Fiber Optic Sensor Sensing Inclined Surface

Here, we present a comprehensive analytical model for multi-axis tilt sensing based on intensity-modulated optical fiber sensors (OFDSs).

Here, we experimentally demonstrate a wedged fiber optic surface plasmon resonance (SPR) sensor enabling high-sensitivity temperature detection. The sensing probe has a geometry with two ...

From energy and transportation to agriculture and cybersecurity, fiber sensing is quietly revolutionizing industries with applications once thought impossible. In this article, the authors ...

Brief theory of sensing principle, fabrication method, applications, advantages and disadvantages of the different fiber-optic sensors, are addressed. Recent progress in numerous ...

Addressing the challenges of low sensitivity and inadequate spatial resolution in conventional deep displacement monitoring methods, a novel approach is introduced that involves ...

In this paper a mathematical model for the two fiber intensity-modulated displacement sensor with inclined fibers is developed. The developed model is used to simulate the response of ...

The article presents a method for identifying and analyzing the selected dynamic characteristics of deformation of a bridge structure using fiberoptic Bragg sensors with an inclined lattice.

Hence, what we believe to be a novel inclinometer based on fiber sensing principles is proposed. The sensor employs suspension sensing based on the plumb principle, using bearings to overcome ...

Here, we experimentally demonstrate a wedged fiber optic surface plasmon resonance (SPR) sensor enabling high-sensitivity temperature ...

Modeling the sensor geometry with asymmetrically inclined fibers is of prime importance. This modeling technique is definitely a new approach to optimize the performance parameters and ...

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