

2010 IFIP Wireless Days

(WD 2010)

Venice, Italy

20 – 22 October 2010



IEEE Catalog Number: CFP1014F-PRT
ISBN: 978-1-4244-9230-5

TABLE OF CONTENTS

Analyzing the Potential of Cooperative Cognitive Radio Technology on Inter-Vehicle Communication	1
<i>Marco Di Felice, Kaushik Roy Chowdhury, Luciano Bononi</i>	
A multipath Traffic Balancing Proposal to Reduce Gaming Disconnections in MANET	7
<i>Arnaud Kaiser, Nadjib Achir, Khaled Boussetta</i>	
Vehicular Congestion Modeling and Estimation for Advanced Traveler Information Systems	12
<i>Gustavo Marfia, Marco Roccetti</i>	
Spectral and Energy Efficiencies of OFDMA Wireless Cellular Networks	17
<i>Mahamed Kadhem Karray</i>	
BCG Random Expansion: Formulation of Scalable Topology for Ultrafast Information Dissemination in Ad Hoc Networks	22
<i>Jaewook Yu, Dongsoo Kim, Eric Noel, K. Wendy Tang</i>	
Measured Performance of a Memory-Efficient Segment-Based Packet-Combining Scheme	27
<i>Danil Kipnis, Tobias Jacob, Andreas Willig</i>	
Uplink Capacity Analysis of OFDMA Based Cellular Networks with Reuse-1	33
<i>Maciej Muhleisen, Daniel Bultmann, Bernhard Walke</i>	
Enhancing FEC Application in LTE Cellular Networks	39
<i>Antonios Alexiou, Christos Bouras, Vasileios Kokkinos, Andreas Papazois, Georgia Tseliou</i>	
A Strategy for Best Access Point Selection	44
<i>V. Ghini, S. Ferretti, F. Panzieri</i>	
Discovery and Provision of Content in Mobile Networks with Infrastructure Support	49
<i>Francesco Malandrino, Claudio Casetti, Carla-Fabiana Chiasserini</i>	
Determine the Inter-Arrival Time in the Non-Uniform Random Waypoint Mobility Model	54
<i>Ting Wang, Chor Ping Low</i>	
A Software Radio Architecture for the Baseband Level of the Multi-standard User Terminal: Design Methodology and Computational Assessment	59
<i>Olga Zlydareva, Claudio Sacchi</i>	
A Testbed-based Study of Uni- and Multi-Path Dynamic Source Routing in a WMN	64
<i>Bastian Blywis, Mesut Gunes, David J. H. Gutzmann, Felix Juraschek</i>	
Separable Equilibrium Distributions for Systems with Unreliable Wireless Links	69
<i>Simonetta Balsamo, Andrea Marin</i>	
QoE Estimation of a Location-Based Mobile Game Using On-body Sensors and QoS-related Data	74
<i>Adrian Juan Verdejo, Katrien De Moor, Istvan Ketyko, Karen Torben Nielsen, Jeroen Vanattenhoven, Toon De Pessemer, Wout Joseph, Luc Martens, Lieven De Marez</i>	
Delay Tolerant Podcasting with Network Coding	79
<i>Roberto Beraldi, Hussein Alnuweiri</i>	
CAODV: Routing in Mobile Ad-hoc Cognitive Radio Networks	84
<i>Angela Sara Cacciapuoti, Cosimo Calcagno, Marcello Caleffi, Luigi Paura</i>	
Simple Distributed Interference Source Localization for Radio Environment Mapping	89
<i>Guolin Sun, Jaap van de Beek</i>	
Adaptive CAC with Traffic Flows Classification for IEEE 802.16 Networks	94
<i>Marwen Abdennebi, Yacine Ghamri-Doudane, Yan Li</i>	
Adaptive Random Linear Network Coding with Controlled Forwarding for Wireless Broadcast	100
<i>Kashif Mahmood, Thomas Kunz, Ashraf Matawy</i>	
A Distributed Link Quality Based d-Clustering Protocol for Dense ZigBee Sensor Networks	105
<i>Cherif Diallo, Michel Marot, Monique Becker</i>	
PARC : Power Aware Routing and Clustering Scheme for Wireless Sensor Networks	111
<i>Shinichi Momma, Taiju Mikoshi, Toyofumi Takenaka</i>	
MCMIPv6: Multicast Configuration-based Mobile IPv6 Protocol	116
<i>Mohamed Oussama Cherif, Sidi-Mohammed Senouci, Bertrand Ducourthial</i>	
Efficient MCS Selection for MBSFN Transmissions Over LTE Networks	121
<i>Antonios Alexiou, Christos Bouras, Vasileios Kokkinos, Andreas Papazois, George Tsichritzis</i>	
Coexistence of Radio Networks Using Aloha	126
<i>Bartlomiej Blaszczyszyn, Paul Muhlethaler, Skander Banaouas</i>	
Performance of FMT with Time Confined and Frequency Confined Pulses Over Indoor Radio Channels	131
<i>Nicola Moret, Salvatore D'Alessandro, Andrea M. Tonello</i>	

DASH, Deferred Aggregated Routing for Scalable Ad-Hoc networks	136
<i>David Palma, Marilia Curado</i>	
Average SIR Estimation in Cellular Networks with Best Server Policy	142
<i>Mattia Minelli, Marceau Coupechoux, Jean-Marc Kelif</i>	
Beamforming for Heterogeneously Equipped Nodes in Wireless Ad Hoc Networks	147
<i>Ulrike Korger, Manuel Wocheislander, Christian Hartmann, Katsutoshi Kusume, Joerg Widmer</i>	
A Secure Interconnection Model for IPv6 Enabled Wireless Sensor Networks	152
<i>Jorge Granjal, Edmundo Monteiro, Jorge Sa Silva</i>	
Robust Power Allocation Games Under Channel Uncertainty and Time Delays	158
<i>Hamidou Tembine, Abdellatif Kobbane, Mohammed El Koutbi</i>	
Optimal Assessments in VANET: The Oracle	163
<i>Alessandro Amoroso, Gustavo Marfia, Marco Rocchetti</i>	
Throughput Maximization with Bargaining Game in Cognitive Radio Networks	168
<i>Jinyan Lu, Rui Wang, Yi Liu, Depei Qian</i>	
Green Hybrid FMT for WLAN Applications	173
<i>Salvatore D'Alessandro, Nicola Moret, Andrea M. Tonello</i>	
Opportunistic Packet Scheduling and Routing in Wireless Mesh Networks	178
<i>Raffaele Bruno, Marco Conti, Maddelena Nurchis</i>	
An Efficient Tabu Search DSA Algorithm for Heterogeneous Traffic in Cellular Networks	184
<i>Hany Kamal, Marceau Coupechoux, Philippe Godlewski</i>	
Path Energy Weight: A Global Energy-Aware Routing Protocol for Wireless Sensor Networks	189
<i>Aly M. El-Semary, Mohamed Mostafa A. Azim</i>	
A Study on the Capacity Bounds of Wireless Ad Hoc Networks From Peer-to-Peer to Multiple Nodes Cooperation	195
<i>Louisa P.S. Ip, Anthony S. Acampora</i>	
Low Complexity Adaptation of H.264/MPEG-4 SVC For Multiple Description Video Coding	200
<i>Daniela Radakovic, Rashid Ansari, Yingwei Yao</i>	
Urban-X: Towards Distributed Channel Assignment in Cognitive Multi-Radio Mesh Networks	204
<i>Wooseong Kim, Andreas J. Kassler, Marco Di Felice, Mario Gerla</i>	
Authentication, Authorization, and Accounting of Services in Multi-hop Mobile Networks Through Rewarding	209
<i>Hassnaa Moustafa, Estelle Transy, Jacky Forestier</i>	
Centrality-based Routing for Wireless Sensor Networks	215
<i>Eduardo M.R. Oliveira, Heitor S. Ramos, Antonio A.F. Loureiro</i>	
Trade-off Between Hops and Delays in Hub-based Forwarding in DTNs	220
<i>Alessandro Adamo, Giuliano Grossi, Federico Pedersini</i>	
Non-invasive Node Detection in IEEE 802.11 Wireless Networks	225
<i>Guido Piero Zanetti, Claudio Enrico Palazzi</i>	
Impact of Base Station Location in MIMO Cellular System Using Cooperative Transmission	230
<i>Tetsuki Taniguchi, Yoshio Karasawa, Nobuo Nakajima</i>	
Dual Methods for Channel- and QoS-Aware Resource Allocation in MIMO-OFDMA Networks	235
<i>Borja Danobeitia, Guillem Femenias</i>	
An IEEE 802.11 MAC Software Defined Radio Implementation for Experimental Wireless Communications and Networking Research	240
<i>Juan R. Gutierrez-Agullo, Baldomero Coll-Perales, Javier Gozalvez</i>	
Vicinity Resource Cartography for Delay-Tolerant Networks: A Holistic Perspective	245
<i>Gabriel Sandulescu, Peter Schaffer, Simin Nadjm-Tehrani</i>	
Efficient Design of Indoor Positioning Systems Based on Optimization Model	252
<i>You Zheng, Oumaya Baala, Alexandre Caminada</i>	
Movement Activity Estimation for Opportunistic Networking Based on Urban Mobility Traces	257
<i>Karin Anna Hummel, Andrea Hess</i>	
Mobility-Aware Peer-to-Peer Live-Streaming	262
<i>Markus Trapp, Mathias Fischer, Guenter Schaefer</i>	
FoV-Clustering as a Solution to a Novel Camera Node Activation Problem in WVSNS	267
<i>Hadi S. Aghdasi, Sara Nasserri, Maghsoud Abbaspour</i>	
Experimental Evaluation of Interference Mitigation on The 2.4 GHz ISM band Using Channel Hopping	272
<i>Antoine B. Bagula, Ashish Mehta, Marco Zennaro</i>	
Deterring Whitewashing Attacks in Reputation Based Schemes for Mobile Ad Hoc Networks	277
<i>Sohail Abbas, Madjid Merabti, David Llewellyn-Jones</i>	

Adaptive Schemes for Estimating Random Graph Parameters in Mobile Wireless Ad Hoc Networks’	
Modeling	283
<i>Ali Hamili</i>	
Space-frequency Linear Precoding with Optimal Detection for MIMO-OFDM Systems	288
<i>Felip Riera-Palou, Guillem Femenias</i>	
Improved Backoff Algorithm for IEEE 802.15.4 Wireless Sensor Networks	293
<i>Bilal Muhammad Khan, Falah H. Ali, Elias Stipidis</i>	
Sender- and Receiver-centered Interference in Wireless Ad Hoc Networks	298
<i>Lucia Gallina, Sabina Rossi</i>	
WASP: Wireless Autonomous Sensor Prototype for Visual Sensor Networks	303
<i>Adel Orfy, Agwad El-Sayed, Mohamed El Helw</i>	
Randomized Channel Hopping Scheme for Anti-Jamming Communication	308
<i>Eun-Kyu Lee, Soon Y. Oh, Mario Gerla</i>	
An Energy-efficient Clock Synchronization Protocol for Wireless Sensor Networks	313
<i>Roxana Albu, Yann Labit, Thierry Gayraud, Pascal Berthou</i>	
Reliability Assessment of Wireless Sensor Nodes with Non-Linear Battery Discharge	318
<i>Dario Bruneo, Salvatore Distefano, Francesco Longo, Antonio Puliafito, Marco Scarpa</i>	
Content Centric Networking in Tactical and Emergency MANETs	323
<i>Soon Y. Oh, Davide Lau, Mario Gerla</i>	
ROI Adaptive Scalable Video Coding for Limited Bandwidth Wireless Networks	328
<i>Dan Grois, Evgeny Kaminsky, Ofer Hadar</i>	
Wireless Information-Theoretic Security for Moving Users in Autonomic Networks	333
<i>Theofilos Chrysikos, Tasos Dagiuklas, Stavros Kotsopoulos</i>	
A Dynamic Power Management Procedure in Cognitive Radio	338
<i>Ines Aissa, Mounir Frikha, Sami Tabbane</i>	
An Always Available Control Channel for Cooperative Sensing in Cognitive Radio Networks	343
<i>Marco Petracca, Remo Pomposini, Franco Mazzenga, Romeo Giuliano, Marco Vari</i>	
Self-Organized Aggregation in Irregular Wireless Networks	348
<i>Joanna Geibig, Dirk Bradler</i>	
An Anomaly-based Intrusion Detection System for IEEE 802.11 Networks	355
<i>Luis Miguel Torres, Eduardo Magana, Mikel Izal, Daniel Morato, Guzman Santafe</i>	
Efficient Channel Assignment and Routing Protocol for Multiple Channels Multiple Interfaces	
Wireless Mesh Network	361
<i>Trung-Tuan Luong, Bu-Sung Lee, Chai-Kiat Yeo, Andreas Kessler</i>	
Collusion Attack Resistance Through Forced MPR Switching in OLSR	366
<i>Lalith P. Suresh, Rajbir Kaur, M.S. Gaur, V. Laxmi</i>	
Error Concealment Techniques for Multi-view Video	371
<i>Brian W. Micallef, Carl J. Debono</i>	
A Team Study of the IEEE 802.16 Collision Resolution Protocol	376
<i>Abdelillah Karouit, Abdelkrim Haqiq, Luis Orozco Barbosa</i>	
Context-Based Application-Aware Pricing for Composite Mobile Services in Wireless Networks	382
<i>Frederico Faria, Jose Marcos Nogueira</i>	
A Delay/Disruption Tolerant Solution for Mobile-to-Mobile File Sharing	387
<i>Claudio E. Palazzi, Armir Bujari</i>	
Opportunistic Detection of Relative Mobility in Wireless Sensor Networks	392
<i>Ricardo Simon Carbajo, Meriel Huggard, Ciaran Mc Goldrick</i>	
Extracting Human Mobility Patterns From GPS-based Traces	397
<i>Matteo Zignani, Sabrina Gaito</i>	
Author Index	