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Jacob B. Khurgin, Rodney S. Tucker



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High-Performance Backbone Network Technology Naoaki Yamanaka, 2020-04-01 Compiling the most influential papers from the IEICE Transactions in Communications High Performance Backbone Network Technology examines critical breakthroughs in the design and provision of effective public service networks in areas including traffic control telephone service real time video transfer voice and image transmission for a content delivery network CDN and Internet access The contributors explore system structures experimental prototypes and field trials that herald the development of new IP networks that offer quality of service QoS as well as enhanced security reliability and function Offers many hints and guidelines for future research in IP and photonic backbone network technologies

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and photonic structures Leading authorities in such diverse fields as atomic vapor spectroscopy fiber amplifiers and integrated optics provide an interdisciplinary perspective They uncover potential applications in both linear and nonlinear optics While it is impossible to account for all the captivating developments that have occurred in the last few years this book provides an exceptional survey of the current state of the slow light field *Polarimetric Radar Imaging* Jong-Sen Lee, Eric Pottier, 2017-12-19 The recent launches of three fully polarimetric synthetic aperture radar PolSAR satellites have shown that polarimetric radar imaging can provide abundant data on the Earth's environment such as biomass and forest height estimation snow cover mapping glacier monitoring and damage assessment Written by two of the most recognized leaders in this field *Polarimetric Radar Imaging From Basics to Applications* presents polarimetric radar imaging and processing techniques and shows how to develop remote sensing applications using PolSAR imaging radar The book provides a substantial and balanced introduction to the basic theory and advanced concepts of polarimetric scattering mechanisms speckle statistics and speckle filtering polarimetric information analysis and extraction techniques and applications typical to radar polarimetric remote sensing It explains the importance of wave polarization theory and the speckle phenomenon in the information retrieval problem of microwave imaging and inverse scattering The authors demonstrate how to devise intelligent information extraction algorithms for remote sensing applications They also describe more advanced polarimetric analysis techniques for polarimetric target decompositions polarization orientation effects polarimetric scattering modeling speckle filtering terrain and forest classification manmade target analysis and PolSAR interferometry With sample PolSAR data sets and software available for download this self contained hands on book encourages you to analyze space borne and airborne PolSAR and polarimetric interferometric SAR Pol InSAR data and then develop applications using this data

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analysis and modification of material properties for application in frequency conversion optical switching and limiting

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