Wireless Communications. Algorithmic Techniques

Description: An advanced introduction to algorithmic techniques for wireless communications, blending basic principles with advanced concepts and techniques

This reference provides a high-level introduction to the study of algorithmic techniques employed in digital wireless communication systems over fading channels. Its main objective is to develop a theoretical framework that will enable the reader to develop solutions to detection, equalization, channel estimation, error correction coding and coded modulation problems in wireless communications.

This book discusses in detail deterministic and stochastic descriptions of wireless channels, single-carrier and multicarrier digital modulation techniques, optimal signal detection, channel estimation techniques, channel equalization algorithms, classical and modern channel coding schemes, coded modulation techniques, and iterative methods for channel equalization and decoding of channel codes.

Special features include:
- Important results previously scattered over a huge number of publications are now collected in a single volume
- A broad coverage of fundamental topics in wireless communications, taking into consideration both basic and advanced transmission techniques
- An historical perspective on various important research areas in the field of wireless communication techniques
- Highlights trends in various research areas in the field of wireless communications

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