

Mobile Computing and Wireless Communications International Conference

17-20 September 2006, Jerusalem International Hotel, Amman, Jordan

Organized by

MOSHARAKA FOR RESEARCHES AND STUDIES



Technically Co-Sponsored by

IEEE COMMUNICATIONS SOCIETY



Conference General Chairman

MOHAMMAD M. BANAT, JORDAN UNIVERSITY OF SCIENCE AND TECHNOLOGY, JORDAN

Conference Organizer

JASER MAHASNEH, MOSHARAKA FOR RESEARCHES AND STUDIES, JORDAN

TABLE OF CONTENTS

Plenary Talk

Milestones in Communications	3
<i>Professor Asrar U. H. Sheikh</i>	

Tutorial 1

IP-Oriented QoS in the Next Generation Networks: application to wireless networks	7
<i>Pascal Lorenz</i>	

Tutorial 2

WiMAX a new Broadband Wireless Access Solution	13
<i>F. Bader</i>	

Authors

Party: Pastry-Like Multi-hop Routing Protocol for Wireless Self-Organizing Networks	21
<i>Ghazi AL Sukkar, Hossam Afifi, Sidi-Mohammed Senouci</i>	
G-OPEP: An On-Demand Group Key Agreement Protocol for MANETs	27
<i>M. Khatib, A. Mhamed, H. Afifi</i>	
Energy Power-Aware Routing in OLSR Protocol	33
<i>Abderrahim Benslimane, Ralph El Khoury, Rachid El Azouzi, Samuel Pierre</i>	
Load Balanced Ad Hoc Routing Protocol	39
<i>Omar Al-Jarrah, Musab Salem Al-Hadrusi</i>	
Analyses Authentication and Key Agreement (AKA) Protocol for UMTS Mobile Networks	46
<i>Ja'afar AL-Sarairoh, Sufian Yousef</i>	
Optimised resource management for NEMO mobile networks	51
<i>I. Ben Hamida, L. Boukhatem</i>	
Vertical Handover Support for Multimode Mobile Terminal using Multi-Homed MIPv4	57
<i>Tansir Ahmed, Kyandoghere Kyamakya, Markus Ludwig, Kalenga Wa Ngoy Cyrille, Kalombo Masimango Monique S.</i>	
Power Management Mechanism for routing in Ad-Hoc Wireless Networks	63
<i>Arwa Zabian</i>	
System Level Model for the Wireless Channel Unreliability in Mobile Cellular Networks	69
<i>Carmen B. Rodriguez-Estrello, Felipe A. Cruz-Pérez, Genaro Hernández-Valdez</i>	
M-PSK Modulation using Mod-M Turbo Codes	75
<i>Behrad Mahboobi, Mahdi Zamani, Said Nader-Esfahani</i>	
Analysis and equalization of delay in asynchronous CDMA system using unscented filtering	81
<i>Saleh Al-Jazzar</i>	
BER for M-QAM with Space Diversity and MRC in Rician Fading Channels	86
<i>Adel Ahmed Ali, Khalid Alkhubairi</i>	
Supported Active Users in a MC-CDMA System Under Intercell Interference	92
<i>N. Labeled, F. Bader, I. Gutierrez</i>	
Parity Assisted Decision Making for QAM Modulation	97
<i>Amer H. Alhabsi, Hussain M. Al-Rizzo, Robert Akl</i>	
Space-time Code Selection for Transmit Antenna Diversity Systems	102
<i>Dimas Mavares, Rafael P. Torres</i>	
Adaptive Antenna Grouping for Space-Time Block Coding and Spatial Multiplexing Hybrid System	107
<i>Yongming Huang, Daofeng Xu, Luxi Yang</i>	
Multiuser Orthogonal Opportunistic Schemes: A Stability Target	112
<i>Nizar Zorba, Ana I. Perez-Neira</i>	
A Channel Estimation Scheme with Switched Space-Time-Frequency Orthogonal Coding for MIMO OFDM Systems	118
<i>A.D. Marousis, P. Constantinou</i>	
Enhanced Power Control Strategy for Downlink Soft Handover in WCDMA Systems	124
<i>Soumaya Hamouda, Mohamed Melki, Philippe Godlewski, Sami Tabbane</i>	
Offering VoIP Services in a Wireless Neutral Operator Environment	130
<i>J Barcelo, C. Macian, E. Arago, P. Novell, M. Vidal</i>	
Increasing the efficiency of preamble sampling protocols for wireless sensor networks	136
<i>Marco Avvenuti, Paolo Corsini, Paolo Masci, Alessio Vecchio</i>	

Estimating the Number of Persons in an Unknown Indoor Environment by Applying Wireless Acoustic Sensors and Blind Signal Separation	142
<i>Maurizio Bocca, Cristian Galperti, Reino Virrankoski, Heikki N. Koivo</i>	
An Error Concealment Algorithm in Wireless Networks	148
<i>Congying Wei, Jianwei Niu, Jianping Hu</i>	
NEXT GEN Mobile Terminal Architecture: A Vision	152
<i>S. Vijay Anand</i>	
A low complexity code selection method for peak to average power ratio reduction in MC-CDMA	158
<i>Sisi Liu, Yue Xiao, Qingsong Wen, Shaoqian Li</i>	
Estimation of MC-DS-CDMA Fading Channels Based on Kalman Filtering with High Order Autoregressive Models.	164
<i>Walid Hassasneh, Ali Jamoos, Eric Grivel, Hanna Abdel Nour</i>	
Performance of the multi-carrier LMDS system at the 28 GHz radio frequency band.	169
<i>Le Thanh Son, Torbjørn Ekman, Pal Orten</i>	
A Novel Blind Delay Spread Estimation Using Frequency Correlation for Wireless OFDM Systems	175
<i>Athanasios Doukas, Grigorios Kalivas</i>	
ML estimation of non-virtual sub-carriers OFDM carrier frequency offset	179
<i>Bo Hong, Xin'an Wang, Gaofa Xiao</i>	
An Approach to Formal Specification and Formal Validation of Facilities of a Mobile Middleware Architecture	184
<i>Matangini Chattopadhyay, Subharthi Paul, Suman Sanyal, Debesh Das</i>	
The Wireless Internet Technology Landscape	190
<i>Damianos Gavalas, Daphne Economou, Michael Kenteris</i>	
Developing Tourist Guide Applications for Mobile Devices Using the J2ME Platform	197
<i>Michael Kenteris, Damianos Gavalas, Daphne Economou</i>	
Web Caching in Mobile Environments	203
<i>Arwa Zabian, Sami Qawasmeh</i>	
Performance Evaluation of Atomic Commit Protocols for Mobile Transactions	210
<i>N. Nouali, L. Boukantar, H. Drias</i>	
Performance of Neural Network Trained with Genetic Algorithm for Direction of Arrival Estimation	216
<i>Hamed Movahedi Pour, Zahra Atlasbaf, Mohammad Hakkak</i>	
A Lightweight and Flexible Mobile Agent Platform Tailored to Management Applications	222
<i>Damianos Gavalas</i>	
A GPS-based Mobile Coordinated Positioning System for Firefighting Scenarios	228
<i>Ricardo Matos, Daniel F. Santos, José E. Sanguino, António Rodrigues</i>	
Pseudo Randomized Sequence Number Based Solution to 802.11 Disassociation Denial of Service Attack	234
<i>Baber Aslam, M Hasan Islam, Shoab A. Khan</i>	
802.11 Disassociation DoS Attack and Its Solutions: A Survey	240
<i>Baber Aslam, M Hasan Islam, Shoab A. Khan</i>	
Decentralized and Scalable Group Key Management Algorithm for Large Ad-Hoc Groups	246
<i>Josep Pegueroles, Juan Hernández-Serrano, Miguel Soriano</i>	