

**Technical Program of IEEE IWCMC 2012  
Limassol, Cyprus, August 27—31, 2012  
Monday, August 27, 2012**

**Registration: (8:00-15:00)**

**Room:** Open Hall

**Tutorial 1 (9:00-12:00)**

**Room:** HALL-B

**Speaker:** Christian Callegari, University of Pisa, Pisa, Italy

**Title:** Network Anomaly Detection: from basics to advanced methods

**Chair:** Sandrine Vaton, Telecom Bretagne, France

**Tutorial 2 (9:00-12:00)**

**Room:** HALL-C

**Speaker:** Abdallah Shami, The University of Western Ontario, Canada

**Title:** Multihoming: Scheduling, Modelling, and Congestion Window Management

**Chair:** Jelena Misic, Ryerson University, Canada

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**LUNCH BREAK (12:00 – 13:30)**

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**Tutorial 3 (14:00-17:00)**

**Room:** HALL-B

**Speaker:** Abdelsalam (Sumi) Helal, University of Florida, USA

**Title:** The Cloud, the Edge & Beneath: Cloud-Sensor Architectures and Optimizations

**Chair:** Christian Callegari, University of Pisa, Pisa, Italy

**Tutorial 4 (14:00-17:00)**

**Room:** HALL-C

**Speaker:** Jelena Misic, Ryerson University, Canada

**Title:** Machine to Machine communication, challenges and solutions

**Chair:** Abdallah Shami, The University of Western Ontario, Canada

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**WELCOME RECEPTION (19:00-20:00)**

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**Technical Program of IEEE IWCMC 2012**  
**Limassol, Cyprus, August 27—31, 2012**  
**Tuesday, August 28, 2012**

**Registration: (8:00-15:00)**

**Room:** Open Hall

**Opening Session: (8:30-9:00)**

**Room:** HALL-A

**Speaker:** Conference Chairs

**KEYNOTE 1 (9:00-10:00)**

**Room:** HALL-A

**Speaker:** Michele Zorzi, University of Padova, Italy

**Title:** Underwater Networking

**Chair:** Abdelsalam (Sumi) Helal, University of Florida, USA

**COFFE BREAK (10:00 – 10:30)**

**Tuesday Morning Sessions (TM)—(10:30-12:30)**

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**TM-1: Room:** HALL-A

**Session Title:** INVITED PAPERS

**Session Chair:** Koichi Asatani, Kogakuin University, Japan

**1569572153:** Distributed Collaborative Beamforming with Minimum Overhead for Local Scattering Environments, Slim Zaidi; Sofiene Affes (INRS-EMT, Canada)

**1569588455:** A New Application Level Link Aggregation and Its Implementation on Android Terminals, Takafumi Takiguchi (Kogakuin University, Japan); Hiromu Masui (Fujitsu Network Solutions Limited, Japan); Akira Hidaka; Yoshio Sugizaki; Osamu Mizuno; Koichi Asatani (Kogakuin University, Japan)

**1569575523:** Buffer-Aided Relaying with Mixed Rate Transmission, Nikola Zlatanov; Robert Schober (University of British Columbia, Canada)

**1569589017:** Epsilon-Overflow Rate: Buffer-aided Information Transmission over Nakagami-m Fading Channels, Yunquan Dong; Pingyi Fan (Tsinghua University, P.R. China); Khaled Ben Letaief (Hong Kong University of Science & Technology, Hong Kong); Ross Murch (HKUST, Hong Kong)

**1569591981:** Base Stations Locations Optimization in an Airport Environment using Genetic Algorithms, Imad Eldin Ahmed; Bilal R Qazi; Jaafar Elmighani (University of Leeds, United Kingdom)

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**LUNCH BREAK (12:00 – 13:30)**

**Tuesday Afternoon Sessions (TA)—(13:30-15:30)**

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**TA-1: Room:** HALL-A

**Session Title:** Network Structural Analysis (TRAC Workshop)

**Session Chair:** Christian Callegari, University of Pisa, Pisa, Italy

**Session Co-chair:** Sandrine Vaton, Telecom Bretagne, France

**1569543531:** A Distributed DNS Traffic Monitoring System, Luca Deri; Lorenzo Luconi Trombacchi; Maurizio Martinelli, Daniele Vannozi (IIT/CNR, Italy)

**1569569073:** Traffic vs Topology in Network Clustering: Does it Matter? Sancho Salcedo-Sanz (Universidad de Alcalá, Spain); Maurizio Naldi (University of Rome "Tor Vergata", Italy); Leo Carro-Calvo

(Universidad de Alcala, Spain); Luigi Laura (Sapienza University of Rome, Italy); Antonio Portilla (University of Alcala De Henares, Spain); Giuseppe F. Italiano (University of Rome "Tor Vergata", Italy)  
**1569569181**: Real-time Analysis of Critical Nodes in Network Cores, Giorgio Ausiello; Donatella Firmani; Luigi Laura (Sapienza University of Rome, Italy)  
**1569545023**: Online Anomaly Detection by Using N-gram Model and Growing Hierarchical Self-Organizing Maps, Mikhail Zolotukhin; Timo Hamalainen; Antti Juvonen (University of Jyväskylä, Finland)  
**1569565217**: On the Real Impact of Path Inflation in Networks Under Production, Felipe Mata; Roberto Gonzalez-Rey; Jose Luis Garcia-Dorado; Javier Aracil (Universidad Autonoma de Madrid, Spain)

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**TA-2**: Room: HALL-B

**Session Title**: Resource Allocation and Management I (Wireless Networking Symposium)

**Session Chair**: Najah A. Abu Ali (UAE University, UAE)

**1569557075**: Efficient Resource Allocation for Wireless Virtualization Using Time-Space Division, Xu Zhang; Yong Li; Depeng Jin; Li Su; Lieguang Zeng (Tsinghua University, P.R. China); Pan Hui (Deutsche Telekom Laboratories, Germany)

**1569557583**: New Insights from a Delay Analysis for Cognitive Radio Networks with and without Reservation, Mouna Elmachour; Abdellatif Kobbane (ENSIAS, University Mohammed V-Souissi, Morocco); Essaid Sabir (University of Avignon, France); Mohammed El Koutbi (University Mohamed V - Souissi, Morocco)

**1569556013**: Disease Tracking Service in Urban Areas, Stephane Cormier; Hacene Fouchal; Itheri Yahiaoui (University of Reims Champagne-Ardenne, France)

**1569539249**: Adaptive Packet Reservation Multiple Access Protocol for Fixed Wireless Communications, Salman A AlQahtani (King Saud University, Saudi Arabia)

**1569557705**: A generic cross-layer architecture for autonomic network management with network wide knowledge, Wafa Berrayana (Manouba University Tunisia, lip6 laboratory Paris, Tunisia)

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**TA-3**: Room: HALL-C

**Session Title**: Applications and Data Aggregation (Wireless Sensor Networks Symposium)

**Session Chair**: Yanjun Li, Zhejiang University of Technology, P.R. China

**Session Co-chair**: Nidal Nasser, Alfaisal University, KSA

**1569555887**: Monitoring the Reliability of Industrial Equipment Using Wireless Sensor Networks, A. El Kouche; H. S. Hassanein (Queen's University, Canada); K. Obaia (Oil and Energy, Canada)

**1569556385**: Data Survivability for WSNs via Decentralized Erasure Codes, Louai Al-Awami; Hossam S. Hassanein (Queen's University, Canada)

**1569556257**: Constructing Data Gathering Tree to Maximize the Lifetime of Unreliable Wireless Sensor Network under Delay Constraint, Yueyun Shen; Yanjun Li; Yi-hua Zhu (Zhejiang University of Technology, P.R. China)

**1569556619**: Towards Accurate and Robust Map-aid Indoor Human Tracking, Peisen Zhao (Tsinghua University, P.R. China); Chunxiao Jiang (University of Maryland, College Park, USA); H. Chen (The University of Tokyo, Japan); Yong Ren (Tsinghua University, Beijing, P.R. China)

**1569557375**: Combined methods to extend the lifetime of power hungry WSN with multimodal sensors and nanopower wakeups, Michele Magno (University of Bologna, Italy); Stevan Marinkovic (University College Cork, Ireland); Davide Brunelli (University of Trento, Italy); Luca Benini (University of Bologna, Italy); Emanuel M. Popovici (University College Cork, Ireland)

**1569557463**: Cross-layer Optimization Protocol for Guaranteed Data Streaming over Wireless Body Area Networks, Nedal Ababneh; Nick Francis Timmons (Letterkenny Institute of Technology, Ireland); Jim Morrison (WiSAR Lab - Letterkenny Institute of Technology, Ireland)

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**TA-4**: Room: EVAGORAS

**Session Title**: Mobile Computing (Mobile Computing Symposium)

**Session Chair**: Periklis Chatzimisios, Alexander TEI of Thessaloniki, Greece

**1569544883**: A New Markovian Approach for Dynamic Bandwidth Allocation in Wireless Networks Peppino Fazio; Mauro Tropea; Cesare Sottile (University of Calabria, Italy)

**1569555767**: Flow-Based Power Control in Cognitive Radio Ad-Hoc Network

To Ba Lam; Thi Mai Trang Nguyen; Guy Pujolle (University Pierre et Marie Curie - Paris 6, France)

**1569556225**: TCP-Freeze: Beneficial for Virtual Machine Live Migration with IP Address Change?

Mehmet Vefa Bicakci; Thomas Kunz (Carleton University, Canada)

**1569556691**: Dynamic Resource Allocation for MMOGs in Cloud Computing Environments

Chen-Fang Weng; Kuo Chen Wang (National Chiao Tung University, Taiwan)

**1569557195**: Cross Device Fingerprint-based Positioning using 3D Ray Tracing

Marios Raspopoulos (Sigint Solutions Ltd, Cyprus); Christos Laoudias (University of Cyprus, Cyprus);

Loizos Kanaris; Akis Kokkinis (Sigint Solutions Ltd, Cyprus); Christos Panayiotou (University of Cyprus,

Cyprus); Stavros Stavrou (University of Surrey, United Kingdom)

**1569557757**: Privacy-aware and Energy-efficient Geofencing through Reverse Cellular Positioning

Ulrich Bareth (Technische Universität Berlin, Germany)

**1569557789**: EnergySniffer: Home Energy Monitoring System using Smart Phones

Mostafa Abdulla Uddin; Tamer Nadeem (Old Dominion University, USA)

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**TA-5**: Room: TEFKROS

**Session Title**: Cooperative Networks (Cooperative and Cognitive Networks Workshop)

**Session Chair**: Alvaro Araujo Pinto, Universidad Politecnica de Madrid, Spain

**1569540979**: Implementation of Opportunistic Cooperative Diversity in an Ad-Hoc Network using Commodity Hardware, Craig S Cooper (University of Wollongong, Australia); Brett Hagelstein (University of Technology, Australia); Daniel Franklin (University of Technology Sydney, Australia).

**1569543525**: Asynchronous Cooperative Spectrum Sensing in Multi-hop Cognitive Radio Networks, Yi Liu (South China University of Technology, P.R. China); Yan Zhang (Simula Research Laboratory and University of Oslo, Norway); Rong Yu (Guangdong University of Technology, P.R. China); Shengli Xie (South China University of Technology, P.R. China).

**1569556763**: Generalized Differential Distributed Space-time Block Codes using Co-efficient Vectors, Gbenga Owojaiye; Yichuang Sun (University of Hertfordshire, United Kingdom).

**1569567569**: Distance Progress Based Opportunistic Routing for Wireless Mesh Networks, Amir Darehshoorzadeh; Llorenç Cerda-Alabern (Universitat Politècnica de Catalunya, Spain).

**1569568915**: Generalized Beamforming (GBF) for MIMO Amplify-and-forward Relaying, Rahima Sayeb (ENIT, Tunisia)

**1569545301**: Software Defined Radio Architecture Survey for Cognitive Testbeds, Mickael Dardaillon; Kevin Marquet; Tanguy Risset (INSA Lyon, France); Antoine Scherrer (INRIA, France)

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**TA-6**: Room: ONISILLOS

**Session Title**: OFDM/OFDMA (Communication & Information Theory Symp.)

**Session Chair**: Fumiyuki Adachi (Tohoku University, Japan)

**1569544505**: An Iterative Joint Channel Estimation and Data Detection Technique for MIMO-OFDM Systems, F. Delestre; G. Owojaiye; Y. Sun (University of Hertfordshire, United Kingdom)

**1569545389**: Decision-Directed Tracking for Burst-Mode OFDM with Frequency Selective Channel, Lu Guanping; Jun Wang; Chao Zhang; Zhaocheng Wang (Tsinghua Univ., P.R. China)

**1569554149**: High Efficiency Resource Allocation in Multicast OFDM Systems, M. Li (USTC, P.R. China); Y. Gu (National Institute of Informatics, Japan); L. Qiang; B. Zhao (USTC, P.R. China)

**1569557323**: Signaling-Embedded Preamble Design for OFDM System with Transmit Diversity, Wenbo Ding; Fang Yang; Jian Song; Lifeng He (Tsinghua University, P.R. China)

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## **COFFEE BREAK (15:30-16:00)**

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## **Tuesday Afternoon Sessions (TA)—(16:00-18:00)**

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**TA-7**: Room: HALL-A

**Session Title**: Relays (Communication & Information Theory Symp.)

**Session Chair**: Annamalai Annamalai (Prairie View A&M University, USA)

**1569539927**: A Novel Selective-Relaying Protocol for Cooperative IR-UWB Communications with PPM, Chadi Abou-Rjeily (Lebanese American University (LAU), Lebanon)

**1569544359**: Performance Analysis of Network-Coded Bi-Directional Relaying for Amplify-and-Forward Cooperative Wireless Networks, M. Baidas; A. MacKenzie; M. Buehrer (Virginia Tech, USA)

**1569556587:** A Successive Opportunistic Relaying Protocol with Inter-Relay Interference Mitigation, Nikolaos Nomikos; Demosthenes Vouyioukas (University of the Aegean, Greece)  
**1569557765:** Asymptotic Error Rates Analysis for Multi-Hop Multi-Relay Cooperative Non-Regenerative Networks over Generalized Fading Channels, Annamalai Annamalai (Prairie View A&M University, USA)  
**1569554067:** Optimal Power Allocation and Relay Location for Decode-and-Forward Dual-Hop Systems over Weibull Fading, M. Wang; Z. Zhong (Beijing Jiaotong University, P.R. China)

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**TA-8:** Room: HALL-B

**Session Title:** Wireless Technologies II (Wireless Networking Symposium)

**Session Chair:** George Hadjichristofi, Frederick University, Cyprus

**1569556981:** Experimental Evaluation of Opportunistic Spectrum Access in Distributed Cognitive Radio Networks, Ahmed Khattab; Dmitri Perkins; Magdy Bayoumi (University of Louisiana, USA)

**1569557051:** Time-based and Low-Cost Bandwidth Estimation for IEEE 802.11 Links, J. Guerin (Univ. of Queensland, AU); S. Glass; P. Hu; W. L. T. (NICTA, AU); M. Portmann (Univ. of Queensland, Australia)

**1569557137:** Evaluating RaptorQ FEC over 3GPP Multicast Services, Christos Bouras; Nikolaos Kanakis; Vasileios Kokkinos; Andreas Papazois (University of Patras, Greece)

**1569557559:** DCF/USDMA: Enhanced DCF for Uplink SDMA Transmissions in WLANs, Ruizhi Liao; Boris Bellalta; Miquel Oliver (University Pompeu Fabra, Spain)

**1569557663:** Reversing the IEEE 802.11 Backoff Algorithm for Receiver-Initiated MAC Protocols  
Tiago Bonfim; Marcelo M Carvalho (University of Brasilia, Brazil)

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**TA-9:** Room: HALL-C

**Session Title:** MAC and Design Techniques (Wireless Sensor Networks Symposium)

**Session Chair:** Jianming Wu (Fujitsu Research and Development Center, Co., LTD, P.R. China)

**Session Co-chair:** Tomohiko Taniguchi (Fujitsu Laboratories Limited, Japan)

**1569557169:** An Improved Common Channel Hopping MAC Protocol for Smart Meter Wireless Networks, Xiaojing Fan; Hao Wang; Jun Tian (Fujitsu R&D Center Co., Ltd., P.R. China)

**1569557683:** Space Diversity for Wireless Sensor Networks at 2.4 GHz,  
Ruoshui Liu; Ian James Wassell (University of Cambridge, United Kingdom)

**1569557691:** Mixed TDMA/Simultaneous-Transmission Scheduling for Delay Sensitive Applications, Alaa Awad; Omar Nasr; Mohamed Khairy (Cairo University, Egypt)

**1569562673:** A Combined Relay-Selection and Routing Protocol for Cooperative Wireless Sensor Networks, Ahmed Ben Nacef (INP Toulouse, Tunisia); Sidi-Mohammed Senouci (University of Bourgogne - ISAT Nevers, France); Yacine Ghamri-Doudane (ENSIIE & Université Paris-Est (LIGM Lab), France); Andre-Luc Beylot (IRIT Toulouse, France)

**1569557041:** An Optimal Sensor Deployment Scheme to Ensure Multi Level Coverage and Connectivity in Wireless Sensor Networks, Arnab Raha; Shovan Maity; Mrinal Kanti Naskar (Jadavpur University, India); Omar Alfandi; Dieter Hogrefe (University of Goettingen, Germany)

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**TA-10:** Room: EVAGORAS

**Session Title:** Wireless Technologies I (Wireless Networking Symposium)

**Session Chair:** Hazem Refai, Oklahoma University, USA

**1569544473:** Enhanced Frequency Hopping for Reliable Interconnection of Low Power Smart Home Devices, Nils Langhammer; Ruediger Kays (Dortmund University of Technology, Germany)

**1569544687:** A Novel Adaptive Bit Loading Algorithm for BICM-OFDM System

Hao Wang (Fujitsu R&D Center Co., Ltd., P.R. China); Hongwen Yang (Beijing University of Posts and Telecommunications, P.R. China); Jun Tian (Fujitsu R&D Center Co., Ltd., P.R. China)

**1569545987:** Two-Dimensional Markov Model for Throughput Analysis of IEEE 802.11 Distributed Coordination Function in Non Ideal Channel with Capture Effects, Nesreen Alsbou (Oklahoma University, USA); Xianbo Chen (Broadcom Corporation, USA); Hazem Refai (Oklahoma University, USA)

**1569552249:** The Search Space Design for Enhanced Downlink Control Channel in LTE-Advanced System, Y. Wang; H. Zhou (Fujitsu R&D center, P.R. China); J. Wu (Fujitsu Laboratories Limited, Japan)

**1569555037:** Power Smart In-door Optical Wireless Link Applications, Nabeel Riza; Philip J Marraccini (University College Cork, Ireland)

**1569557659:** MIMODog: How to solve the problem of Selfish Misbehavior Detection Mechanism in MANETs Using MIMO Technology? Abderrezak Rachedi (University Paris-Est Marne-la-Vallee,

France); Hakim Badis (Institut Gaspard-Monge, France)

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**TA-11:** Room: TEFKROS  
**Session Title:** Cognitive Networks (Cooperative and Cognitive Networks Workshop)  
**Session Chair:** Alvaro Araujo Pinto, Universidad Politecnica de Madrid, Spain

**1569555639:** A fair and energy-efficient spectrum management mechanism for cognitive radio networks, S. Quadri; Z. Fan; Stephen Lingfeng Wang (Toshiba Research Europe Limited, UK).

**1569556341:** Novel cognitive mobile router and its efficient use in a heterogeneous wireless network, Kosuke Yamazaki; Takashi Fujimoto; Yuichi Imagaki; Kanshiro Kashiki; Akira Yamaguchi (KDDI R&D Laboratories Inc., Japan).

**1569557489:** Practical Implementation of a Holding Time based Model for Cognitive Radio Access within a Common Pilot Channel Framework, Soumaya Dahi (Ecole Supérieure des Communications de Tunis, Tunisia); Sami Tabbane (Sup Telecom, Tunisia).

**1569557495:** Analysis of Spectrum Sensing Characteristics for Cognitive Radio GFDM Signal, Rohit Datta (TU Dresden, Germany); Kamran Arshad (University of Greenwich, United Kingdom); Gerhard Fettweis (TU Dresden, Germany).

**1569557787:** Spectrum Availability Model of Secondary Users in Cognitive Radio Networks, Nariman Rahimian; Costas N Georgiades (Texas A&M University, USA); Hasari Celebi (Gebze Institute of Technology, Turkey); Khalid A. Qaraqe (Texas A&M University at Qatar, Qatar).

**1569567797:** Time Slotted Based Cognitive MAC Protocols for Multi-Channel Wireless ad hoc Networks, Abdullah Masrub; Hamed Al-Raweshidy (Brunel University, United Kingdom).

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**TA-12:** Room: ONISILLOS  
**Session Title:** Performance Evaluation (General Symposium)  
**Session Chair:** Mehrdad Dianati, University of Surrey, UK

**1569543645:** Performance Analysis of Primary User Emulation Attack in Cognitive Radio Networks, C. Zhang (South China Univ. of Technology, P.R. China); R. Yu (Guangdong Univ. of Technology, P.R. China); Y. Zhang (Simula Research Laboratory and Univ. of Oslo, Norway)

**1569543753:** Performance Evaluation of an Adaptive Route Change Application Using an Integrated Cooperative ITS Simulation Platform, Charalambos Zinoviou; Konstantinos Katsaros (University of Surrey, United Kingdom); Ralf Kernchen (Rulemotion Ltd, United Kingdom); Mehrdad Dianati (University of Surrey, United Kingdom)

**1569557817:** Performance Evaluation of Low Density Spreading Multiple Access, Mohammed AL-Imari; Muhammad Ali Imran; Rahim Tafazolli (University of Surrey, United Kingdom); Dageng Chen (Huawei Technologies Co., Ltd, P.R. China)

**1569557763:** Fairness Evaluation in Cooperative Hybrid Cellular Systems, Juan F. Awad; Muhammad Ali Imran; Rahim Tafazolli (University of Surrey, United Kingdom)

**1569545227:** Throughput Analysis Using Eigenvalue Based Spectrum Sensing Under Noise Uncertainty, Ayse Kortun; Tharm Ratnarajah; Mathini Sellathurai (Queens University of Belfast, United Kingdom) Ying-Chang Liang ; Yonghong Zeng (Institute for Infocomm Research, Singapore)

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## **CITY ACTIVITIES—NIGHT OUT (on your own)**

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**Technical Program of IEEE IWCMC 2012**  
**Limassol, Cyprus, August 27—31, 2012**  
**Wednesday, August 29, 2012**

**Registration: (8:00-15:00)**

**Room:** Open Hall

**KEYNOTE 2 (9:00-10:00)**

**Room:** HALL-A

**Speaker:** Raouf Boutaba, University of Waterloo, Canada

**Title:** Wireless Mesh Networks: Research vs. Reality

**Chair:** Michele Zorzi, University of Padova, Italy

**COFFE BREAK (10:00 – 10:30)**

**Wednesday Morning Sessions (WM)—(10:30-12:30)**

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**WM-1: Room:** HALL-A

**Session Title:** INVITED PAPERS

**Session Chair:** Michele Zorzi, University of Padova, Italy

**1569598919:** Correlated Energy Generation and Imperfect State-of-Charge Knowledge in Energy Harvesting Devices, Nicolo Michelusi; Leonardo Badia; Ruggero Carli (University of Padova, Italy); Kostas Stamatou (Univ. of Notre Dame, USA); Michele Zorzi (University of Padova, Italy)

**1569599463:** Recursive QR Packet Combining for Uplink Single-Carrier Multi-User MIMO HARQ Using Near ML Detection, Tetsuya Yamamoto (Tohoku University, Japan); Koichi Adachi; Sumei Sun (Institute for Infocomm Research, Singapore); Fumiyuki Adachi (Tohoku University, Japan)

**1569589003:** On the Multicast Throughput for Half-duplex Butterfly Network Using Deterministic Approach, Zhengchuan Chen; Pingyi Fan (Tsinghua University, P.R. China)

**1569556707:** Cross-Layer Design for Cognitive Radios with Joint AMC and ARQ Under Delay QoS Constraint, Leila Musavian; Tho Le-Ngoc (McGill University, Canada)

**1569556837:** Capacity Limits in a Variable Duty Cycle IEEE 802.11p-Based VANET, Serkan Ozturk (Erciyes University, Turkey); Jelena Mistic; Vojislav B. Mistic (Ryerson University, Canada)

**1569557497:** On the Complexity of Routing in Wireless Multihop Network, S. Waharte (University of Bedfordshire, UK); Raouf Boutaba (University of Waterloo, Canada); A. Golynski (Google Inc., USA)

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**LUNCH BREAK (12:00 – 13:30)**

**Wednesday Afternoon Sessions (WA)—(13:30-15:30)**

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**WA-1: Room:** HALL-A

**Session Title:** High Speed Traffic Analysis (TRAC Workshop)

**Session Chair:** Christian Callegari, University of Pisa, Pisa, Italy

**1569556505:** Reducing Memory in High-Speed Packet Classification, Viktor Pus; Jan Korenek (Brno University of Technology, Czech Republic)

**1569568437:** Hardware Acceleration of SVM-Based Traffic Classification on FPGA, Tristan Groleat; Matthieu Arzel; Sandrine Vatou (Telecom Bretagne, France)

**1569556721:** MTCLASS: enabling Statistical Traffic Classification of Multi-Gigabit Aggregates on Inexpensive Hardware, F. Gringoli; L. Nava; A. Este; L. Salgarelli (University of Brescia, Italy)

**1569545245:** From ideality to practicability in statistical packet features masking, Alfonso Iacovazzi; Andrea Baiocchi (University of Roma Sapienza, Italy)

**1569556563:** Hierarchical Learning for Fine Grained Internet Traffic Classification, Luigi Grimaudo; Marco Mellia; Elena Baralis (Politecnico di Torino, Italy)

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**WA-2: Room:** HALL-B  
**Session Title:** Wireless Multi-Hop Networks (Wireless Networking Symposium)  
**Session Chair:** Marc St-Hilaire, Carleton University, Canada

**1569557399:** Tracking Topology Dynamicity for Link Prediction in Intermittently Connected Wireless Networks, M-H. Zayani; V. Gauthier; I. Slama; D. Zeghlache (Institut Telecom, Telecom SudParis, France)  
**1569557441:** A Medium Access Delay MAC aware Metric for Multihop Wireless Networks, Le Minh Duong (Univ. Paris Sud 11, France); L. Zitoune (ESIEE-Paris, France); V. Veque (Univ. of Paris-Sud 11, France)  
**1569557769:** Evaluating the Impact of Energy Consumption on Routing Performance in Delay Tolerant Networks, Annalisa Socievole; Salvatore Marano (University of Calabria, Italy)  
**1569563743:** On Monitoring Overhead Impact in Wireless Mesh Networks, Adriana Hava (UCD, Ireland); Yacine Ghamri-Doudane (ENSIIE & Université Paris-Est (LIGM Lab), France); John Murphy (UCD, IE)  
**1569557721:** Accumulative Interferences Removal in Multi-hop Linear and Circular Ad Hoc WLANs  
Essaid Sabir; Rachid El-Azouzi (University of Avignon, France)

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**WA-3: Room:** HALL-C  
**Session Title:** WSN and Other Networks (Wireless Sensor Networks Symposium)  
**Session Chair:** Abdullah Kadri (QU Wireless Innovations Center, Qatar)  
**Session Co-chair:** Tomohiko Taniguchi, Fujitsu Laboratories Limited, Japan

**1569545321:** Design and Performance Analysis of Bandwidth and QoS Aware LTE Uplink Scheduler in Heterogeneous Traffic Environment, Safdar Nawaz Khan Marwat; Thushara Weerawardane; Yasir Zaki (University of Bremen, Germany); Andreas Timm-Giel (Hamburg University of Technology, Germany); Carmelita Garg (University of Bremen, Germany)  
**1569554879:** Connectivity Based Transmit Power Control in VANET, Jun Tian (Fujitsu R&D Center Co., Ltd., P.R. China); Chao Lv (Chinese Academy of Sciences, P.R. China)  
**1569557541:** A Closed-Form Rate Outage Probability Description Based on Nakagami-m Channel Model, Najah A. Abu Ali; Mohammad Hayajneh (UAE University, UAE)  
**1569557749:** Efficient and Anonymous RFID Tag Counting and Estimation using Modulation Silencing, A. Alma'aitah; Hossam S. Hassanein; Mohamed Ibnkahla (Queen's University, Canada)  
**1569557799:** A Two-Tier Integrated RFID/Sensor Network with a WiFi WLAN, Haleh Khojasteh; Jelena Mistic; Vojislav B. Mistic (Ryerson University, Canada)  
**1569557513:** Performance of IEEE 802.15.4-Based Wireless Sensors in Harsh Environments, Abdullah Kadri (QU Wireless Innovations Center, Qatar)

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**WA-4: Room:** EVAGORAS  
**Session Title:** Coverage and Security (Wireless Sensor Networks Symposium)  
**Session Chair:** Zaher Merhi (Lebanese International University, Lebanon)  
**Session Co-chair:** Nidal Nasser (Alfaisal University, KSA)

**1569552213:** Practical RF Fingerprints for Wireless Sensor Network Authentication, David Knox; Thomas Kunz (Carleton University, Canada)  
**1569553825:** NSSN: A Network Monitoring and Packet Sniffing Tool for Wireless Sensor Networks, Zhonghua Zhao; Wei Huangfu; Limin Sun (Chinese academy of sciences, P.R. China)  
**1569557803:** Secure Localization for Wireless Sensor Networks Using Decentralized Dynamic Key Generation, Zaher Merhi (Lebanese International University, Lebanon)  
**1569554903:** System-Level Evaluation of Sensor Networks Deployment Strategies: Coverage, Lifetime and Cost, Huimin She; Zhonghai Lu (Royal Institute of Technology (KTH), Sweden)

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**WA-5: Room:** TEFKROS  
**Session Title:** Access and Data Transmission (General Symposium)  
**Session Chair:** Muhammad Imran University of Surrey, UK

**1569556561:** Medium Access Control via Contention-Based Distributed Power Control, T. Charalambous (Royal Inst. of Technology (KTH), Sweden); I. Krikidis (Univ. of Cyprus, Cyprus)  
**1569557653:** Hybrid Transmission Schemes for Grouped Users in Cellular Systems, Juan F. Awad; Muhammad Ali Imran; Rahim Tafazolli (University of Surrey, United Kingdom)  
**1569555861:** Flexible and Dynamic Network Coding for Adaptive Data Transmission in DTNs,

Milena Radenkovic; Sameh Rasmy Anwar Zakhary (University of Nottingham, United Kingdom)  
**1569556471**: Novel DR-tree Index Based on the Diagonal Line of MBR, J. Tang (Henan Polytechnic Univ., P.R. China); Z. Zhou (Institute Telecom, France); Q. Wang (CUGB, P.R. China)  
**1569556773**: A Novel Handover Algorithm Design in WiMAX Networks, Mehrdad Dianati (University of Surrey, United Kingdom); Sami Muhaidat; Omar H Altrad (Simon Fraser University, Canada)

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**WA-6:** Room: ONISILLOS  
**Session Title:** Transceiver Design-I (Communication and Information Theory Symp.)  
**Session Chair:** Jaafar Elmighani (University of Leeds, United Kingdom)  
**Session Co-chair:** Ali Almutairi, Kuwait University, Kuwait

**1569560065**: Narrowband Interference Suppression in DS-UWB Communication Systems Using Digital Delay Filter, Ehab M. Shaheen (Military Technical College, Egypt)  
**1569557719**: Antenna Beam Pattern Modulation for MIMO Channels, R. Ramirez-Gutierrez; Li Zhang; J. Elmighani (University of Leeds, United Kingdom); A. Almutairi (Kuwait Univ., Kuwait)  
**1569557295**: A Novel Synchronization Method for DS-CDMA Systems, Yi Wan; Zhongping Chen (Lanzhou University, P.R. China)  
**1569556973**: A Novel Space-Time Shift Keying and Its Reduced Complexity Detector, Han-Wen Liang (Academia Sinica, Taiwan); Chiao-En Chen (National Chung-Cheng university, Taiwan); Wei-Ho Chung (Academia Sinica, Taiwan)  
**1569557625**: New Blind Synchronization Algorithm for DS-UWB systems, Karima Ben Hamida El Abri; Ammar Bouallegue (National School of Engineers of Tunis, Tunisia)

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### **COFFEE BREAK (15:30-16:00)**

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### **Wednesday Afternoon Sessions (WA)—(16:00-18:00)**

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**WA-7:** Room: HALL-A  
**Session Title:** Overlay Networks Analysis (TRAC Workshop)  
**Session Chair:** Sandrine Vaton, Telecom Bretagne, France

**1569556777**: Four Months in DailyMotion: Dissecting User Video Requests, Y. Carlinet (France Telecom, France); T. D. Huynh (Alcatel-Lucent, France); B. Kauffmann (Orange Labs, France); F. Mathieu (INRIA, France); L. Noirie (Alcatel-Lucent France, France); S. Tixeuil (University Pierre & Marie Curie, France)  
**1569557227**: Internet Traffic Clustering with Constraints, Yu Wang; Yang Xiang; Jun Zhang (Deakin University, Australia); Yu Shunzheng (Sun Yat-Sen University, P.R. China)  
**1569569177**: Classification of Content and Users in BitTorrent by Semi-supervised Learning Methods, Konstantin Avrachenkov; Paulo Gonçalves; Arnaud Legout; Marina Sokol (INRIA, France)  
**1569544385**: SIP Trace Recorder: Monitor and Analysis Tool for threats in SIP-based networks, Dirk Hoffstadt; Stefan Monhof; Erwin P. Rathgeb (Universität Duisburg-Essen, Germany)  
**1569557667**: Identifying Skype Nodes by NetFlow Based Graph Analysis, Jan Jusko, Martin Rehak (Czech Technical University in Prague)

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**WA-8:** Room: HALL-B  
**Session Title:** Power Control (Wireless Networking Symposium)  
**Session Chair:** Themistoklis Charalambous, Royal Institute of Technology (KTH), Sweden

**1569556019**: Joint Design on Energy Efficiency and Throughput for Non-Infrastructure based Cognitive Radio Networks, Po-Kai Tseng (Academia Sinica, Taiwan); Huan Chen (National Chung-Hsing University, Taiwan); Wei-Ho Chung (Academia Sinica, Taiwan)  
**1569556519**: Dynamic Power Control for Balanced Data Traffic with Coverage in Femtocell Networks Donghoon Shin (KAIST, Korea); Sunghee Choi (KAIST, Korea)  
**1569557243**: A Paradigm for the Development of Self-Growing Energy-Aware Networks Ioannis Chochliouros; Anastasia Spiliopoulou (Lawyer, Hellenic Telecommunications Organization SA (OTE), Greece); Nancy Alonistioti; Gerasimos Stamatelatos (University of Athens, Greece); Periklis Chatzimisios (Alexander TEI of Thessaloniki, Greece)  
**1569555815**: TeamSense: Energy-Efficient Autonomous Mobile Wireless Sensor Networks for Object

Tracking, Ala Alnawaiseh; Khaled Abdelghany (Southern Methodist University, USA)  
**1569557741**: Communication Requirements and Analysis of Distribution Networks Using WiMAX Technology for Smart Grids, P. Rengaraju; C-H. Lung; A. Srinivasan (Carleton University, Canada)  
**1569559509**: A Novel Packet Scheduling for High Speed Bursty Traffic in LTE based-3G Concepts Saied M. Abd El-atty (Menoufia University, Egypt); Konstantinos Lizos (Embassy of Greece, Norway)

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**WA-9**: Room: HALL-C  
**Session Title**: Protocols and Attacks (Security Symposium)  
**Session Chair**: Hyoung-Kee Choi (Sungkyunkwan University, Korea)  
**Session Co-chair**: Sattar B. Sadkhan (University of Babylon, Iraq)

**1569544803**: A Study on Reservation-Based Adaptation for QoS in Adversarial MANET Environments; Peter McNerney, Ning Zhang (University of Manchester, United Kingdom).  
**1569556237**: A Versatile Suite of Strong Authenticated Key Agreement Protocols for Body Area Networks; Jin-Meng Ho (Texas Instruments, USA).  
**1569556467**: A Secure Dynamic Data Aggregation System for Citizen Safety in Emergency Response Scenarios; M. Hadjioannou (Univ. of Cyprus, Cyprus), G. Hadjichristofi (Frederick University, Cyprus).  
**1569557707**: Log-based Intrusion Detection for MANET; M. Alattar (University of Franche-Comte & LIFC, France), F. Saillan (CANM, France), Julien Bourgeois (University of Franche-Comte, France).  
**1569569189**: A Swarm-based Robot Team Coordination Protocol for Mine Detection and Unknown Space Discovery; F. De Rango (University of Calabria, Italy), N. Palmieri (University of Calabria, Italy).  
**1569557023**: IP Based Security Architecture of Virtual Network in Cloud Computing System; Jongsung Yang, Hyoung-Kee Choi (Sungkyunkwan University, Korea).

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**WA-10**: Room: EVAGORAS  
**Session Title**: Network Protocols (Wireless Networking Symposium)  
**Session Chair**: Ilker Demirkol, Universitat Politecnica de Catalunya, Spain

**1569552211**: Using Aggregated RSVP in Nested HMIPv6, Esmat Mirzamany (Middlesex University, United Kingdom)  
**1569555493**: A Comparative Analysis of Predictive and Reactive Mode of Optimized PMIPv6, A. Rasem; M. St-Hilaire (Carleton University, Canada); C. Makaya (Telcordia Technologies, USA)  
**1569556857**: Impact of transmission range in 802.15.4 with usual routing protocols, C. Ramassamy (Univ. des Antilles et de la Guyane, France); H. Fouchal (Univ. de Reims Champagne-Ardenne, France); P. Hunel (University of Antilles Guyane, France)  
**1569556865**: Modified R-ALOHA: Broadcast MAC Protocol for Vehicular Ad hoc Networks Sina Asadollahi; Hazem Refai (Oklahoma University, USA)  
**1569532491**: Routing Across Wired and Wireless Mesh Networks: Experimental Compound Internetworking with OSPF, J. A. Cordero; Matthias Philipp; Emmanuel Baccelli (INRIA, France)  
**1569557825**: Flow scheduling at multihomed devices during vertical handover in NGN Daniel Négru; Julien Arnaud (University of Bordeaux, France)

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**WA-11**: Room: TEFKROS  
**Session Title**: Web Services and M2M  
**Session Chair**: Derjiunn Deng, National Changhua University of Education, Taiwan

**1569571737**: Towards a Best-Effort Framework for Developing Smart Mobile Applications, R. Mizouni (Khalifa Univ, UAE); A. Benharref (Abu Dhabi Univ.); M. Adel Serhani (UAE Univ, UAE)  
**1569544725**: A Bandwidth-Aware Algorithm for Dynamic Service Placement in Size-Fixed Networks, J. Xu; Y. Chen; X. Chen; P. Yu; T. Wang (Beijing Univ. of Posts and Teleco., P.R. China)  
**1569539679**: Topic Discovery for Publish/Subscribe Web Services, Frank T. Johnsen; Trude H Bloebaum (Norwegian Defence Research Establishment (FFI), Norway)  
**1569556603**: Optimal Resource Reservations to Provide Quality-of-Service Guarantee in M2M Communications, P-H. Lee; M-J. Shih; G-Y. Lin; Hung-Yu Wei (National Taiwan Univ., Taiwan)  
**1569557179**: Enabling Dense Machine-to-Machine Communications through Interference-Controlled Clustering, Hung-Yun Hsieh (National Taiwan University, Taiwan)  
**1569557371**: An Enhanced Port Forwarding (EPF) Solution for NAT Traversal in 3GPP Machine Type Communications, W-E. Chen; C-C. Chiu; Y-B. Chang; Ying-Wei Chiang (National Ilan University, Taiwan)

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**WA-12:** Room: ONISILLOS

**Session Title:** Multimedia over Wireless (Multimedia over Wireless Symposium)

**Session Chair:** Tasos Dagiuklas, Technological Educational Institute of Mesolonghi, Greece

**1569545379:** Layered Data Transmission Based on Training Sequences in TDS-OFDM System, C. Wenting; J. Wang; C. Pan (Tsinghua University, Beijing, P.R. China)

**1569556025:** Watermarking Scalability for Copyright Protection in Wireless and Mobile Environments, J. Hämmerle-Uhl; K. Raab; A. Uhl (Salzburg University, Austria)

**1569556573:** Light-Weight Feedback Based SVC Multicast in Multi-carrier Wireless Data Systems, Z. Hao (University of Science and Technology of China, P.R. China); Y. Gu (National Institute of Informatics, Japan); Y. Ji (National Institute of Informatics, Japan); B. Zhao (, P.R. China)

**1569557037:** Alamouti Based Cooperative Wireless Networks for Multiplexing-Diversity Balanced Multimedia Transmission, K. Hua (Lawrence Technological University, USA); H. Wang (University of Massachusetts, Dartmouth, USA); W. Wang (South Dakota State University, USA)

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**DINNER BANQUET (19:00-21:00)**

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**Technical Program of IEEE IWCMC 2012**  
**Limassol, Cyprus, August 27—31, 2012**  
**Thursday, August 30, 2012**

**Registration: (8:00-15:00)**

**Room:** Open Hall

**KEYNOTE 3 (9:00-10:00)**

**Room:** HALL-A

**Speaker:** Hossam Hassanein, Queen's University, Canada

**Title:** Towards Global IoT – Resource Reutilization

**Chair:** Raouf Boutaba, University of Waterloo, Canada

**COFFE BREAK (10:00 – 10:30)**

**Thursday Morning Sessions (ThM)—(10:30-12:30)**

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**ThM-1: Room:** HALL-A

**Session Title:** INVITED PAPERS

**Session Chair:** Raouf Boutaba, University of Waterloo, Canada

**1569544027:** Cooperative Relay-Based Multicasting for Energy and Delay Minimization, Rachad Atat (King Abdullah University of Science and Technology (KAUST), Saudi Arabia); Elias Yaacoub (Qatar University Wireless Innovations Center (QUWIC), Qatar); Mohamed-Slim Alouini (KAUST, Saudi Arabia); Adnan Abu-Dayya (QUWIC, Qatar)

**1569557461:** Coexistence Studies of LTE-A with Carrier Aggregation at 3.5GHz  
Yu-Ting Lin; Kwang-Cheng Chen (National Taiwan University, Taiwan)

**1569555057:** Combined Reactive-Geographic Routing for Unmanned Aeronautical Ad-hoc Networks  
Rostam Shirani; Marc St-Hilaire; Thomas Kunz (Carleton University, Canada); Yifeng Zhou; Jun Li; Louise Lamont (Communications Research Centre Canada, Canada)

**1569556175:** Optimized Frequency allocation for Interference Mitigation in Femtocellular Networks, Mahmoud Ouda (Queen's Univ, Canada); Najah A. Abu Ali (UAEU, UAE); Hossam S. Hassanein (Queen's University, Canada); Osama Kubbar (QU Wireless Innovation Centre, Qatar)

**1569601615:** On-demand Scheduling for Concurrent Multipath Transfer under Delay-based Disparity, T. Daniel Wallace; Abdallah Shami (University of Western Ontario, Canada)

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**LUNCH BREAK (12:00 – 13:30)**

**Thursday Afternoon Sessions (ThA)—(13:30-15:30)**

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**ThA-1: Room:** HALL-A

**Session Title:** Design and Routing Protocols (Wireless Sensor Networks Symposium)

**Session Chair:** Najah A. Abu Ali (UAE University, UAE)

**Session Co-chair:** Tomohiko Taniguchi (Fujitsu Laboratories Limited, Japan)

**1569545385:** A New Ultra-Low Energy Consumption Communication Protocol for Wireless Sensor Networks, Tao Ma; Michael Hempel; Hamid Sharif (University of Nebraska-Lincoln, USA)

**1569556249:** Cross-layer Protocols for WSNs: A Simple Design and Simulation Paradigm, M. Hefaida; Min Shen; Ajay Kshemkalyani; Ashfaq Khokhar (University of Illinois at Chicago, USA)

**1569556577:** FLOGERA - A Fuzzy LOGic Event Recognition Algorithm in a WSN Environment, S-M. Dima; D. Tsitsipis; C. Antonopoulos; J. Gialelis; S. Koubias (University of Patras, Greece)

**1569557891:** Contention Resolution Algorithm for MAC Protocol in Wireless Ad-hoc Networks, H. Chin; D. Deng (National Changhua University of Education, Taiwan)

**1569574253:** Channel Models of Zigbee Sensor Networks, Najah A. Abu Ali (UAEU, UAE)

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**ThA-2: Room:** HALL-B  
**Session Title:** Resource Allocation and Management II (Wireless Networking Symposium)  
**Session Chair:** Hossam Hassanein, Queen's University, Canada

**1569557781:** Adaptive Admission Control and Packet Scheduling Schemes for QoS Provisioning in Multihop WiMAX Networks, Perumalraja Rengaraju; Chung-Horng Lung; Anand Srinivasan (Carleton University, Canada)

**1569559549:** Channel Allocation Strategies in Opportunistic-based Cognitive Networks  
Yassin Belkasmi, Abdellatif Kobbane, Mohammed Elkoutbi and Jalel Ben-Othman

**1569568645:** Mobility Prediction and Resource Reservation in Cellular Networks with Distributed Markov Chains, Peppino Fazio; Salvatore Marano (University of Calabria, Italy)

**1569557549:** A Two-Way Communication Scheme for Vehicles Charging Control in the Smart Grid, Jihene Rezgui; Soumaya Cherkaoui; Dhaou Said (University of Sherbrooke, Canada)

**1569554831:** Markov Decision Process Based Content Dissemination in Hybrid Wireless Networks, F. Wang; Y. Li; Z. Wang; Y. Zhixing (Tsinghua University, P.R. China)

**1569556517:** Virtual Currency and Reputation-Based Cooperation Incentives in User-Centric Networks, Alessandro Bogliolo; Paolo Polidori; Alessandro Aldini (University of Urbino, Italy); Waldir Moreira (Research Unit in Informatics Systems and Technologies, Portugal); Paulo Mendes (SITI, University Lusofona, Portugal); Mursel Yildiz (TU Berlin, Germany); Carlos Ballester; Jean-Marc Seigneur (University of Geneva, Switzerland)

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**ThA-3: Room:** HALL-C  
**Session Title:** Capacity (Communication and Information Theory Symp.)  
**Session Chair:** Prasant Mohapatra, University of California, Davis, USA

**1569544573:** Optimum Ergodic Beamforming Capacity in Urban Microcellular Operational Environments, Dimitris Kontaxis (University of Athens, Greece); George Tsoulos (University of Pelloponese, Greece); Serafim Karaboyas (University of Athens, Greece)

**1569544919:** The Asymptotic Capacity of Opportunistic Scheduling over Shadowed Nakagami Fading Channels, Saad Al-Ahmadi (King Fahd University of Petroleum & Minerals, Saudi Arabia)

**1569563125:** Channel Capacity of the Generalized Alpha-Mu Multipath Fading Model Under Different Adaptive Transmission Protocols, Amer M Magableh (Jordan University of Science and Technology, Jordan); Mustafa Muhammad Matalgah (University of Mississippi, USA)

**1569560067:** Non-Gaussian MAI Modeling to the Performance of TH-BPSK/PPM UWB Communication Systems, Ehab M. Shaheen (Military Technical College, Egypt)

**1569555537:** Rate-compatible QC-LDPC codes design based on EXIT chart analysis, Zaishuang Liu; Kewu Peng; Weilong Lei; Chen Qian; Zhaocheng Wang (Tsinghua University, P.R. China)

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**ThA-4: Room:** EVAGORAS  
**Session Title:** Performance Analysis & Optimization (Wireless Networking Symposium)  
**Session Chair:** Vojislav Masic, Ryerson University, Canada

**1569544923:** On the Performance of Distributed Base Stations in LTE Public Safety Networks  
Elias Yaacoub; Osama Kubbar (QU Wireless Innovation Centre, Qatar)

**1569556661:** QoS Performance Evaluation of Multimedia Services in Emergency Networks  
Alessandro Paganelli; Daniela Saladino; Maurizio Casoni (University of Modena and Reggio Emilia, Italy)

**1569557739:** A Comprehensive Performance Analysis of LTE and Mobile WiMAX  
Fahimeh Rezaei; Michael Hempel; Hamid Sharif (University of Nebraska-Lincoln, USA)

**1569553047:** Automated Coverage Optimization Scheme Based On Downtilt-Adjustment in Wireless Access Networks, Youlin Jiang (Beijing University of Posts and Telecommunications, P.R. China)

**1569569249:** Optimal Number of Users in Wireless Networks: A Flat Rate Pricing, M. Raiss-el-fenni; R. El-Azouzi (LIA/CERI University of Avignon, France); Andrey Garnaev (St.-Petersburg State U, Russia)

**1569556607:** NetBoxIT: an Open Testbed for Heterogeneous Networks Study  
Giorgio Calarco; Maurizio Casoni (University of Modena and Reggio Emilia, Italy)

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**ThA-5:** Room: TEFKROS

**Session Title:** Wireless Communication Networks: Design and Performance Analysis (Vehicular Symp.)

**Session Chair:** Georg Maier, Vienna University of Technology, Austria

**1569540261:** Performance Analysis for VoIP Traffic with Limited Retransmissions in IEEE 802.11-Based Wireless Networks, Yongmei Zhao (The Chinese People's Armed Police Academy, P.R. China)

**1569544527:** Statistical Characterization of Uplink Interference in Two-Tier Co-Channel Femtocell Networks, Nessrine Chakchouk; Bechir Hamdaoui (Oregon State University, USA)

**1569551505:** Randomized Resource Allocation for Wireless Networks with Cooperative Relay, Di Wu; Gang Zhu; Lina Liu (Beijing Jiaotong University, P.R. China)

**1569552377:** Analysis of LTE and DC-HSDPA Performance with Variable Number of Users per TTI in Macro Cellular Network, M. U. Sheikh; Jukka Lempiainen (Tampere University of Technology, Finland)

**1569557085:** A Reduced Dimension MDP-based Call Admission Control Scheme for Next Generation Telecommunications, Huan Chen (National Chung-Hsing University, Taiwan); Chih-Chuan Cheng; Wei-Ho Chung (Academia Sinica, Taiwan); Hsi-Hsun Yeh (National Chung Cheng University, Taiwan)

**1569557299:** Hybrid Digital Modulation Classification, Yuanxuan Li; Fanggang Wang; Gang Zhu (Beijing Jiaotong University, P.R. China)

**1569557791:** Deadline Constrained Content Distribution in Vehicular Delay Tolerant Networks, Deze Zeng (The University of Aizu, Japan); Lei Cong; Huawei Huang (China University of Geoscience (Wu Han), P.R. China); Song Guo (The University of Aizu, Japan); Hong Yao (China University of Geosciences, P.R. China)

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**ThA-6:** Room: ONISILLOS

**Session Title:** Multimedia over Wireless (Multimedia over Wireless Symposium)

**Session Chair:** Derjiunn Deng, National Changhua University of Education, Taiwan

**Session Co-Chair:** Tasos Dagiuklas, Technological Educational Institute of Mesolonghi, Greece

**1569555835:** Cross-layer Energy Optimization Under Image Quality Constraints for Wireless Image Transmissions, N. Yang (University of Rochester, USA); I. Demirkol (Universitat Politecnica de Catalunya, Spain); W. Heinzelman (University of Rochester, USA)

**1569553927:** Fair Cross-layer Scheme for Heterogeneous H.264/AVC Video Streams over LTE-based Broadband Systems, S. Karachontzitis (University of Patras, Greece); T. Dagiuklas; L. Dounis (Technological Educational Institute of Messolonghi, Greece)

**1569557457:** QoE-based Cross-Layer Resource Allocation for Video Streaming in High Speed Downlink Access, A. Qing (University of Tongji, P.R. China); Y. Ji (National Institute of Informatics, Japan); L. Zhong (National Institute of Information and Communications Technology, Japan); P. Wang; F. Liu (Tongji University, P.R. China)

**1569557677:** Video traffic prediction for improved Scheduling in Joint WiMAX / Satellite Networks, A. Lygizou; S. Xergias; N. Passas (University of Athens, Greece)

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### **COFFEE BREAK (15:30-16:00)**

## **Thursday Afternoon Sessions (ThA)—(16:00-18:00)**

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**ThA-7:** Room: HALL-A

**Session Title:** Physical and Application Level Security (Security Symposium)

**Session Chair:** Samia Jones (Texas A&M University at Qatar, Qatar)

**Session Co-chair:** Hyoung-Kee Choi (Sungkyunkwan University, Korea)

**1569555237:** Artificial Noise Scheme to Ensure Secure Communications in CWSN; A. Araujo, J. Blesa, E. Romero, O. Nieto-Taladriz (Technical University of Madrid, Spain).

**1569557271:** On Improving the Robustness of Physical-layer Key Extraction Mechanisms against Delay and Mobility; Y. El Hajj Shehadeh, O. Alfandi, D. Hogrefe (Univ. of Goettingen, Germany).

**1569556583:** How much Security for Switching a Light Bulb -The SOA Way; Sebastian Unger, Stefan Pfeiffer, Dirk Timmermann (University of Rostock, Germany).

**1569544865:** A Decentralized Location-Query-Sensitive Cloaking Algorithm for LBS; Wei Li, Chunlei Liu (Beihang University, Beijing, P.R. China).

**1569550173:** Graph-Based Learning Model for Detection of SMS Spam on Smart Phones; Muhammad Rafique, Muhammad Abulaish (King Saud University, Saudi Arabia).  
**1569557681:** Proposed Relay Selection Scheme for Physical Layer Security in Cognitive Radio Networks; H. Sakran, O. Nasr, M. Shokair, E. S. El-Rabaie and A. Abou El-Azm (Ibb University, Yemen).  
**1569559999:** An Audio/Video Crypto-Technique – Adaptive Optical Steganography Approach, S. Guizani and N. Nasser (Alfaisal University, KSA).

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**ThA-8:** Room: HALL-B  
**Session Title:** Mobile Ad-hoc Networks (Wireless Networking Symposium)  
**Session Chair:** Ilker Demirkol, Universitat Politcnica de Catalunya, Spain

**1569552453:** Self-organization Framework for Mobile Ad Hoc Networks, Ali Kies (University of Sciences and the Technology of Oran, Algeria); Sara Mehar (University of Bourgogne - ISAT Nevers, France); Redouane Belbachir; Zoulikha Mekakia Maaza (University of Sciences and Technology of Oran, Algeria); Sidi-Mohammed Senouci (University of Bourgogne - ISAT Nevers, France)  
**1569555717:** Saturation Performance Analysis of IEEE 802.11 Broadcast in 2-D Mobile Ad Hoc Networks Minming Ni; Zhangdui Zhong (Beijing Jiaotong University, P.R. China); Jianping Pan (University of Victoria, Canada); Dongmei Zhao (McMaster University, Canada)  
**1569556703:** MUDDS: Multi-Metric Unicast Data Dissemination Scheme for 802.11p VANETs Omar Chakroun; Soumaya Cherkaoui; Jihene Rezgui (Université de Sherbrooke, Canada)  
**1569557213:** An User-Controllable Multi-Layer Secure Algorithm for MANET Ruen Chze Loh; Wayne Kan; Siew Leong Kan (Nanyang Polytechnic, Singapore)  
**1569557629:** Using SAT & ILP Techniques to Solve Enhanced ILP Formulations of the Clustering Problem in MANETS, Syed Zahidi; Fadi Aloul; Assim Sagahyoon (American University of Sharjah, UAE); Wassim El-Hajj (American University of Beirut, Lebanon)

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**ThA-9:** Room: HALL-C  
**Session Title:** Vehicular Communication Networks: Architectures and Protocols (Vehicular Symp.)  
**Session Chair:** Jelena Mistic, Ryerson University, Canada

**1569556705:** Bandwidth Efficient Broadcasting in VANETs, Estrella Garcia-Lozano (University Carlos III of Madrid, Spain); Celeste Campo (University Carlos III of Madrid, Spain); Carlos Garcia-Rubio (University Carlos III of Madrid, Spain); Alberto Cortes-Martin (University Carlos III of Madrid, Spain)  
**1569556751:** Free Space Optical Communication in the Visible Bandwidth for V2V Safety Critical Protocols, Raffaele Corsini; Riccardo Pelliccia; Giulio Cossu; Amir Khalid; Marco Ghibaudi (Scuola Superiore Sant'Anna, Italy); Matteo Petracca (Consorzio Nazionale Interuniversitario per le Telecomunicazioni, Italy); Paolo Pagano (Consorzio Nazionale Interuniversitario per le Telecomunicazioni, Italy); Ernesto Ciaramella (Scuola Superiore Sant'Anna University, Italy)  
**1569556945:** Transmission Schemes for High-Speed Railway: Direct or Relay?, Jia You; Zhangdui Zhong; Rongtao Xu; Gongpu Wang (Beijing Jiaotong University, P.R. China)  
**1569557617:** Location Assistant Beamforming for High Speed Railway, Chen Wang; Rongtao Xu; Zhangdui Zhong (Beijing Jiaotong University, P.R. China)  
**1569552059:** Performance Evaluation of IEEE 802.11p Infrastructure-to-Vehicle Real-World Measurements with Receive Diversity, Georg Maier (Vienna University of Technology, Austria); Alexander Paier (Kapsch TrafficCom, Austria); Christoph Mecklenbrauker (Vienna University of Technology, Austria)  
**1569557621:** A packing model to estimate VANET capacity, Anh Tuan Giang (University of Paris Sud XI, France); Anthony Busson (University of Paris 11, France); Alain Lambert (Universite Paris-Sud XI, France); Dominique Gruyer (LIVIC-IFSTTAR, France)  
**1569553441:** Evaluation of a Multi-Antenna Switched Link-based Network Architecture for Quasi-stationary Vehicle Network, R. K. Guha; J. Chennikara-Varghese; W. Chen (Telcordia Technologies)

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**ThA-10:** Room: EVAGORAS  
**Session Title:** Wireless Sensor Networks (Wireless Networking Symposium)  
**Session Chair:** Hazem Refai, Oklahoma University, USA

**1569554645:** Robust Routing for Target Tracking in Quantized Sensor Networks Majdi Mansouri; Lyes Khoukhi (University of Technology of Troyes, France)  
**1569556849:** Analyzing and Modeling the Failure Behavior of Wireless Sensor Networks Software under Errors, Marcello Cinque; Catello Di Martino; Alessandro Testa (University of Naples Federico II, Italy)

**1569557451:** Design and Performance Evaluation of a Composite-based Back End System for WSNs Wassim Drira, Eric Renault; Djamel Zeghlache (Telecom SudParis, France)  
**1569557771:** Performance Comparison of CSMA/CA Advanced Infrared (AIr) and a New Point-to-Multipoint Optical MAC Protocol, S. Asadollahi; H. Refai (Oklahoma U., USA); P. LoPresti (Tulsa U., USA)  
**1569557615:** A Unified Approach for Online and Offline Estimation of Sensor Platform Energy Consumption, M. Buschhoff; O. Spinczyk; C. Gunter (Technical Univ. of Dortmund, Germany)  
**1569589853:** EM-MAC: An Energy-Aware Multi-Channel MAC Protocol for Multi-Hop Wireless Networks, A. Sivanantha; B. Hamdaoui (Oregon State University, USA); M. Guizani (QU, USA); X. Cheng (George Washington Univ, USA); T. Znati (University of Pittsburgh, USA)

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**ThA-11:** Room: TEFKROS  
**Session Title:** Transceiver Design-II (Communication and Information Theory Symp.)  
**Session Chair:** Thomas Kunz, Carleton University, Canada

**1569544779:** Modal Theory for Interpreting Path Loss and MIMO Capacity in a Tunnel Excited by an Outside Antenna, Jose-Maria Molina-Garcia-Pardo (Universidad Politecnica de Cartagena, Spain); Martine Liénard; Pierre Degauque (University of Lille, France)  
**1569552169:** Impact of Propagation/System Parameters on Cellular Wireless Network Operating at Frequencies Greater Than 2 GHz, Kwashie A Anang; Predrag Rapajic; Ruiheng Wu; Lawal Bello; Titus Ikechukwu Eneh (University of Greenwich, United Kingdom)  
**1569554217:** An EXIT-Chart Aided Optimization of Bit Mapping for DVB-C2 System, Keqian Yan; Kewu Peng; Fang Yang; Tao Cheng; Jian Song (Tsinghua University, P.R. China)  
**1569556093:** Non-Coherent Detection of Weak M-ary Chirp Signals in Non-Gaussian Impulsive Noise, Abdullah Kadri (QU Wireless Innovations Center, Qatar)  
**1569556263:** Detection of Space Shift Keying Signaling in Large MIMO Systems, Ronald Y. Chang; Wei-Ho Chung; Sian-Jheng Lin (Academia Sinica, Taiwan)  
**1569567301:** VAE VICTIS and Democratic Admission Control Strategies for OFDMA Networks, Abbes Yosra; Hichem Besbes (Ecole Supérieure de Communications de Tunis, Sup'Com, University of Carthage, TUNISIA, Tunisia)

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**ThA-12:** Room: ONISILLOS  
**Session Title:** Traffic and Distribution (General Symposium)  
**Session Chair:** Mehrdad Dianati, University of Surrey, UK  
**Session Co-chair:** Sghiaer Guizani, Alfaisal University, KSA

**1569546511:** Open Spectrum Communication Systems and Optimized Downlink Beamforming, Miguel Angel Vazquez; Ana Perez-Neira; Miguel Angel Lagunas (CTTC, Spain)  
**1569555649:** Traffic Relaying in Multi-hop Wireless Networks, Alessandro Nordio (IEIT CNR - Italian National Research Council, Italy); Vahid Forutan (Politecnico di Torino, Italy); Carla-Fabiana Chiasserini (Politecnico di Torino, Italy)  
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