

Applications of Fiber Bragg Gratings in Railways

Learn about various applications of the Fiber Bragg Grating Sensors in railways, their characteristics and railway projects.

Abstract: In this work, we present field tests concerning the application of fiber Bragg grating (FBG) sensors for the monitoring of railway traffic. The test campaigns are performed on the ...

The specific applications of FBG sensing technology in the field of railways and rail transit include rail track monitoring, train monitoring, wheel-rail interaction monitoring, train speed monitoring, and train ...

In this roadmap towards the production of industrial FBG strain sensors for railway safety applications, the work reported in this paper brings ...

A fiber Bragg grating (FBG) strain sensor has been employed for this study to detect and distinguish normal and lateral loads on rail tracks.

In this roadmap towards the production of industrial FBG strain sensors for railway safety applications, the work reported in this paper brings original and highly relevant practical studies.

Fiber Bragg gratings (FBGs) have already proven their efficiency in axle counting when distributed along a railway track and bring advantages with respect to competing sensors. In this ...

In this discussion, we outlined the advantages of using fiber Bragg grating sensor arrays for railway applications. The results obtained from field measurements over the past few years in collaboration ...

There is today ample evidence that fiber Bragg gratings (FBGs) distributed along a railway track can provide robust axle counting and bring numerous assets compared to competing...

The purpose of this study is to present the real-time implementation of fiber Bragg grating sensors on rail tracks and to investigate the train's flat wheel status. By considering passenger train ...

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