

Special Issue

Optical Fiber Bend Sensors

Message from the Guest Editors

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.

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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.

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