Gerd Kaiser Optical Fiber Communication Tata Mcgraw Hill4th Edition

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Fiber-optic Communications Technology - Djafar K. Mynbaev 2001
A useful source of information to anyone who works with fiber optics, this state-of-the-art guide covers the newest technological innovations in fibers, systems and networks, and provides a solid foundation in the basics with lots of examples, practical applications, graphical presentations, and solutions to problems that simulate those found in the workplace. Devotes complete chapters to optical fibers, singlemode fibers, light sources and transmitters, photodetectors and receivers, and more. Provides real data and specification sheets to help users hone their ability to read

data sheets and integrate concepts - a critical skill for practicing engineers. Offers a "two-level discussion" in each chapter: a "Basics" section introduces the main ideas and principles involved in the devices covered, and "A Deeper Look" section offers a more theoretical and detailed discussion of the same material. Describes the test, measurement, and troubleshooting of fiber optics communications systems based on existing standards and commercially available equipment. Integrates many pictures of commercially available devices and equipment throughout. For professionals in the electronic technology industry.

Understanding Fiber Optics - Jeff Hecht 2002

For courses in Introduction to Fiber Optics and Introduction to Optical Networking in departments of Electronics Technology and Electronics Engineering Technology. Also suitable for corporate training programs. Ideal for technicians, entry-level engineers, and other nonspecialists, this best-selling practical, thorough, and accessible introduction to fiber optics reflects the expertise of an author who has followed the field for over 25 years. Using a non-theoretical/non-mathematical approach, it explains the principles of optical fibers, describes components and how they work, explores the tools and techniques used to work with them and the devices used to connect fiber network, and concludes with applications showing how fibers are used in modern communication systems. It covers both existing systems and developing technology, so students can understand present systems and new developments.

Optical Fiber Communications - John M. Senior 2009

This text succeeds in giving a practical introduction to the fundamentals, problems and techniques of the design and utilisation of optical fiber systems. This edition retains all core features, while

incorporating recent improvements and developments in the field.

A Conversation with the Innovator in You - Pragya Dixit 2017-02-03

If You want to be an Innovator, you can be one. More than what you already are. Discover the Innovator in you, to be a world-class Innovator. This book is not for dummies. It is for the smart ones. In this conversation style book, we approach the need of the hour, Innovation, by helping you discover the Innovator in you. We believe you already have it in you. For us, you are capable and smart, else you would not be where you are today. You, the Innovator and Intrapreneur can deliver innovations in almost any domain, any context or in any situation, without depending much on the external processes. This book is an inside out view, you the Innovator being the epicenter. We have written this as Innovators and Intrapreneurs, for Innovators and Intrapreneurs. This book is not about what should work; it is about what does work.

Erbium-Doped Fiber Amplifiers - Emmanuel Desurvire 2002-08-19

PRAISE FOR Erbium-Doped Fiber Amplifiers: Principles and Applications "The book is an indispensable reference for researchers, development engineers, and system designers in fiber-optic communications.... It will excel as an introductory text in upper-level undergraduate and graduate courses on system applications of fiber optics." -- Optik "One of the most comprehensive and detailed accounts of the physics and fundamental principles of erbium-doped fiber amplifiers.... I do not hesitate to recommend the book enthusiastically to anyone having an interest in EDFAs and their applications." -- Physics Today Erbium-doped fiber amplifiers are an important technology for lightwave voice, video, and data transmission. The passage of the 1996 Telecommunications Act and the growth of the Internet have

sparked intense demand for expanded bandwidth in all network layers, resulting in significant advances in Erbium-Doped Fiber Amplifier (EDFA) technology. This two-volume set combines Erbium-Doped Fiber Amplifiers: Principles and Applications, an important exploration of the then-infant technology of erbium-doped fiber amplifiers, and Erbium-Doped Fiber Amplifiers: Device and System Developments, a new volume designed to expands the reader s conceptual understanding of EDFAs and cover the developmental issues of EDFAs that are relevant to modern telecom applications. Erbium-Doped Fiber Amplifiers: Principles and Applications illuminates such key areas as: * Modeling light amplification in Er-doped single-mode fibers * Fundamentals of noise in optical fiber amplifiers * Photodetection of optically amplified signals * Spectroscopic properties of erbium glass fibers * Gain, saturation, and noise characteristics of EDFAs * Device and system applications of EDFAs Erbium-Doped Fiber Amplifiers: * Devices and Developments reviews * New aspects in EDFA modeling, including the standard confined-doping, the transcendental-power-equation, and average-inversion-level models * Design concepts for EDFAs in terrestrial and submarine WDM systems * Transmission fiber design and dispersion-management techniques for terabit/s systems * Amplified submarine-cable systems, including a brief history of submarine-cable communications and the investigation of terabit/s system technologies * Advanced concepts in the physics of noise in amplified light, noise figure definitions, entropy, and ultimate capacity limits * Delving into fundamental concepts (including a wealth of previously unpublished materials) as well as important breakthroughs, this much-needed resource will place telecom engineers in a position

to take advantage of every aspect in the broad potential of EDFAs. Together, this set sheds light on many new frontiers of knowledge, such as inhomogeneous modeling and nonlinear photon statistics, and demonstrates the many broadening benefits of EDFAs, including their polarization insensitivity, temperature stability, quantum-limited noise figure, and immunity to interchannel crosstalk.

Optical Fiber Communications - Gerd Keiser 2000

The third edition of this popular text and reference book presents the fundamental principles for understanding and applying optical fiber technology to sophisticated modern telecommunication systems. Optical-fiber-based telecommunication networks have become a major information-transmission-system, with high capacity links encircling the globe in both terrestrial and undersea installations. Numerous passive and active optical devices within these links perform complex transmission and networking functions in the optical domain, such as signal amplification, restoration, routing, and switching. Along with the need to understand the functions of these devices comes the necessity to measure both component and network performance, and to model and stimulate the complex behavior of reliable high-capacity networks.

Fiber-Optic Transmission Networks - Stephan Pachnicke 2011-09-20

Next generation optical communication systems will have to transport a significantly increased data volume at a reduced cost per transmitted bit. To achieve these ambitious goals optimum design is crucial in combination with dynamic adaptation to actual traffic demands and improved energy efficiency. In the first part of the book the author elaborates on the design of optical transmission systems. Several methods for efficient numerical simulation are presented ranging from meta-model based optimization

to parallelization techniques for solving the nonlinear Schrödinger equation. Furthermore, fast analytical and semi-analytical models are described to estimate the various degradation effects occurring on the transmission line. In the second part of the book operational aspects of optical networks are investigated. Physical layer impairment-aware routing and regenerator placement are studied. Finally, it is analyzed how the energy efficiency of a multi-layer optical core network can be increased by dynamic adaptation to traffic patterns changing in the course of the day.

Microwave Engineering - Annapurna Das 2008

Part of the McGraw-Hill Core Concepts Series, Microwave Engineering thoroughly covers the basic principles, analysis, design and measurement techniques necessary for an introductory undergraduate or graduate course in microwave engineering. This is a concise less expensive alternative. This series is edited by Dick Dorf.

Process Control Instrumentation Technology - Curtis D. Johnson 1982

This book gives readers an understanding and appreciation of some of the theories behind control system elements and operations--without advanced math or calculus. It also presents some of the practical details of how elements of a control system are designed and operated--without the benefit of on-the-job experience. Chapter topics include process control; analog and digital signal conditioning; thermal, mechanical, and optical sensors; controller principles; and control loop characteristics. For those in the industry who will need to design the elements of a control system from a practical, working perspective, and comprehend how these elements affect overall system operation and tuning.

Introduction to Wireless and Mobile Systems - Dharma P. Agrawal 2010-06-10

This text explains the general principles of how wireless systems work, how mobility is

supported, what the underlying infrastructure is and what interactions are needed among different functional components. Designed as a textbook appropriate for undergraduate or graduate courses in Computer Science (CS), Computer Engineering (CE), and Electrical Engineering (EE), Introduction to Wireless and Mobile Systems third edition focuses on qualitative descriptions and the realistic explanations of relationships between wireless systems and performance parameters. Rather than offering a thorough history behind the development of wireless technologies or an exhaustive list of work being carried out, the authors help CS, CE, and EE students learn this exciting technology through relevant examples such as understanding how a cell phone starts working as soon as they get out of an airplane. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

WDM Optical Networks - C. Siva Ram Murthy 2002
This helpful guide provides practicing engineers, students, and researchers with a systematic, up-to-date introduction to the fundamental concepts, challenges, and state-of-the-art developments in WDM optical networks. The authors rely extensively on real-world examples and draw on the latest research to cover optical network design and provisioning in far greater depth than any other book.
Microwave and RF Design of Wireless Systems - David M. Pozar 2000-11-29
David Pozar, author of Microwave Engineering, Second Edition, has written a new text that introduces students to the field of wireless communications. This text offers a quantitative and, design-oriented presentation of the analog RF aspects of modern wireless telecommunications and data transmission systems from the antenna to the baseband level. Other topics include noise,

intermodulation, dynamic range, system aspects of antennas and filter design. This unique text takes an integrated approach to topics usually offered in a variety of separate courses on topics such as antennas and proagation, microwave systems and circuits, and communication systems. This approach allows for a complete presentation of wireless telecommunications systems designs. The author's goal with this text is for the student to be able to analyze a complete radio system from the transmitter through the receiver front-end, and quantitatively evaluate factors. Suitable for a one-semester course, at the senior or first year graduate level. Note certain sections have been denoted as advanced topics, suitable for graduate level courses.

Introduction to Optical Electronics Kenneth A. Jones 1987

Biomedical Instrumentation: Technology and Applications R. Khandpur 2004-11-26

One of the most comprehensive books in the field, this import from TATA McGraw-Hill rigorously covers the latest developments in medical imaging systems, gamma camera, PET camera, SPECT camera and lithotripsy technology. Written for working engineers, technicians, and graduate students, the book includes of hundreds of images as well as detailed working instructions for the newest and more popular instruments used by biomedical engineers today.

Cabling Part 2 - Bill Woodward 2014-03-05

A special e-book edition for network admins and techniciansdealing with fiber optics Cabling is crucial to network performance, and incorrect use ofcables can result in outages and constant troubleshooting. Specificstandards and processes must be employed when working with fiberoptics. This convenient e-book comprises Part 2 of the popular andfully updated Cabling: The Complete Guide to Network

Wiring, 5thEdition, with extensive coverage of fiber optics forlarge-scale communications networks and telecommunicationsstandards. You will learn principles and practices essential tosuccessfully installing and maintaining a fiber-optic network. Convenient e-book format is accessible on tablets and mobiledevices Examines the principles of fiber optic transmission, opticalfiber characteristics and construction, and basic principles oflight Includes coverage of fiber optic cables, light sources,detectors, and receivers; passive optical networks, components, andmultiplexers; and system design considerations Explains splicing, connectors, safety considerations,link/cable testing, troubleshooting, and restoration Covers the objectives for popular Data Cabling InstallerCertification (DCIC), Certified Fiber Optics Installer (CFOI), andFiber Optic Technician (FOT) exams Cabling Part 2: Fiber-Optic Cabling and Components, 5thEdition has the information you need to master every aspect ofsetting up and managing a fiber-optic network.

The ABCs of Fiber Optic Communication - Sudhir Warier 2017-04-30

This unique practical handbook is the only one of its kind to provide the conceptual framework and troubleshooting tactics related to the manufacturing, selection, and installation of modern photonic networks, including optical fiber plants, optical transceivers, test and measurement equipment, and network architecture of SDH, OTN, IP/MPLS, FTTx networks, and PON. This resource includes the latest technological advancements and industry applications while covering the entire fiber ecosystem from installation to troubleshooting. This book presents the use of common tools like LPM (laser source and power meter) to overcome common issues related to optical patching and fiber plants and also discusses the

use of specialized tools including the optical time domain reflectometer (OTDR) for issues with fiber plants and locating fiber breaks. Readers gain an understanding of the architecture of core TDM, IP, and Optical Access Networks including PON. Specific methodologies are explored for assessing OTN, DWDM, IT/MPLS, Optical Access Networks– PON/GPON or FTTx networks. Key parameters that influence the choice of fiber based on the network and application type are discussed. This book also provides an overview of the current and future developments in optical fibers, interfaces, transceivers and backbone networks.

Millimeter Wave and Microwave - 1990

Erbium-Doped Fiber Amplifiers - Philippe M. Becker 1999-03-15

Erbium Fiber Amplifiers is a comprehensive introduction to the increasingly important topic of optical amplification. Written by three Bell Labs pioneers, the book stresses the importance of the interrelation of materials properties, optical properties, and systems aspects of optical fiber amplifiers. All disc-based content for this title is now available on the Web. Key Features * Explains the theory of noise in optically amplified systems in an intuitive way * The book contains a discussion of components used in amplifier fabrication and of the attendant technologies used in real systems * The book provides basic tools for amplifier design as well as systems engineering, including the latest developments in WDM and soliton systems * The book discusses the fundamentals of rare earth ions for the reader desiring more depth in the topic * The book is for either the novice of experienced reader * The chapter have links between them to allow the reader to understand the relationship between the amplifier characteristics, noise, and systems applications * The book contains extensive references

The First 20 Minutes - Gretchen Reynolds 2013-04-30
The New York Times bestseller that explains how groundbreaking scientific discoveries can help each of us achieve our personal best Every week, Gretchen Reynolds single-handedly influences how millions of Americans work out. In her popular New York Times column, she debunks myths, spurs conversation, and stirs controversy by questioning widely held beliefs about exercise. Here, Reynolds consults experts in a range of fields to share paradigm-shifting findings that were previously only available in academic and medical journals, including: · 20 minutes of cardio is all you need (and sometimes six minutes is enough) · Stretching before a workout is counterproductive · Chocolate milk is better than Gatorade for recovery Whether you're running ultramarathons or just want to climb the stairs without losing your breath, The First 20 Minutes will show you how to be healthy today and perform better tomorrow.
Optical fiber communication - A. Selvarajan 2003

Mobile and Personal Communication Services and Systems - Raj Pandya 2004-04-05
Raj Pandya, international expert in Universal Personal Telecommunications (UPT), guides you through the past, present, and future of mobile and personal communication systems. Telecommunications professionals and students will find a comprehensive discussion of mobile telephone, data, and multimedia services, and how the evolution toward next-generation systems will shape tomorrow s mobile communications industry. A broad systems overview combined with carefully selected technical details give you a clear understanding of the basic technology, architecture, and applications associated with mobile communications. You ll learn valuable information on numbering, identities, and performance benchmarks to

help you plan and design mobile systems and networks. A timely discussion of underlying regional and international standards will keep you informed of the influences at work in the industry today. You'll also gain essential insights into the future direction of mobile and personal communications from an in-depth analysis of: International Mobile Telecommunications 2000 (IMT-2000) Global Mobile Satellite Systems Universal Personal Telecommunications Mobile Data Communications The outlook for GSM, IS-136, and IS-95. MOBILE AND PERSONAL COMMUNICATION SERVICES AND SYSTEMS is indispensable reading for anyone who wants to understand what lies ahead for this rapidly evolving technology.

Optical Fiber Communications - Tingye Li 2012-12-02

Optical Fiber Communications, Volume 1: Fiber Fabrication focuses on the science, engineering, and application of information transmission through optical fibers. This book discusses the materials and processes for fiber fabrication, fiber theory, design, and measurement, as well as passive components, cabling, active devices, systems, and applications. Organized into five chapters, this volume starts with an overview of the modified chemical vapor deposition (MCVD), the outside vapor deposition (OVD), and the vapor-phase axial deposition (VAD) processes. This text then explores the important development with respect to the drawing of glass fibers, particularly those that serve as optical waveguides in telecommunications applications. Other chapters discuss the progress in fiber strength from short-length research fibers to large quantities that give confidence in the manufacturability of high-strength, long-length fibers. The final chapter discusses the advances in the technologies of optical-fiber

manufacture. This book is a valuable resource for process engineers, technicians, scientists, and optical fiber manufacturers.

Photovoltaic Solar Energy - Angèle Reinders 2017-02-06 Solar PV is now the third most important renewable energy source, after hydro and wind power, in terms of global installed capacity. Bringing together the expertise of international PV specialists Photovoltaic Solar Energy: From Fundamentals to Applications provides a comprehensive and up-to-date account of existing PV technologies in conjunction with an assessment of technological developments. Key features: Written by leading specialists active in concurrent developments in material sciences, solar cell research and application-driven R&D. Provides a basic knowledge base in light, photons and solar irradiance and basic functional principles of PV. Covers characterization techniques, economics and applications of PV such as silicon, thin-film and hybrid solar cells. Presents a compendium of PV technologies including: crystalline silicon technologies; chalcogenide thin film solar cells; thin-film silicon based PV technologies; organic PV and III-Vs; PV concentrator technologies; space technologies and economics, life-cycle and user aspects of PV technologies. Each chapter presents basic principles and formulas as well as major technological developments in a contemporary context with a look at future developments in this rapidly changing field of science and engineering. Ideal for industrial engineers and scientists beginning careers in PV as well as graduate students undertaking PV research and high-level undergraduate students.

Analog and Digital Communication - T. L. Singal 2012

An Introduction to Fiber Optics - Ajoy Ghatak 1998-06-28 Textbook on the physical principles of optical fibers - for

advanced undergraduates and graduates in physics or electrical engineering.

Laser Systems and Applications - Choudhary Nityanand

Breitbandversorgung in Deutschland - wie schaffen wir den Anschluss? - Walter Tengler 2005

Microwave Devices and Circuits - Samuel Y. Liao 1990-09

Network+ Lab Manual - Tami Evanson 1999-03

Candidates for the Network+ certification can find all the help they need in this student workbook which provides a full set of lab exercises to accompany the "Network+ Study Guide, " and covers every objective defined by CompTIA for the exam.

Electromagnetic Theory and Applications Ajay K. Saxena 2009

Electromagnetic Theory and Applications aims to serve as a textbook for Physics and Engineering Students. The book covers vector algebra, electrostatics, electric field in dielectrics, boundary value problems, magnetostatics, maxwell equations and wave propagation, waves at an interface, transmission lines and wave guides, retarded potentials and radiating systems.

Textbook on Optical Fiber Communication and Its Applications - C.S. Gupta 2020-11-30

Optical Communications Systems - Narottam Das 2012-03-07

Optical communications systems are very important for all types of telecommunications and networks. They consists of a transmitter that encodes a message into an optical signal, a channel that carries the signal to its destination, and a receiver that reproduces the message from the received optical signal.This book presents up to date results on communication systems, along with the explanations of their relevance, from leading researchers in this field. Its

chapters cover general concepts of optical and wireless optical communication systems, optical amplifiers and networks, optical multiplexing and demultiplexing for optical communication systems, and network traffic engineering. Recently, wavelength conversion and other enhanced signal processing functions are also considered in depth for optical communications systems. The researcher has also concentrated on wavelength conversion, switching, demultiplexing in the time domain and other enhanced functions for optical communications systems. This book is targeted at research, development and design engineers from the teams in manufacturing industry; academia and telecommunications service operators/ providers.

Microwave Solid-state Devices - Samuel Y. Liao 1985

Fiber Optic Communications - Palais 2005

Fiber-optic Communication Systems - Govind P. Agrawal 2004

The Institute of Optics, University of Rochester * ".readers searching for a wide ranging and up-date view of fibre optic communication systems would do well to purchase this book."-- International Journal of Electrical Engineering Education (on the Second Edition) * This comprehensive, up-to-date account of fiber-optic communication focuses on the physics and technology behind fiber-optic communication systems while covering both the systems and components aspects * Provides extensive details on the WDM technology and system design issues that have developed since the last edition.

Fiber Optics Engineering - Mohammad Azadeh 2009-08-05

Within the past few decades, information technologies have been evolving at a tremendous rate, causing profound changes to our world and our ways of life. In particular, fiber optics has been playing an increasingly crucial role within

the telecommunication revolution. Not only most long-distance links are fiber based, but optical fibers are increasingly approaching the individual end users, providing wide bandwidth links to support all kinds of data-intensive applications such as video, voice, and data services. As an engineering discipline, fiber optics is both fascinating and challenging. Fiber optics is an area that incorporates elements from a wide range of techno- gies including optics, microelectronics, quantum electronics, semiconductors, and networking. As a result of rapid changes in almost all of these areas, fiber optics is a fast evolving field. Therefore, the need for up-to-date texts that address this growing field from an interdisciplinary perspective persists. This book presents an overview of fiber optics from a practical, engineering perspective. Therefore, in addition to topics such as lasers, detectors, and optical fibers, several topics related to electronic circuits that generate, detect, and process the optical signals are covered. In other words, this book attempts to present fiber optics not so much in terms of a field of “optics” but more from the perspective of an engineering field within “optoelectronics.

Fiber Optic Communications - Gerd Keiser 2021-03-01

This book highlights the fundamental principles of optical fiber technology required for understanding modern high-capacity lightwave telecom networks. Such networks have become an indispensable part of society with applications ranging from simple web browsing to critical healthcare diagnosis and cloud computing. Since users expect these services to always be available, careful engineering is required in all technologies ranging from component development to network operations. To achieve this understanding, this book first presents a comprehensive treatment of various optical fiber structures and diverse photonic components used in optical fiber networks.

Following this discussion are the fundamental design principles of digital and analog optical fiber transmission links. The concluding chapters present the architectures and performance characteristics of optical networks.

Optical Fiber Telecommunications Volume VIA - Ivan Kaminow 2013-05-03

Optical Fiber Telecommunications VI (A&B) is the sixth in a series that has chronicled the progress in the R&D of lightwave communications since the early 1970s. Written by active authorities from academia and industry, this edition brings a fresh look to many essential topics, including devices, subsystems, systems and networks. A central theme is the enabling of high-bandwidth communications in a cost-effective manner for the development of customer applications. These volumes are an ideal reference for R&D engineers and managers, optical systems implementers, university researchers and students, network operators, and investors. Volume A is devoted to components and subsystems, including photonic integrated circuits, multicore and few-mode fibers, photonic crystals, silicon photonics, signal processing, and optical interconnections. All the latest technologies and techniques for developing future components and systems Edited by two winners of the highly prestigious OSA/IEEE John Tyndal award and a President of IEEE's Lasers & Electro-Optics Society (7,000 members) Written by leading experts in the field, it is the most authoritative and comprehensive reference on optical engineering the market

Digital Signal Processing In High-Speed Optical Fiber Communication Principle and Application - Jianjun Yu 2020-07-06

This book presents the principles and applications of optical fiber communication based on digital signal processing (DSP) for both single and multi-carrier modulation signals. In the context of single carrier

modulation, it describes DSP for linear and nonlinear optical fiber communication systems, discussing all-optical Nyquist modulation signal generation and processing, and how to use probabilistic and geometrical shaping to improve the transmission performance. For multi-carrier modulation, it examines DSP-based OFDM signal generation and detection and presents 4D and high-order modulation formats. Lastly, it demonstrates how to use artificial intelligence in optical fiber communication. As such it is a useful resource for students, researches and engineers in the field of optical fiber communication.

Digital Communications - Bernard Sklar 2016-12-23

The clear, easy-to-understand introduction to digital communications Completely updated coverage of today's most critical technologies Step-by-step implementation coverage Trellis-coded modulation, fading channels, Reed-Solomon codes, encryption, and more Exclusive coverage of maximizing performance with advanced "turbo codes" "This is a remarkably comprehensive treatment of the field, covering in considerable detail modulation, coding (both source and channel), encryption, multiple access and spread spectrum. It can serve both as an excellent introduction for the graduate student with some background in probability theory or as a valuable reference for the practicing ommunication system engineer. For both communities, the treatment is clear and well presented." - Andrew Viterbi, The Viterbi Group Master every key digital communications technology, concept, and technique. Digital Communications, Second Edition is a thoroughly revised and updated edition of the field's classic, best-selling introduction. With remarkable clarity, Dr. Bernard Sklar introduces every digital communication technology at the heart of today's wireless and Internet revolutions, providing a unified structure and context for understanding

them -- all without sacrificing mathematical precision. Sklar begins by introducing the fundamentals of signals, spectra, formatting, and baseband transmission. Next, he presents practical coverage of virtually every contemporary modulation, coding, and signal processing technique, with numeric examples and step-by-step implementation guidance. Coverage includes: Signals and processing steps: from information source through transmitter, channel, receiver, and information sink Key tradeoffs: signal-to-noise ratios, probability of error, and bandwidth expenditure Trellis-coded modulation and Reed-Solomon codes: what's behind the math Synchronization and spread spectrum solutions Fading channels: causes, effects, and techniques for withstanding fading The first complete how-to guide to turbo codes: squeezing maximum performance out of digital connections Implementing encryption with PGP, the de facto industry standard Whether you're building wireless systems, xDSL, fiber or coax-based services, satellite networks, or Internet infrastructure, Sklar presents the theory and the practical implementation details you need. With nearly 500 illustrations and 300 problems and exercises, there's never been a faster way to master advanced digital communications. CD-ROM INCLUDED The CD-ROM contains a complete educational version of Elanix' SystemView DSP design software, as well as detailed notes for getting started, a comprehensive DSP tutorial, and over 50 additional communications exercises.