Table of Contents

Efficient Rate Adaptive Resource Allocation Scheme in Uplink OFDMA Wireless Systems 1
Vasileios Papoutsis and Stavros Kotsopoulos

Resource Allocation Algorithm for MISO-OFDMA Systems with QoS Provisioning 7
Vasileios Papoutsis and Stavros Kotsopoulos

Scrambling-Exact Channel Estimation in W-CDMA Systems 12
Wolfgang U. Aichmann

The Mathematical Relationship Between Maximum Access Delay and the R.M.S Delay Spread 18
Khalid Hassan, Tharek Abd Rahman, M. Ramlee Kamarudin, and Faizah Nor

An Effective transmit Weight Design for DPC with Maximum Beam in Multi-user MIMO Downlink 24
Cong Li and Yasunori Iwanami

MLD-based MFSK Demodulation on MIMO Frequency Selective Fading Channel 30
Yasunori Iwanami and Kenji Nakayama

The Impact of Antenna Directivity and Channel Bandwidth on the Power Spectral Density of Wideband and UWB MISO Channels 36
Ana-Maria Pistea, Tudor Palade, Ancuta Moldovan, and Hamidreza Saligheh Rad

Angular CMA: A modified Constant Modulus Algorithm providing steering angle updates 42
Koen C. H. Blom, Marcel D. van de Burgwal, Kenneth C. Rovers, Andre B. J. Kokkeler, and Gerard J. M. Smit

A Smart Predictive Link Layer Trigger Algorithm to Optimize Homogenous/Heterogeneous Networks WiFi Handover Decisions 48
Chunmei Liu and Christian Maciocco

Exploiting Movement synchronization to Increase End-to-end file Sharing efficiency for Delay Sensitive Streams in Vehicular P2P Devices 53
Constandinos Mavromoustakis

Vertical Fast Handoff in Integrated WLAN and UMTS Networks 59
Vahid Solouk, Borhanuddin Mohd Ali, and Daniel Wong

A Hop-Oriented Position Estimation Algorithm for Wireless Sensor Networks 65
Hsing-Lung Chen, Li-Chung Lin, and Shu-Hua Hu

Investigation of the Correlation Effect on the Performance of V-BLAST and OSTBC MIMO Systems 71
Ali Jemmali and Jean Conan

Simple Detection Schemes for the Alamouti Code Assisted V-BLAST (ACAV) System 75
David Wee-Gin Lim

Radiation Pattern Behaviour of Reconfigurable Asymmetry Slotted Ultra Wideband Antenna 81
Yusnita Rahayu, Azlyna Senawi, and Razali Ngah

Radio Resource Unit Allocation and Rate Adaptation in Filter Banks Multicarrier System 87
Faouzi Bader and Mohammad Banat

An Experimental Study of ICI Cancellation in OFDM Utilizing GNU Radio System 94
Miftahur Rahman, Sajjadul Latif, and Tasnia Ahad

Dynamic Group PCI Assignment Scheme 101
Xu Zhang, DiBin Zhou, Zhu Xiao, Enjie Liu, Jie Zhang, and Andres Alayon Glasunov

Performance Analysis of Pilot Patterns in Coded OFDMA Systems over Multi-user Channels 107
Jihyung Kim, Jung-Hyun Kim, Kwang Jae Lim, and Dong Seung Kwon

A System Design for The Integration of RFID Systems with Wireless Network Technologies 112
Mehmet Erkan Yuksel and Asim Sinan Yuksel

The Selected Propagation Models Analysis of Usefulness in Container Terminal Environment 118
Slawomir Ambroziak and Ryszard Katulski

Bandwidth Allocation Algorithms for VOIP Networks: An Experimentation System and Evaluation of Created Algorithm 122
Rafal Orlowski, Michal Chamow, Iwona Pozniak-Koszalka, Leszek Koszalka, and Andrzej Kasprzak

On the Receiver Performance in MU-MIMO Transmission in LTE 128
Zijian Bai, Biljana Badic, Stanislaus Iwelski, Tobias Scholand, Rajarajan Balraj, Guido Bruck, and Peter Jung

A Hybrid Solution For Coverage Enhancement in Directional Sensor Networks 134
M. Amac Guvensan and A. Gokhan Yavuz

Amplifying Matrix Design for Cooperative Relay Networks under Channel Uncertainty and Power Constraint 139
Kanghee Lee, Hyuck Kwon, Yanwu Ding, Zuojun Wang, Yu Bi, and Yazan Ibdah

Finite-State Markov Chain Approximation for Geometric Mean of MIMO Eigenmodes 145
Ping-Heng Kuo and Pang-An Ting

An Algorithmic Approach for Analyzing Wireless Networks with Retrials and Heterogeneous Servers 151
Nawel Gharbi and Leila Charabi

Performance Analysis of an Ant-based Routing Algorithm with Enhanced Path Maintenance for MANETs 157
Miae Woo

Adaptive Cross Layer Approach for Video Transmission Over Cognitive UWB Network 163
Norazizah Mohd Aripin, Norsheila Fisal, Rozeha A. Rashid, and Anthony C.C. Lo

A Survey on Multi-Channel Based, Digital Media- Driven 802.11 Wireless Mesh Networks 169
Christian Kobel, Walter Baluja Garcia, and Joachim Habermann

A Bidirectional Semi-Passive DS-CDMA-RFID Transponder for the UHF Band 176
Andreas Loeffler and Ingo Altmann

Efficient Symbol Detector for MIMO Communication Systems 182
Soohyun Jang and Yunho Jung

Software Defined Radio as a DS-CDMA Receiver 188
Ryszard Katulski, Wojciech Siwicki, and Jacek Stefanski

Performance Improvements of Mobile SCTP during handover period 193
Sinh Chung Nguyen, Thi Mai Trang Nguyen, and Guy Pujolle

Sink-Connected Barrier Coverage Optimization for Wireless Sensor Networks 198
Yung-Liang Lai and Jehn-Ruey Jiang

The Joint Probability Density Function of the SSC Combiner Output Signal at Two Time Instants in the Presence of Hoyt Fading 204
Dragana Krstic, Petar Nikolic, Goran Stamenovic, and Mihajlo Stefanovic

Hybrid Log-MAP Algorithm for Turbo Decoding Over AWGN Channel 211
Li Li Lim and David Wee Gin Lim

Evaluating Transceiver Power Savings Produced by Connectivity Strategies for Infrastructure Wireless Mesh Networks 215
Pragasen Mudali, Murimo Mutanga, Matthew Adigun, and Ntsibane Ntlatlapa

Spectrum Access during Cognitive Radio Mobiles' Handoff 221
Emna Trigui, Moez Esseghir, and Leila Merghem Boulahia

Efficiently Using Bitmap Floorplans for Indoor Navigation on Mobile Phones 225
Martin Werner

Near Field Sensing in Wireless LANs 231
Wolfgang Narzt and Heinrich Schmitzberger

Spectrum Sensing Measurement using GNU Radio and USRP Software Radio Platform 237
Rozeha A. Rashid, Mohd Adib Sarijari, Norsheila Fisal, Anthony Lo, Sh. Kamilah S. Yusof, and Nurhija Mahalin

Secure, Privacy-Preserving, and Context-Restricted Information Sharing for Location-based Social Networks 243
Michael Durr, Philipp Marcus, and Kevin Wiesner

Seamless Multimedia Handoff for Hierarchical Mobile IPv6 249
Khaled Zeraoulia and Nadjib Badache

Heterogeneous Networks Handover Decision Triggering Algorithm Based on Measurements Messages Transfer using IP Option Header 254
Malak Z. Habeib, Hussein A. Elsayed, Salwa H. Elramly, and Magdy M. Ibrahim

The Impacts of Dynamic Broadcast Schemes on the Performance of 260
Dimitrios Liarokapis and Ali Shahrabi

Cyclostationary Detection in Spectrum Pooling System of Undefined Secondary Users 266
Nazar Radhi, Kahtan Aziz, Rafed Sabbar Abbas, and Hamed AL-Raweshidy

Restore Partitioning in MANETs with Dynamically Deployed Helping Hosts — Message Cabs (MCabs) 271
Ting Wang and Chor Ping Low

Increasing the Speed of a Wireless Network by Processing Indoor 277
Alexey Lagunov

Thresholds Determination for new Backoff Algorithm in MANETs 285
Muneer Bani Yassein, Wail Mardini, and Zainab AbuTaye

An Interference Avoiding Wireless Network Architecture for Coexistence of CDMA 2000 1x EVDO and LTE Systems 289
Xinsheng Zhao, Jia You, and Tao Jin

Challenge Token-based Authentication – CTA 294
Ghassan Kbar

Efficient Privacy Preservation Protocol Using Self-certified Signature For VANETS 301
Bidi Ying, Dimitrios Makrakis, and Hussein T. Mouftah

Security Enhanced Authentication Protocol for UHF Passive RFID System 307
Suna Choi, Sangyeon Lee, and Heyungsub Lee