

Special Issue

Secure AI for Biomedical Sensing and Imaging Applications

Message from the Guest Editors

This Special Issue focuses on recent advances in secure, trustworthy, and robust AI for biomedical sensing and imaging applications. As AI technologies become increasingly embedded in biomedical systems, from diagnostic imaging to physiological signal monitoring, there is a growing need for solutions that ensure data privacy, model robustness, interpretability, and efficiency under real-world conditions. In addition, we also welcome research on efficient, robust, and generalizable deep learning methods that address the challenges of limited data, domain shift, and deployment on edge devices. The scope includes AI methods applied to medical imaging, wearable or implantable sensors, and other healthcare-related sensing modalities. We invite contributions that offer novel methodologies, practical frameworks, and application-driven insights. Topics of interest include, but are not limited to:

- advanced AI for biomedical image analysis,
- trustworthy multi-modal sensor data fusion,
- privacy-preserving AI methods for medical diagnostics
- federated and distributed learning with sensitive health data, etc.

Guest Editors

Dr. Yanming Zhu
Dr. Xuefei Yin
Prof. Dr. Jiankun Hu

Deadline for manuscript submissions

31 December 2025



Sensors

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed



mdpi.com/si/238479

Sensors
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
sensors@mdpi.com

[mdpi.com/journal/
sensors](https://mdpi.com/journal/sensors)





Sensors

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed



[mdpi.com/journal/
sensors](https://mdpi.com/journal/sensors)



About the Journal

Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro

Dipartimento di Ingegneria Elettrica e dell'Informazione (Department of Electrical and Information Engineering), Politecnico di Bari, Via Edoardo Orabona n. 4, 70125 Bari, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Ei Compendex, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Instruments and Instrumentation) / CiteScore - Q1 (Instrumentation)