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Session 5—Applications of Fiber Optic Sensors

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Preface

Over the past decade fiber optics technology has revolutionized the telecommunications market and is rapidly becoming a major player in such areas as cable TV and local-area networks. A similar revolution has taken place in the optoelectronics industry, with light-emitting and laser diodes playing key roles in such items as compact disc players, laser printers, pointers, and recently scanners.

Fiber optic sensor technology has developed in parallel with these industries and has benefited greatly from the availability of low-cost, high-performance components associated with mass production. This synergy has resulted in the introduction of fiber optic sensor products in the form of fiber optic gyros, biomedical sensors, and fiber sensors for process control. As the quality and quantity of low-cost, high-performance components continue to increase, the number of applications where fiber optic sensor technology can be effectively applied will continue to unfold.

This critical review contains a series of review papers intended to provide an overview of the state of the art in fiber optic sensor technology and the application areas that are beginning to emerge.

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