

2011 Eighth International Conference on Wireless and Optical Communications Networks

(WOCN 2011)

**Paris, France
24 – 26 May 2011**



IEEE Catalog Number: CFP11604-PRT
ISBN: 978-1-4577-0262-4

TABLE OF CONTENTS

SESSION 1: WIRELESS COMMUNICATIONS AND NETWORKING WCN/WLAN/WIMAX

UMTS User Identity Confidentiality An End-to-End Solution	1
<i>H. Choudhury, D. Saikia, B. Roychoudhury</i>	
Protocol Aware Shot-Noise based Radio Frequency Jamming Method in 802.11 Networks	7
<i>A. Hussain, N. Saqib</i>	
Increasing the Reliability of Wireless Sensor Network with a New Testing approach Based on Compressed Sensing Theory	13
<i>M. Balouchestani, K. Raahemifar, S. Krishnan</i>	
Wireless Integrated Robots for Effective Search and Guidance of Rescue Teams	17
<i>J. Freeman, V. Omanan, M. Ramesh</i>	

SESSION 2: OPTICAL COMMUNICATIONS AND NETWORKING OCN

Throughput Analysis Of Multi-Input & Single-Output Channels In Core Routers Of Optical Burst Switching Networks	22
<i>J. Hazra, B. Das, S. Banerjee, S. Mallick, A. Das</i>	
Routing And Signaling In GMPLS Based DWDM Multi Domain Multilayer Networks Using IP/WDM Router	28
<i>W. Halabi, K. Steenhaut, A. Nowe, P. Gurzi</i>	
Bending Loss Characterization Under Temperature Variations Of ITU-T G.657 Optical Fiber Standard For Its Implementation In The Last Mile	33
<i>N. Ortega-Quijano, G. Lamadrid-Perojo, M. Rodriguez-Colmenares, F. Fanjul-Velez, I. Salas-Garcia, S. Camara, J. Arce-Diego</i>	
Reduction of Energy Consumption of Video-on-Demand Services using Cache Size Optimization	37
<i>N. Osman, T. El-Gorashi, J. Elmirghani</i>	

SESSION 3: MOBILE COMMUNICATIONS/WIRELESS/MOBILITY

Performance Evaluation of Speex Audio Codec for Wireless Communication Networks	42
<i>P. Srivastava, K. Babu, T. Osv</i>	
SHIM6-Based Mobility Management for Multi-homed Terminals in Heterogeneous Environment	47
<i>A. Achour, B. Kervella, G. Pujolle</i>	
Simulation and Evaluation of Routing Protocols in Vehicular Ad Hoc Network	52
<i>M. Shakeri</i>	
Adaptive Equalizer and Compensation of ICI in the Wireless Repeater System	55
<i>H. Jeong, H. Ryu</i>	
Modified Reliable Timeout Based Commit Protocol	60
<i>B. Harsoor, S. Ramachandram</i>	

SESSION 4: INFORMATION AND COMMUNICATIONS TECHNOLOGIES

Design and Performance Analysis of QAPM Modulation in Multi-Path Channel	65
<i>J. Choi, H. Ryu</i>	
p-Persistent CSMA As A Collision Resolution Protocol For Active RFID Environments	70
<i>L. Sanchez, V. Ramos</i>	
Analysis Of Balanced Cycles Of QC-LDPC Codes	75
<i>G. Xiao, Z. Nan</i>	
Optimization between Throughput and Fairness in WiMAX Network	80
<i>M. Yasir, A. Kiani</i>	
A Ka-band Triple Push Coupled Pair VCO using 0.18-μm CMOS Technology	85
<i>H. Kao, S. Shih, C. Yeh, C. Yang, C. Ke, Y. Lee, J. Fu, L. Chang</i>	

SESSION 5: MOBILE AD-HOC AND SENSOR MESH NETWORKS

A Cooperative Retransmission Strategy for Error-prone Wireless Networks	89
<i>Y. Li, Q. Huang, W. Huang</i>	
Cooperation Mode Selection for Maximizing Throughput in Wireless Networks	94
<i>Y. Li, X. Zhu, W. Zhao</i>	
Saving Energy with QoS for Vehicular Communication	99
<i>H. Idjmayyel, W. Kumar, B. Qazi, J. Elmighani</i>	

SESSION 6: NETWORK MANAGEMENT AND SERVICES

Autonomic Policy-based HAN Traffic Classification using Augmented Meta Model for Policy Translation	104
<i>A. Rana, B. Jennings, M. Foghlu, S. Meer</i>	
Experimental Study of Mismatching ESS-Subnet Handoffs on IP over IEEE 802.11 WLANs	112
<i>L. Yen, H. Chang, S. Tsao, C. Hung, C. Tseng</i>	
Energy-Efficient Scheduling Scheme Using Reinforcement Learning in Wireless Ad Hoc Networks	117
<i>M. Bourenane</i>	

SESSION 7: UWD/RFID/OFDM AND NANO/BIO

A Noncoherent UWB Scheme using Frequency Shifted Reference and PPM	122
<i>S. Bybordi, S. Nader-Esfahani</i>	
Bandwidth Enhancement of Coplanar Waveguide Fed Disc Monopole Antenna for Ultra-Wideband Communication Applications	127
<i>A. Teirab, J. Jervase, S. Mneina</i>	
Demonstration Of Low-Cost Architectures For UWB Pulse Generation	132
<i>R. Thai-Singama, F. Du-Burck, M. Piette</i>	
Group-Oriented Multiuser Beamforming-OFDM for Different QoS Requirement	137
<i>D. Lee, H. Lee, H. Ryu</i>	
Comparative Study Of The Influence Of Scattering Particles Size On The Polarimetric Behavior Of Turbid Media	140
<i>J. Cos-Perez, N. Ortega-Quijano, F. Fanjul-Velez, I. Salas-Garcia, J. Arce-Diego</i>	

SESSION 8: SIMULATION, MODELING, ANALYSIS AND PERFORMANCE EVALUATIONS I

OpenFlow Supporting Inter-Domain Virtual Machine Migration	143
<i>B. Boughzala, R. Ali, M. Lemay, Y. Lemieux, O. Cherkaoui</i>	
A New BER-Based Approach To Improve OLSR Protocol	150
<i>T. Yelemou, P. Meseure, A. Poussard</i>	
Performance Analysis Of Mesh Routing Algorithm For Routing Metrics Link Capacity And Delay Against Inter-Arrival Time Dependencies	155
<i>J. Helonde, V. Wavhai, V. Deshpande, L. Bhagwat</i>	
Optimal Scheduling and Resource Allocation Using Hierarchical Modulation in Wireless Networks	160
<i>M. Karaca, O. Ercetin</i>	
HC-IPSAG Cognitive Radio Routing Protocol: Models and Performance	165
<i>C. Badoi, V. Croitoru, A. Popescu</i>	

SESSION 9: SIMULATION, MODELING, ANALYSIS AND PERFORMANCE EVALUATIONS II

Establishing Paths on Hierarchical Logical Topologies in OCDM Networks	170
<i>T. Fukuda, K. Baba</i>	
TRG: Trading Rate for Good-put in Wireless Multimedia Sensor Networks	175
<i>M. Hassan, H. Abid, S. Qaisar</i>	
Antenna Propagation And Simulation A Tree Antenna By Super Nec Software	180
<i>F. Fard</i>	
FPGA-Based MIMO Testbed For LTE Applications	184
<i>M. Sarker, M. Lee</i>	

A Distributed Communication System for an Airport Environment	189
<i>I. Ahmed, B. Qazi, J. Elmirghani</i>	
Energy and QoS for Vehicular Communication in a Motorway Environment	194
<i>A. Muhtar, W. Kumar, B. Qazi, J. Elmirghani</i>	

SESSION 10: QUALITY OF SERVICE, TRAFFIC MANAGEMENT AND DYNAMIC SPECTRUM ACCESS NETWORKS

An Adaptive Hold-off Algorithm in WiMAX Mesh Networks with Coordinated Distributed Scheduling	199
<i>T. Tabarsi, S. Khorsandi</i>	
QoS Routing Algorithm Based on Traffic Classification in LEO Satellite Networks	204
<i>W. Jiang, P. Zong</i>	
Two Layer Channel Aware Scheduling for QoS Support in IEEE 802.16/WiMAX Networks	209
<i>M. Sleem, H. Elbadawy, M. Abo-El-Seoud</i>	
Equilibrium Strategies in a Channel Sensing Game in Cognitive Radio Networks	214
<i>O. Korcak</i>	
Multiple Attribute Dynamic Spectrum Decision Making for Cognitive Radio Networks	220
<i>E. Rodriguez-Colina, C. Ramirez, P. Carillho, C. Carillho</i>	

SESSION 11: OPTICAL PASSIVE AND ACTIVE COMPONENTS AND DEVICES

Tunable Microwave Generation Based on a Phase-Shifted Chirped Fiber Bragg Grating	225
<i>B. Lin, M. Jiang, S. Tijn, P. Shum, Y. Ge, Y. He</i>	
Temperature Measurement using a Fused Optical Fiber Coupler in Arc Environment	228
<i>A. Das</i>	

SESSION 12: SIMULATION, MODELING, ANALYSIS AND PERFORMANCE EVALUATIONS III

Adaptive Design of Tracking Area List in LTE	233
<i>Y. Chung</i>	
Performance Evaluation Of Reactive And Proactive Routing Schemes For Infrastructure Wireless Mesh Networks	238
<i>E. Carrillo, V. Ramos</i>	
Evaluation of Throughput Optimization and Load Sharing of Multipath TCP in Heterogeneous Networks	244
<i>S. Nguyen, X. Zhang, T. Nguyen, G. Pujolle</i>	
Author Index	