Session A1: Signal Processing Techniques I

Chair: Ernesto Zimmermann, Dresden University of Technology, Germany

The Turbo-Fountain and its Application to Reliable Wireless Broadcast, invited paper
Hrvoje Jenkac, Munich University of Technology, Germany
Joachim Hagenauer, Munich University of Technology, Germany
Timo Mayer, Munich University of Technology, Germany

Application of SQRD Algorithm for Efficient MIMO-OFDM Systems
Clemens Michalke, Dresden University of Technology, Germany
Hrishikesh Venkataraman, Indian Institute of Technology, Kanpur, India
V. Sinha, Indian Institute of Technology, Kanpur, India
Wolfgang Rave, Dresden University of Technology, Germany
Gerhard Fettweis, Dresden University of Technology, Germany

On the equivalence of rate R = k/n non-systematic feed-forward convolutional codes and recursive systematic convolutional codes
Edgar Bolinth, Siemens AG, Germany

Interfering users detection and interference cancellation in downlink CDMA
Sergio Benedetto, Politecnico di Torino, Italy
Guido Montorsi, Politecnico di Torino, Italy

A Novel Hybrid Diversity Receiver with Conditional Combining
Paraskevas Polydorou, Simon Fraser University, Canada
Paul Ho, Simon Fraser University, Canada

Session A2: Signal Processing Techniques II

Chair: Sergio Benedetto, Politecnico di Torino, Italy

Forced Convergence Decoding of LDPC Codes - EXIT Chart Analysis and Combination with Node Complexity Reduction Techniques, invited paper
Ernesto Zimmermann, Dresden University of Technology, Germany
Wolfgang Rave, Dresden University of Technology, Germany
Gerhard Fettweis, Dresden University of Technology, Germany

Extension of Linear and Nonlinear Transmit Filters for Decentralized Receivers
Raphael Hunger, Munich University of Technology, Germany
Michael Joham, Munich University of Technology, Germany
Wolfgang Utschick, Munich University of Technology, Germany

Diversity Interference Cancellation for GSM/ EDGE using Reduced-Complexity Joint Detection
Patrick Nickel, University of Erlangen-Nuremberg, Germany
Wolfgang Gerstacker, University of Erlangen-Nuernberg, Germany

Throughput Performance of an Incremental Redundancy Scheme with Mapper Rearrangement
Boris Stender, University of Ulm, Germany
Martin Bossert, University of Ulm, Germany

Channel estimation and user-wise symbol detection for space-time coding system
Ejaz Khan, University college Dublin, Ireland

Session A3: Signal Processing Techniques III

Chair: Marco Luise, University of Pisa, Italy

Some Results on Joint Iterative Channel Equalization and Turbo Decoding for OFDM Systems, invited paper
Luca Giugno, University of Pisa, Italy
Vincenzo Lottici, University of Pisa, Italy
Marco Luise, University of Pisa, Italy
Cosimo Saccomando, University of Pisa, Italy

Limits of Phase Noise Suppression in OFDM
Denis Petrovic, Dresden University of Technology, Germany

Wolfgang Rave, Dresden University of Technology, Germany
Gerhard Fettweis, Dresden University of Technology, Germany

Iterative Detection Based on Widely Linear Processing and Real-Valued Symbol Alphabets
Guido Dietl, Munich University of Technology, Germany
Christian Mensing, Munich University of Technology, Germany
Wolfgang Utschick, Munich University of Technology, Germany

Rapid Prototyping of an Automated Test Harness for Forward Error Correcting Codes
Edward Brown, Institute for System Level Integration, United Kingdom
James Irvine, University of Strathclyde, United Kingdom
Bill Wilkie, Xilinx, Inc., United Kingdom

Session A4: Modulation and Coding I

Chair: Mario Huemer, University of Erlangen, Germany

Comparison between Multi-Code Transmission and Multi-Level Modulation in the DS-CDMA Uplink
Oliver Praetor, Dresden Technical University, Germany
Andrew Lonnstrom, Dresden University of Technology, Germany
Gerhard Fettweis, Dresden University of Technology, Germany

Average Error Rates for Equal Gain Combining Schemes in Nakagami Fading Channels with Arbitrary Fading Parameters
Valentine Aalo, Florida Atlantic University, USA
Terawat Piboongungon, Florida Atlantic University, USA
George Efthymoglou, University of Piraeus, Greece

On Time-Varying Cyclic Delay Diversity
Gerd Richter, University of Ulm, Germany
Martin Bossert, University of Ulm, Germany
Elena Costa, Siemens AG, Germany
Weckerle Martin, Siemens, Germany

Signaling Overhead for ASBA in an MC-CDMA System
Ying Zhang, Munich University of Technology, Germany
Elena Costa, Siemens AG, Germany
Matthias Lott, Siemens AG, Germany

Session A5: Modulation and Coding II

Chair: Simone Morosi, University of Firenze, Italy

Blind IQ-Regeneration for Six-Port-Based Direct Conversion Receiver with Low Analog Complexity
Marko Mailand, Dresden University of Technology, Germany
Raik Richter, Dresden University of Technology, Germany

A Testbed for Assessment of Fountain Codes for Wireless Channels
Mohammed Usman, University of Strathclyde, United Kingdom
John Dunlop, University of Strathclyde, United Kingdom

A comparision of OFDM and non-linear SC/FDE signals: Non-linear amplification
Tufik Buzid, University of Erlangen, Germany
Mario Huemer, University of Erlangen-Nuremberg, Germany
Steffen Reinhardt, University of Erlangen, Germany

Two Proposed Blind Equalizers Using Different Constellation Matched Error Functions for QAM signals
Hebat-Allah Mourad, Cairo University, Egypt

Session A6: Smart Antennas, Adaptive Antennas, MIMO I

Chair: Christian Hartmann, Munich University of Technology, Germany

Evaluation of MIMO Systems with Respect to Front-End Imperfections, invited paper
Christoph Degen, RWTH Aachen University, Germany
Olivier Koch, RWTH Aachen University, Germany

Wilhelm Keusgen, Fraunhofer-Institut für Nachrichtentechnik, Germany
Bernhard Rembold, RWTH Aachen University, Germany

Combining Multi-User Diversity with Eigenbeamforming in Correlated Channels
Mario Castaneda, Munich University of Technology, Germany
Michael Joham, Munich University of Technology, Germany
Michael Ivrlac, Munich University of Technology, Germany
Josef A. Nossek, Munich University of Technology, Germany

Polarization Diversity Performance of A Circular Patch Antenna For Wireless LANs Applications
Ali Khaleghi, SEM/DRE, France
Alain Azoulay, SUPELEC, France
Jean-Charles Bolomey, SUPELEC, France

Enhanced Eigenbeamforming for the 3GPP WCDMA FDD Downlink
Ralf Seeger, University of Bremen, Germany
Karl-Dirk Kammeyer, University of Bremen, Germany
Thomas Hindelang, Siemens AG, Germany
Wen Xu, Siemens AG, Germany

Session A7: Smart Antennas, Adaptive Antennas, MIMO II
Chair: Andreas Mitschele, Ilmenau University of Technology, Germany

Multiuser MIMO Scheme for Enhanced 3GPP HSDPA
Sungjin Kim, Seoul National University, Republic of Korea
Hojin Kim, Samsung Advanced Institute of Technology, Republic of Korea
Kwang Bok Lee, Seoul National University, Republic of Korea

BER Performance of DS-CDMA MIMO Receivers in Nakagami-m Fading Multipath Channels with Nonidentical Fading Parameters
George Efthymoglou, University of Piraeus, Greece
Valentine Aalo, Florida Atlantic University, USA
Terawat Piboongungon, Florida Atlantic University, USA

Space time coding over MIMO channels equipped with nonlinear amplifiers
Mohamed Ibnkahla, Queen's University, Canada
A. I. Sulyman, Queen's University, Canada

Virtual Constellation Mapping: A Space-time Coding Technique from the Receiver's Point of View
Wen-Chung Liu, M300, SoC Technology Center, Industrial Technology Research, Taiwan
Gin-Kou Ma, SoC Technology Center, Industrial Technology Research Institute, Republic of China

Pseudo-snapshot Based on Forward-backward Cyclic Correlation Function for Narrow-band Signals
Liu Xuebin, South China University of Technology, P.R. China
Fei Ji, South China University of Technology, P.R. China
Gang Wei, South China University of Technology, P.R. China

Session A8: Smart Antennas, Adaptive Antennas, MIMO III
Chair: N.N.

An Antenna-Carrier selection approach for Multi-Antenna Systems
Mauro Biagi, University of Rome "La Sapienza", Italy
Cristian Pelizzoni, University of Rome "La Sapienza", Italy
Nicola Cordeschi, University of Rome "La Sapienza", Italy
Fabio Garzia, University of Rome "La Sapienza", Italy
Enzo Baccarelli, University of Rome "La Sapienza", Italy

Multi-User MIMO Wireless CDMA System Employing Turbo Coding and Joint Detection through a Multipath Rayleigh Fading Channel
Yasmine Famy, Cairo University, Egypt
Hebat-Allah Mourad, Cairo University, Egypt
Emad Al-Hussaini, Cairo University, Egypt

A Table-driven AOA Estimation Algorithm for Switched-beam Antennas in Wireless Networks

Jeongkeun Lee, Seoul National University, Republic of Korea
Dongkyun Kim, Kyungpook National University, Republic of Korea
C.K. Toh, University of London Queen Mary, United Kingdom
Taekyoung Kwon, Seoul National University, Republic of Korea
Yanghee Choi, Seoul National University, Republic of Korea

Physical-statistical model for the land mobile-satellite channel applied to satellite/HAP-MIMO
Peter King, University of Surrey, United Kingdom
Barry Evans, University of Surrey, Italy
Stavros Stavrou, University of Surrey, United Kingdom

Session B1: Wireless PAN/LAN I

Chair: Bernhard Walke, RWTH Aachen University, Germany

IEEE 802.15.3a Wireless Personal Area Networks - The MBOA Approach
Guido Hiertz, RWTH Aachen University, Germany
Yunpeng Zang, ComNets Aachen, Germany
Jörg Habetha, Philip Research, Germany
Hamza Sirin, Philips Research Aachen, Germany

New Algorithm for Distributed Frequency Assignments in IEEE 802.11
Eduard Garcia Villegas, Technical University of Catalonia, UPC Spain
Rafael Vidal Ferré, Technical University of Catalonia, UPC Spain
Josep Paradells Aspas, Technical University of Catalonia, UPC Spain

Improved Quality of Service Support for IEEE 802.11 DCF
Matthias Lott, Siemens AG, Germany

A Performance Comparison of QoS Approaches for Ad Hoc Networks: 802.11e versus Distributed Resource Allocation
Emma Carlson, Berlin Technical University, Germany
Christian Bettstetter, DoCoMo Euro-Labs, Germany
Christian Prehofer, DoCoMo Labs Europe, Germany
Adam Wolisz, Berlin Technical University, Germany

Session B2: Wireless PAN/LAN II

Chair: Enzo Mingozzi, University of Pisa, Italy

WTTP : A Scheduling Algorithm for Supporting QoS in IEEE 802.11e, invited paper
Claudio Cicconetti, University of Pisa, Italy
Luciano Lenzini, Univesity of Pisa, Italy
Enzo Mingozzi, University of Pisa, Italy
Giovanni Stea, University of Pisa, Italy

Design and Evaluation of a new Handoff Protocol in IEEE 802.11 Networks
Erik Weiss, Aachen University, Germany
Arif Otyakmaz, RWTH Aachen University, Germany
Eva López, Chair of Communication Networks, Germany
Bangnan Xu, T-Systems, Germany

Throughput and Delay Performance of IEEE 802.11e Wireless LAN with Block Acknowledgements
Guido Hiertz, RWTH Aachen University, Germany
Lothar Stibor, Chair of Communication Networks, Aachen University, Germany
Erik Weiß, Chair of Communication Networks, Aachen University, Germany
Stefan Mangold, Swisscom Innovations, Switzerland
Jörg Habertha, Philips Research, Germany

Performance Comparison of Dual Queue and EDCA for VoIP over IEEE 802.11 WLAN
Jeonggyun Yu, Seoul National University, Republic of Korea
Sunghyun Choi, Seoul National University, Republic of Korea

Session B3: Wireless Broadband I

Chair: Wolfgang Zirwas, Siemens, Germany

Reduction of Signaling Overhead in Beyond 3G MAC-Protocols using Frame Descriptor Tables
Ole Klein, University of Aachen, Germany
Michael Einhaus, University of Aachen, Germany
Alexander Federlin, University of Aachen, Germany

Deployment Considerations for Cellular Multihop Networks
Wolfgang Zirwas, Siemens, Germany
Egon Schulz, University of Kaiserslautern, Germany
Tobias Weber, University of Kaiserslautern, Germany
Yin Liu, University of Kaiserslautern, Germany

Delay and Throughput Analysis of a Fixed Relay Concept for Next Generation Wireless Systems
Norbert Esseling, T-Mobile, Germany
Ralf Pabst, Aachen University, Germany
Bernhard Walke, Aachen University of Technology, Germany

A Reconfigurable Multi-Mode Protocol Reference Model Facilitating Modes Convergence
Lars Berlemann, RWTH Aachen University, Germany
Ralf Pabst, Aachen University, Germany
Marc Schinnenburg, RWTH Aachen University, Germany
Bernhard Walke, Aachen University of Technology, Germany

An Architecture for Acquisition and Provision of Hotspot Coverage Information
Stephan Lück, University of Stuttgart, Germany
Michael Scharf, University of Stuttgart, Germany
Jorge Gil, University of Stuttgart, Germany

Session B4: Wireless Broadband II

Chair: John Gardiner, University of Bradford, UK

Intelligent Caching Strategies for Mobile Communication Networks
Stephan Goebbels, Aachen University, Germany
Robertus Probokoesoemo, RWTH Aachen University, Germany

Integration of Media Point System with the 3GPP IMS
Ian Herwono, Aachen University, RWTH, Germany
Joachim Sachs, Ericsson Research, Germany
Ralf Keller, Ericsson Research, Germany

Intelligent Multimedia Content Provision for Nomadic Users
Chrisa Papagianni, National Technical University of Athens, Greece
Vagelis Kosmatos, National Technical University of Athens, Greece
Eugenia Nikolouzou, National Technical University of Athens, Greece
Iakovos Venieris, National Technical University of Athens, Greece

Push-To-Video as a platform for NGN Services
Niklas Blum, Fraunhofer Institute FOKUS, Germany
Thomas Magedanz, Fraunhofer Institute FOKUS, Germany

SBWAN: Service Differentiation in Broadband Wireless Ad Hoc Networks
Praveen Kumar, Satyam Computer Services Limited, India
Niranjan Dhanakoti, Satyam Computer Services Limited, India
Srividya Gopalan, Satyam Computer Service Limited, India
Sridhar Varadarajan, Satyam Computer Services Limited, India

Session B5: Vertical Handover

Chair: Matthias Lott, Siemens AG, Germany,

Inter-System Handover and Coverage Detection for 3G/WLAN Cooperation, invited paper
Matthias Siebert, Aachen University of Technology, Germany
Daniel Bültmann, Aachen University, Germany
Matthias Lott, Siemens AG, Germany

Profiling for Mobility Context Management and Transport Service Provision in 4G Networks
Ivan Armuelles, DTI, Technical University of Madrid, Spain, Spain
Jorge Lopez de Vergara, Universidad Autónoma de Madrid, UAM, Spain
Tomas Robles Valladares, Technical University of Madrid, Spain
David Fernandez Cambronero, Technical University of Madrid, Spain

WLAN-3G Roaming With Dormant Mode Support
Behcet Sarikaya, University of Northern British Columbia, Canada

Providing Quality of Service in Fourth Generation Composite Radio Networks
Tibor Gyires, Illinois State University, USA

TCP Throughput Optimized Handover Decisions
Carsten Burmeister, Hamburg University of Technology, Germany
Ulrich Killat, Hamburg University of Technology, Germany
Jens Bachmann, Panasonic European Laboratories, Germany

Session B6: Wireless LAN and Applications

Chair: Josep Paradells, Universidad Politecnica de Catalunya, UPC, Spain

Modelling TCP flows over an 802.11 wireless LAN
Taka Sakurai, The University of Melbourne, Australia
Stephen Hanly, The University of Melbourne, Australia

Experimental Analysis of TCP and UDP Traffic Performance over Infra-structured 802.11b WLANs
Francesco Vacirca, University of Rome, "la Sapienza", Italy
Andrea De Vendictis, University of Rome "La Sapienza", Italy
Andrea Baiocchi, University of Rome "La Sapienza", Italy

Analysis of TCP Parallelization over Wireless Links
Qiang Fu, University of Queensland, Australia
Jadwiga Indulska, University of Queensland, Australia

Efficient Power Control for MC-CDMA based W-LANs
Georgios Orfanos, Technical University of Aachen, Germany
Jörg Habetha, Philip Research, Germany
Willi Butsch, Aachen University of Technology, Germany

A new Distributed Coordination Function Adapted to MC-CDMA based W-LANs
Georgios Orfanos, Technical University of Aachen, Germany
Jörg Habetha, Philip Research, Germany
Willi Butsch, Aachen University of Technology, Germany

Session B7: Routing in Ad-Hoc Networks I

Chair: Eli Winjum, UniK, Norway

Trust Metric Routing to Regulate Routing Cooperation in Mobile Wireless Ad Hoc Networks
Eli Winjum, UniK - University Graduate Center at Kjeller, Norway
Øivind Kure, Q2S, NTNU, Norway
Pal Spilling, UniK - University Graduate Center at Kjeller, Norway

An OLSR parameter based study of the performance of real ad-hoc network environments
Carles Gomez, Technical University of Catalonia, Spain
David Garcia, Technical University of Catalonia, Spain
Josep Paradells, Technical University of Catalonia, Spain

Predicting Network Topology for Autonomous Wireless Nodes
Henry Larkin, Bond University, Australia
Wu Zheng Da, Bond University, Australia, Austria
Warren Toomey, Bond University, Australia

Modeling of Multipath Multihop Routing in Ad Hoc Networks
Canfeng Chen, Beijing University of Posts and Telecommunications, P.R. China
Weiling Wu, Beijing University of Posts and Telecommunications, P.R. China

Session B8: Routing in Ad-Hoc Networks II

Chair: Hendrik Berndt, DoCoMo Eurolabs, Germany

Optimal Physical Carrier Sensing Range in Multirate Wireless Ad Hoc Networks: Analytical versus Realistic
Frank Yong Li, UniK - University Graduate Center at Kjeller, Norway
Øivind Kure, Q2S, NTNU, Norway

GAL - A Scalable Routing Protocol for Clustered Ad-Hoc Networks
George Alexandris, Athens Information Technology, Greece
Gregory Yovanof, Athens Information Technology, Greece

Securing OLSR Using Node Locations
Daniele Raffo, INRIA, France
Cedric Adjih, INRIA, France
Paul Muhlethaler, INRIA, France
Thomas Clausen, Ecole Polytechnique, France

Characterizing the duration and association patterns of wireless access in a campus
Maria Papadopouli, University of North Carolina, USA
Haipeng Shen, University of North Carolina, USA
Manolis Spanakis, Department of Computer Science FORTH, Greece

Session C1: Location-based Services and Positioning

Chair: Vicente Casares-Giner, ETSI Telecomunicación. Universitat Politécnica de Valencia, Spain

The use of fractional memory in the hybrid movement–distance–based location update schemes with selective paging, invited paper
Vicente Casares-Giner, Universitat Politécnica de Valencia, Spain
Pablo Garcia, Universitat Politécnica de Valencia, Spain
Vicent Pla, Universitat Politécnica de Valencia, Spain

TDOA Positioning in Downlink versus Uplink of a W-CDMA Network
Guillermo Breymann, Munich University of Technology, Germany
Markus Ali-Hackl, Siemens AG, Germany
Thomas Hindelang, Siemens AG, Germany
Wen Xu, Siemens AG, Germany

Pilot correlation positioning method for urban UMTS networks
Jakub Borkowski, Tampere University of Technology, Finland
Jukka Lempiäinen, Tampere University of Technology, Finland

An improved path profiling algorithm for mobile positioning in UMTS
Ralf Mosshammer, Infineon Technologies AG, Austria
Christian Drewes, Infineon Technologies, Germany
Mario Huemer, University of Erlangen-Nuremberg, Germany

Session C2: UMTS New Releases

Chair: Davide Grillo, Alcatel, Italy

ITU-D Guidelines for Transitioning Towards IMT-2000 Systems in Developing Countries, invited paper
Davide Grillo, Alcatel, Italy

Adaptive Radio Resource Management Scheme for UMTS Packet Data
Christian Brosch, Ilmenau Technical University, Germany
Andreas Mitschele, Ilmenau Technical University, Germany

Connection Admission Control in UMTS with respect to Network Capacity and Quality of Service
Matthias Malkowski, Aachen University, Germany
Michael Schnick, RWTH Aachen University, Germany
Marc Schinnenburg, RWTH Aachen University, Germany
Michael Schmocker, Swisscom Mobile AG, Switzerland

Cancellation of Interference from Synchronization and Pilot Channels on High Speed Downlink Shared Channel in UMTS
Steffen Paul, Infineon AG, Germany
Klemens Freudenthaler, University of Applied Science Hagenberg, Austria
M. Huemer, University of Applied Science Hagenberg, Austria
A. Springer, Johannes Kepler University Linz, Austria
F. Kaltenberger, ARC Seibersdorf Research GmbH, Austria
C.F. Mecklenbräuker, ftw. Forschungszentrum Telekommunikation Vienna, Austria

Performance of TCP and HTTP Proxies in UMTS Networks
Marc Necker, University of Stuttgart, Germany
Michael Scharf, Universität Stuttgart, Germany
Andreas Weber, Alcatel, Germany

Session C3: Analysis, Simulation, Measurements
Chair: Davide Grillo, Alcatel, Italy

Interface between Link and System Level Simulations for Downlink MC-CDMA Cellular Systems
Abdel-Majid Mourad, Mitsubishi Electric ITE-TCL, France
Arnaud Gueguen, Mitsubishi Electric ITE, France
Ramesh Pyndiah, ENST Bretagne, France

A Voronoi-Based Mobility Model for Urban Environments
Hans-Martin Zimmermann, Munich University of Technology, Germany
Ingo Gruber, Munich University of Technology, Germany
Christian Roman, Munich University of Technology, Germany

IEEE 802.11 Contention-Based Medium Access for Multiple Channels
Stefan Mangold, Swisscom Innovations, Switzerland
Jörg Habetha, Philip Research, Germany

An Analysis of Priority Based Packet Scheduling for Adaptive Wireless Streaming
Jan Kritzner, RWTH Aachen University, Germany
Markus Kampmann, Ericsson Research, Germany

Visualization and Performance Analysis Method for 4G Networks
Eero Wallenius, Nokia Oyj, Finland
Timo Hämäläinen, University of Jyväskylä, Finland
Olli Alanen, University of Jyväskylä, Finland
Henri Helanterä, Tampere Technical University, Finland

Session C4: Coexistence of Mobile Radio Networks
Chair: Stefan Mangold, Swisscom Innovations, Switzerland,

Spectrum Agile Radio: A Society of Machines with Value-Orientation, invited paper
Stefan Mangold, Swisscom Innovations, Switzerland
Saishankar Nandagopalan, Philips Research, USA
Lars Berlemann, RWTH Aachen University, Germany

Reservation-based Spectrum Load Smoothing as Cognitive Medium Access for Spectrum Sharing Wireless Networks
Lars Berlemann, RWTH Aachen University, Germany
Guido Hiertz, RWTH Aachen University, Germany
Bernhard Walke, Aachen University of Technology, Germany

Dynamic Inter-operator Spectrum Sharing with Independent Radio Networks
Maran Kumar Pereirasamy, Siemens AG, Germany
Jijun Luo, Siemens AG, Germany
Markus Dillinger, Siemens AG, Germany
Christian Hartmann, Munich University of Technology, Germany

Channel-Adaptive Schedulers with State-of-the-Art Channel Predictors
Ana Aguiar, Technical University Berlin, Germany
Adam Wolisz, Technical University of Berlin, Germany

Horst Lederer, Siemens AG, Germany
Holger Karl, University of Paderborn, Germany

Inter-Cell Scheduling in Wireless Data Networks
Thomas Bonald, France Telecom R&D, France
Sem Borst, CWI, The Netherlands
Alexandre Proutiere, France Telecom R&D, France

Session C5: Security and Robustness in Wireless Networks

Chair: John Dunlop, University of Strathclyde, United Kingdom

Security Requirements for Mobile Service Provision via a Digital Marketplace, invited paper
Swee Goo, University of Strathclyde, United Kingdom
James Irvine, University of Strathclyde, United Kingdom
John Dunlop, University of Strathclyde, United Kingdom
Allan Tomlinson, Royal Holloway, University of London, United Kingdom
Scarlet Schwiderski-Grosche, Royal Holloway, University of London, United Kingdom

Cooperation Enforcement in Mobile Ad-hoc Networks with Centralized Supervision
Spyros Vassilaras, Athens Information Technology, Greece
Dimitrios Vogiatzis, Athens Information Technology, Greece
Gregory Yovanof, Athens Information Technology, Greece

ADOPT. A Distributed OCSP for Trust Establishment in MANETs
Giannis Marias, University of Athens, Greece
Konstantinos Papapanagiotou, University of Athens, Greece
Panagiotis Georgiadis, University of Athens, Greece

Session C6: QoS in Mobile Systems

Chair: Vasos Vassiliou, University of Cyprus

On the TCP Minimum Retransmission Timeout in a High-speed Cellular Network
Mats Folke, Luleå University of Technology, Sweden
Sara Landström, Luleå University of Technology, Sweden
Ulf Bodin, Luleå University of Technology, Sweden

Performance Evaluation of a QoS Adaptation Framework for Mobile Networks
Vasos Vassiliou, University of Cyprus

Revenue Optimisation and User Prioritisation using Call Admission Control Strategies in Multi-service 4G Cellular Wireless Networks
Ken Murray, Cork Institute of Technology, Ireland
Dirk Pesch, Cork Institute of Technology, Ireland

Bandwidth-Based Admission Control Using Joint Beamforming and Power Control methods for Multi-service CDMA Cellular Networks
Shenghao Mao, University of Newcastle upon Tyne, United Kingdom
E.G. Chester, University of Newcastle upon Tyne, United Kingdom
R.A. Carrasco, University of Newcastle upon Tyne, United Kingdom

CLAMP: Active queue management at wireless access points
Lachlan Andrew, University of Melbourne, Australia
Stephen Hanly, University of Melbourne, Australia
Rami Mukhtar, NED Australia

Session C7: High Altitude Platforms and Satellites

Chair: Sandro Scalise, DLR, Germany

Scanning Ka-band Vehicular Antennas for Satellite and High Altitude Platform Communications.
John Thornton, University of York, United Kingdom

The effectiveness of link outage tolerance as a Fade Mitigation Technique
Candida Spillard, University of York, United Kingdom

Paul Mitchell, University of York, United Kingdom
David Grace, University of York, United Kingdom
Tim Tozer, University of York, United Kingdom

A Movable Boundary Approach for Serving Bursts on the Up/Down Link in a Low Earth Orbit Satellite Constellation
Rima Abi Fadel, Ecole Supérieure d'Ingénieurs de Beyrouth, Lebanon
Samir Tohme, University of Versailles, France

Session C8: Mobile/Wireless Networks Modelling and Simulation

Chair: Guido R. Hiertz, RWTH Aachen University, Germany

Traffic Performance Evaluation of Data Links in TETRA and TETRAPOL
Dirk Kuypers, Aachen University of Technology, Germany
Marc Schinnenburg, RWTH Aachen University, Germany

On the optimization of local and end-to-end forward error correction
Henrik Lundqvist, KTH, Royal Institute of Technology, Sweden
Gunnar Karlsson, KTH, Royal Institute of Technology, Sweden

Random Access in Overlapping Cells
Gam Nguyen, Naval Research Laboratory, USA
Jeffrey Wieselthier, Naval Research Laboratory, USA
Anthony Ephremides, University of Maryland at College Park, USA

Performance of the Throughput Enhanced Wireless in Local Loop Architecture Using Multi-dimensional Markov Chains
V. Mythili, Indian Institute of Technology Madras, India
B.S. Manoj, Indian Institute of Technology, India
Siva Ram Murthy, IIT Chennai, India

Session D1: Ultra-Wideband and Short-range Networks I

Chair: Simone Morosi, University of Firenze, Italy

Frequency Domain Multiuser Detectors for Ultra-Wideband Communications in Short-Range Systems, invited paper
Simone Morosi, University of Florence, Italy
Tiziano Bianchi, University of Florence, Italy

Noncoherent Maximum Likelihood Synchronization of Multi-Antenna UWB-IR faded Systems
Enzo Baccarelli, University of Rome "La Sapienza", Italy
Mauro Biagi, University of Rome "La Sapienza", Italy
Cristian Pelizzoni, University of Rome "La Sapienza", Italy
Nicola Cordeschi, University of Rome "La Sapienza", Italy
Fabio Garzia, University of Rome "La Sapienza", Italy

Configurable Ultra Low Noise Ultra Wideband Power Efficient VCOs
Ulrich Rohde, Synergy Microwave Corp., USA
Ajay Poddar, Synergy Microwave Corp, USA

UWB Fading Characteristics in a Typical Office Environment
Sharlene Thiagarajah, Telekom Research & Development Sdn. Bhd., Malaysia
Borhanuddin Mohd. Ali, Universiti Putra Malaysia
Sabira Khatun, Universiti Putra Malaysia
Mahamod Ismail, Universiti Kebangsaan Malaysia

Session D2: Ultra-Wideband and Short-range Networks II

Chair: Alain Sibille, ENSTA, France

Diversity combining for enhanced multi-user throughput in pulse based UWB communications
Alain Sibille, ENSTA, France

Inter-Symbol Interference Reduction in UWB Communications by RAKE and Multiple Antenna Combining
Van Phuong Tran, ENSTA/UEI, France

Alain Sibille, ENSTA, France

A Low Complexity Algorithm for Sensor Localization
Mats Rydström, Chalmers University of Technology, Sweden
Andreu Urruela, UPC, Spain
Erik Ström, Chalmers University of Technology, Sweden
Arne Svensson, Chalmers University of Technology, Sweden

Using Stimulating Signal to Locate Sensor Clusters within Wireless Sensor Networks
Zhanyang Zhang, College of Staten Island/City University of New York, USA
William Gavin, College of Staten Island/City University of New York, USA

Session D3: Radio Channel Modelling

Chair:Werner Wiesbeck, University of Karlsruhe, Germany

A Ray-Optical Channel Model for Vehicular Ad-Hoc Networks, invited paper
Juergen Maurer, University of Karlsruhe, Germany
Thomas Fuegen, University of Karlsruhe, Germany
Werner Wiesbeck, University of Karlsruhe, Germany

Effect of frequency selective surfaces on radio wave propagation in indoor environments
Farhan Chaudhry, University of Surrey, United Kingdom
Marios Raspopoulos, University of Surrey, United Kingdom
Stavros Stavrou, University of Surrey, United Kingdom

Investigation of Radio Transmission Losses Due to Periodic Building Structures
Ming Yang, University of Surrey, United Kingdom
Stavros Stavrou, University of Surrey, United Kingdom

A Wideband Channel Sounding Technique at Millimetre-Waves and Experiment in an Indoor 63.4-64.4GHz Picocell
Andreas Siamarou, INTERCOLLEGE, Cyprus

Parameters Computation of the Modified Loo Mobile Fading Channel
Amin Al-Ka'bi, The University of Queensland, Australia
John Homer, The University of Queensland, Australia

Session D4: Ad-Hoc Networks

Chair: George Karetsos, Center for Technological Research of Thessaly (CTRT), Greece

Classes of Nodes with Different Power Amplifiers and their Influence in Wireless Multi-hop Networks
Martin Kubisch, Berlin Technical University, Germany
Holger Karl, University of Paderborn, Germany
Adam Wolisz, Berlin Technical University, Germany

The Dynamical Updating Location Information Scheme (DULIS) - A Novel Routing Protocol for Mobile Ad hoc Networks
Xiaodong Wang, Simon Fraser University, Canada
Paraskevas Polydorou, Simon Fraser University, Canada

A Partitioned Power and Location Aware MAC Protocol for Mobile Ad Hoc Networks
Derek Corbett, University of Sydney, Australia
David Everitt, University of Sydney, Australia

A Design Framework for Wireless MANET QoS Gateway
Yasser Morgan, Carleton University, Canada
Thomas Kunz, Carleton University, Canada

Session D5: IP-based Mobile Systems

Chair: Andreas Mitschele-Thiel, Ilmenau University of Technology, Germany

I-MPLS: A Transparent Micro-Mobility-enabled MPLS Framework, invited paper
Rene Böringer, Ilmenau University of Technology, Germany
Ahmad Saeed, Ilmenau University of Technology, Germany

Ali Diab, Ilmenau University of Technology, Germany
Andreas Mitschele-Thiel, Ilmenau University of Technology, Germany
Matthias Schneider, Ilmenau University of Technology, Germany

Mobile Web Service based Middleware for Context-Aware Applications
Guido Gehlen, Aachen University of Technology, Germany
Georgios Mavromatis, Aachen University of Technology, Germany

Realization and Performance Analysis of a SOAP Server for Mobile Devices
Linh Pham, RWTH Aachen University, Germany
Guido Gehlen, Aachen University of Technology, Germany

Performance Improvement of Media Point Network using the Inter Access Point Protocol according to IEEE 802.11f
Ian Herwono, Aachen University, RWT, Germany
Joachim Sachs, Ericsson Research, Germany
Ralf Keller, Ericsson Research, Germany

Extension of Mobile IP for Fast Authentication and Low Latency Handoff
Ali Diab, Ilmenau University of Technology, Germany
Andreas-Mitschele-Thiel, Ilmenau University of Technology, Germany
René Böhringer, Ilmenau University of Technology, Germany

Session D6: Multicast / Broadcast

Chair: Thorsten Lohmar, Ericsson, Germany

Evaluation of the File Repair Operations for Multicast/Broadcast Download Deliveries
Thorsten Lohmar, Ericsson GmbH, Germany
Magda Elisova, RWTH Aachen University, Germany

Power Control for Efficient Multicasting in IP-based 3G and beyond mobile networks
Neophytos Vlotomas, University of Cyprus
Josephina Antoniou, University of Cyprus
George Hadjipollas, University of Cyprus
Vasos Vassiliou, University of Cyprus
Andreas Pitsillides, University of Cyprus

The Mobile VCE Architecture for the Interworking of Mobile and Broadcast Networks
Paul Pangalos, Kings College London, United Kingdom
Kar Ann, University of Surrey, United Kingdom
Nima Sattari, King's College London, United Kingdom
Allan Tomlinson, Royal Holloway, University of London, United Kingdom
Robert Atkinson, University Of Strathclyde, Glasgow, Scotland, United Kingdom
Hamid Aghvami, King's College London, United Kingdom

Delay-Limited Capacity for Broadcast Channels
Carolin Huppert, University of Ulm, Germany
Martin Bossert, University of Ulm, Germany

Data Plane Performance Issues Concerning MBMS in UMTS Release 6
Pawel Matusz, Gdansk University of Technology, Poland
Jozef Wozniak, Gdansk University of Technology, Poland

Session D7: Mobile and Wireless Networks - General

Chair: Joachim Sachs, Ericsson, Germany

A Hierarchical General Purpose Optimisation Framework for Wireless Networks
Qing Wei, DoCoMo Eurolabs, Germany
Shi Zhong, Toshiba Research Europe Ltd., United Kingdom
Martin Kappes, DoCoMo Euro-Labs, Germany
Tim Farnham, Toshiba Research Europe Ltd., United Kingdom
Christian Prehofer, DoCoMo Labs Europe, Germany

Enhanced Mobility Support for Real-time Multimedia Services Using Cross-layer Design
Zhaojun Li, University of Surrey, United Kingdom

Nadeem Akhtar, University of Surrey, United Kingdom
Rahim Tafazolli, University of Surrey, United Kingdom

The Next Generation of Mobile Localization Systems
Simone Frattasi, University of Aalborg, Denmark
Marco Monti, University of Rome, Italy
Daniele Teotino, University of Rome "Tor Vergata", Italy / Aalborg University, Denmark
Mirko Antonini, University of Rome "Tor Vergata", Italy / Aalborg University, Denmark
Marina Ruggieri, University of Roma Tor Vergata, Rome, Italy
Ramjee Prasad, Aalborg University, Denmark

IP-based Cellular Networks: an Analytical Comparative Study about the Delivery Cost of Paging and Location Signalling
Rafael Vidal Ferré, Universidad Politecnica de Catalunya UPC, Spain
Josep Paradells Aspas, Universidad Politecnica de Catalunya, UPC Spain

Modular Design for Optimal Cross-Layer Flow Control in CDMA Networks
Jennifer Price, University of California San Diego, USA
Tara Javidi, University of California San Diego, USA