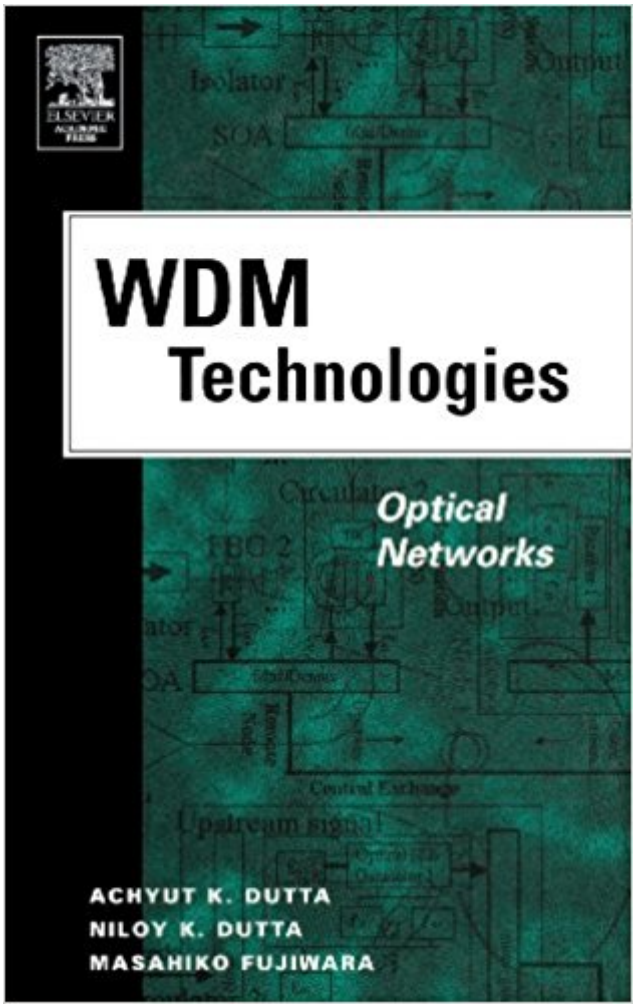
WDM Technologies: Optical Networks



Synopsis

Internet information (which is doubling every six months) travels through optical fibers. Today, optical fibers are being installed where a single fiber has the ability to carry information as much as 200 times faster than was possible just five years ago. This revolutionary capability is being achieved with technology known as wavelength division multiplexing WDM). WDM technology relies on the fact that optical fibers can carry many wavelengths of light simultaneously without interaction between each wavelength. Thus, a single fiber can carry many separate wavelength signals or channels simultaneously. The communications industry is at the onset of new expansion of WDM technology necessary to meet the new demand for bandwidth. WDM Technologies: Optical Networks deals with the Networks facet of this field (present and future). Allows engineers working in optical communications(from systems to components) to understand the principles and mechanics of each key component they deal with for optical system designProvides an excellent resource for engineers and researchers engaged in all aspects of fiber optic communications, such as optoelectronics, equipment/system design, and manufacturingProvides comprehensive coverage of key concepts in optical networks and their application in commercial systems

Book Information

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Customer Reviews

Today’s optical networks rely on WAVELENGTH DIVISION MULTIPLEXING, and you should rely

on this book to learn why!

Achyut Dutta is an engineering manager in the Lightwave and Module Design Center, Fujitsu Compound Semiconductor, Inc, San Jose, California. He has published over 100 technical papers, and holds 15 patents. He received various awards including NECâ ™s best R&D award for technology development of first plastic-optical-fiber (POF) based private network. His research interests are in the high-speed optical components, their integration, and system demonstration including optical networking for next generation communication.Niloy K. Dutta, Ph.D., is a Professor of Physics Department, University of Connecticut, Storrs, Connecticut. He has published over 240 technical papers. He has published a book on " Long Wavelength Semiconductor Lasers " and a second edition with the title Semiconductor Lasers, and also the editor of a book on Vertical-Cavity Surface-Emitting Lasers: Technology and Applications. He has received various awards including IEEEâ ™s Distinguished Lecturer Award. His reaserch interests are in the optical components, amplifier, and WDM systems for short and long-haul communication.Masahiko Fujiwara, Ph.D., is a chief engineer, Network Research Laboratories, NEC Corporation, Tsukuba, Japan. He has published over 100 papers, and holds 30 patents. His research interests are in the optical component integration, optical cross-connect switching system, optical networking for next generation communication.

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