

Special Issue

Embodied Intelligence-Based Robotics in Medicine: Sensor-Driven Innovations for Healthcare

Message from the Guest Editors

With the rapid advancement of technology, embodied intelligence-based robots are profoundly transforming the future of the healthcare industry. Sensor technology, as the core driving force, endows medical robots with more sensitive perception capabilities, enabling them to demonstrate great potential in diagnosis, treatment, and rehabilitation. Sensor-driven medical robots, equipped with precise perception and efficient data processing capabilities, can achieve more accurate surgical operations, more efficient disease monitoring, and more personalized rehabilitation plans, thereby providing strong support for the intelligent development of healthcare. This Special Issue focuses on innovative technologies of sensor-driven medical robots and their applications in medical practice, aiming to explore how these technologies reshape healthcare service models and address emerging challenges. We hope to accelerate the translation of intelligent robot technology from the laboratory to clinical applications through interdisciplinary communication and cooperation.

Guest Editors

Prof. Dr. Xiaojun Chen

Institute of Biomedical Manufacturing, School of Mechanical Engineering, Shanghai Jiao Tong University, Shanghai, China

Dr. Jiangchang Xu

Institute of Biomedical Manufacturing and Life Quality Engineering, School of Mechanical Engineering, Shanghai Jiao Tong University, Shanghai 200240, China

Deadline for manuscript submissions

1 July 2026



Sensors

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed



mdpi.com/si/248573

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

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)