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

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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.

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