Distributed Fiber Optic Sensing Construction

This study proposes a new methodology for SPM based on distributed fiber-optic datasets during static load tests for concrete girder bridges. The datasets provide information to ...

Silica-based distributed fiber-optic sensor (DFOS) systems have been a powerful tool for sensing strain, pressure, vibration, acceleration, temperature, and humidity in inextensible structures. ...

In construction applications, DFOS offers distributed, continuous measurements over long distances. This technology is employed for infrastructure monitoring, including assessing ...

Due to long acquisition times, limited spatial resolution, and sensitivity not meeting certain technical requirements, there was limited interest from the construction industry in using distributed fiber optic ...

Who we are FEBUS Optics is the world reference in DFOS, distributed fiber optic sensing systems (DAS, DTS and DSS), to reduce the environmental impact of human activity, protect people, and ...

The use of distributed fiber optic sensors (DFOS) for the monitoring of civil structures and infrastructure opens exciting new possibilities unmatched in conventional sensor systems.

Monitoring of cracks and crack growth rates is a crucial aspect of structural health monitoring for concrete infrastructure, and multiple manual and automatic monitoring techniques ...

In this paper, multiple methods for performing adequate post-processing of experimental data generated by DFOS (which are all implemented in FOS Evaluator) are presented and their ...

Distributed Fiber Optics Sensing (DFOS) is a mature technology, with known, tested, verified, and even certified performance of various interrogators and measurement methods, which ...

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