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Simulation of Radio Systems; 2.3.4 Classifying Channel Characteristics; 2.3.5 General Descriptions of Basic Channel Models; 2.4 Conclusions; References; Chapter 3 Coding and Modulation; 3.1 Introduction; 3.1.1 Analysis and Design of Coding Algorithms for Next Generation Systems; 3.1.2 Analysis and Design of Modulation Schemes for Next Generation Systems; 3.2 Design of Multiuser Space-Time Codes 3.2.1 Characterization of the Error Event Regions3.2.2 Code Design Criteria; 3.2.3 Multiuser MIMO Downlink Space-Time Block Coded Transmission Scheme; 3.3 Advanced Modulation and Coding Techniques; 3.3.1 Modulation and Coding Schemes with DTBCs; 3.3.2 Quasicyclic Block LDPC Codes; 3.3.3 Low-Rate Convolutional Codes for Broadcast Information; 3.4 Conclusions; References; Chapter 4 Multiple-Access Schemes; 4.1 Introduction; 4.1.1 Selection Criteria for a Multiple-Access Scheme; 4.1.2 Single-Carrier Versus Multicarrier Schemes; 4.2 Analysis of TDMA/OFDMA for an IMT-A Candidate System 4.2.1 Key Design Aspects4.2.2 Performance Modeling and Evaluation; 4.3 Conclusions; References; Chapter 5 Smart Antennas and Related Technologies; 5.1 Introduction; 5.1.1 Multiple-Antenna Methods and Techniques; 5.1.2 Benefits of Multiple Transmission Schemes; 5.1.3 Summary of Multiple-Antenna Methods; 5.1.4 Spatial Modes; 5.2 Downlink Capacity Enhancement of IEEE 802.11a/g; 5.2.1 Space and Time Diversity in the OBAN Scenario; 5.2.2 Downlink Beamforming Under EIRP Constraints in WLAN OFDM Systems 5.2.3 Downlink Capacity Enhancement of IEEE 802.11a/g Using SDMA with a Multiple-Antenna Access Point

Sommario/riassunto

Based on cutting-edge research projects in the field, this book (part of a comprehensive 4-volume series) provides the latest details and covers the most impactful aspects of mobile, wireless, and broadband communications development. This book present key systems and enabling technologies in a clear and accessible manner, offering you a detailed roadmap the future evolution of next generation communications. Drawing upon the insights of leading experts in the field, each of the four volumes in this series is dedicated to an area of critical importance, including Radio Interfaces; Networks, Services and Applications; Reconfigurability; and Ad Hoc Networks.