SoftCOM 2010, 18th International Conference on Software, Telecommunications and Computer Networks

Split, Dubrovnik, Croatia
23-25 September 2010
CONTENTS

INVITED PAPER

Using reverberation chambers for EM measurements
Frank B.J. Leferink

1

TECHNICAL PROGRAM: SYMPOSIUMS & SPECIAL SESSION

SS1: SPECIAL SESSION ON RFID TECHNOLOGIES AND THE INTERNET OF THINGS

Technique for Preventing DoS Attacks on RFID Systems
Deepak Tagra, Musfiq Rahman, Srinivas Sampalli

6

Matthieu-P. Schapranow, Mike Nagora, Alexander Zeier

11

Use of RFID technology and CCOW standard for patient traceability
Sergio Sbrenni, Tommaso Piazza, Velio Macellari

17

High Performance RFID tags for item-level Tracing Systems
L. Catarinucci, R. Colella, M. De Blasi, V. Mighali, L. Patrono, and L. Tarricone

21

SS2: SPECIAL SESSION ON AD HOC AND SENSOR NETWORKS

Average End-to-End Packet Delay Performance of IEEE 802.11 with Gamma Distributed Mean Service Time Intervals
Faisal Iradat, Sayeed Ghani

27

A Fastest Multi-Hop Routing Scheme for Information Dissemination in Vehicular Communication Systems
M. Bilal, P.M.L. Chan, P. Pillai

35

SS3: SPECIAL SESSION ON QOS IN WIRED AND WIRELESS NETWORKS

A comparison of methods for fault prediction in the broadband networks
Željko Deljac, Marijan Kunštić

42

Management of Real Time Constraints in Sensor Networks
Violeta Fele

47
Measuring the Effect of AES Encryption on VoWLAN QoS
Mohammed M. Alani

MEEAC: an Enhanced Scheme for Supporting QoS granularity by Multipath Explicit Endpoint Admission Control
S.Osali, R. Farahbakhsh, A.M.Abdolhosseini

SS4: SPECIAL SESSION ON GREEN NETWORKING

Heuristic Approach for Optimized Energy Savings in Wireless Access Networks
Josip Lorincz, Massimo Bogarelli, Antonio Capone, Dinko Begušić

Encoder Power Consumption Comparison of Distributed Video Codec and H.264/AVC in Low-Complexity Mode
Anna Ukhanova, Eugeniy Belyaev, Soreen Forchhammer

Source coding technique for energy efficient IEEE 802.15.4 wireless sensor networks
Joze Mohorko, Uros Pesovic, Peter Planinsic, Zarko Cucej

An Energy Efficient MAC Protocol for Cluster Based Event Driven WSN Applications
Nukhet Sazak, Ismail Erturk, Etem Koklukaya, Murat Cakiroglu

PoliSave: Efficient Power Management of Campus PCs
Luca Chiaraviglio, Marco Mellia

SYMPOSIUM ON ENVIRONMENTAL ELECTROMAGNETIC COMPATIBILITY

SYM1/I: SYMPOSIUM ON ENVIRONMENTAL ELECTROMAGNETIC COMPATIBILITY (EEMC) I

Power Line Communication and Compromising Radiated Emission
Pierre Degauque, Pierre Laly, Virginie Degardin Martine Lienard

Some Integrals and Integral Transformations of Lightning Pulse Functions
Vesna Javor

Assessment of Lightning Stroke Incidence to Modern Wind Turbines
Petar Sarajcev

Assessment of Lightning Stroke Incidence to Underground Power Cables
Petar Sarajcev

Boundary element modeling of complex grounding systems: Study on input impedance and transient response
Dragan Poljak, Darko Cerdic
SYM1/II: SYMPOSIUM ON ENVIRONMENTAL ELECTROMAGNETIC COMPATIBILITY (EEMC) II

On Shielding Effectiveness Measurements Using Dual Vibrating Intrinsic Reverberation Chamber
Jacek Skrzypczynski 112

Estimated peak power density in the vicinity of cellular base stations in Albanian territory
Bexhet Kamo, Rozeta Miho Mitrushi, Vladi Kolici, Olimpjon Shurdi, Algenti Lala 117

Electromagnetic field exposure of 13.56 MHz RFID loop antenna
Damir Senić, Dragan Poljak, Antonio Šarolić 121

The effect of 1800 MHz electromagnetic field on oxidative stress parameters in earthworms (Eisenia fetida)
Sanja Banjeglav, Krešimir Malaria, Mirta Tkalec 126

Modeling of canonical surfaces used for mutual coupling reduction
Tin Komljenovic, Marko Bosiljevac, Zvonimir Sipus 131

SYM1/III: SYMPOSIUM ON ENVIRONMENTAL ELECTROMAGNETIC COMPATIBILITY (EEMC) III

Time domain analytical modeling of finite length thin wire embedded in homogeneous lossy medium
Silvestar Šesnić, Dragan Poljak 136

On Time-domain Numerical Modeling of a Ground Losses in the problem of Thin Wire above an Imperfect Ground
S. Antonijević, D. Poljak 141

Simulations of Electromagnetic Field Coupling to Transmission Lines using FEKO and SuzANA Codes
Damir Senić, Dragan Poljak, Khalil El Khamlici Drissi, Nikolina Giljanović 146

Improving the Helical Antenna Performance by Changing the Pitch Angle and the Shape of Reflector
Maja Škiljo, Zoran Blažević, Ante Jurišić, Katarina Pandžić 150
S1: MOBILE AND WIRELESS COMMUNICATIONS I

Immediate Neighbor Assignment and Reduction in Code Blocking for OVSFWCDMA
Vipin Balyan and Davinder S Saini 155

Analysis of Intercell Interference Coordination by Fractional Frequency Reuse in LTE
Marko Porjazoski and Borislav Popovski 160

Access Point Selection for Improving the Voice Quality and Overall Throughput in Wireless LANs
Mehmet Fatih Tuysuz, Haci Ali Mantar 165

Routing Metric Estimation in Multi-hop Wireless Networks with Fading Channel
Alice Masini, Gianluca Mazzini 170

Iterative MIMO Detection: Flexibility and Convergence Analysis of Soft-Input Soft-Output List Sphere Decoding and Linear MMSE Detection
Micaela Troglia Gamba, Guido Masera, Amer Baghdad 175

S2: Communication Theory

Network Coding-based ARQ Retransmission Strategies for Two-Way Wireless Relay Networks
Quoc-Tuan Vien, Le-Nam Tran, Huan X. Nguyen 180

Two Simplified Coding Schemes for Wireless Sensor Networks with Star Topologies
Fan Yang, Chun He, Huai-zong Shao 185

S3: MOBILE AND WIRELESS COMMUNICATIONS II

Distributed Closed-Loop Extended Orthogonal Space Time Block Coding for Two-way Wireless Relay Networks
U. N.Mannai, A. M.Elazreg, J. A.Chambers 190

The Ultra-Wide Bandwidth Indoor Channel: Measurement Campaign and Modeling
Luca Alfredo Annoni, Riccardo Minutolo, Mauro Montanari, Tommaso Sabatini 195

A Micro-Mobility Solution for Supporting QoS in Global Mobility
Nuno Vasco Lopes, Maria João Nicolau, Alexandre Santos 200

Coverage of Wireless Sensor Networks in the Presence of Transparent Obstacles
Mohammadreza Razzazi, Azade Fotouhi 209
LTE multi-antenna techniques based on Alamouti SFBC with correlated channels
L. Safatly, G. Andrieux, J.F. Diouris

S4: COMMUNICATION SOFTWARE

A new Hybrid Frame ALOHA and Binary Splitting algorithm for anti-collision in RFID systems
Mohammed Al-Medhwahi, Abdulsalam Alkholidi, Habib Hamam

Flexible Analysis of Distributed Protocol Implementations using Virtual Time
Elias Weingärtner, Marko Ritter, Raimondas Sasnauskas, Klaus Wehrle

Managing Constraints of Validation in Model Transformations
László Lengyel, Tihamér Levendovszky, Hassan Charaf

A software architecture for simplifying the JSLEE service design and creation
Mauro Femminella, Emanuele Maccherani, Gianluca Reali

MPR-based Pruning Techniques for Shortest Path Tree Computation
Juan Antonio Cordero Fuertes

S5: MOBILE AND WIRELESS COMMUNICATIONS III

Blind Turbo Equalization with EM Algorithm for DPSK Systems
S.Yakut, C.Vural

Cube Lattice Decoder
Masoud Alghoniemy, Ahmed H. Tewfik

A New Price-based Spectrum Sharing Algorithm in Cognitive Radio Networks
Hoda Shah Mohammadian, Bahman Abolhassani

Adaptive MMSE Multiuser Detection (A-MMSE-MUD) in Asynchronous Cooperative CDMA Networks
Athar Qureshi, Triantafyllos Kanakis, Charan Litchfield, Predrag Rapajic

S6: NEXT GENERATION NETWORKS AND SERVICES

An Adaptive Call Admission Control Scheme with Complete Bandwidth Sharing for Multi-Class Traffic in Wireless Networks
Sharifa Al Khanjari, Bassel Arafeh, Khaled Day, Nasser Alzeidi

Quality of Signaling (QoSg) Metrics for Evaluating SIP Transaction Performance
Marco Happenhofer, Peter Reichl
A Quantized Water-Filling Packet Scheduling Scheme for Downlink Transmissions in LTE-Advanced Systems with Carrier Aggregation
Yao-Liang Chung, Zsehong Tsai

Cloud Architecture for Tight Interaction with the Real World and Deep Sensor-Data Aggregation Mechanism
Hidetaka Aoki, Hiroaki Shikano, Michitaka Okuno, Yuji Ogata, Hiroki Miyamoto, Yuji Tsushima, Takeki Yazaki, Shinji Nishimura

S7: MOBILE AND WIRELESS COMMUNICATIONS IV

Design of Permuted Serially Concatenated Multiple Parity-Check Codes
Marco Baldi, Giovanni Cancellieri, Franco Chiariuluce, Amedeo De Amicis

Car2X-Communication for Vision-based Object Detection
Lars Hochmann, Anton Kummert

Analysis of Session Key Negotiation & Distribution Protocols in Wireless Sensor Networks
Munir Hussain, Muhammad Adeel, M. Awais Azam, M. Amer Shahzad, Sonia Hameed

Power management of video transmission on wireless networks for multiple receivers
Christos Bouras, Kostas Stamos, Giannis Zaoudis

S8: NETWORK OPERATIONS AND MANAGEMENT

Anomaly detection using baseline and K-means clustering

Analysing network-wide anomalies using dependency graphs and baseline

SPOP: A service Provider Oriented Peer – to –peer architecture
Radwane Saad, Ahmed Serhrouchni, Ken Chen

Design Principles and Practical Implementation of a Situation Aware Multipath Routing Algorithm
Georgeta Boanea, Melinda Barabas, Andrei Bogdan Rus, Virgil Dobrota

S9: INTERNET AND IP BASED ENVIRONMENTS

Rapid Synchronization of RTP Multicast Sessions Using the Retransmission Server
Zlatan Begić, Himzo Bajrić, Mladen Kos

Ontology Based Road Service Task Manager and Route Planning System
Tea Marasović, Renco Marasović
Cooperative Proxies Network Performance Analysis
Danilo Merlanti, Gianluca Mazzini

Fault diagnosis in Optical access network using Bayesian Network
Robert Moštak, Boris Spahija, Željko Deljac

Integrating Custom Hardware into Sensor Web
Maria Porcius, Carolina Fortuna, Gorazd Kandus, Mihael Mohorcic

S10: SIGNAL PROCESSING AND CODING

Distributed Quasi-Orthogonal Type Space-Time Block Coding With Maximal Distance Property For Wireless Relay Networks
M.A.Manna, J.A.Chambers

A Comparison Study of Binary and Non-Binary LDPC Codes Decoding
Sanae El Hassani, Marie-Helene Hamon, Pierre Penard

Distributed Cooperative Space-Time Coding with Parallel Interference Cancellation for Asynchronous Wireless Relay Networks
A.M.Elazreg, U.N.Mannai, J.A.Chambers

De Bruijn Sequences for Spread Spectrum Applications: Analysis and Results
Susanna Spinsante, Stefano Andrenacci, Ennio Gambi

System Level Analysis and Experimental Characterization of Frequency Pulling in PLLs
Manohiaina Ranaivoniarivo, Sidina Wane, Pascal Philippe, Olivier Aymard, Patrice Gamand

S11: QOS AND RESOURCE MANAGEMENT

Leverage simulation for analyzing CBSE/MDD development process of embedded systems
Branka Pavetić, Rikard Land

Analysis of QoS requirements for delivering IPTV over WiMAX technology
Adrian Shehu, Arianit Maraj, Rozeta Miho Mitrushi

Determination of Appropriate Brand Entry Mode for SOE Telecommunication market: a Neuro Marketing and Cross-Cultural Perspective
Duško Lukač, Michael Schäfer

S12: INTERFACES AND COMMUNICATION PROTOCOLS

Passive RTT Measurement during Connection Close
Alexander Moosbrugger, Peter Dorfinger
Simulation Platform for Video Streaming Evaluation
Mario Montagud, Fernando Boronat, Vicent Vidal

Wireless Sensor Networks Routing over Zones
Kamal Beydoun, Violeta Felea

Impact of Content Storage and Retrieval Mechanisms on the Performance of Vehicular Delay-Tolerant Networks
Bruno M. Silva, Vasco N. G. J. Soares, Mario L. Proença, Joel J. P. C. Rodrigues

Stream Scheduling Considerations for SCTP
Robin Seggelmann, Michael Tuxen, Erwin P. Rathgeb

REVIEWER LIST

AUTHOR INDEX