

On the other hand, EL techniques improved the accuracy in detecting fiber optic faults. Thus, this research comprehensively assesses accuracy and delay metrics for various classifiers and ...

In the present research, a novel yet simple approach has been demonstrated to understand the range of optical fiber cable feasibility on fault detection and rectification technique.

This paper aims at providing a detailed characterization of fault detection techniques in Optical Fiber Networks and limitation of such techniques before implementing machine learning techniques.

In this study, we review the applications of ML to failure management in optical networks from infancy to the near term. First, we introduce the background of failure management and interpret the typical tasks.

The experiments are validated using field-deployed optical module dataset managed by network operators. The results demonstrate the effectiveness of the expertise-enhanced method in ...

In the paper, we applied the customized AI module to the OTDR device and, combined with the optical power monitoring module, realized the AI-assisted optical network fault location ...

various ML algorithms applied for failure management are depicted. ML algorithms are strongly dependent on data, and thus, the data sources with data content and extracted information in optical ...

Differently from early-detection, which aims at identifying an imminent fault before the violation of a certain threshold, the goal of failure detection is to trigger an alert after the values of the monitored ...

This paper deduces mathematical models for different faults of the high-speed optical module in IM/DD systems and proposes a ResNet-based detection scheme that achieves $\mathbf{\dots}$

We propose a data driven approach for the anomaly detection and faults identification in optical networks to diagnose physical attacks such as fiber breaks and optical tapping.

In this paper, we propose a data-driven approach to accurately and quickly detect, diagnose, and localize fiber fault anomalies, including fiber cuts ...

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