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Sommario/riassunto

A complete guide to optical-wireless from 5G and beyond The mobile market has experienced unprecedented growth over the last few decades. Consumer trends have shifted towards mobile internet services supported by 3G and 4G networks worldwide. Inherent to

existing networks are problems such as lack of spectrum, high energy consumption, and inter-cell interference. These limitations have led to the emergence of 5G technology. It is clear that any 5G system will integrate optical communications, which is already a mainstay of wide area networks. Using an optical core to route 5G data raises significant questions of how wireless and optical can coexist in synergy to provide smooth, end-to-end communication pathways. Optical and Wireless Convergence for 5G Networks explores new emerging technologies, concepts, and approaches for seamlessly integrating optical-wireless for 5G and beyond. Considering both fronthaul and backhaul perspectives, this timely book provides insights on managing an ecosystem of mixed and multiple access network communications focused on optical-wireless convergence. Topics include Fiber– Wireless "FiWi", Hybrid Fiber-Wireless "HFW", Visible Light Communication "VLC", 5G optical sensing technologies, approaches to real-time IoT applications, Tactile Internet, Fog Computing "FC", Network Functions Virtualization "NFV", Software-De???ned Networking "SDN", and many others. This book aims to provide an inclusive survey of 5G optical-wireless requirements, architecture developments, and technological solutions; in particular, this book: . Offers new insights on the highly relevant topic of 5G optical-wireless convergence. Guides early-stage researchers by providing a solid platform on which to build future research. Helps mobile/optical stakeholders to construct new project proposals that meet challenges associated with 5G and beyond at the international level. Includes contributions from international experts at the forefront of 5G research representing industrial and academia stakeholders. Presents background information suitable for a range of optical and wireless courses Optical and Wireless Convergence for 5G Networks is an indispensable resource for fixed and mobile stakeholders, wireless industry professionals, graduate students and postdoctoral researchers, and those in related areas of telecommunications and electronic engineering.