

## Preview

FBGS - Fiber Optic Shape Sensing demo video recreating the main movements and 2D / 3D shapes and simulating the insertion and extraction of the fiber inside an artery. Sometimes it is difficult to explain how precise our fiber optic shape sensing solution is. The technology will enable cutting-edge applications in the fields of robotic and standard minimally invasive surgery - such as real-time position tracking, instrument and catheter navigation, force.

Our fiber optic shape sensing system comprises a sensor, a measurement device and the software that

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We present here the recent advance in exploring new detection mechanisms, materials, processes, and applications of fiber optic

We demonstrate proof-of-concept 3D multi-point deformation sensing via a single multimode fiber by using k-nearest

A 3D surface-enhanced Raman scattering (SERS) sensor is realized on the facet of an

Lightera has developed a technology platform to produce high quality, twisted multi-core optical fiber with continuous FBGs (Fiber

Optical fiber sensing refers to the use of optical fibers to measure various parameters such as temperature, strain, and pressure by

Optical fibre sensors have experienced tremendous growth from simple bend sensors in 1980s to full three-dimensional

Fiber Optic Shape Sensing is an innovative Optical Fiber Sensing Technology that uses a fiber optic cable to

Sometimes it is difficult to explain how precise our fiber optic shape sensing solution is. As a picture is worth a

Flexible optical fiber sensors benefit from both technology-merits of optical fiber sensing and flexible materials. They utilize specially

## 3D Demonstration of Fiber Optic Sensor

Optical fiber is comprised of a central core with a high refractive index surrounded by cladding with a low refractive index. When light

A fiber-optic sensor is a sensor that uses optical fiber either as the sensing element ("intrinsic sensors"), or as a means of relaying

Optical fiber sensors offer attractive characteristics that make them very suitable and, in some cases, the only viable sensing

Imagine a world where the Internet doesn't just connect but senses--detecting earthquakes,

Fiber optic shape sensing has recently captured the attention of academia and industry and has been investigated by

Web: <https://www.supremeacademicresearch.co.za>

