



## Optical Sensors for Structural Health Monitoring

Guest Editors:

**Dr. Paulo Fernando da Costa Antunes**

1. i3n, Department of Physics,  
University of Aveiro, 3810-193  
Aveiro, Portugal  
2. Instituto de  
Telecomunicações, 3810-193  
Aveiro, Portugal

**Prof. Dr. Humberto Varum**

Faculty of Engineering of the  
University of Porto, Porto, 4099-  
002 Portugal

Deadline for manuscript  
submissions:

**closed (30 June 2020)**

### Message from the Guest Editors

This Special Issue will focus on the current state-of-the-art of optical sensors for Structural Health Monitoring (SHM), covering recent technological improvements in new devices/sensors and emerging applications. Editors intend with this SI provide an overview of the present status and a future perspective of the aforementioned topics.

The manuscripts should cover, but are not limited to, the following topics:

- Physical, chemical, and environmental optical sensors for SHM;
- Interferometric and polarimetric sensors;
- Nano- and micro-structured fiber sensors including fiber gratings and photonic crystal fibers;
- Multiplexing and sensor networking;
- Distributed sensing;
- Advances in interrogation techniques for optical sensing;
- Smart structures and sensors;
- Bragg gratings, Fabry Perot cavities, and plasmonic and Mach Zehnder interferometers;
- SHM case studies using optical technologies;
- Low-cost, miniaturized, and selective and multiparameter optical devices;
- Energy-efficient SHM integrated platforms;
- Big data analysis for SHM;
- SHM advanced signal processing techniques.





*sensors*



an Open Access Journal by MDPI

## 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

## 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.

## 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)

## Contact Us

*Sensors* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/sensors](http://mdpi.com/journal/sensors)  
[sensors@mdpi.com](mailto:sensors@mdpi.com)  
[X@Sensors\\_MDPI](#)