Special Issue

Recent Advances in Sensors Application for Soft Robotics

Message from the Guest Editor

Sensor technology, signal processing technology, and recognition technology are important to control soft robots. Different from rigid robots, soft robots are deformable and require not only state estimation in the work area, but also state estimation of the robot itself. Soft robots can be regarded as having infinite dimensional degrees of freedom. Additionally, several external forces can be applied to the robot while moving in contact with the environment. Therefore, state estimation is very difficult. External sensors such as cameras cannot observe hidden areas due to deformation and contact with the environment. Large deformation of their body requires flexibility in embedded internal sensors. For this reason, a wide variety of sensors for soft robots have recently been developed. Accordingly, applications using new sensor technologies for soft robots are also attracting attention. With these recent progress in sensor technologies, this Special Issue focuses on the latest sensor technologies and their application for soft robots.

Guest Editor

Dr. Tetsuyou Watanabe

Faculty of Frontier Engineering, Institute of Science and Engineering, Kanazawa University, Kakuma-Machi, Kanazawa 920-1192, Japan

Deadline for manuscript submissions

closed (10 February 2024)

Sensors

an Open Access Journal by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed

mdpi.com/si/161472

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

MDPI

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)