

Special Issue

Challenges and Future Trends of 3D Image Sensing, Visualization, and Processing: 2nd Edition

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 despite facing many challenges and numerous future trends. Some of the key challenges include improving the accuracy, effectiveness and robustness of 3D sensing technologies. Near-future trends are moving 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. Potential topics include but are not limited to:

- 3D image sensing
- visualization
- processing
- machine learning
- deep learning
- artificial intelligence
- virtual reality
- augmented reality
- Industry 5.0
- healthcare

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

25 July 2026



Sensors

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed



mdpi.com/si/250685

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

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)