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Altri autori (Persone)	KangJin U
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Optical Fibers -- Fiber Optic Interferometric Devices -- Fiber Optic Imagers -- Optical Fiber Gratings for Mechanical and Bio-sensing -- Sagnac Loop Sensors -- Principles of Optical Coherence Tomography.
Sommario/riassunto	This book is designed to highlight the basic principles of fiber optic imaging and sensing devices. The editor has organized the book to provide the reader with a solid foundation in fiber optic imaging and sensing devices. It begins with an introductory chapter that starts from Maxwell's equations and ends with the derivation of the basic optical fiber characteristic equations and solutions (i.e. fiber modes). Chapter 2 reviews most common fiber optic interferometric devices and Chapter 3 discusses the basics of fiber optic imagers with emphasis on fiber optic confocal microscope. The fiber optic interferometric sensors are discussed in detail in chapter 4 and 5. Chapter 6 covers optical coherence tomography and goes into the details of signal processing and systems level approach of the real-time OCT implementation. Also useful forms of device characteristic equations are provided so that this book can be used as a reference for scientists and engineers in the optics and related fields.