Fiber Optic Sensor Displacement Characteristic Detection

B. R. Tittmann, "High sensitivity fiber optic angular displacement sensor and its application for detection of ultrasound", Appl. Opt., v. 51, n. 20, p. 4841-4851 (2012).

A critical aspect of OFDS performance is the geometry of the fiber bundle, which influences key parameters such as sensitivity, range, and dead zones. In this work, we present a ...

This article reviews specifically the advanced fiber optic displacement sensing techniques that have been developed in the past two decades.

In this chapter, fiber-optic displacement sensors (FODS) are demonstrated using an intensity modulation technique.

Application note describes how the MTI-2100 Fotonic Sensor uses fiber optics to performs displacement measurement in gaseous or liquid media.

Our paper begins by describing the mathematical model that underlies advanced sensor configurations. We then explain our method for designing the fiber bundles and critically analyze the ...

fiber based sensors are also presented in this chapter. The application of the FODSs in liquid refractive index measu ement is investigated theoretically and experimentally. In the last part of this chapter, a ...

The mechanism of displacement sensing of sensor is investigated by mathematical analysis and tests. A novel and simple fiber-optic sensor for measuring a large displacement range in ...

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

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