

Special Issue

Real-Time Object Detection and Classification Using Advanced Sensing Techniques

Message from the Guest Editor

Object detection is to locate and identify the category of the target. It is an important basic task in the field of computer vision. Normally, we perform object detection based on RGB sensors. However, for some special scenarios, such as sudden fast-moving objects, objects in harsh environments, tiny objects, small dim objects, etc., traditional RGB-based algorithms may fail to detect these types of objects. Besides, in the actual computer vision systems, such as autonomous driving, we usually need these algorithms to be as efficient as possible to detect objects in real time. The purpose of this special issue is to explore real-time object detection based on advanced sensors. Potential topics include but are not limited to:

- Real-time object detection and tracking systems;
- Real-time object detection with event camera/spiking camera;
- Real-time object detection with LiDAR/Radar;
- Detection of fast moving objects;
- Detection of tiny object;
- Detection of dim small object;
- Lightweight object detection models;
- Real-time open-world object detection.

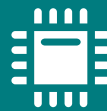
Guest Editor

Dr. Chuang Zhu

Department of Artificial Intelligence, Beijing University of Posts and Telecommunications, Beijing 100876, China

Deadline for manuscript submissions

31 October 2026



Sensors

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed



mdpi.com/si/224603

Sensors
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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
Department of Electrical and Information Engineering, Politecnico di Bari, Via Orabona 4, 70126 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)