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SUBSYSTEMS



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Willner, 2010-07-28 Optical Fiber Telecommunications V A B is the fifth in a series that has chronicled the progress in the research and development of lightwave communications since the early 1970s. Written by active authorities from academia and industry, this edition not only brings a fresh look to many essential topics but also focuses on network management and services. Using high bandwidth in a cost-effective manner for the development of customer applications is a central theme. This book is ideal for R D engineers and managers, optical systems implementers, university researchers and students, network operators, and the investment community. Volume A is devoted to components and subsystems including semiconductor lasers, modulators, photodetectors, integrated photonic circuits, photonic crystals, specialty fibers, polarization mode dispersion, electronic signal processing, MEMS, nonlinear optical signal processing, and quantum information technologies. Volume B is devoted to systems and networks including advanced modulation formats, coherent systems, time multiplexed systems, performance monitoring, reconfigurable add-drop multiplexers, Ethernet technologies, broadband access and services, metro networks, long-haul transmission, optical switching, microwave photonics, computer interconnections, and simulation tools. Biographical Sketches: Ivan Kaminow retired from Bell Labs in 1996 after a 42-year career. He conducted seminal studies on electrooptic modulators and materials, Raman scattering in ferroelectrics, integrated optics, semiconductor lasers, DBR ridge waveguide, InGaAsP, and multi-frequency birefringent optical fibers and WDM networks. Later he led research on WDM components, EDFAs, AWGs, and fiber Fabry Perot Filters, and on WDM local and wide area networks. He is a member of the National Academy of Engineering and a recipient of the IEEE OSA John Tyndall OSA Charles Townes and IEEE LEOS Quantum Electronics Awards. Since 2004 he has been Adjunct Professor of Electrical Engineering at the University of California Berkeley. Tingye Li retired from AT T in 1998 after a 41-year career at Bell Labs and AT T Labs. His seminal work on laser resonator modes is considered a classic. Since the late 1960s he and his groups have conducted pioneering studies on lightwave technologies and systems. He led the work on amplified WDM transmission systems and championed their deployment for upgrading network capacity. He is a member of the National Academy of Engineering and a foreign member of the Chinese Academy of Engineering. He is a recipient of the IEEE David Sarnoff Award, IEEE OSA John Tyndall Award, OSA Ives Medal, Quinn Endowment, AT T Science and Technology Medal, and IEEE Photonics Award. Alan Willner has worked at AT T Bell Labs and Bellcore and is Professor of Electrical Engineering at the University of Southern California. He received the NSF Presidential Faculty Fellows Award from the White House, Packard Foundation Fellowship, NSF National Young Investigator Award, Fulbright Foundation Senior Scholar, IEEE LEOS Distinguished Lecturer, and USC University Wide Award for Excellence in Teaching. He is a Fellow of IEEE and OSA and has been President of the IEEE LEOS, Editor in Chief of the IEEE OSA J of Lightwave Technology, Editor in Chief of Optics Letters, Co-Chair of the OSA Science Engineering

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in the field while upholding the highest standards of scholarly exposition and practical perspective The wealth of material on innovative technologies and advanced applications will serve as an important and timely information resource for the advancement of telecommunications world wide Leping Wei CTO China Telecom Lightwave systems constitute the nervous system of the industrial world and continue to evolve as innovations are introduced with enormous economic impact The editors have very skillfully brought together authoritative chapters written by well known experts encompassing new technologies that are enabling the rapid advances to their commercial deployment This is a must have book Henry Kressel Managing Director Warburg Pincus Anyone will want to have a copy of this latest edition which carries on the tradition of bringing together a wonderful collection of authors world renowned experts all to discuss the most important areas of this rapidly changing technology this volume has evolved to include not only updates of previous topics but also considerably more discussion of networks and network services Donald B Keck Corning Inc retired Much has happened since the last edition ROADM based metro networks are being widely deployed optical monitoring is becoming essential new modulation formats are enabling efficient bandwidth utilization and deployed FTTH has 1 Gbit s shared rates All these are expertly reviewed by an impressive set of authors each highly active well known and respected In all a timely highly valuable well written and comprehensive view presented by the world s experts Rod C Alferness Chief Scientist Bell Labs Research Alcatel Lucent All the latest technologies and techniques for developing future components and systems Edited by two winners of the OSA IEEE John Tyndal award and a President of IEEE Lasers and Electro optics Society Written by leading experts in the field it is the most authoritative and comprehensive reference on optical engineering the market Optical Fiber Telecommunications VI ,2013 Optical Fiber Telecommunications IV Ivan P. Kaminow,Tingye Li,2002 **Optical Fiber Communications** Gerd Keiser,2014-03-16 **Understanding Fiber Optics** Jeff Hecht,2015-03-31 A tutorial introduction to fiber optics which explains fundamental concepts of fiber optics components and systems with minimal math With more than 100 000 copies in print Understanding Fiber Optics has been widely used in the classroom for self study and in corporate training since the first edition was published in 1987 This is a reprint of the 5th edition originally published by Pearson Education and now available at low cost from Laser Light Press

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