

## Special Issue

# Advances in Point Clouds for Sensing Applications

### Message from the Guest Editor

Point clouds are a universal representation for 3D sensing across LiDAR, radar, RGB-D cameras, event sensors, and multi-view photogrammetry. Advances in sensor design, geometric learning, and computing are reshaping how we acquire, fuse, and interpret large-scale 3D data. However, challenges remain in handling occlusions and dynamic scenes, aligning heterogeneous viewpoints, quantifying uncertainty, compressing and streaming data for edge devices, and ensuring interoperability and real-time performance in safety-critical settings. This Special Issue invites contributions that push the state of the art in 3D perception and mapping for autonomous driving, robotics, AR/VR, digital twins, smart cities, infrastructure inspection, and geosciences. We seek novel methods for point-cloud acquisition, registration, SLAM, denoising, segmentation, multimodal sensor fusion, compression, indexing, and energy-/latency-aware processing on edge platforms. Benchmark datasets, standardized protocols, and real-world deployment reports are encouraged to create scalable and trustworthy 3D sensing pipelines with measurable impacts.

---

### Guest Editor

Dr. Luis G. Jaimes

Department of Computer Science, Florida Polytechnic University, 4700 Research Way, Lakeland, FL 33805, USA

---

### Deadline for manuscript submissions

30 November 2026



## Sensors

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.5  
CiteScore 8.2  
Indexed in PubMed



[mdpi.com/si/252873](https://mdpi.com/si/252873)

*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  
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)