Fiber Optic Sensor Roughness Measurement Circuit

A least-squares support vector machine (LS-SVM)-based surface roughness prediction model is proposed to estimate the surface roughness, Ra, and the coupled simulated annealing (CSA) and ...

A simple and inexpensive method using fiber optic displacement sensor is proposed for measurements of tooth surface roughness based on the intensity modulation technique.

A method of surface roughness measurement is disclosed which uses a fiber-optic probe having a sensor head constituted of a light-emitting fiber and multiple light-receiving fibers...

The paper deals with the development of a fiber optic sensor for surface roughness measurement. A new method for the calculation of reflection light intensity is proposed.

Abstract Computational neuroscience has been widely used in fiber optic sensor signal output. This paper introduces a method for processing the Surface Roughness Fiber Optic Sensor output signals ...

In contrast with tactile measuring devices, fiber-optic sensors from fionec do not affect or damage the surface of the test specimens. This makes it possible to perform roughness measurements even on ...

Compared with the measurement of surface roughness by multiple optical fibers, this fiber optic sensor has a higher integration of the optical path, a smaller fiber optic probe, and a higher ...

Some configurations, including different constructions of a fiber-optic head, and the specific requirements for optical fibers are also discussed. The data obtained from the intensity and ...

The fiber optic sensor system can be used to estimate the roughness of metals due to any type of corrosion without erosion. The obtained results show a consistent relationship between measured ...

In order to explore the use of side-polished fibre (SPF) for microprobe-type "lab-on-fibre", this study presents an analysis of the surface roughness in side-polished fiber (SPF) using the gray ...

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