



an Open Access Journal by MDPI

Optical Fiber Bend Sensors

Guest Editors:

Prof. Dr. Yanan Zhang

College of Information Science and Engineering, Northeastern University, Shenyang 110819, China

Dr. Shuhui Liu

Hubei Key Laboratory of Optical Information and Pattern Recognition, Wuhan Institute of Technology, Wuhan 430205, China

Dr. Yu Zheng

Rain Tree Photonics PTE. LTD., Singapore 368001, Singapore

Deadline for manuscript submissions:

closed (15 July 2023)

Message from the Guest Editors

Dear Colleagues,

Fiber-optic bending sensors have attracted growing attention due to the advantages of compact size, high sensitivity, fast response, and immunity to external electromagnetic fields, which have been exploited in the fields of composite material structures, structural monitoring, accelerometers, displacement measurement, robot arms and artificial limbs. Recent progress focuses on directional or vector bending sensors, especially multi-direction and 3D vector bending sensors such as fiber Bragg gratings built in multicore fibers. Moreover, 3D shape sensing based on the understanding of the fiber bending curvature and direction has also been drawing increasing attention. This Special Issue seeks to bring attention to the most recent results in the field of fiber bend sensors, including new sensing mechanisms, processes, and applications.

Potential topics include but are not limited to:

- Vector bend sensors;
- Multi-direction bending sensors;
- Curvature sensors;
- Multicore fiber bend sensors;
- Machine learning in fiber bend sensing;
- Shape sensors;
- Distributed shape sensing.





sensors



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro

Department of Electrical and
Information Engineering,
Politecnico di Bari, Via Orabona
4, 70126 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

mdpi.com/journal/sensors
sensors@mdpi.com
[X@Sensors_MDPI](#)