

## Special Issue

# Physical World Cognition for Robotic Application

### Message from the Guest Editors

In this Special Issue, we are calling for papers on cognition in robotic systems and applications using that cognitive function. Cognition is for judging and deciding the following action, and the action is to actualize the application in a robotic system. Therefore, cognitive function is closely related to the application. A robotic system needs to take some action to realize something, and it perceives the physical world to judge and decide its operation. Cognition and its application in robotic systems (mechatronic systems, intelligent vehicles, etc.) are possible topics. Examples include the following topics but are not limited to them: - a personal robot recognizes and identifies the user's behavior to check the user's health status; - a robot helpmate that can learn from the environments so that it can robustly perceive dynamic environments with minimal/no human intervention; - a mobile service robot observes a dynamically changing indoor/outdoor environment to carry out transportation work efficiently; - a robot working in a retail shop recognizes an object's shape and determines its grasping method for merchandise display.

---

### Guest Editors

Prof. Dr. Takafumi Matsumaru

Graduate School of Information, Production and Systems (IPS), Waseda University, Kitakyushu 808-0135, Japan

Prof. Dr. Robert Sitnik

Institute of Micromechanics and Photonics, Mechatronics Faculty, Warsaw University of Technology, Sw. A. Boboli 8, 520 room, 02-525 Warsaw, Poland

---

### Deadline for manuscript submissions

closed (30 June 2023)



## Sensors

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.5  
CiteScore 8.2  
Indexed in PubMed



[mdpi.com/si/137177](https://mdpi.com/si/137177)

*Sensors*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[sensors@mdpi.com](mailto:sensors@mdpi.com)

[mdpi.com/journal/  
sensors](https://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)