

Fibre Bragg gratings are one of the most popular sensors with a huge number of applications. Their most important advantage is signal modulation consisting in shifting the spectrum ...

Following the early work on the formation of photogenerated gratings in germanosilicate optical fiber by sustained exposure of the core to the interference pattern produced by oppositely propagating ...

A demodulation algorithm for fiber Bragg grating (FBG) sensor is presented. The proposed demodulation algorithm evaluates the wavelength shift in the reflected.

A demodulation algorithm is vital for a fiber Bragg grating (FBG) sensing system. In this paper, a novel demodulation algorithm based on the variable-step-size method and cross-correlation algorithm is ...

Another problem is how to measure a small Bragg wavelength shift accurately. This article presents a comprehensive and systematic overview of discrimination measurement methods and ...

A discrimination measurement method and demodulation technique for fiber Bragg grating (FBG) sensors were presented using digital filtering technique. The system can control a tunable...

Demodulation is a bottleneck for applications involving fiber Bragg gratings (FBGs). An overlap spectrum FBG sensor based on a light power demodulation method is presented in this ...

We propose a two-stage methodology to discern distinct wavelengths within highly overlapped FBG sensors. The method leverages a deep learning (DL) model in the initial stage to ...

I. What is a Fiber Bragg Grating (FBG)? A Fiber Bragg Grating is an optical device composed of a series of closely spaced periodic variations. These gratings are inscribed on optical fibers using ...

Our technique exploits the reflection characteristics of fiber Bragg gratings written in polarization-maintaining fibers to create a frequency discriminator, which is able to convert PM/FM signals into ...

Principle of Fiber Bragg Grating Sensor Demodulator

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