

Table of Contents

Thorough Analysis of Downlink Capacity in a WCDMA Cell	1
<i>Ioannis B. Daskalopoulos, Vassilios G. Vassilakis, and Michael D. Logothetis</i>	
Fast Randomized STDMA Link Scheduling	15
<i>Sergio Gomez, Oriol Gras, and Vasilis Friderikos</i>	
Efficient QoS-Driven Resource Allocation in Integrated CDMA/WLAN Networks - An Autonomic Architecture	25
<i>Georgios Aristomenopoulos, Timotheos Kastrinogiannis, and Symeon Papavassiliou</i>	
Efficient Anonymous Authentication Protocol Using Key-Insulated Signature Scheme for Secure VANET	35
<i>Youngho Park, Chul Sur, Chae Duk Jung, and Kyung-Hyune Rhee</i>	
Application-Aware Dynamic Retransmission Control in Mobile Cellular Networks	45
<i>Nadhir Ben Halima, Dzmitry Kliazovich, and Fabrizio Granelli</i>	
Congestion Avoidance Control through Non-cooperative Games between Customers and Service Providers	53
<i>Dimitris E. Charilas, Athanasios D. Panagopoulos, Panagiotis Vlacheas, Ourania I. Markaki, and Philip Constantinou</i>	
Application of Fuzzy AHP and ELECTRE to Network Selection	63
<i>Dimitris E. Charilas, Ourania I. Markaki, John Psarras, and Philip Constantinou</i>	
An Adaptive QoS Routing Solution for MANET Based Multimedia Communications in Emergency Cases	74
<i>Tipu Arvind Ramrekha and Christos Politis</i>	
A Distributed Energy-Aware Trust Management System for Secure Routing in Wireless Sensor Networks	85
<i>Yannis Stelios, Nikos Papayanoulas, Panagiotis Trakadas, Sotiris Maniatis, Helen C. Leligou, and Theodore Zahariadis</i>	
A Mobile Multi-hop Relay Base Station (MRBS) – Relay Station (RS) Link Level Performance of Coding/Modulation Schemes, on the Basis of the REWIND Research Program	93
<i>Ioannis P. Chochliouros, Avishay Mor, Konstantinos N. Voudouris, O. Amrani, and George Agapiou</i>	

A Face Centered Cubic Key Agreement Mechanism for Mobile Ad Hoc Networks	103
<i>Ioannis G. Askoylakis, Konstantinos Markantonakis, Theo Tryfonas, John May, and Apostolos Traganitis</i>	
A Tree Based Self-routing Scheme for Mobility Support in Wireless Sensor Networks	114
<i>Young-Duk Kim, Yeon-Mo Yang, Won-Seok Kang, Jin-Wook Kim, and Jinung An</i>	
Cooperative Spectrum Sensing for Cognitive Radios: Performance Analysis for Realistic System Setups and Channel Conditions.....	125
<i>Marco Di Renzo, Laura Imbriglio, Fabio Graziosi, Fortunato Santucci, and Christos Verikoukis</i>	
Cross-Layer Optimization of Video Services over HSDPA Networks	135
<i>Luca Superiori, Martin Wrulich, Philipp Svoboda, and Markus Rupp</i>	
Dynamic Resource Allocation for IEEE802.16e.....	147
<i>Alberto Nascimento and Jonathan Rodriguez</i>	
Developing an Innovative Multi-hop Relay Station Software Architecture in the Scope of the REWIND European Research Programme	160
<i>Konstantinos N. Voudouris, Ioannis P. Chochliouros, Panagiotis Tsiakas, Avishay Mor, George Agapiou, Avner Aloush, Maria Belesioti, and Evangelos Sfakianakis</i>	
Full Scale Software Support on Mobile Lightweight Devices by Utilization of All Types of Wireless Technologies	173
<i>Ondrej Krejcar</i>	
QoS-constrained Energy Minimization in Multiuser Multicarrier Systems	185
<i>Qing Bai, Michel T. Ivrlač, and Josef A. Nossek</i>	
Performance Analysis of Power Saving Class of Type 1 with Both Downlink and Uplink Traffics in IEEE 802.16e.....	196
<i>Sangkyu Baek and Bong Dae Choi</i>	
Testing Cooperative Communication Schemes in a Virtual Distributed Testbed of Wireless Networks.....	210
<i>George Kormentzas, Luis Alonso, and Christos Verikoukis</i>	
RFID-Based Identification: A Measurement Study	220
<i>Marina Buzzi, Marco Conti, and Enrico Gregori</i>	

Self-management in Future Internet Wireless Networks: Dynamic Resource Allocation and Traffic Routing for Multi-service Provisioning	230
<i>Ioannis P. Chochliouros, Nancy Alonistioti, Anastasia S. Spiliopoulou, George Agapiou, Andrej Mihailovic, and Maria Belesioti</i>	
Self-organizing Mobile Ad Hoc Networks: Spontaneous Clustering at the MAC Layer	242
<i>J. Alonso-Zárate, E. Kartsakli, P. Chatzimisios, L. Alonso, and Ch. Verikoukis</i>	
Wireless Location Positioning Based on WiMAX Features - A Preliminary Study	254
<i>Azmi Awang Md Isa, Garik Markarian, and Kamarul Ariffin Noordin</i>	
IEEE 802.11s Wireless Mesh Networks: Challenges and Perspectives	263
<i>Aggeliki Sgora, Dimitris D. Vergados, and Periklis Chatzimisios</i>	
IEEE 802.16 Packet Scheduling with Traffic Prioritization and Cross-Layer Optimization	272
<i>João Monteiro, Susana Sargento, Álvaro Gomes, Francisco Fontes, and Pedro Neves</i>	
Towards Adaptable Networking: Defining the Protocol Optimization Architecture Requirements	282
<i>Martin André and Fumio Teraoka</i>	
Uptake of Mobile ICT Health Services: Has the Time Come to become Commodity?	292
<i>Pantelis A. Angelidis</i>	
Impact of the Transmission Scheme on the Performance in Wireless LANs	303
<i>Andreas Könsgen, Andreas Timm-Giel, Carmelita Görg, and Ronald Böhnke</i>	
Increasing the Performance of OFDM-OQAM Communication Systems through Smart Antennas Processing	315
<i>Nizar Zorba, Stephan Pfletschinger, and Faouzi Bader</i>	
Middleware Building Blocks for Architecting RFID Systems	325
<i>Nikos Kefalakis, Nektarios Leontiadis, John Soldatos, and Didier Donsez</i>	
Multicost Energy-Aware Broadcasting in Wireless Networks with Distributed Considerations	337
<i>Christos Papageorgiou, Panagiotis Kokkinos, and Emmanouel Varvarigos</i>	

On the Performance of Intra-system Optimization of Virtual Manufacturing Communication Systems 347
Ainara Gonzalez, Angel Martin, Miguel Angel Urrutia, and Oscar Lazaro

Performance Analysis of IEEE 802.15.4 Non-beacon Mode with Both Uplink and Downlink Traffic in Non-saturated Condition 357
Tae Ok Kim, Jin Soo Park, Kyung Jae Kim, and Bong Dae Choi

Efficient and Accurate WLAN Positioning with Weighted Graphs 372
René Hansen and Bent Thomsen

Feasibility of a GNSS-Probe for Creating Digital Maps of High Accuracy and Integrity 387
Dimitris Vartziotis, Alkis Poulis, Alexandros Minogiannis, Panayiotis Siozos, Iraklis Goudas, Jaron Samson, and Michel Tossaint

Extending Internet into Space – ESA DTN Testbed Implementation and Evaluation 397
Christos Samaras, Ioannis Komnios, Sotirios Diamantopoulos, Efthymios Koutsogiannis, Vassilis Tsaoussidis, Giorgos Papastergiou, and Nestor Peccia

Conceptual Design of a Wireless Strain Monitoring System for Space Applications 405
Panagiotis Broutas, Stathis Kyriakis Bitzaros, Dimitrios Goustouridis, Stavros Katsafouros, Dimitrios Tsoukalas, and Stavros Chatzandroulis

Novel Metamaterials for Patch Antennas Applications 411
Theodore Zervos, Fotis Lazarakis, Antonis Alexandridis, Kostas Dangakis, Dimosthenis Stamopoulos, and Michalis Pissas

On the Design of Direct Radiating Antenna Arrays with Reduced Number of Controls for Satellite Communications 420
Theodoros Kaifas, Katherine Siakavara, Dimitrios Babas, George Miaris, Elias Vafiadis, and John N. Sahalos

Author Index 431