LTE, WiMAX and WLAN Network Design, Optimization and Performance Analysis

Description:

A technological overview of LTE and WiMAX

LTE, WiMAX and WLAN Network Design, Optimization and Performance Analysis provides a practical guide to LTE and WiMAX technologies introducing various tools and concepts used within. In addition, topics such as traffic modelling of IP-centric networks, RF propagation, fading, mobility, and indoor coverage are explored; new techniques which increase throughput such as MIMO and AAS technology are highlighted; and simulation, network design and performance analysis are also examined. Finally, in the latter part of the book Korowajczuk gives a step-by-step guide to network design, providing readers with the capability to build reliable and robust data networks.

By focusing on LTE and WiMAX this book extends current network planning approaches to next generation wireless systems based on OFDMA, providing an essential resource for engineers and operators of fixed and wireless broadband data access networks. With information presented in a sequential format, LTE, WiMAX and WLAN Network Design, Optimization and Performance Analysis aids a progressive development of knowledge, complementing latter graduate and postgraduate courses while also providing a valuable resource to network designers, equipment vendors, reference material, operators, consultants, and regulators.

Key Features:

- One of the first books to comprehensively explain and evaluate LTE
- Provides an unique explanation of the basic concepts involved in wireless broadband technologies and their applications in LTE, WiMAX, and WLAN before progressing to the network design
- Demonstrates the application of network planning for LTE and WiMAX with theoretical and practical approaches
- Includes all aspects of system design and optimization, such as dynamic traffic simulations, multi-layered traffic analysis, statistical interference analysis, and performance estimations

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