Concrete Monitoring Fiber Optic Sensor

Fibre optic-based sensors, which have been available since the late 1980s, have a wide range of applications and can be distinguished by the intended measurands or the underlying ...

Fiber optic sensors (FOS) have been widely explored in recent years for concrete durability monitoring due to their advantages of high sensitivity, immunity to harsh environments, ...

On the opposite, structural performance monitoring (SPM) aims to evaluate current bridge conditions using a data-informed framework. This study proposes a new methodology for ...

Sensor technologies have experienced notable advances in recent years, such as the incorporation of devices based on fiber-optic technology. Here, we focus on the application of fiber ...

This study helps to advance the application of the smart DFOS for structural health monitoring and maintenance of concrete infrastructures.

This literature review examines the application of Fibre Optic Sensors (FOS) in the structural health monitoring of concrete buildings, an increasing issue in contemporary construction...

Fiber optic sensors (FOS) are made of high-purity silica, which are immune to chemical attacks and electromagnetic interference. These properties make it ideal for long-term durability monitoring of ...

The ability to measure strains quasi-continuously with high spatial resolution makes distributed fiber optic sensing a promising technology for structural health monitoring as it allows to locate and ...

Fibre Optic Sensors (FOS) enable continuous and accurate monitoring of various parameters of concrete structures. These sensors are capable of measuring deformation, ...

A technique of using fiber-optic sensors to simultaneously monitor both distributed RC beam deflections and crack widths is developed and described. Thirteen beam specimens with ...

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