

## Special Issue

# Challenges and Future Trends of 3D Image Sensing, Visualization, and Processing

### Message from the Guest Editor

The field of 3D image sensing, visualization, and processing has been thriving and growing in the last decade, by the increasing demand for accurate and efficient 3D sensing technologies across multiple industries, such as robotics, autonomous vehicles, and virtual reality, with remarkable progress although, facing many challenges and numerous future trends. Near future trends towards the development of more advanced 3D sensors and the integration of 3D sensing into mobile devices and other consumer products. Machine and deep learning and artificial intelligence will play an increasingly important role in processing and analyzing 3D data, while virtual and augmented reality will become more prevalent in industries such as production, gaming, healthcare, and education. In short, the future of 3D image sensing, visualization, and processing is likely to be characterized by continued innovation and growth. Potential topics include but are not limited to:

- 3D image sensing
- visualization
- processing
- machine learning
- deep learning
- augmented reality
- Industry 5.0

### Guest Editor

Dr. Miguel Oliveira

Polytechnic School of Design, Management and Production  
Technologies Aveiro-Norte, University of Aveiro, Estrada do Cercal 449,  
3720-509 Oliveira de Azeméis, Portugal

### Deadline for manuscript submissions

closed (25 July 2025)



## Sensors

an Open Access Journal  
by MDPI

Impact Factor 3.5  
CiteScore 8.2  
Indexed in PubMed



[mdpi.com/si/166892](https://mdpi.com/si/166892)

*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)