Special Issue

Sensor-Enhanced Medical Imaging: Machine Learning and Computer Vision for Multimodal Analysis

Message from the Guest Editor

This special issue highlights cutting-edge research on sensor-enhanced medical imaging, focusing on innovations that integrate novel sensing principles, instrumentation, or acquisition techniques to advance diagnostic and analytical capabilities. Specifically, we invite original research papers that explore novel sensor-based image acquisition techniques, advanced instrumentation for medical imaging, and their integration with computational methods. Within this context, submissions may address advanced image processing algorithms for noisy or incomplete sensor data, ML models optimized for real-time analysis of sensor streams, and AI-driven frameworks leveraging sensor-derived features. Contributions must emphasize sensor-enhanced methodologies to ensure differentiation from the journal's scope. Topics of interest include the following:

- AI-driven segmentation of medical sensor images
- ML-based disease prediction using sensor data
- Automated sensor-driven detection/monitoring systems
- Multi-sensor image alignment and fusion
- Sensor data quantification for biomarker discovery
- Real-time AI guidance in sensor-assisted robotics/surgery

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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.

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