

# International Conference on Wireless and Mobile Communications

Bucharest, Romania  
July 29-31, 2006

Welcome  
Getting Started  
Conference Information  
Sessions  
Authors  
Search



## **ICWMC1: Sensors I**

2

Density Control without Location Information in Wireless Sensor Networks  
Wei-Tong Wang, Kuo-Feng Ssu

33

A Lightweight Localization Scheme in Wireless Sensor Networks  
Wen-Hwa Liao, Yu-Chee Lee

109

Grid Sensor/Actuator Network Architecture  
Salvatore Flavio Pileggi, Carlos E. Palau Salvador, Manuel Esteve

58

On Increasing Energy Conservation for Wireless Sensor Networks  
P. Koutsakis

## **ICWMC2: Sensors II**

35

A Dependable Multipath Routing Protocol in Wireless Sensor Networks  
Kuo-Feng Ssu, Tzu-Ting Wu, Shih-Kang Huang, Hewijin Christine Jiau

136

A Energy Efficient Clustering Algorithm for Wireless Sensor Networks  
Henoc Soude, Jean Mehat

137

VirtuS: a configurable layer for post-deployment adaptation of sensor networks  
Paolo Corsini, Paolo Masci, Alessio Vecchio

171

Base Station Assisted Hierarchical Cluster-Based Routing  
Sajid Hussain, Abdul W. Matin

## **ICWMC3: Wireless LAN/PAN**

9

Adaptive EDCA Algorithm Using Video Prediction  
Huabing Liu, Yun Zhao

47

Energy-Efficient Range Assignment in Heterogeneous Wireless Sensor Networks  
Mihaela Cardei, Mohammad O. Pervaiz, Ionut Cardei

78

A Fuzzy Set Theory Based Method to Discover Transmissions in WPAN  
Lennart Isaksson, Markus Fiedler, Elisabeth Rakus-Andersson

92

Power Characterization of a Bluetooth-based Wireless Node for Ubiquitous Computing  
Juan-Carlos Cano, Jose-Manuel Cano, Eva Gonzalez, Carlos Calafate, Pietro Manzoni

155

Analysis of IEEE 802.11E Standard in Terms of Real Time Application Requirements  
Dariusz Kościelnik

#### **ICWMC4: Radio Comm**

14

The Influence of the Rectified Wave on the Usability of Six-Port-Based Mobile Receivers  
Marko Mailand, Raik Richter, Hans-Joachim Jentschel

62

A New Efficient Scheme for the Allocation of Satellite Bandwidth Based on Videoconference Traffic Estimation  
P. Koutsakis

77

A novel logarithmic envelope scheme for doppler shift estimation in mobile communication systems  
Xu Xiaojian, Sui Dan, Hu Hanying

111

Future Hybrid Cellular-Broadcasting Systems for Multimedia Multicasting  
Aurelian Bria

145

Scalability of UWB Cognitive Radio Networks with Interference Constraint  
Fan Zhang, Xiaoyun Kang

## **ICWMC5: Management and Performance I**

15

Throughput Analysis of Random Access Channel of the UMTS System  
Ramon Dornelas Soares, Jose Marcos Camara Brito

55

A SCALable Multimedia Multicast protocol for Emergency System (SCAMMES)  
Kavi Kumar Khedo, Paramasiven Appavoo

86

Performance boost with Pico-cells in a unified micro-cellular network  
Phan Thanh Hoa, Takahiko Yamada

90

Defining the Main Factors of Quality of Service in Mobile Telephony  
Angelos Amanatiadis, Konstantinos Drakatos, Loukas Tsironis, Vassilis Moustakis

## **ICWMC6: Management and Performance II**

93

Implementation and Evaluation of TCP Enhancements over Satellite Links  
A. Politis, A. Manitsaris, I. Mavridis

94

Effectiveness of Database Connections on Query Retrieval Time of Mobile Devices  
Berk Çelebi, Yıltan Bitirim, Arif Akkeleş

102

MPLS QoS through Wide Area Subsystems  
Mario Marchese, Maurizio Mongelli, Alessandro Garibbo

115

Performance analysis of the IEEE 802.11 DCF with imperfect radio conditions  
A. Samhat, Z. Altman, B. Fourestie

## **ICWMC7: Management and Performance III**

119

Performance Analysis of a Time-Threshold Based Multi-Guard Bandwidth Allocation Scheme in Cellular Networks  
Muhammed Salamah, Idil Candan

134

Development and Evaluation of a Fuzzy Inference Engine System to Incorporate Quality of Service in IEEE 802.11 Medium Access Protocol  
Mohammad Saraireh, Reza Saatchi, Samir Al-khayatt, Rebecca Strachan

161

Buffered Call Admission Control Strategies for Wireless Multimedia Networks  
Dervis Z. Deniz, Nagla O. Mohamed

162

Label Switch Path with guaranteed Quality of Service in Mobile Ad Hoc Network  
Mehwish Jabeen, Shoab A. Khan

150

Recovery in Mobile Database Systems  
Ruchika Dua, Saurabh Bhandari

#### **ICWMC8: Mobile / Ad Hoc I**

22

Mobility Models for UAV Group Reconnaissance Applications  
Erik Kuiper, Simin Nadjm-Tehrani

28

Resource-Aware Service Architecture for Mobile Services in Wireless Sensor Networks  
Jan Blumenthal, Dirk Timmermann

70

Intra-System Mobility Evaluation for Different Wireless Technologies  
Emanuel Puschita, Tudor Palade, Florin Sandu

73

A Secure and Efficient Link State Routing Protocol for Ad Hoc Networks  
Lin Chen, Jean Leneutre

74

Comparative study of phase jitter models for uplink MC-CDMA and uplink MC-DS-CDMA  
Nabila Soudani, Ridha Bouallegue

## **ICWMC9: Mobile / Ad Hoc II**

81

GPS-Free Geocasting Algorithms in Mobile Ad hoc Networks  
Romain Mellier, Jean Frédéric Myoupo, Idrissa Sow

85

A Weighted Clustering Algorithm For Mobile Ad Hoc Networks With Non Unique Weights  
Romain Mellier, Jean-Frederic Myoupo

87

Behavior of TCP algorithms on ad hoc networks based on different routing protocols(MANETs) and propagation models  
Mohamed Yahia, Jozsef Biro

88

Integration of Mobile Ad Hoc Networks into the Internet without Dedicated Gateways  
Alicia Triviño-Cabrera, Eduardo Casilari-Pérez, Francisco J. González-Cañete

## **ICWMC10: Mobile / Ad Hoc III**

120

An Ant-based Routing Protocol using Unidirectional Links for Heterogeneous Mobile Ad-Hoc Networks  
Taro Maekawa, Harumasa Tada, Naoki Wakamiya, Makoto Imase and Masayuki Murata

125

Localized Tree Change Multicast Protocol for Mobile Ad Hoc Networks  
T.Srinivasan, G.Srikrishnan, Sudharshan Rangarajan, S.Vijay, R.Chandrasekar, Vivek Vijaykumar

127

Energy Saving and Connectivity Factor Tradeoff by Adaptive Transmission Range in 802.11g MANETs  
Fatiha Djemili Tolba, Damien Magoni, Pascal Lorenz

148

Transmission Scheduling in Packet Radio Networks  
Zbigniew Walczak, Jacek M. Wojciechowski

## **ICWMC11: Emerging Wireless Technologies I**

29

SIM Application Toolkit - Protocol Conformance and Implementation Challenges  
Shikha Jain, Anurag Jain

42

An Envelope ACF based Iterative Doppler shift estimator in Mobile Communication Systems  
Hua Jingyu, Hua Han, Li Jin, You Xiaohu

43

Performance Analysis of Multihop Inter-Vehicle Communications with Two-Relay Collaboration  
Xu Xiaojian, Meng Qingmin, Hu Hanying

51

Node Synchronization in Wireless Sensor Networks  
Jagoba Arias, Eduardo Santos, Itziar Marin, Jaime Jimenez, Jesus Lazaro, Aitzol Zuloaga

## **ICWMC12: Emerging Wireless Technologies II**

60

Time Reversal Space-Time Block Coding for FWA Systems  
Pei Xiao, Rolando Carrasco

66

Alternative Pair-wise Key Exchange Protocols (IEEE 802.11i) in Wireless LANs  
N .Manivannan, P.Neelameham

100

A Rate Adaptive Hybrid MAC Protocol for Wireless Cellular Networks  
Zhijun Wang, Umapathi Mani, Hao Che

108

Logic DTM for Device-Independent Web Adaptive Interaction In Mobile Environment  
Aimin Liang, Xiaohu Zhang, Suwei Gu

## **ICWMC13: Emerging Wireless Technologies III**

123

802.11 Mac Anomaly Mitigation Proposal Using SNR To Control Backoff Contention Window  
O. C. Branquinho, N. Reggiani, D. M. Ferreira

143

A Coverage Analysis of Amplify-and-Forward Relaying Schemes in Outdoors Urban Environment

Bogdan Timus

151

An improved method for Doppler shift estimation in CP-SCBT Mobile Communication Systems

Hua Jingyu, Li Jin, Hua Han, You Xiaohu

158

Modifying Slots in Test Vectors to Validate Decoders of a Train Network

Jaime Jimenez, Iker Hoyos, Jagoba Arias, Armando Astarloa, Jose L. Martin

#### **ICWMC14: Wireless Communications / Mobility I**

39

An Adaptive Near-far Resistant Single-user Channel Estimation Algorithm for Multipath Fading DS-CDMA Systems

Ahmet Rizaner, Hasan Amca, Kadri Hacıoğlu, Ali H. Ulusoy, Ansgar Scherb

91

Design and Evaluation of eTIMIP - Overlay Micro-Mobility Architecture based on TIMIP

Pedro Vale Estrela, Teresa Maria Vazão, Mário Serafim Nunes

107

Receiver Space Diversity in the Context of Adaptive Techniques

Ligia Chira, Tudor Palade

159

SEMO: A Policy-based system for Handovers in Heterogeneous Networks

Gustaf Nyberg, Christer Ahlund, Tomas Rojmyr

#### **ICWMC15: Wireless Communications / Mobility II**

126

A Proposal Approach for Load Distribution and Resources Sharing in IEEE 802.11 Networks

Issam Jabri, Adel Soudani, Nicolas Krommenacker, Thierry Divoux

142

What & When: Distributing Content in Opportunistic Networks

Thabotharan Kathiravelu, Arnold Pears



152

Adaptive assignment scheme for OVSF codes in WCDMA  
Davinder S. Saini, Sunil V. Bhooshan

### **ICWMC16: Coding/Modulation/Interference... I**

44

A low-complexity stopping criterion for the decoder of parallel concatenated LDPC codes

Xu Xiaojian, Li Jin, Hu Hanying

71

A New Frequency Offset Estimation Algorithm for TD-SCDMA System over Frequency Selective Channels

Chen Xing, Wu Weiling

72

Blind Minimum Mean Squared Error (MMSE) Multiuser Detection with Reliable Subspace Estimation (RSE)

D. Wang, M. A. Imran

### **ICWMC17: Coding/Modulation/Interference... II**

117

Rician K Factor Estimation for Wireless Communication Systems

Athanasios Doukas, Grigorios Kalivas

124

Gradient Subspace Method for Tracking Real-Valued Sinusoidal Carriers

Ștefan Slavnicu, Silviu Ciochină

138

Simplified Soft-Output Demapper for Bit-Interleaved Coded Orthogonal Modulation

José Santo G. Panaro

### **ICWMC18: Services**

56

PosArc: A Layered Architecture for Development of Seamless Positioning System

Kavi Kumar Khedo, Danraz Meetoo

57

VideoMsg: A Wireless Video Distribution System

Kavi Kumar Khedo, Denis Leung Pah Hang

67

Mobile Terminal Capability Management for Service Enabling

Jun Ma, Jianxin Liao, Xiaomin Zhu, Chun Wang

79

A Novel Method for the Short Message or Multimedia Message Synchronization

Yuting Zhang, Jianxin Liao, Tieying Zhang, Xiaomin Zhu

83

The Impact of Location Errors on Geographic Routing in Sensor Networks

Matthias Witt, Volker Turau

144

Admittance Services through Mobile Phone Short Messages

Josef Noll, Juan Carlos Lopez Calvet, Kjell Myksvoll

### **ICWMC19: Mobility**

59

A predictive handoff approach for Mobile IP

Da-Wei Zhang, Yi Yao

103

Smooth Handoff Based on Virtual Interface in Wireless Network

Zhao Li, Ke Xu, Jianping Wu

121

On The Vertical Handoff Performance for Interworking between Microcellular and Macrocellular Networks

Muhammed Salamah, Fatma Tansu

128

Centralized Mobility Prediction Support in a Hierarchical Architecture

Mazen Tlais, Frederic Weis

141

Optimized Macro Mobility within the 3GPP IP Multimedia Subsystem

Kim Lynggaard Larsen, Erling Vestergaard Matthiesen, Hans-Peter Schwefel, Gerhard Kuhn

140

Comparative Performance Analysis of Domain Name based Location Management

Abu S. Reaz, Mohammed Atiquzzaman

## **ICWMC20: Special topics**

64

An Overview of MAC Protocols with Directional Antennas in Wireless ad hoc Networks

Hongning Dai, Kam-Wing Ng, Min-You Wu

76

Compact Wireless Devices with Defected-Ground Structures

M. G. Banciu, N. Militaru, C. A. Duțu, L. Trupină, G. Lojewski

84

Field Trials with Wireless Sensor Networks: Issues and Remedies

Volker Turau, Matthias, Witt Marcus Venzke

135

A Distributed Trust Diffusion Protocol for Ad Hoc Networks

Michel Morvan, Sylvain Sene

149

Compact and Power Conscious Private-key cryptosystem for Wireless devices

Jalel Rejeb