Special Issue

Research Progress and Applications of Distributed Optical Fiber Sensing

Message from the Guest Editors

Distributed optical fiber sensors (DOFSs) have attracted increasing attention from academia and industry in the past several decades. However, DOFSs still encounter challenges in both upstream research and downstream applications. For example, innovative ideas are needed to achieve performance enhancements including high measurement accuracy, high spatial resolution, long sensing length and large dynamic sensing range. We hope to collect innovative ideas and schemes of DOFSs to address the challenges and to provide new opportunities. This Special Issue will focus on the latest developments of DOFS systems and their applications, including advanced signal processing, innovative DOFS techniques and solutions. Relevant topics include, but are not limited to, the following:

- Principles and schemes of innovative distributed optical fiber sensing techniques;
- Novel distributed fiber sensing systems;
- AI-assisted distributed optical fiber sensing and signal processing;
- Applications of distributed optical fiber sensors in hash environments;
- Field trial results of advanced DOFSs for practical applications.

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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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