

Special Issue

Sensors for Structural Health Monitoring of Advanced Composite Structures

Message from the Guest Editor

Advanced composite materials are the ideal materials for lightweight and efficient aircraft structural design due to their high specific strength and stiffness, designable mechanical properties, and convenient integral molding. Structural health monitoring (SHM) based on distributed sensor networks permanently integrated on the surface or embedded inside the composite structure can be regarded as a revolutionary and innovative technology to determine structural integrity. Sensors are developing towards miniaturization, intellectualization, and in situ integration, and then can be seamlessly integrated with composite structures. The purpose of this Special Issue is to highlight innovative developments related to current challenges and opportunities in developing next-generation sensors for structural health monitoring of advanced composite structures. We invite investigators to contribute both original and review articles, covering research development in the areas of innovative methods and concepts of sensors, multifunctional sensor networks, sensor self-diagnostics, and diagnostic algorithms for damage qualification.

Guest Editor

Prof. Dr. Xinlin Qing

School of Aerospace Engineering, Xiamen University, Xiamen 361005, China

Deadline for manuscript submissions

closed (30 May 2025)



Sensors

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed



mdpi.com/si/182758

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)