Special Issue

Advances in Human–Robot Interactions Through Multimodal Sensing and Virtual Reality

Message from the Guest Editors

As HRI becomes increasingly embedded in everyday contexts, the ability to reliably sense and interpret human affective and cognitive states through integrated sensor frameworks will be critical to supporting user acceptance, promoting meaningful interaction, and ensuring long-term engagement. This Special Issue seeks contributions that reflect interdisciplinary and translational approaches to advancing HRI through novel sensing frameworks, algorithmic methods, system-level design, and virtual environments grounded in human-centered principles. Fit with the scope of Sensors: This special issue aligns with Sensors by showcasing advances in multimodal sensing technologies and algorithms that enable adaptive human-robot interactions within virtual reality environments. This Special Issue. "Advances in Human-Robot Interactions through Multimodal Sensing and Virtual Reality", aims to present state-ofthe-art human-robot interactions, highlighting multimodal sensing and virtual reality-based frameworks that open new possibilities for enhancing user engagement, user outcomes, and real-time system adaptability. For more information please visit: mdpi.com/si/245605

Guest Editors

Prof. Dr. Nilanjan Sarkar Department of Mechanical Engineering, Vanderbilt University, Nashville, TN 37212, USA

Dr. Miroslava Migovich

Department of Mechanical Engineering, Vanderbilt University, Nashville, TN 37212, USA

Deadline for manuscript submissions

28 February 2026



Sensors

an Open Access Journal by MDPI

Impact Factor 3.5 CiteScore 8.2 Indexed in PubMed



mdpi.com/si/245605

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



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)