

Specifically, we propose a speckle imaging model that consists of a lightweight encoder-decoder architecture and a weighted loss function, enabling high-fidelity image transmission through ...

Note: For Multimode-Fiber Optic Arc Flash Detection Sensors with additional splice connectors, refer to SEL-C814 Arc-Flash Detection (AFD) Fiber Cables and Accessories MOT

Yet, current distributed fiber-optic sensing solutions are typically costly and face a resolution-bandwidth tradeoff. In this work, we present an alternative fiber-optic vibration sensing strategy that harnesses a ...

Abstract: Multimode fiber (MMF) specklegram sensors have recently drawn significant attention due to the incorporation of machine learning (ML) algorithms in detecting different sensing parameters.

In this review, we provide an overview of the latest developments in MMF sensors, ranging from conventional methods to those assisted by machine learning.

Proof-of-concept demonstration that a multimode optical fiber (MMF) specklegram sensor array can be used to detect and image movement on a bed. Seven MMFs are attached to the upper surface of a ...

In this study, we propose an intelligent identification model utilizing a fully convolutional neural network (CNN) to precisely identify multimode fibre modes and their clusters. The model is ...

This review focuses on MMI fiber sensors for nonconventional physical variables, including mechanical, electromagnetic, chemical, and optical, covering around fifteen years of work in the field.

This work introduces an in-situ nano-displacement measurement system via a multimode fiber probe with superoscillatory speckles and deep learning.

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