

1. Record Nr.	UNINA9910814048803321
Autore	Bing Benny
Titolo	Broadband wireless multimedia networks // Benny Bing
Pubbl/distr/stampa	Hoboken, N.J., : Wiley, 2013
ISBN	1-283-91736-X 1-118-47982-3 1-118-47978-5
Edizione	[1st ed.]
Descrizione fisica	1 online resource (373 p.)
Collana	Wiley series on information and communication technology
Disciplina	004.6/8
Soggetti	FiWi access networks Wireless LANs Wireless communication systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Title page; Copyright page; Contents; Preface; CHAPTER 1: Overview of Broadband Wireless Networks; 1.1 Introduction; 1.2 Radio Spectrum; 1.2.1 Unlicensed Frequency Bands; 1.2.2 The 2.4 GHz Unlicensed Band; 1.2.3 The 5 GHz Unlicensed Band; 1.2.4 The 60 GHz Unlicensed Band; 1.2.5 Licensed Frequency Bands; 1.3 Signal Coverage; 1.3.1 Propagation Mechanisms; 1.3.2 Multipath; 1.3.3 Delay Spread and Time Dispersion; 1.3.4 Coherence Bandwidth; 1.3.5 Doppler Spread; 1.3.6 Shadow Fading; 1.3.7 Radio Propagation Modeling; 1.3.8 Channel Characteristics; 1.3.9 Gaussian Channel; 1.3.10 Rayleigh Channel 1.3.11 Rician Channel1.4 Modulation; 1.4.1 Linear versus Constant Envelope; 1.4.2 Coherent versus Noncoherent Detection; 1.4.3 Bit Error Performance; 1.5 Multipath Mitigation Methods; 1.5.1 Equalization; 1.5.2 Multicarrier Transmission; 1.5.3 Orthogonal Frequency Division Multiplexing; 1.5.4 Wideband Systems; 1.5.5 Error Control; 1.6 Multiple Antenna Systems; 1.6.1 Receive Diversity versus Transmit Diversity; 1.6.2 Switched Antenna Receive Diversity; 1.6.3 Multiple Input Multiple Output Systems; 1.6.4 Spatial Multiplexing; 1.6.5 Space-Time Coding; 1.6.6 Alamouti Space-Time Coding 1.6.7 Beamforming MIMO Antenna Arrays1.6.8 Downlink MIMO Architectures; 1.6.9 Open-Loop and Closed-Loop MIMO; 1.6.10 Single-

User and Multiuser MIMO; 1.7 Interference; 1.7.1 Spatial Frequency Reuse; 1.7.2 Cochannel Interference; 1.7.3 Multiuser Interference; 1.8 Mobility and Handoff; 1.8.1 Intercell versus Intracell Handoff; 1.8.2 Mobile-Initiated versus Network-Initiated Handoff; 1.8.3 Forward versus Backward Handoff; 1.9 Channel Assignment Strategies; 1.9.1 Medium Access Control Protocols; 1.9.2 Signal Duplexing Techniques; 1.9.3 Orthogonal Frequency Division Multiple Access
1.10 Performance Evaluation of Wireless Networks
1.10.1 Impact of Link Adaptation; 1.10.2 Impact of Higher Layers; 1.10.3 Impact of Number of Antennas; 1.10.4 Impact of Centralized Control; 1.11 Outdoor Deployment Considerations; 1.11.1 Fixed Access Path Loss Model; 1.11.2 Mobile Access Path Loss Models; 1.11.3 Single Carrier and Multicarrier OFDM Comparison; 1.11.4 Impact of Modulation and Operating Frequency; References; Homework Problems; CHAPTER 2: IEEE 802.11 Standard; 2.1 802.11 Deployments and Applications; 2.2 802.11 Today; 2.3 IEEE 802.11 Standard
2.4 IEEE 802.11 Network Architecture
2.4.1 Joining a BSS; 2.4.2 Association Procedures; 2.4.3 Disassociation and Reassociation; 2.5 IEEE 802.11 Basic Reference Model; 2.5.1 OFDM PHY; 2.5.2 OFDM PLCP Frame Format; 2.5.3 Medium Access Control; 2.5.4 Interframe Space Definitions; 2.5.5 Distributed Coordination Function; 2.5.6 Virtual Sensing; 2.5.7 Point Coordination Function; 2.5.8 Hybrid Coordination Function; 2.5.9 Synchronization; 2.5.10 Transmit Opportunity Scheduling; 2.5.11 Traffic Specification Construction; 2.5.12 Radio Resource Measurement; 2.5.13 Station Power Management
2.6 IEEE 802.11 Security

Sommario/riassunto

Provides a clear, coherent review of all major wireless broadband standards with an emphasis on managing the explosive growth in mobile video. 802.11ac/ad, 802.16m, 802.22, and LTE-Advanced are the emerging broadband wireless standards that offer many powerful wireless features. This book gives an accessible overview of the various standards and practical information on 802.11 link adaptation, 4G smartphone antenna design, wireless video streaming, and smart grids. Broadband Wireless Multimedia Networks distills the many complex wireless features in a clean and concise
