SAVO GLISIC AND BEATRIZ LORENZO

COGNITIVE, COOPERATIVE AND OPPORTUNISTIC

4G

TECHNOLOGY

ADVANCED WIRELESS NETWORKS

SECOND EDITION

Companion Website

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ADVANCED WIRELESS NETWORKS

Cognitive, Cooperative and Opportunistic 4G Technology

Second Edition

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With 40% new material the new edition of *Advanced Wireless Networks* provides a comprehensive representation of the key issues in 4G wireless networks. Focussing on cognitive, cooperative and opportunistic paradigms to provide further increase in network efficiency, the book explores and addresses issues in wireless internet, mobile cellular and WLAN, as well as sensor, ad hoc, bio-inspired, active and cognitive networks. It examines the problem of cross-layer optimisation and network information theory as well as adaptability and reconfigurability in wireless networks. This book is an integral description of future wireless networks and the interconnection between their elements.

The information is presented in a logical order within each chapter making it ideal for all levels of reader including researchers involved in modelling and analysis of future networks as well as engineers working in the area. Each chapter starts with introductory material and gradually includes more sophisticated models and mathematical tools concluding with a comprehensive list of references.

- Fully updated throughout with five new chapters on Opportunistic Communications; Relaying and Mesh Networks; Topology Control; Network Optimization; and Cognitive Radio Resource Management
- Unifies the latest research on cognitive, cooperative and opportunistic paradigms in wireless communications
- Provides efficient analytical tools for network analysis
- Discusses security issues, an essential element of working with wireless networks
- Supports advanced university and training courses in the field
- Companion website containing extra appendix on Queuing theory

Companion Website

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