1. Record Nr. UNINA9910143564803321

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Titolo	Lightwave technology [[electronic resource]] : telecommunication systems / / Govind P. Agrawal
Pubbl/distr/stampa	Hoboken, N.J., : Wiley-Interscience, c2005
ISBN	1-280-27740-8 9786610277407 0-470-30597-5 0-471-74140-X 0-471-74139-6
Descrizione fisica	1 online resource (479 p.)
Disciplina	621.382/7 621.3827
Soggetti	Optical communications Electrooptics Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	LIGHTWAVE TECHNOLOGY; Contents; Preface; 1 Introduction; 1.1 Evolution of Lightwave Systems; 1.2 Components of a Lightwave System; 1.2.1 Optical Transmitters; 1.2.2 Communication Channel; 1.2.3 Optical Receivers; 1.3 Electrical Signals; 1.3.1 Analog and Digital Signals; 1.3.2 Advantages of Digital Format; 1.3.3 Analog to Digital Conversion; 1.4 Channel Multiplexing; 1.4.1 Time-Division Multiplexing; 1.4.2 Frequency-Division Multiplexing; 1.4.3 Code-Division Multiplexing; Problems; References; 2 Optical Signal Generation; 2.1 Modulation Formats; 2.1.1 ASK Format; 2.1.2 PSK Format 2.1.3 FSK Format2.2 Digital Data Formats; 2.2.1 Nonreturn-to-Zero Format; 2.2.2 Return-to-Zero Format; 2.2.3 Power Spectral Density; 2.3 Bit-Stream Generation; 2.3.1 NRZ Transmitters; 2.3.2 RZ Transmitters; 2.3.3 Modified RZ Transmitters; 2.3.4 DPSK Transmitters and Receivers; 2.4 Transmitter Design; 2.4.1 Coupling Losses and Output Stability; 2.4.2 Wavelength Stability and Tunability; 2.4.3 Monolithic Integation;

2.4.4 Reliability and Packaging; Problems; References; 3 Signal Propagation in Fibers; 3.1 Basic Propagation Equation; 3.2 Impact of Fiber Losses; 3.2.1 Loss Compensation
3.2.2 Lumped and Distributed Amplification3.3 Impact of Fiber Dispersion; 3.3.1 Chirped Gaussian Pulses; 3.3.2 Pulses of Arbitrary Shape; 3.3.3 Effects of Source Spectrum; 3.3.4 Limitations on the Bit Rate; 3.3.5 Dispersion compensation; 3.4 Polarization-Mode Dispersion; 3.4.1 Fibers with Constant Birefringence; 3.4.2 Fibers with Random Birefringence; 3.4.3 Jones-Matrix Formalism; 3.4.4 Stokes-Space Description; 3.4.5 Statistics of PMD; 3.4.6 PMD-Induced Pulse Broadening; 3.4.7 Higher-Order PMD Effects; 3.5 Polarization-Dependent Losses; 3.5.1 PDL Vector and Its Statistics
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5.4 Sensitivity Degradation

Sommario/riassunto

The state of the art of modern lightwave system designRecent advances in lightwave technology have led to an explosion of high-speed global information systems throughout the world. Responding to the growth of this exciting new technology, Lightwave Technology provides a comprehensive and up-to-date account of the underlying theory, development, operation, and management of these systems from the perspective of both physics and engineering.The first independent volume of this two-volume set, Components and Devices, deals with the multitude of silica- and semiconductor-based opt