

PROCEEDINGS OF SPIE

Fiber Optic Sensors and Applications XI

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Introduction

Fiber optic sensor technology continues to move strongly into a broader base of applications. Since the development of early fiber optic sensor technology in the late 1970s and early 1980s that was highly directed toward aerospace and defense, fiber sensors have found their way into civil structures worldwide to monitor bridges, buildings, and dams. Medical applications continue to be developed and they have become increasingly important tools to support the oil and gas industry.

To highlight the importance to the oil and gas industry and the role fiber sensors are playing in improving the safety and viability of oil exploration and extraction, *Fiber Optic Sensors and Applications XI* includes a special section on using fiber optic sensor technology for this important field.

Other important sections include papers on medical and chemical applications, as well as the continued development of interferometric, distributed, and fiber grating sensors that are playing increasingly significant roles in many more areas. While fiber optic sensor technology has matured considerably for certain fields of use, significant development is ongoing to improve the viability of the technology for aerospace, defense, and civil structures. In parallel, the relatively recent introduction of the technology into the medical and oil and gas application area is rapidly expanding, while new capabilities and applications continue to be found.

Fiber Optic Sensors and Applications XI continues the tradition of recording the development of fiber optic sensor technology begun by SPIE Proceedings in the late 1970s. There are now hundreds of proceedings and thousands of papers. We hope that current and future researchers will build on this work to more fully realize the potential of this amazing technology.

Henry H. Du
Gary Pickrell
Eric Udd

