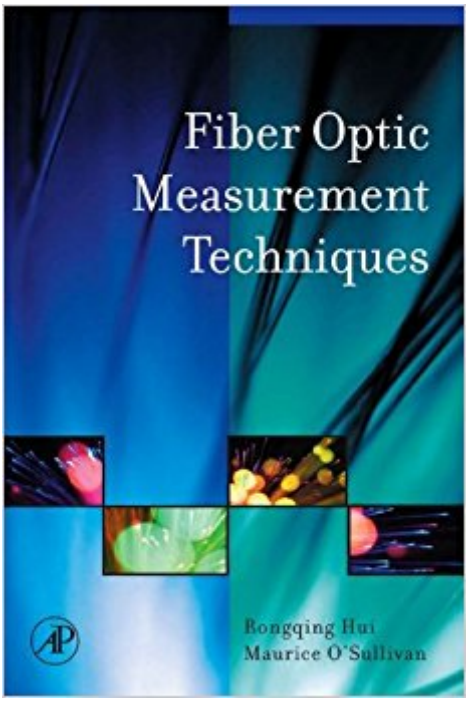
Fiber Optic Measurement Techniques



Synopsis

Fiber Optic Measurement Techniques is an indispensable collection of key optical measurement techniques essential for developing and characterizing todayâ ™s photonic devices and fiber optic systems. The book gives comprehensive and systematic descriptions of various fiber optic measurement methods with the emphasis on the understanding of optoelectronic signal processing methodologies, helping the reader to weigh up the pros and cons of each technique and establish their suitability for the task at hand. Carefully balancing descriptions of principle, operations and optoelectronic circuit implementation, this indispensable resource will enable the engineer to: Understand the implications of various measurement results and system performance qualificationsCharacterize modern optical systems and devicesSelect optical devices and subsystems in optical network design and implementationDesign innovative instrumentations for fiber optic systems This book brings together in one volume the fundamental principles with the latest techniques, making it a complete resource for the optical and communications engineer developing future optical devices and fiber optic systems. "Optical fiber communication systems and networks constitute the core of the telecom infrastructure of the information society worldwide. Accurate knowledge of the properties of the contituent components, and of the performance of the subsystems and systems must be obtained in order to ensure reliable transmission, distribution, and delivery of information. This book is an authoritative and comprehensive treatment of fiber-optic measurement techniques, including not only fundamental principles and methodologies but also various instrumentations and practical implementations. It is an excellent up-to-date resource and reference for the academic and industrial researcher as well as the field engineer in manufacturing and network operations." â “Dr. Tingye Li, AT&T Labs (retired) Rongqing Hui received his PhD in Electrical Engineering from Politecnico di Torino, Italy in 1993. He is currently a tenured professor in the department of Electrical Engineering and Computer Science at the University of Kansas. He has published more than 90 refereed technical papers in the area of fiber-optic communications and holds 13 patents. Dr. Hui currently serves as an Associate Editor of IEEE Transactions on Communications. Maurice O’Sullivan has worked for Nortel for a score of years, at first in the optical cable business, developing factory-tailored metrology for optical fiber, but, in the main, in the optical transmission business developing, modeling and verifying physical layer designs & performance of Nortel’s line and highest rate transmission product including OC-192, MOR, MOR+, LH1600G, eDCO and eDC40G. He holds a Ph.D. in physics (high resolution spectroscopy) from the University of Toronto, is a Nortel Fellow and has been granted more than 30 patents.The only book to combine explanations of the basic principles with latest techniques to enable the engineer to develop

photonic systems of the futureCareful and systematic presentation of measurement methods to help engineers to choose the most appropriate for their applicationThe latest methods covered, such as real-time optical monitoring and phase coded systems and subsystems, making this the most up-to-date guide to fiber optic measurement on the market

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Customer Reviews

This book is an excellent reference in optical measurement.Actually there are not so many books combining theory and practical needs in the filed. The first one of such a book was Fiber Optic test and Measurement written by Dericksonbut updated.It is intended to be used by a practising engineer or scientist. Theoratical details are given only as much as necessary.

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