

Special Issue

Advancing Medical Robotics Through Soft Sensing

Message from the Guest Editors

Soft robotics has rapidly emerged as a transformative paradigm in medical robotics, enabling safe, adaptive, and minimally invasive interactions with the human body. Central to this progress is the development of soft sensors capable of conforming to complex biological structures while providing real-time feedback on force, pressure, deformation, and physiological signals. Recent advances in materials science, microfabrication, and computational methods are driving these technologies from proof-of-concept devices toward full integration into functional robotic systems. This Special Issue seeks to highlight the latest breakthroughs in soft sensing, showcasing how novel materials, fabrication techniques, bio-inspired approaches, and AI-driven data processing can expand the capabilities of soft robotics. We welcome original research articles, reviews, and perspectives on sensing strategies applied to medical robotics, prosthetics, wearable health-monitoring systems, rehabilitation technologies, and human–robot interfaces. Contributions that bridge fundamental science with real-world applications are particularly encouraged.

Guest Editors

Dr. Linda Paternò

Dr. Laura Ferrari

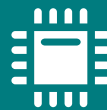
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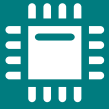


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Message from the Editor-in-Chief

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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