

This paper tends to introduce the current development status of integrated sensing and communication in optical fiber by presenting several of the latest soluti

The integration of high-speed optical communication and distributed sensing could bring intelligent functionalities to ubiquitous optical fibre networks, such as urban structure imaging,...

The effective integration of optical fiber sensing systems and optical communications can not only effectively activate the "dark fiber" resources, but also realize many innovative perception ...

Imagine a world where the Internet doesn't just connect but senses --detecting earthquakes, monitoring battery health, or safeguarding critical infrastructure. This is the power of ...

In this article, we first introduce the generalized system structure of O-ISAC, and then elaborate on three advantages of O-ISAC, i.e., increasing communication rate, enhancing sensing ...

This work demonstrates a scheme of integrated sensing and communication in an optical fibre (ISAC-OF) using the same wavelength channel for simultaneous data transmission and ...

In this review, we first elaborate on the generalized system of O-ISAC in light of existing contributions, recent advances, and then explain different categories of O-ISAC in the context of photonics, visible ...

With the rapid development of communication networks and artificial intelligence, large-scale deployment of optical fiber undersea has become essential to meet growing data demands. Recent ...

The laboratory addresses major national needs and international academic frontiers, establishing an advanced interdisciplinary research platform based on fiber optics that integrates optics,...

Depending on the spe-cific measurement parameter, monitoring of optical fiber link health can be categorized into two technical approaches: optical performance monitoring (OPM) and distributed ...

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