**DESCRIPTION**

The pursuit of more efficient telecommunications has resulted in a major research push towards communication systems that are lighter, faster, more reliable and cheaper. This has given rise to great advances in devices and in fibre optics. A spin off of this research is the development of optical sensors, which use photonic materials and concepts. Optical sensors have wide-ranging applications in various fields including telecommunications, civil engineering, chemical industry, biomedical applications and the electrical power industry.

This comprehensive handbook, written by a wide spectrum of leading international researchers, offers a clear understanding of the theory as well as focusing on the many practical applications throughout the industry. The book is organised into four main sections:

* Preliminary: Offers an overview of Fiber Optic Sensing Technology, the applications where it can be used successfully and also serves as an overall introduction to the handbook. This section also analyses current publications in the field.

* Fundamentals of Photonics and Components for Sensing: Describes the photonic concepts and components needed in order to carried out the understanding, the design, and to realise photonic sensor systems.

* Principles and Techniques for Sensing: Provides the principles and techniques in which the photonic sensing technology is based in order to understand how sensors work and how sensors can be made.

* Applications: An ample overview of the developments which are successfully taking place in laboratory and field trials, as well as the available sensors in the current market and the future trends in this field. Applications are featured throughout the text, and this section focuses primarily on niche applications.
This handbook would prove to be a valuable reference resource for researchers, engineers and postgraduate students in fibre optical sensing, as well as practising engineers in optical communications and electronic engineering, civil engineering, aerospace industry, biomedicine and robotics.

🔥 ABOUT THE AUTHOR


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