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1.3.3.1 The Operations Support System  
1.3.4 Next-Generation IP and Optical Integrated Network; 1.3.4.1 IP and Optical Integrated Network Migration; 1.4 Lightpath Establishment and Protection in Optical Networks; 1.4.1 Reliable Optical Networks: Managing Logical Topology; 1.4.1.1 The Initial Phase; 1.4.1.2 The Incremental Phase; 1.4.1.3 The Readjustment Phase; 1.4.2 Dimensioning Incremental Capacity; 1.4.2.1 Primary Lightpath: Routing and Wavelength Assignment; 1.4.2.2 Reconfiguring the Backup Lightpaths: Optimization Formulation  
1.5 Optical Network Design Using Computational Intelligence Techniques  
1.6 Distributed Optical Frame Synchronized Ring (doFSR); 1.6.1 Future Plans; 1.6.2 Prototypes; 1.7 Summary and Conclusions; 1.7.1 Differentiated Reliability in Multilayer Optical Networks; 1.7.2 The Demands of Today; 2 Types of Optical Networking Technology; 2.1 Use of Digital Signal Processing; 2.1.1 DSP in Optical Component Control; 2.1.2 Erbium-Doped Fiber Amplifier Control; 2.1.3 Microelectromechanical System Control; 2.1.4 Thermoelectric Cooler Control  
2.2 Optical Signal Processing for Optical Packet Switching Networks  
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2.3.4.1 Technological Innovations in Devices, Components, and Subsystems

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Sommario/riassunto

Optical Networking Best Practices Handbook presents optical networking in a very comprehensive way for nonengineers needing to understand the fundamentals of fiber, high-capacity, high-speed equipment and networks, and upcoming carrier services. The book provides a practical understanding of fiber optics as a physical medium, sorting out single-mode versus multi-mode and the crucial concept of Dense Wave-Division Multiplexing.

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