# Special Issue

# Optical Sensing Technologies, Devices and Their Data Applications

### Message from the Guest Editors

This Special Issue on “Fiber Optic Sensing and Its Applications” welcomes contributions that address innovative aspects such as the design and deployment of advanced fiber optic sensors, the application of fiber sensing in non-destructive and ultrasonic detection, and enhancements in optical atmospheric remote sensing. Specific topics of interest include, but are not limited to, the following: 1) Development and validation of novel fiber optic sensors and sensing methodologies, especially those incorporating Lidar and other optical sensing technologies; 2) Applications of fiber optic sensing; 3) Integration of fiber optic sensors with other technologies; 4) Advancements in data processing, including machine learning and big data analysis; 5) Fiber optic sensing with AI applications, including boosting sensing performance with AI models, addressing AI security issues that introduced by fiber optic techniques, and other real-world applications that combine AI with fiber optic sensing technologies. 6) Exploration of microfluidics and optofluidic, and their applications in chemical, biological, and pharmaceutical industries.

### Guest Editors

Dr. Yufei Chu

Dr. Hanqing Guo

Prof. Dr. Yuanxian Zhang

Dr. Abu Farzan Mitul

### Deadline for manuscript submissions

closed (20 May 2025)

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