



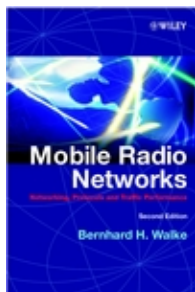
Prof. Hideaki Takagi , Prof. Bernhard H. Walke

Spectrum Requirement Planning in Wireless Communications: Model and Methodology for IMT - Advanced

Presents the model and methodology, applied by ITU-R WRC 07, to calculate the spectrum requirement

Spectrum Requirement Planning in Wireless Communications: Model and Methodology for IMT-Advanced is a self-contained handbook of the models and methodologies used for the spectrum requirement calculation for IMT-Advanced systems, as well as for the predecessor IMT-2000 systems. The reader will learn how the spectrum requirement is calculated for real systems that prevail worldwide. The book also provides the basis on which to develop advanced methodologies for yet future systems, as the spectrum regulation will continue in the future.

more...



Prof. Dr.-Ing. B. Walke

Mobile Radio Networks: Networking, Protocols and Traffic Performance

Building on the success of the first edition *Mobile Radio Networks* continues to be the authoritative text on the radio-related and network-oriented functions of the digital communications networks that have been introduced over the last few years. Thoroughly revised and updated, containing 30% new material, the second edition has been substantially improved and now provides detailed descriptions of the latest wireless systems designs. The traffic performance behaviour of all systems under realistic traffic load conditions is presented and comparisons are made with the performance seen by the user of various competing systems. More...



Bernard H. Walke, Stefan Mangold, Lars Berlemann

IEEE 802 Wireless Systems:

Protocols, Multi-Hop Mesh/Relaying, Performance and Spectrum Coexistence

IEEE 802 Wireless systems have become a serious competitor to cellular radio systems, for low cost nomadic Internet access, at least in offices, at home and in public hot spots. At the same time, the wireless communication sector has grown to an important industry providing a basis for our communications society. In the next decade, 802 wireless systems will become an integral part of fourth generation (4G) cellular communication systems, where the convergence of wireless and mobile networks will materialize through support of interworking and seamless roaming across wireless and cellular radio access technologies. Besides that, peer-to-peer communication across wireless ad-hoc networks will evolve. Extremely high-data rates, driven by technology progress, under transmit power constraints transmitted in bands of 3.5 to 5 GHz will reduce the coverage range of Access Points (AP) in comparison to current systems, substantially. Multi-hop relaying will be required to trade the high capacity available at APs against range of radio coverage and wireless mesh networks will be needed to connect APs to the Internet.