

Contents

<i>Foreword</i>	Scott Hinton	iii
<i>Preface</i>		v
<i>Contributors</i>		xiii
1.	Optical Networking Capabilities for the Next-Generation Internet <i>Mohamed A. Ali and Russ Kurtz</i>	1
2.	Analysis of Multimedia Access Protocols for Shared Medium Networks <i>Lixin Wang and Mounir Hamdi</i>	25
3.	The Design and Performance of a Lightwave Data Storage Network Using Computer Analysis and Simulation <i>S. K. Ramesh and Herbert J. Tanzer</i>	65
4.	Routed Wavelength WDM Networks <i>Lixin Wang and Mounir Hamdi</i>	119
5.	The Optical Network Control Plane <i>Abdella Battou, Ghassen Ben Brahim, and Bilal Khan</i>	133
6.	Routing and Path Establishment for Point-to-Point and Point-to-Multipoint Communications over WDM Networks <i>Taieb F. Znati and Rami Melhem</i>	179
7.	Routing in Multihop Optical WDM Networks with Limited Wavelength Conversion <i>Hong Shen, Yi Pan, and Susumu Horiguchi</i>	217
8.	Optical Switching Architectures <i>Mohsen Guizani</i>	249
9.	Scalable Electro-Optical Clos Switch Architectures <i>Fotios K. Liotopoulos</i>	271
10.	Parallel Free-Space Optical Interconnection <i>Guoqiang Li and Sadik Esener</i>	301
		xi

11. Optical Computing Using Trinary Signed-Digit Arithmetic <i>Abdallah K. Cherri and Mohammad S. Alam</i>	377
12. Ultrafast Arithmetic, Logical, and Image Processing Operations Using Polarization-Encoded Optical Shadow-Casting <i>Abdallah K. Cherri and Mohammad S. Alam</i>	447
<i>Index</i>	505