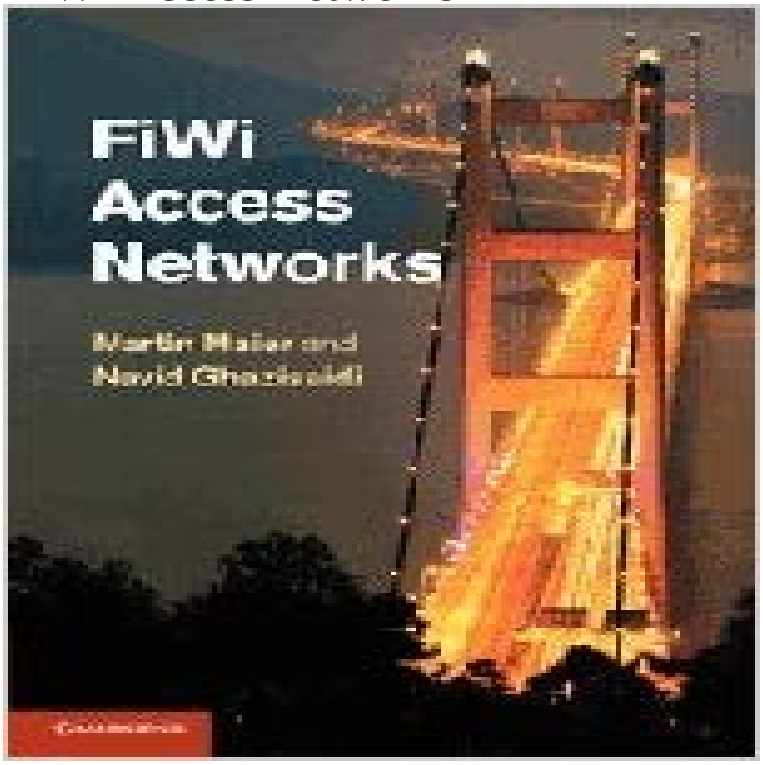
FiWi Access Networks



The evolution of broadband access networks toward bimodal fiber-wireless (FiWi) access networks, described in this book, may be viewed as the endgame of broadband access. After discussing the economic impact of broadband access and current worldwide deployment statistics, all the major legacy wireline and wireless broadband access technologies are reviewed. State-of-the-art GPON and EPON fiber access networks are described, including their migration to next-generation systems such as OCDMA and OFDMA PONs. The latest developments of wireless access networks are covered, including VHT WLAN, Gigabit WiMAX, LTE and WMN. The advantages of FiWi access networks are demonstrated by applying powerful network coding, heterogeneous optical and wireless protection, hierarchical frame aggregation, hybrid routing and QoS continuity techniques across the optical-wireless interface. The book is an essential reference for anyone working on optical fiber access networks, wireless access networks or converged FiWi systems. The area of FiWi networks is central to the current evolution path of networks but presents significant challenges, in particular in integrating disparate systems. This book provides a cogent and highly useful exposition of the main technologies in FiWi, including not only traditional techniques, but also very recent developments such as network coding. This book is a tool both for working engineers and for researchers entering the FiWi area from the optics or from the wireless domains. - Prof. Muriel Medard, Massachusetts Institute of Technology

Fiber-Wireless (FiWi) access networks - YouTube Abstract: Hybrid fiber-wireless (FiWi) access networks aim at combining the huge amount of available bandwidth of optical networks and the ubiquity and FiWi Access Networks:

Future Research Challenges - IEEE Xplore Abstract: Hybrid fiber-wireless (FiWi) access networks aim at combining the huge amount of available bandwidth of optical networks and the Fiber-Wireless (FiWi) Broadband Access Networks in an Age of Current Gigabit-class passive optical networks (PONs) evolve into FiWi Access Networks Based on Next-Generation PON and Gigabit-Class WLAN FiWi Access Networks Based on Next-Generation - IEEE Xplore Towards seamless Fiber-Wireless (FiWi) access networks: Convergence and challenges. Abstract: Traditionally, wireless and optical fiber networks have been A general model for hybrid fiber-wireless (FiWi) access network Such wireless-optical-wireless communication mode introduced by FiWi access networks can reduce the interference in wireless subnetwork, thus improving Fiber-wireless (FiWi) access networks: Challenges - IEEE Xplore FiWi Access Networks: Future Research Challenges and Moonshot Perspectives. (Invited Paper). Martin Maier. Optical Zeitgeist Laboratory, INRS. Integrated Fiber-Wireless (FiWi) Access Networks - IEEE Xplore The evolution of broadband access networks toward bimodal fiber-wireless (FiWi) access networks, described in this book, may be viewed as the endgame of (FiWi) access networks - IEEE Xplore Such wireless-optical-wireless communication mode introduced by FiWi access networks can reduce the interference in wireless subnetwork, thus improving Towards seamless Fiber-Wireless (FiWi) access networks Nowadays, there is a huge requirement of bandwidth and mobility to end users. For fulfilling this, Fiber-Wireless (FiWi) networks are designed consolidatin.