.

The biannual Polish Conference on Biocybernetics and Biomedical Engineering has been held for nearly four decades and attracts scientists and professionals from the fields of engineering, medicine, physics, and computer science. The 23rd PCBBE will be a great opportunity for an exchange of ideas and presentation of the latest developments in all areas within the field of biomedical engineering. The conference is also an excellent forum for young researchers to present their scientific activities to the bioengineering research community.

## RESEARCH AREAS

The conference topics include, but are not limited to: • Biomeasurements and biosignals monitoring • Biomedical signal processing • Biomedical image processing and analysis • Bioinformatics and computational biology • Computer-aided diagnosis in medical imaging • Biosensors and bioinstrumentation • Biomaterials and nanotechnology • Biomechanics, robotics and minimally invasive surgery • Cybernetics, bio-mimetics and modeling of biological systems • Neural and rehabilitation engineering • Artificial organs and implants • Molecular, cellular and tissue engineering • Human movement recording analysis • Health informatics, e-health and telemedicine • Biomedical engineering education

## ABSTRACT SUBMISSION

All abstracts will be thoroughly reviewed by Program Committee members. A separate book of abstracts will be available at the conference.

The authors of the conference presentations selected by the members of the Program Committee will be invited to publish the extended versions of their papers, undergoing peer-review, in the Biocybernetics and Biomedical Engineering journal (IF = 5.687), Acta of Bioengineering and Biomechanics (IF = 1.238), or Engineering of Biomaterials.

# SPECIAL SESSIONS

- Information content analysis in cardiovascular and respiratory systems
- Biomodelling and machine learning in cancer diagnosis and prediction of metastases
- Texture Analysis in Biomedical Imaging
- · Biomaterials and implants
- Mathematical and computational modeling in physiology, medicine and biomedical engineering
- Hybrid analysis of multimodal medical data
- Applications of deep learning in biomedical image analysis
- Biomaterials for controlled delivery of biologically active substances
- Electromagnetics in Biology and Medicine
- Bioimpedance and its role in contemporary medical diagnosis

### **WORKSHOPS**

Young scientists are invited to join workshops organized one day before the conference. The topics of the workshops will embrace modern methods for biomedical data analysis, biomaterials engineering, as well as creative problem solving techniques. More information will be provided at the conference website.

http://pcbbe.p.lodz.pl