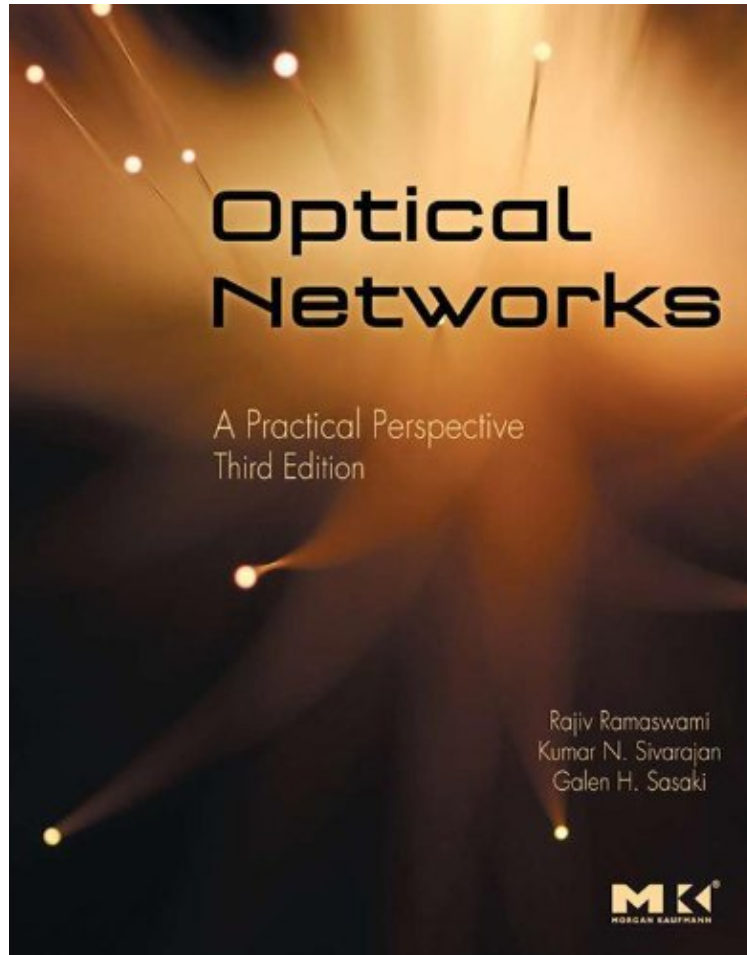


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Optical Networks: A Practical Perspective

Von Rajiv Ramaswami, Kumar Sivarajan, Galen Sasaki
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Von Rajiv Ramaswami, Kumar Sivarajan, Galen Sasaki : Optical Networks: A Practical Perspective before purchasing it in order to gage whether or not it would be worth my time, and all praised Optical Networks: A Practical Perspective:

KundenrezensionenHilfreichste Kundenrezensionen1 von 1 Kunden fanden die folgende Rezension hilfreich. It needs UPDATE!Von Ein KundeThis was a very nice book, however, written in 1997. In a rapid progressive space like optical network, this book quickly falls into legacy and can only be rendered as college entry-level textbook in said subject. Many new initiatives and tests have been launches and reviewed. Even Rajiv's new exciting micro-mirror technology (of Xeros) is not covered, not mentioning tunable laser application in mesh architecture. It was a five-star book until mid-1999. In spring 2000, I can only give a honost three-star rating as an encouragement for the author to update his book. It is overdue!0 von 0 Kunden fanden die folgende Rezension hilfreich. AN INVALUABLE BOOK ON OPTICAL COMMUNICATIONS.Von Venugopal K. R.An excellent and comprehensive book on Optical

Networks for undergraduate and postgraduate students of Electrical and Computer Science/Engineering. The book consists of two parts. The first part consisting of six chapters, dwells upon technological developments in optical components and transmission systems. The first chapter throws light on the state-of-the-art optical communication technology. The second chapter describes the features of optical fiber and its superiority over other communication media such as copper wire. The third chapter is an overview of the optical components viz., transmitters, receivers, switches, amplifiers etc., while the fourth chapter explains the process of Modulation and Demodulation in converting electrical signals to optical signals and vice-versa. The fifth chapter deals with the design of the physical layer. The concepts explained in all these chapters are clear and lucid. This part is particularly useful for students of Electrical Engineering. The second part of this book deals with optical network architecture and algorithms. The sixth chapter emphasizes the necessity of optical fiber and includes the architecture of SONET/SDH. The seventh chapter illustrates the Broadcast and Select Wavelength Division Multiplexing Networks widely used in LANs and WANs, while the next chapter covers the architecture and algorithms employed in Wavelength Routed Networks for WANs. Chapter nine introduces the notion of Virtual topology design which is useful in integrating IP and ATM networks over the Optical layer. Control and management, that is, configuration, equipment, fault, failure, safety, management form the crux of the tenth chapter. Chapter eleven describes the on going research activities of various testbeds on Wavelength Routed Networks. Chapter twelve provides optical network solutions for Fiber-to-the-home access network applications. The thirteenth chapter emphasizes the issues faced by the network operators in upgrading the existing networks. The last chapter explores Packet Switched Optical Networks. This portion of the book is useful for students of Computer Science and Engineering. The authors have covered a wide range of topics, from physics of the optical fiber to the networking aspects. The book is very simple to read, easy to absorb, and exceptionally exciting in the world of optical networks. The authors have taken lot of care to design the book for an academic curriculum without sacrificing the depth of the topics and it is a very useful book for research students. The book is an admirable piece of work, eminently scientific in concept, and elegant in style. It is an exceedingly stimulating book with theoretical rigor and practical in approach which is too often lacking in works on optical communication. The results are profound and enlightening. There is a smooth flow of the concepts from the beginning to the end. The exercises in the chapter enables the student to check his understanding of the concepts. A number of useful references for further reading are included at the end of the chapters. It is indeed a competent work signaling a definitive contribution to optical communication. No future student of the fortunes of optical communications can afford to overlook it. This book deserves to be read and reread by each and every student of optical communications.

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0 von 0 Kunden fanden die folgende Rezension hilfreich. Best book on Optical Networks Von Ein Kunde Over the past year, I've been involved in a project which required me to learn a lot more about optical networks. In addition to reading the papers from ANSI T1X1 and the Optical Internetworking Forum (OIF), I purchased several books on the subject, including Siller and Shafi's "SONET/SDH," Goralski's "SONET" and Laches' "Fiber Optic Communications". Ramaswami and Sivarajan's book "Optical Networks" is definitely the best of the group. "SONET/SDH" gives a good overview, but you need to already know something about SONET in order to understand it. Goralski's "SONET" is too basic, while "Fiber Optic Communications" is too theoretical. "Optical Networks" is "just right" (to quote a famous young lady's comments about a baby bear's porridge). Whenever I need to know something about optical networks, this is the book I turn to. The only problem is that the field of optical networks is moving quite fast right now and this book provides a snapshot of the 1997-1998 timeframe. I wish the authors would put up a web site discussing some of the recent activity in the field, but I suppose it's a bit much to ask them to devote their lives to the book. All in all, if you want an excellent introduction to optical networks, this is the book for you.

Kurzbeschreibung The third edition of Optical Networks continues to be the authoritative source for information on optical networking technologies and techniques. Componentry and transmission are discussed in detail with emphasis on practical networking issues that affect organizations as they evaluate, deploy, or develop optical networks. New updates in this rapidly changing technology are introduced. These updates include sections on pluggable optical transceivers, ROADM (reconfigurable optical add/drop multiplexer), and electronic dispersion compensation. Current standards updates such as G.709 OTN, as well as, those for GPON, EPON, and BPON are featured. Expanded discussions on multimode fiber with additional sections on photonic crystal and plastic fibers, as well as expanded coverage of Ethernet and Multiprotocol Label Switching (MPLS). This book clearly explains all the hard-to-find information on architecture, control and management. It serves as your guide at every step of optical networking--from planning to implementation through ongoing maintenance. This book is your key to thoroughly understanding practical optical networks. In-depth coverage of optimization, design, and management of the components and transmission of optical networks. Filled with examples, figures, and problem sets to aid in development of dependable, speedy networks. Focuses on practical, networking-specific issues: everything you need to know to implement

currently available optical solutions. .deFiber-optic networking, on both small and large scales, has lots of advantages over traditional wire and wireless networks. First, optical signals can travel enormous distances without the need for amplification. Second, optical networks provide enormous bandwidth that is hundreds of times larger than that of many other media. In *Optical Networks*, authors Ramaswami and Sivarajan explore the scientific concepts and engineering considerations behind light-based networks. The authors begin with the physical phenomena that make optical networks possible. They cover characteristics of light in depth, with an eye toward optimizing light's ability to carry signals long distances. They progress to detailing the hardware that makes networks possible, including multiplexers, filters, amplifiers, transmitters, detectors, and switches. Generally, discussion is theoretical, rather than oriented toward any particular make and model of gear. The authors then cover various means of encoding information into light waves, paying attention to topics such as wavelength routing, network topology, and management. Readers who are planning to put together an optical network may find that the book's case studies are the most interesting part of the text. The authors give examples of real-world networks that different companies have built, such as ATT's Africa ONE and Alcatel's WDM Ring. They then analyze each system, picking out the strong and weak points of each. This is an academic book, full of equations, graphs, and schematics. Don't expect to get a lot out of this book if you're wiring up your office's local area network (LAN). *Optical Networks* is appropriate if you work on big, high-capacity networks or if you want a glimpse of one possible future Internet infrastructure. --David WallPressestimmenThis book is a lucid and practical exposition of the optics state of the art by two protege's of Paul Green. Skip the denser math if you want and you still can deepen your knowledge of this incandescent field. -Gilder Technology Report