



River Publishers

The River Publishers' Series in Communications

Advances in Broadband Communication and Networks

Johnson I Agbinya, Oya Sevimli, Saroj Lal, Selvakennedy Selvadurai, Adel Al-Jumaily, Yonghui Li, Sam Reisenfeld, University of Technology, CSIRO ICT, University of Technology, University of Technology, University of Technology, University of Sydney, University of Technology

ISBN: 978-87-92329-00-4

Description

Broadband communications has become the major focus for industry for offering rich multimedia IP services in next generation networks. This book deals with the state-of-the-art and the underlying principles of key technologies which facilitate broadband telecommunications including millimetre wave gigabit Ethernet, terahertz communication, multiple input multiple output (MIMO) technology, orthogonal frequency division multiplex (OFDM), ultra wideband (UWB) and the fourth generation (4G) network technologies. The book illustrates the use of these technologies, including high resolution three-dimensional millimetre wave radar imaging and terahertz imaging techniques. Within the next few years advances in graphic rendering and the application of millimetre wave radar technology will enable high resolution radar surveillance and operators of industrial processes to control their machines and to navigate remotely even in poor visibility environments. The principles and performance of terahertz imaging are also demonstrated in this important book. The performance and success of emerging all-IP networks depend largely on the efficiency of broadband technologies and this book provides the basis for 4G networks and explores key performance measures such as quality of service and handover between distributed networks (mobile and fixed). The book also demonstrates the medical and biomedical applications of broadband wireless communications.



Contents

Preface, Acknowledgement, Editorial

- Millimetre Wave Imaging for Industrial Applications
- A 500-700 GHz System for exploring the THz Frequency Regime
- 190 GHz Millimetre-wave Imaging using MMIC-based Heterodyne Receivers
- W-BAND GAAS SCHOTTKY DIODE MMIC MIXERS FOR MULTI-GIGABIT WIRELESS COMMUNICATIONS
- Implementation of a Gigabit per Second Millimeter Wave Transceiver on CMOS
- Power Allocation for the MMSE Feedback Precoder on Multi-Antenna Broadcast Channels
- Selective Detection for MIMO-OFDM Transmission
- Ultra Wideband Systems – A Research Overview
- Robust Integer Frequency Offset Estimation for OFDM System
- Experimental Comparison of Two Automotive Radars for use on an Autonomous Vehicle
- On the Range-Data Rate Performance of Outdoor UWB Communication
- A Network Controlled QoS Model over the 3GPP Evolved Packet Core
- Vertical Handoffs in Fourth Generation Wireless Networks
- Methodology and initial analysis results for development of non-invasive and hybrid driver drowsiness detection systems
- Using Spectral Analysis to Extract Frequency Components from Electroencephalography: Application for Fatigue Countermeasure in Train Drivers
- Risk and Vulnerability Assessment of Secure Autonomic Communication Networks
- Intelligent Techniques Based RF Based Human Localisation in Indoor Environment
- A tutorial on the New Higher Order Rotation Spreading Matrix for BSOFDM

Pricing

Published September 2008

List Price: **€90**

Please place your order from our website www.riverpublishers.com or contact us on info@riverpublishers.com .