

**IEEE  
IWCMC 2015  
Technical Program at a Glance  
Dubrovnik, Croatia, August 24<sup>th</sup> — 28<sup>th</sup>, 2015**

DATE	TIME	ROOM							
<b>August 24, 2015 (Monday)</b>  <b>TUTORIALS</b>		<b>DAKSA</b>							
	9:00-12:00	<b>T1:</b> The Internet of Things (IoT): Applications and Prospects <b>By:</b> A. Al-Fuqaha, Western Michigan University, USA & M. Anan, Alfaisal University, KSA							
	12:00-13:30	<b>LUNCH BREAK</b>							
	14:00-17:00	<b>T2:</b> M2M over LTE <b>By:</b> Jelena Misic and Vojislav Misic, Ryerson University, Canada							
	19:00-20:00	<b>WELCOME RECEPTION</b>							
<b>August 25, 2015 (Tuesday)</b>  <b>SESSIONS</b>		<b>OLIPA A</b>	<b>OLIPA B</b>	<b>OLIPA C</b>	<b>OLIPA D</b>	<b>TAJAN</b>	<b>RUDA</b>	<b>DAKSA</b>	
	8:30-9:00	<b>WELCOME &amp; OPENING</b>							
	9:00-10:00	<b>KEYNOTE 1:</b> Prof. Giuseppe Bianchi, University of Roma Tor Vergata, Italy <b>TITLE:</b> Network Programmability: A Holistic Perspective							
	10:00-10:30	<b>COFFEE BREAK</b>							
	10:30-12:30	TM-1	TM-2	TM-3	TM-4	TM-5	TM-6	TM-7	
	12:30-13:30	<b>LUNCH BREAK</b>							
	13:30-15:30	TA-1	TA-2	TA-3	TA-4	TA-5	TM-6	TM-7	
	15:30-16:00	<b>Coffee Break</b>							
	16:00-18:00	TA-8	TA-9	TA-10	TA-11	TA-12	TA-13	TA-14	
19:00-22:00	<b>NIGHT OUT (On your Own)</b>								
<b>August 26, 2015 (Wednesday)</b>  <b>SESSIONS</b>	9:00-10:00	<b>KEYNOTE 2:</b> Prof. Mario Gerla, University of California, Los Angeles (UCLA), USA <b>TITLE:</b> Evolving VANET Services in the Autonomous Vehicle Era							
	10:00-10:30	<b>Coffee Break</b>							
	10:30-12:30	WM-1	WM-2	WM-3	WM-4	WM-5	WA-6	WA-7	
	12:30-13:30	<b>LUNCH BREAK</b>							
	13:30-15:30	WA-1	WA-2	WA-3	WA-4	WM-5	WA-6	WA-7	
	15:30-16:00	<b>Coffee Break</b>							
	16:00-18:00	WA-8	WA-9	WA-10	WA-11	WA-12	WA-13	WA-14	
19:00-21:00	<b>DINNER BANQUET</b>								
<b>August 27, 2015 (Thursday)</b>  <b>SESSIONS</b>	9:00-10:00	<b>KEYNOTE 3:</b> Prof. Slim Alouini, KAUST, Saudi Arabia <b>TITLE:</b> Addressing Spectrum Scarcity through Optical Wireless Communications							
	10:00-10:30	<b>Coffee Break</b>							
	10:30-12:30	ThM-1	ThM-2	ThM-3	ThM-4	ThM-5	ThM-6	ThM-7	
	12:30-13:30	<b>LUNCH BREAK</b>							
	13:30-15:30	ThA-1	ThA-2	ThA-3	ThA-4	ThA-5	ThM-6	ThM-7	
<b>August 28, 2015 (Friday)</b>	<b>EXCURSIONS (On your Own)—No Sessions</b>								

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**TECHNICAL PROGRAM**  
**IEEE IWCMC 2015**  
**Dubrovnik, Croatia, August 24<sup>th</sup> — 28<sup>th</sup>, 2015**

**Monday, August 24<sup>th</sup>, 2015**

**Registration — (8:00 - 15:00)**

**Room: Open Hall**

**Tutorial 1 — (9:00 - 12:00)**

**Room: DAKSA**

- **Speakers:** A. Al-Fuqaha, Western Michigan University, USA & M. Anan, Alfaisal University, KSA
- **Title:** The Internet of Things (IoT): Applications and Prospects
- **Chair:** Vlatko Lipovac, Vice Rector for International Relations and Science, University of Dubrovnik, Croatia

**LUNCH BREAK**

**12:00 – 13:30**

**Tutorial 2 — (14:00 - 17:00)**

**Room: DAKSA**

- **Speaker:** Jelena Mistic and Vojislav Mistic, Ryerson University, Canada
- **Title:** M2M over LTE
- **Chair:** Vlatko Lipovac, Vice Rector for International Relations and Science, University of Dubrovnik, Croatia

**WELCOME RECEPTION**

**19:00 – 20:00**

**TECHNICAL PROGRAM**  
**IEEE IWCMC 2015**  
**Dubrovnik, Croatia, August 24<sup>th</sup> — 28<sup>th</sup>, 2015**

**Tuesday, August 25<sup>th</sup>, 2015**

**Registration — (8:00 - 15:00)** **Room: Open Hall**

**Opening Session — (8:30 - 9:00)** **Room: OLIPA**  
**Speaker:** Vlatko Lipovac, Vice Rector for International Relations and Science, University of Dubrovnik, Croatia

**KEYNOTE 1 — (9:00 - 10:00)** **Room: OLIPA**  
➤ **Speaker:** Prof. Giuseppe Bianchi, University of Roma Tor Vergata, Italy  
➤ **Title:** Network Programmability: A Holistic Perspective  
➤ **Chair:** Prof. Mario Gerla, University of California, Los Angeles (UCLA), USA

**Coffee Break — (10:00 - 10:30)**

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

➤ **Session Title:** INVITED PAPERS **TM-1: Room: OLIPA**  
➤ **Session Chair:** Giuseppe Bianchi, University of Roma Tor Vergata, Italy

**1570096073:** Multipath TCP over LEO Satellite Networks, Pengyuan Du; Xiao Li; You Lu; Mario Gerla (University of California at Los Angeles, USA)

**1570096457:** DiscoverFriends: Secure Social Network Communication in Mobile Ad Hoc Networks, Joshua Joy; Mario Gerla; Eric Chung (UCLA, USA)

**1570082397:** A Novel Social Contact Graph Based Routing Strategy for Delay Tolerant Networks, Tuan Le; Haik Kalantarian; Mario Gerla (University of California at Los Angeles, USA)

**1570139231:** A Context-Aware Cognitive SIMO Transceiver for Increased LTE-HetNet System-Level DL-Throughput, Imen Mrissa (INRS-EMT, Canada); Faouzi Bellili (INRS, Canada); Sofiene Affes (INRS-EMT, Canada); Alex Stéphenne (Ericsson & INRS-EMT, Canada)

**1570110439:** Analysis on Connectivity Performance for Vehicular Ad Hoc Networks Subjected to User Behavior, Ruifeng Chen (Beijing Jiaotong University, P.R. China); Zhengguo Sheng (University of Sussex, United Kingdom); Zhangdui Zhong and Minming Ni (Beijing Jiaotong University, P.R. China); David G. Michelson (University of British Columbia, Canada); Victor CM Leung (The University of British Columbia, Canada)

**1570128899:** A Novel Method for Ergodic Sum Rate Analysis of Spatial Modulation Systems with Maximum Likelihood Receiver, Shangbin Wu, Piya Patcharamaneepakorn & Chengxiang Wang (Heriot-Watt University, United Kingdom); El-Hadi M. Aggoune; Mohammed Alwakeel (University of Tabuk, Saudi Arabia); Yejun He (Shenzhen University, P.R. China)

**LUNCH BREAK** **12:00 – 13:30**

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

- |   |                            |
|---|----------------------------|
| ➤ <b>Session Title:</b> QoS/QoE-based Measurements and Analysis (TRAC Workshop) | <b>TA-1: Room:</b> OLIPA-A |
| ➤ <b>Session Chair:</b> Sandrine Vaton, Telecom Bretagne, France                |                            |

**Keynote:** Dr. Martin Varela, VTT Technical Research Centre of Finland—**Title:** QoE: from Measurements to Business

**1570097829:** On the Analysis of QoE in Cellular Networks: from Subjective Tests to Large-scale Traffic Measurements

**1570110573:** YouTube QoE on Mobile Devices: Subjective Analysis of Classical vs. Adaptive Video Streaming

**1570113849:** Adkintun Mobile: towards using Personal and Device Context in Assessing Mobile QoS

- |  |                            |
|--|----------------------------|
| ➤ <b>Session Title:</b> Resource Allocation and Management (Wireless Networking Symp.) | <b>TA-2: Room:</b> OLIPA-B |
| ➤ <b>Session Chair:</b> Abd-Elhamid M. Taha, Alfaisal University, Saudi Arabia         |                            |

**1570097961:** Distributed Power Allocation and Interference Mitigation in Two-Tier Femtocell Networks: A Game-Theoretic Approach, Maryam Lashgari, Behrouz Maham and Hamed Kebriaei (University of Tehran, Iran); Walid Saad (Virginia Tech, USA)

**1570084753:** Reducing the Complexity of Resource Allocation for Underlying Device-to-Device Communications, Mohammad Tauhidul Islam (Queen's University, Canada); Abd-Elhamid M. Taha (Alfaisal University, Saudi Arabia); Selim G. Akl (Queen's University, Canada)

**1570100769:** QoS-provisioning Downlink Resource Management in 4G Cellular Systems, You-Chiun Wang; Song-Yun Hsieh (National Sun Yat-sen University, Taiwan)

**1570098155:** Dynamic AIFSN tuning for improving the QoS over IEEE 802.11 WLANs, Estefanía Coronado Calero; José Villalón; Antonio Garrido (University of Castilla-La Mancha, Spain)

**1570083105:** Activity Dependent Power Allocation Algorithm for IEEE 802.11 networks, Tomas Cuzanauskas (Vilnius Gediminas Technical University, Lithuania); Arturas Medeisis (International Telecommunication Union, Saudi Arabia); Aurimas Anskaitis (Vilnius Gediminas Technical University, Lithuania)

**1570082777:** SLNR Beamforming Based Iterative Power Allocation in TD-LTE-A Downlink, Xuanli Wu; Wanjun Zhao (Harbin Institute of Technology, P.R. China); Fabrice Labeau (McGill University, Canada); Ye Wang (University of Ontario Institute of Technology, P.R. China); Xuejun Sha (Harbin Institute of Technology, P.R. China)

- |   |                            |
|---|----------------------------|
| ➤ <b>Session Title:</b> Physical Layer Security (Security Symposium)            | <b>TA-3: Room:</b> OLIPA-C |
| ➤ <b>Session Chair:</b> Stephen Doswell, Northumbria University, United Kingdom |                            |

**1570081269:** Cooperative Jamming with Untrusted SUs for Secure Communication of Two-Hop Primary System, Dawei Wang, Pinyi Ren, Yichen Wang, Qinghe Du and Li Sun (Xi'an Jiaotong University, P.R. China)

**1570094299:** Artificial-Noise Strategy for Single-Antenna Systems over Multi-Path Fading Channels, Yuli Yang (Meliksah University, Turkey); Bingli Jiao (Peking University, P.R. China)

**1570098991:** Detecting Covert Timing Channels Using Non-parametric Statistical Approaches, Fahimeh Rezaei; Michael Hempel; Pradhuma Lal Shrestha; Sushanta Mohan Rakshit and Hamid Sharif (University of Nebraska-Lincoln, USA)

**1570107101:** A longitudinal approach to measuring the impact of mobility on low-latency anonymity networks, Stephen Doswell (Northumbria University, United Kingdom); Nauman Aslam (School of Computing, United Kingdom); David Kendall and Graham Sexton (Northumbria University, United Kingdom)

**1570107389:** Channel Secondary Random Process for Robust Secret Key Generation, Ahmed Badawy (Politecnico di Torino, Italy); Tamer Khattab and Tarek M. Elfouly (Qatar University, Qatar); Carla-Fabiana Chiasserini (Politecnico di Torino, Italy); Amr Mohamed (Qatar University, Qatar); Daniele Trincherio (Politecnico di Torino & iXem Labs, Italy)

**1570107621:** Comparative Simulation for Physical Layer Key Generation methods, Amal Saad; Amr Mohamed; Tarek M. Elfouly, Tamer Khattab; Mohsen Guizani (QU)

- **Session Title:** Smart Devices and Location (Mobile Computing Symposium)
- **Session Chair:** Abbas Yongacoglu, University of Ottawa, Canada

**TA-4: Room:** OLIPA-D

**1570082995:** A New Fuzzy Location Indicator for Interval Type-2 Indoor Fuzzy Localization System, Noura Baccar (University of Tunis Elmanar & Cynapsys, Tunisia); Ridha R. Bouallegue (Ecole Supérieure des Communications de Tunis, Tunisia)

**1570098161:** Lognormal Mixture Cramer-Rao Lower Bound for Localization, Saliha Büyükçorak; Gunes Karabulut Kurt (Istanbul Technical University, Turkey); Abbas Yongacoglu (University of Ottawa, Canada)

**1570107477:** A simple ultrasonic Indoor/Outdoor detector for mobile devices, Igor Bisio, Alessandro Delfino and Fabio Lavagetto (University of Genoa, Italy)

**1570107051:** IO characteristics of modern smartphone platform: Android vs. Tizen, Myungsik Kim, Hu Ung Lee and Youjip Won (Hanyang University, Korea)

**1570106639:** Selection Probability of Data Channels in Bluetooth Low Energy, M. AlKalaa; H. Refai (University of Oklahoma, USA)

**1578999999:** The Role of Hierarchical Entropy Analysis in the Detection and Time-Scale Determination of Covert Timing Channels, O. Darwish, A. Al-Fuqaha (Western Michigan University, USA), M. Anan, N. Nasser (Alfaisal University, KSA)

- **Session Title:** Resource Management & Performance Analysis (CCN Workshop)
- **Session Chair:** Mahdi BenGhorbel, Qatar University, Qatar

**TA-5: Room:** TAJAN

**1570107643:** Average channel capacity analysis of BDF relaying over alpha-mu fading channels, Ruben Boluda-Ruiz (University of Málaga, Spain); Antonio Garcia-Zambrana, Beatriz Castillo-Vazquez and Carmen Castillo-Vazquez (University of Malaga, Spain)

**1570097931:** Analysis and Characterization of Dynamic Spectrum Sharing in Cognitive Radio Networks, Claudina Rattaro (Universidad de la República & Facultad de Ingeniería, Uruguay); Laura Aspirot (Universidad de la República, Instituto de Matematica y Estadística Rafael Laguardia (IMERL), Uruguay); Pablo Belzarena (Universidad de la Republica, Uruguay)

**1570107485:** Overlay Cognitive Radio Networks: A Distributed Matching Scheme for User Pairing, Anargyros J. Roumeliotis, Stavroula Vassaki and Athanasios D. Panagopoulos (NTU of Athens, Greece)

**1570105663:** Beamforming Design and Sum Rate Maximization for the Downlink of Underlay Cognitive Radio Networks, Imen Turki (SupCom, Tunisia); Inès Kammoun (ENIS, Tunisia); Mohamed Siala (Sup'Com, Tunisia)

**1570114929:** Cooperative Joint Power Splitting and Allocation Approach for Simultaneous Energy Delivery and Data Transfer, Mahdi Ben Ghorbel; Mohsen Guizani (QU); Bassem Khalfi and Bechir Hamdaoui (Oregon State University, USA)

**1570107115:** Pricing-based Power Allocation in Wireless Network Virtualization: A Game Approach, Junyi Wei and Kun Yang (University of Essex, United Kingdom); Guopeng Zhang (China University of Mining and Technology & The State Key Laboratory of Integrated Services Networks, XiDian University, P.R. China); Hu Zheng (Beijing University of Posts and Telecommunications, P.R. China)

- **Session Title:** Communication Systems (Communication & Information Theory Symp.)
- **Session Chair:** Ahmed Badawy, Politecnico di Torino, Italy

**TA-6: Room:** RUDA

**1570107737:** Comparison of Two Majority Determination Methods of Detecting Emergency Wake-Up Trigger for ISDB-T Terrestrial Digital Television Receivers, Satoshi Takahashi (Hiroshima City University, Japan)

**1570098467:** Estimating the Number of Sources: An Efficient Maximization Approach, Tara Salman (Qatar University); Ahmed Badawy (Politecnico di Torino, Italy); Tarek M. Elfouly; Amr Mohamed; Tamer Khattab (Qatar University, Qatar)

**1570080915:** A Priori Aided Compressive Sensing Approach for Impulsive Noise Reconstruction, Sicong Liu; Fang Yang, Wenbo Ding and Jian Song (Tsinghua University, P.R. China)

**1570095083:** Distributional Semantics and Unsupervised Clustering for Sensor Relevancy Prediction, Myriam Leggieri (Insight Centre for Data Analytics & National University of Ireland, Galway, Ireland); Brian Davis (DERI Galway, Ireland); John Breslin (National University of Ireland, Galway, Ireland)

**1570082129:** Performance Analysis and Alternative proposals for DTMB System, Yue Liu, Kewu Peng, Jian Song and Tao Cheng (Tsinghua University, P.R. China)

**1570096473:** Genie-aided Adaptive Normalized Min-Sum Algorithm for LDPC Decoding, Yue Liu and Kewu Peng (Tsinghua University, P.R. China); Changyong Pan (Tsinghua University, Beijing, P.R. China); Liwen Fan (Tsinghua University, P.R. China)

- **Session Title:** General Symposium I  
➤ **Session Chair:** Vania Conan, Thales Communications & Security, France

**TA-7: Room:** DAKSA

**1570097503:** Hardware based Analysis of RFID Anti-Collision Protocols based on the Standard EPCglobal Class-1 Generation-2, Laura Arjona; Hugo Landaluce (University of Deusto, Spain); Asier Perallos (Fundacion Deusto, Spain); Nikola Cmiljanic (University of Deusto, Spain)

**1570098375:** A Novel Energy-Efficient Medium Access Control over Saturated IEEE 802.11 WLANs, Mehmet Fatih Tuysuz (Harran University, Turkey); Dilek Ayneli and Murat Ucan (Harran University, Turkey)

**1570092125:** Enhanced Component Carrier Selection Strategy for LTE-A Under Carrier Aggregation Mode, Imen Ben Chaabane (Supcom, Tunisia); Soumaya Hamouda (Ecole Supérieure des Communications de Tunis, Tunisia); Sami Tabbane (Sup Telecom, Tunisia)

**1570097441:** A full duplex MAC protocol for wireless networks, Jawad Seddar (THALES, France); Hicham Khalife, Wassim Al Safwi and Vania Conan (Thales Communications & Security, France)

**1570113819:** Synchronization Technique for MIMO-OFDM WLAN Systems with Space Time Diversity, Leila Nasraoui (Sup'com, Tunisia); Leila Najjar and Mohamed Siala (Sup'Com, Tunisia)

**1570083041:** A Rhombic-DCM Constellation for MB-OFDM UWB Systems, Moufida Hajjaj (SUP'COM, Tunisia); Walid Chainbi (Sousse University, Tunisia); Ridha R. Bouallegue (Ecole Supérieure des Communications de Tunis, Tunisia)

**Coffee Break — (15:30 - 16:00)**

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

- **Session Title:** Designs and Applications (Vehicular Symp.)  
➤ **Session Chair:** Stephen Doswell, Northumbria University, United Kingdom

**TA-8: Room:** OLIPA-A

**1570073053:** On the Use of Mobile Sensors for Estimating City-Wide Pollution Levels, Carlos T. Calafate (Universidad Politécnica de Valencia, Spain); Bertrand Ducourthial (Université de Technologie de Compiègne, France)

**1570082755:** RS4VANETs-A Decentralized Reputation System for Assessing the Trustworthiness of Nodes in Vehicular Networks, Cláudio Fernandes (UNIVALI, Brazil); Israel Simas (UFSC - Federal University of Santa Catarina & Intelbras, Brazil); Emerson Mello (IFSC, Brazil); Michelle Silva Wangham (UNIVALI, Brazil)

**1570083145:** M-PNC: Multi-Hop Physical Layer Network Coding for Shared Paths in Vehicular Networks, Pratap Kumar Sahu and Abdelhakim Hafid (University of Montreal, Canada); Soumaya Cherkaoui (Université de Sherbrooke, Canada)

**1570091247:** Beacon-free Scalable Multi-hop Data Dissemination in Vehicular Ad hoc Networks, Moumena Chaqfeh and Abderrahmane Lakas (UAE University, UAE)

**1570098169:** Using Road IDs to Enhance Clustering in Vehicular Ad hoc Networks

Hadded Mohamed (Telecom SudParis, Tunisia); Paul Muhlethaler (INRIA, France); Rachid Zagrouba (CRISTAL Lab. ENSI, Tunisia); Anis Laouiti (TELECOM SudParis, France); Leila Azouz Saidane (ENSI, University of Manouba, Tunisia)

**1570098199:** Mobile data offloading in urban VANETs on top of a virtualization layer, Jack Fernando Bravo-Torres (Salesian Polytechnic University, Ecuador); José Víctor Saiáns-Vázquez, Martin Lopez-Nores, Yolanda Blanco-Fernández; Jose Juan Pazos-Arias (Universidad de Vigo, Spain)

**1570107609:** ETAR: Efficient Traffic Light Aware Routing Protocol for Vehicular Networks, Omar Sami Oubbati (University of Laghouat, Algeria); Abderrahmane Lakas (UAE University, UAE); Nasreddine Lagraa; Mohamed Bachir Yagoubi (University of Laghouat, Algeria)

- **Session Title:** Performances analysis and optimization I (Wireless Networking Symp.)  
➤ **Session Chair:** Alexandru Vulpe, University Politehnica of Bucharest, Romania

**TA-9: Room:** OLIPA-B

**1570100933:** On Sharing Resources Performance Analysis in 3GPP-LTE Systems Framework. Mohamed Hussein; Serguei Primak; Abdallah Shami (The University of Western Ontario, Canada)

**1570107649:** Performance of Delay Tolerant Mobile Networks under propagation and buffer capacity constraints, Mouna Abdelmoumen and Emna Jaidane (Sup'com, Higher School of Communication of Tunis, Tunisia); Mounir Frikha (High School of Communication in Tunis, Tunisia); Tijani Chahed (Telecom SudParis, France)

**1570082191:** Channel Assignment with Transmission Power Optimization method for High throughput in Multi-Access Point WLAN, Amit Kachroo; HyungWon Kim; Junhyuk Park (Chungbuk National University, Korea)

**1570098173:** A Distributed Open-Close Access for Small-Cell Networks: A Random Matrix Game Analysis, Samia Ben chekroun (Mohammed V University, Morocco); Essaid Sabir (ENSEM/UH2C, Morocco); Abdellatif Kobbane (ENSIAS,

Mohammed V University of Rabat, Morocco); Hamidou Tembine (Supelec, France); Houssine Bouyakhf (Université Mohammed V Agdal, Morocco); Khalil Ibrahim (University of Ibn Tofail & Faculty of Sciences, Morocco)

**1570083027:** Impact of Hidden Collision on Primary Users' Performance in Dynamic Spectrum Access, Marouane Sebgui (University Mohammed V Agdal, Mohammadia, Morocco); Jalal Almhana (Universite de Moncton, Canada); Slimane Bah (Ecole Mohammadia des Ingenieurs (EMI) & Mohammed V University, Morocco); Belhaj El Graini (Ecole Mohammadia d'Ingénieurs, Morocco)

**1570107625:** Energy Consumption Performance Results Of Multiband OFDM UWB Systems, Houda Chihi (ENIT, Tunisia)

➤ **Session Title:** Clustering and Routing Mechanisms for WSNs (WSNs Symp.)

**TA-10: Room:** OLIPA-C

➤ **Session Chair:** Wassim El-Hajj, AUB, Lebanon

**1570097693:** Adaptive Packet-Combining to Counter Traffic Analysis in Wireless Sensor Networks, Sami Alsemairi; Mohamed Younis (University of Maryland Baltimore County, USA)

**1570103855:** Energy-Efficiency of Load-Balancing Routing for Wireless Convergecast Networks: Centralized versus Distributed Implementation, Xin Di and Zhaoyu Zhang; Chen Ao; Jun Tian (Fujitsu R&D Center Co., Ltd., P.R. China); Kazuyuki Ozaki and Yun Wen (Fujitsu Laboratories Ltd., Japan); Hiroshi Fujita (Fujitsu laboratories limited, Japan)

**1570107481:** MBEEC: A bio-inspired routing protocol with multihop between cluster-heads for energy saving in WSN, Francisco Leonardo Jales Martins (UECE, Brazil); Joaquim Celestino Júnior (UECE, Brazil); Antoniel Rêgo (UECE, Brazil); José Henrique Neto (Universidade Estadual do Ceará, Brazil); André dos Santos (State University of Ceará, Brazil); Ahmed Patel (Jazan University, Saudi Arabia)

**1570107709:** MOLSR: Mobile-Agent Based Optimized Link State Routing Protocol, Wassim El-Hajj (AUB, Lebanon); Ghassen Ben Brahim (PMU, Saudi Arabia); Haidar Safa and Maha Akkari (AUB, Lebanon)

**1570115911:** Does AODV Perform Better with Energy Harvesting? Emad Aldalu; Uthman Baroudi (KFUPM, Dhahran, Saudi Arabia)

**1570096545:** GPS-Free Robots Deployment Technique for Rescue Operation Based on Landmark's Criticality, Uthman Baroudi; Gamal Sallam; Mohammed Al-Shaboti (KFUPM, Saudi Arabia); Mohamed Younis (University of Maryland Baltimore County, USA)

➤ **Session Title:** Anomaly Detection, Security and Privacy (TRAC Workshop)

**TA-11: Room:** OLIPA-D

➤ **Session Chair:** Alessandro D'Alconzo, Telecommunications Research Center, FTW Vienna

**1570107613:** Towards Automatic Detection and Diagnosis of Internet Service Anomalies via DNS Traffic Analysis

**1570113551:** Experimental Evaluation of Privacy-Preserving Aggregation Schemes on PlanetLab

**1570103533:** Troubleshooting Web Sessions with CUSUM

**1570106595:** Semantics based Analysis of Botnet Activity from Heterogeneous Data Sources

➤ **Session Title:** LTE and MIMO (Wireless Networking Symp.)

**TA-12: Room:** TAJAN

➤ **Session Chair:** Alexandru Vulpe, University Politehnica of Bucharest, Romania

**1570130893:** Optimal Wireless Network Selection Following Students' Online Habits Using Fuzzy AHP and TOPSIS Methods, Emil Brajković (University of Mostar, Bosnia and Herzegovina); Tomo Sjekavica (University of Dubrovnik, Croatia); Tomislav Volarić (University of Mostar, Bosnia and Herzegovina)

**1570098361:** Digital Self-Interference Cancellation for Full-Duplex MIMO Systems, Dandan Liang, Pei Xiao, Gaojie Chen, Mir Ghorraishi and Rahim Tafazolli (University of Surrey, United Kingdom)

**1570131227:** Green Operation of LTE-A Femtocell Networks Benefiting from Centralized Control, Elias Yaacoub (Strategic Decisions Group, Lebanon); Abdullah Kadri (Qatar Mobility Innovations Center, Qatar)

**1570091383:** A Novel Green Handover Self-Optimization Algorithm for LTE-A/5G HetNets, Maissa Boujelben (Higher School of Communication of Tunis, Tunisia); Sonia Ben Rejeb (ISI, Tunisia); Sami Tabbane (Sup Telecom, Tunisia)

**1570096291:** A Tailored Fractional Frequency Reuse Scheme for Heterogeneous Networks, Jihene Ben Abderrazak (ESPRIT, Tunisia); Hichem Besbes (Sup'Com, University of Carthage, TUNISIA, Tunisia)

**1570096835:** Analysis of Uplink Effective SINR in LTE Networks, Marwane Ben Hcine (Sup'Com, Tunisia); Ridha R. Bouallegue (Ecole Supérieure des Communications de Tunis, Tunisia)



- **Session Title:** Wireless Communications (Comm. & Information Theory Symposium) **TA-13: Room:** RUDA  
➤ **Session Chair:** Slaheddine Jarboui, National School of Engineers of Tunis, Tunisia

**1570107065:** Performance Investigation of IEEE 802.11af Systems Under Realistic Channel Conditions, Mustafa Can Macit, Habib Senol and Serhat Erkucuk (Kadir Has University, Turkey)

**1570097777:** On the Effect of Proportional Fairness in Energy Transfer for Wireless Powered Communication Networks, Majid Butt; Amr Mohamed; Mohsen Guizani (QU)

**1570107607:** A Poisson Point Process Model for Coverage Analysis of Multi-hop Cooperative Networks, Muhammad Ahsen and Syed Ali Hassan (National University of Sciences and Technology, Pakistan)

**1570097851:** SNR-based Relay Selection Scheme for Cooperative Relay Networks, Erdoğan Aydın (University of Maltepe, Turkey); Haci Ilhan (Yildiz Technical University, Turkey)

**1570098837:** G-CRLB Analysis of Time Delay Based Localization for Decode-and-Forward Cooperative Relay Networks in Multipath Environments, Gokhan Celik (Gebze Technical University, Turkey); Hasari Celebi (Gebze Institute of Technology, Turkey)

**1570107375:** Performance Analysis for Interference Cancellation at the Receiver in D2D Communication, Jihyung Kim and Jaesheung Shin (ETRI, Korea)

- **Session Title:** General Symposium II **TA-14: Room:** DAKSA  
➤ **Session Chair:** Riku Jäntti, Aalto University School of Electrical Engineering, Finland

**1570107661:** Performance Enhancement of Multi-hop Wireless systems by optimizing The Number and Location of Relays, Sami Baroudi; Yousef R. Shayan (Concordia University, Canada)

**1570080591:** Converged Heterogeneous Networks with Transmit Order and Base-Station-to-Base-Station Interference Cancellation, Zekeiya Uykan (American University of the Middle East, Kuwait); Riku Jäntti (Aalto University School of Electrical Engineering, Finland)

**1570098025:** Distributed Latency Estimation Using Global Knowledge for Mobile Collaborative Applications, Jan Gäbler; Hartmut Koenig (BTU Cottbus, Germany)

**1570082385:** A Positioning Compatible Multi-Service Transmission System Based on the Integration of VLC and PLC, Xu Ma; Wenbo Ding; Fang Yang; Hui Yang; Jian Song (Tsinghua University, P.R. China)

**1570082389:** 3D Localization Technique with Mobile Robot for Improving Operability of Remote-Control Devices, Masaya Yoshida; Kiyohito Yoshihara (KDDI R&D Laboratories Inc., Japan); Amarlingam Madapu; Vinod Kumar Netad; Pachamuthu Rajalakshmi (IIT Hyderabad, India)

**NIGHT OUT (On Your Own)**

**TECHNICAL PROGRAM**  
**IEEE IWCMC 2015**  
**Dubrovnik, Croatia, August 24<sup>th</sup> — 28<sup>th</sup>, 2015**

**Wednesday, August 26<sup>th</sup>, 2015**

**Registration — (8:00 - 15:00)**

**Room: Open Hall**

**KEYNOTE 2 — (9:00 - 10:00)**

**Room: OLIPA**

- **Speaker:** Mario Gerla, University of California, Los Angeles (UCLA), USA
- **Title:** Evolving VANET Services in the Autonomous Vehicle Era
- **Chair:** Vlatko Lipovac, Vice Rector for International Relations and Science, University of Dubrovnik, Croatia

**Coffee Break — (10:00 - 10:30)**

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

- **Session Title:** Performance analysis and optimization II (Wireless Networking Symp.) **WM-1: Room: OLIPA-A**
- **Session Chair:** Mario Gerla, University of California, Los Angeles (UCLA), USA

**1570107581:** Access Anomaly of Emergency Traffic in CSMA/CA of IEEE 802.15.6, Mara Bukvic (University of Belgrade, Serbia); Jelena Mišić (Ryerson University, Canada)

**1570106955:** On Interference Modeling for the Analysis of Uplink/Downlink Interactions in TDD-OFDMA Networks, Ahmad El-Hajj (American University of Beirut, Lebanon); Naeem Akl (UT Austin, USA); Bilal Hammoud (TUM, Germany); Zaher Dawy (American University of Beirut, Lebanon)

**1570107451:** GF(q) Precoding: Mutual Information Analysis in AWGN Channels, Fan Jiang, Cheng Li and Ramachandran Venkatesan (Memorial University of Newfoundland, Canada)

**1570086013:** PMIPv6 Route Optimization for Inter- and Intra-Domain Roaming using Signaling Reduction Approach in LTE Networks, Wen-Kang Jia (National Chiao Tung University, Taiwan)

**1570082753:** Analysis of Energy Efficiency on the Cell Range Expansion for Cellular-WLAN Heterogeneous Networks, Shobanraj Navaratnarajah, Mehrdad Dianati and Muhammad Ali Imran (University of Surrey, United Kingdom)

**1570097515:** Modeling Multi-Hop CSMA-Based Networks Through Semi-Markov Chains, Andrea Stajkic; Chiara Buratti and Roberto Verdone (University of Bologna, Italy)

**1570106423:** Design and Analysis of a WBAN-based System for Firefighters, Soumaya Bel Hadj Youssef (Sup'Com), Tunisia; Slim Rekhis (University of, Tunisia); Noureddine Boudriga (University of Carthage, Tunisia)

- **Session Title:** Traffic Monitoring and Analysis (TRAC Workshop) **WM-2: Room: OLIPA-B**
- **Session Chair:** Christian Callegari, University of Pisa, Italy

**Keynote:** Dr. Pere Barlet-Ros, UPC Barcelona Tech, Spain—**Title:** Network Traffic Classification: from Theory to Practice

**1570105189:** Impact of Carrier-Grade NAT on Web Browsing

**1570105537:** Towards Understanding Upstream Web Traffic

**1570106017:** Traffic Monitoring in Home Networks: Enhancing Diagnosis and Performance Tracking

- **Session Title:** Node Placement in WSNs (WSNs Symp.) **WM-3: Room: OLIPA-C**
- **Session Chair:** Mohamed Hossam Ahmed, Memorial University, Canada

**1570078977:** An Asynchronous Cluster Head Rotation Scheme for Wireless Sensor Networks, Chuang Chen, Fan Rao, Yuhuan Dong and Xuedan Zhang (Tsinghua University, P.R. China)

**1570097445:** A Game Theory-Based Approach for Robots Deploying Wireless Sensor Nodes, Ines Khoufi; Pascale Minet (INRIA, France); Mohammed-Amine Koulali (University Mohammed I & ENSAO, Morocco); Mohammed Erradi (ENSIAS: Ecole Nationale Supérieure d'Informatique et d'Analyse des Systèmes, Morocco)

**1570107653:** Three Dimensional Mobile Wireless Sensor Networks Redeployment Based On Virtual Forces, Nadia

Boufares (Ensi, Tunisia); Ines Khoufi; Pascale Minet (INRIA, France); Leila Azouz Saidane (ENSI, University of Manouba, Tunisia); Yosra Ben Saied (CEA, LIST, France)

**1570097459:** Mitigating Anchor Misplacement Errors in Wireless Sensor Networks, Yaser Al Mtawa (Queen's University, Canada); Nidal Nasser (Alfaisal University, Saudi Arabia); Hossam S. Hassanein (Queen's University, Canada)

**1570098285:** Multi-Objective Sensor Placement using the Effective Independence Model (SPEM) for Wireless Sensor Networks in Structural Health Monitoring, Mohamed Elsersty; Mohamed Hossam Ahmed (Memorial University, Canada); Tarek M. Elfouly; Abderrazek Abdaoui (Qatar University, Qatar)

**1570079181:** Novel Framework for LTE and LTE-Advanced Networks Dimensioning, Marwane Ben Hcine; Ridha R. Bouallegue (Sup'Com, Tunisia)

➤ **Session Title:** System Security (Security Symposium)

**WM-4: Room:** OLIPA-D

➤ **Session Chairs:** Jelena Mistic, Ryerson University, Canada

**1570097285:** Towards Bridging the Gap Between Dalvik Bytecode and Native Code During Static Analysis of Android Applications, Patrik Lantz (Lund University & Ericsson, Sweden); Bjorn Johansson (Ericsson, Sweden)

**1570097547:** Physical Attacks against the Lack of Perfect Forward Secrecy in DECT Encrypted Communications and Possible Countermeasures, Iwen Coisel and Ignacio Sanchez (European Commission-Joint Research Centre, Italy); David Shaw (European Commission - Joint Research Centre & Institute for Protection and Security of the Citizen, Italy)

**1570098603:** Guarantor and Reputation Based Trust Model for Social Internet of Things, Hannan Xiao, Nitin Sidhu and Bruce Christianson (University of Hertfordshire, United Kingdom)

**1570098755:** Selective image encryption scheme based on DWT, AES S-box and chaotic permutation, Akram Belazi (ENIT, Tunisia); Ahmed A. Abd El-Latif (Menoufia University, Egypt); Rhouma Rhouma; Safya Belghith (ENIT, Tunisia)

**1570098765:** A novel approach to construct S-box based on Rossler system, Akram Belazi; Rhouma Rhouma; Safya Belghith (ENIT, Tunisia)

**1570110507:** Fast Group Discovery and Non-Repudiation in D2D Communications using IBE, Emad Abd-Elrahman (Telecom SudParis (ex. INT), France); Hatem Ibn-khedher (Telecom SudParis, France); Hossam Afifi (Institut Telecom & Paris South, France); Thouraya Toukabri (Orange Labs, France)

➤ **Session Title:** Routing & Mobile Ad-hoc networks (Wireless Net. Symp.)

**WM-5: Room:** RUDA

➤ **Session Chair:** Muhammad Imran, KSU, Saudi Arabia

**1570081411:** Energy-aware Centrality for Information Forwarding in Mobile Social Opportunistic Networks, Annalisa Socievole and Floriano De Rango (University of Calabria, Italy)

**1570082759:** Cognitive Self-Healing System for Future Mobile Networks, Fedor Chernogorov; Ilmari Repo (University of Jyväskylä, Finland); Vilho Räsänen (Nokia Siemens Networks, Finland); Timo Nihtilä; Janne Kurjenniemi (Magister Solutions Ltd, Finland)

**1570082643:** Automatic Topology Discovery in TDMA-based Ad Hoc Networks, Christopher Kramer, Dennis Christmann and Reinhard Gotzhein (University of Kaiserslautern, Germany)

**1570082931:** A High-Throughput Routing for Multiuser Diversity Multicast, Asma Ben Hassouna (Cristal Lab, ENSI, University of Manouba, Tunisia); Hend Koubaa (ENET'COM, Sfax University, Tunisia); Leila Azouz Saidane & Farouk Kamoun (ENSI, Tunisia)

**1570131917:** Energy-Efficient Routing Technique for Wireless Sensor Networks Under Energy Constraints, Shady Elbassiouny (Intel, Egypt); Ayman Mostafa Hassan (Benha University, Egypt)

**1570116957:** BEC: A Novel Routing Protocol for Balanced Energy Consumption in Wireless Body Area Networks, Muhammad Moid Sandhu (COMSATS Institute of IT, Islamabad, Pakistan); Nadeem Javaid (COMSATS Institute of IT, Pakistan); Muhammad Imran (KSU, Saudi Arabia); M. Guizani (QU); Zahoor Ali Khan (Dalhousie University, Canada); Umar Qasim (University of Alberta, Canada)

**1570083163:** A Stable K-hop Clustering Algorithm for Routing in Mobile Ad Hoc Networks, Badreddine Guizani (Université de Technologie de Belfort-Montbéliard & Ecole Nationale des Sciences D'Informatique, Tunisia); Béchir Ayeub (Faculté des Sciences de Monastir, Tunisia); Abder Koukam (Université de Technologie de Belfort Montbéliard, France)

➤ **Session Title:** Session III (General Symp.)

**WM-6: Room:** DAKSA

➤ **Session Chair:** Meng-Chyi Wu, National Tsing Hua University, Taiwan

**1570082007:** Light-Emitting Diodes for Visible Light Communication, Chien-Lan Liao, Yung-Fu Chang and Chong-Lung Ho (National Tsing Hua University, Taiwan); M. C. Wu (National Tsing Hwa University, Taiwan); Chien-Yu Li and Mau-Phon Houng (National Cheng Kung University, Taiwan); Yuan-Tai Hsieh (Southern Taiwan University, Taiwan); Cheng-Fu Yang (National University of Kaohsiung, Taiwan)

**1570097397:** User-Generated Services: Policy Management and Access Control in a cross-domain Environment, Davide

Patti (University of Catania, Italy); Salvatore Monteleone (Università degli Studi di Catania, Italy); Giuseppe La Torre, Vincenzo Catania and Daniela Panno (University of Catania, Italy)

**1570081421:** Context-Aware Multi-modal Traffic Management in ITS: A Q-Learning based Algorithm, Adel Mounir Said (National Telecommunication Institute (NTI), Egypt); Ahmed Soua (Institut Telecom, France); Emad Abd-Elrahman (Telecom SudParis (ex. INT), France); Hossam Afifi (Institut Telecom & Paris South, France)

**1570086669:** Novel Integrated Power Line and Visible Light Communication System with Bit Division Multiplexing Junnan Gao, Fang Yang and Wenbo Ding (Tsinghua University, P.R. China)

**1570096953:** Power amplifier design using GaN HEMT in Class-AB mode for LTE communication band, Nabil Khalid (KOC, Turkey); Tahir Abbas (National University of Sciences and Technology, Pakistan); Mojeeb Bin Ihsan (National University of Science and Technology, Pakistan)

## LUNCH BREAK

12:00 – 13:30

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

- **Session Title:** WSN-based Monitoring Systems (WSNs Symposium)
- **Session Chair:** Alvaro Araujo, Universidad Politécnic de Madrid, Spain

**WA-1: Room:** OLIPA-A

**1570080455:** RPL Protocol adapted for Healthcare and Medical Applications, Fatma Gara, Leila Ben Saad and Rahma Ben Ayed (ENIT, Tunisia); Bernard Tourancheau (LIG UMR 5217 & Grenoble University, France)

**1570083011:** On the Performance of 6LoWPAN Through Experimentation, Gordana Gardasevic (University of Banja Luka, Bosnia and Herzegovina); Stefan Mijovic (University of Bologna, Italy); Andrea Stajkic (DEI, University of Bologna, Italy); Chiara Buratti (University of Bologna, Italy)

**1570097639:** A Low Consumption Real Time Environmental Monitoring System for Smart Cities based on ZigBee Wireless Sensor Network, David Sánchez-Rodríguez (University of Las Palmas de Gran Canaria & IDeTIC, Networks and Telematic Services, Spain); Itziar G. Alonso-González, Carlos Ley-Bosch and Francisco Sanchez-Rosario (University of Las Palmas de Gran Canaria, Spain); Jesús B. Alonso (Las Palmas de Gran Canaria University, Spain); Carlos M. Travieso, Carlos Ramírez-Casañas and Miguel Quintana-Suárez (University of Las Palmas de Gran Canaria, Spain)

**1570099795:** A Taxonomy of Wireless Sensor Networks Hardware, Hani Alzaid; Mohammed N. Alhamadi; Ibraheem Alqwaiz (KACST, Saudi Arabia); Manal Alfaraj (Almaarefa Colleges, Saudi Arabia); Iqra Shahid (WSN Security, Saudi Arabia)

**1570114453:** A WSN for Ground-level Ozone Monitoring based on Plant Electrical Activity Analysis, Simone Morosi (University of Florence - CNIT, Italy); Marco Dolfi and Enrico Del Re (University of Florence & CNIT, Italy); Elisa Masi, Ilaria Colzi and Stefano Mancuso (University of Florence & Laboratorio Internazionale di Neurobiologia Vegetale (LINV), Italy); Alessio Valgimigli, Franco Francini and Renato Magliacani (ETG, Italy); Luciano Masini (DIGIC, Italy)

- **Session Title:** Network Protocols (Wireless Networking Symp.)
- **Session Chair:** Jelena Mišić, Ryerson University, Canada

**WA-2: Room:** OLIPA-B

**1570094181:** Decode-and-Forward Vehicular Relaying for 2x2 MIMO LTE-Advanced Downlink, Mohamed F. Feteiha (Memorial University, Canada); Hossam S. Hassanein (Queen's University, Canada)

**1570089695:** Task Filtering as a Task Admission Control Policy in Cloud Server Pools, Haleh Khojasteh, Jelena Mišić and Vojislav B. Mišić (Ryerson University, Canada)

**1570096047:** AFDAN: Accurate Failure Detection protocol for MANETs, Haroun Benkaouha; Abdelkrim Abdelli; Badache Nadjib (USTHB, Algeria); Jalel Ben-Othman (University of Paris 13, France); Lynda Mokdad (Université de Paris 12 & Laboratoire LACL, France)

**1570115259:** Interference Aware Inverse EEDBR Protocol for Underwater WSNs, Mehreen Shah (AIOU, Islamabad, Pakistan); Nadeem Javaid (COMSATS Institute of IT, Pakistan); Muhammad Imran (KSU, Saudi Arabia); Mohsen Guizani (QU); Zahoor Ali Khan (Dalhousie University, Canada); Umar Qasim (University of Alberta, Canada)

**1570081953:** A Small Cell Deployment Strategy Towards Amorphous Coverage in the Cellular Network, Aihong Dong; Xinmin Luo; Qinghe Du (Xi'an Jiaotong University, P.R. China)

**1570106897:** Does Dynamic Still Work in Today's 'D'HCP, Hewu Li and Zhouyang Zhao; Fenghua Li (Tsinghua University, P.R. China); Qian Wu (Cernet, P.R. China)

**1570107731:** SOCLEER: A Social-based Energy-Efficient Forwarding Protocol for Opportunistic Networks, Carlos Alberto Vieira Campos and Nelson Machado Junior (Federal University of the State of Rio de Janeiro, Brazil)

- **Session Title:** Efficient Data Dissemination in WSNs (WSNs Symp.)
- **Session Chair:** Alvaro Araujo, Universidad Politécnica de Madrid, Spain

**WA-3: Room:** OLIPA-C

- 1570083147:** Ensuring energy efficiency of power quality applications in smart grids through a framework based on wireless sensor and actuator networks, Igor L Dos Santos; Luci Pirmez and Flávia Coimbra Delicato; Luiz Carmo (Federal University of Rio de Janeiro, Brazil)
- 1570096929:** Achieving Energy Efficient and Reliable Communication in WSN with Coded GMSK System under various Channel Conditions, Rajoua Anane (Sup'com, Tunisia); Mehdi Bouallegue (ENSIM, France); Kosai Raoof (Laboratoire LAUM, France); Ridha R. Bouallegue, B. (Ecole Supérieure des Communications de Tunis, Tunisia)
- 1570098377:** Prolonging Stability Period of CDS based WSNs, Enan Khalil and Suat Ozdemir (Gazi University, Turkey)
- 1570107627:** Ant Colony Optimization Based Hierarchical Data Dissemination in WSN, Chérifa Boucetta (ENSI, Tunisia); Hanen Idoudi; Leila Azouz Saidane (ENSI, University of Manouba, Tunisia)
- 1570098141:** Centralized Energy Monitoring over Wireless Sensor Networks, Hacene Fouchal (Université de Reims Champagne-Ardenne, France); Michel Herbin (University of Reims Champagne-Ardenne, France); Frédéric Blanchard (University of Reims, France)
- 1570081701:** Cross-Layer Wireless Networking for Low Energy Sensor Networks, Migdat Hodzic & Indira Muhic (Int. University of Sarajevo, Bosnia and Herzegovina); Tony Altwies and Don Wanless (Independent Consultant, USA)

- **Session Title:** Mobile Security (Security Symposium)
- **Session Chairs:** Wassim El-Hajj, AUB, Lebanon & Claudio Miceli de Farias, U. Federal do Rio de Janeiro, Brazil

**WA-4: Room:** OLIPA-D

- 1570082741:** SafeMatch: Energy-Efficient Private Matching in Mobile Social Networks, Yi-Hui Lin, Wen-Tsuen Chen and Wen-Chan Shih (Academia Sinica, Taiwan)
- 1570096445:** Traditional TCP Congestion Control Algorithms Evaluation in Wired-cum-Wireless Networks, Michel Dias; Leon Caldeira; Angelo Perkusich (Federal University of Campina Grande, Brazil)
- 1570096459:** Analysis of DoS Attacks at MAC Layer in Mobile Adhoc Networks, Chaminda Alocious, Hannan Xiao and Bruce Christianson (University of Hertfordshire, United Kingdom)
- 1570097351:** Optimizing ring signature keys for e-voting, José Luis Tornos and José Luis Salazar (University of Zaragoza, Spain); Joan Piles (Max Planck Institute for Intelligent Systems, Germany)
- 1570098655:** Vulnerabilities of fuzzy vault schemes using biometric data with traces, Maryam Lafkih (Laboratoire de Recherche en Informatique et Télécommunication, Morocco)
- 1570102871:** Weaknesses of Two RFID Protocols Regarding De-synchronization Attacks, Mete Akgün (Tubitak UEKAE, Turkey); M. Ufuk Caglayan (Bogazici University, Turkey)

- **Session Title:** Coding (Communication & Information Theory Symp.)
- **Session Chair:** Sameh Najeh, Sup'com, Tunisia

**WA-5: Room:** RUDA

- 1570097257:** QoS Provision Inter-cell Interference Coordination Approach Based on Joint Transmission and Superposition Coding, Abbes Yosra (Supcom, Tunisia); Jihene Ben Abderrazak (Assistant at ESPRIT, Tunisia); Sameh Najeh (Sup'com, Tunisia); Hichem Besbes (Ecole Superieure de Communications de Tunis, Sup'Com, University of Carthage, TUNISIA, Tunisia)
- 1570107501:** Near-Orthogonal Randomized Space-Time Block Codes for Multi-Hop Cooperative Networks, Sidra Syed (National University of Sciences and Technology, Islamabad & School of Electrical Engineering and Computer Sciences, Pakistan); Syed Ali Hassan and Sajid Ali (National University of Sciences and Technology, Pakistan)
- 1570080059:** A Scalable Family of Unitary and Differential Space-Time Codes for UWB Communications, Chadi Abou-Rjeily (Lebanese American University (LAU), Lebanon); Karl Fayad (Lebanese American University, Lebanon)
- 1570082577:** A Capacity-Approaching Multi-User BICM-ID Scheme for Multiple Access Channel, Yushu Zhang, Kewu Peng, Shuang Chen and Jian Song (Tsinghua University, P.R. China)
- 1570079443:** Simplified Universal Soft Demapper for Gray-mapped Constellation, Shuang Chen, Kewu Peng and Fang Yang (Tsinghua University, P.R. China)
- 1570107651:** A New Tone Reservation Scheme for PAPR Reduction in FBMC/OQAM systems, Laabidi Mounira (Sup'Com, Tunisia); Rafik Zayani (Innov'COM Lab, Sup'Com, Tunisia); Ridha R. Bouallegue, (Ecole Supérieure des Communications de Tunis, Tunisia)

- **Session Title:** Spectrum Occupancy Prediction and Users' Localization (CC Workshop) **WA-6: Room:** DAKSA  
➤ **Session Chair:** Mahdi BenGhorbel, Qatar University, Qatar

**1570107479:** On Error Variance for Autoregressive Process--Based Spectrum Occupancy Prediction with Energy Detector for Cognitive Networks, Ali Boyacı, Fatma Nur Aki and Serhan Yarkan (Istanbul Commerce University, Turkey)

**1570111189:** Hybrid RSSD/AOA Cooperative Localization for 4G Wireless Networks with uncooperative emitters, Leila Gazzah; Leila Najjar; Hichem Besbes (Sup'Com, University of Carthage, TUNISIA, Tunisia)

**1570110579:** Periodic collection of spectrum occupancy data by energy constrained cognitive IoT devices, George J. Stamatakis (University of Crete, Greece); Elias Z. Tragos; Apostolos Traganitis (Institute of Computer Science, FORTH, Greece)

**1570082219:** A Dynamic Femto Cell Architecture using TV Whitespace improving User Experience of Urban Crowds, Alexis Sultan (SFR, France); Majed El Kouki (SupCom, Tunisia); Hossam Afifi (Institut Telecom & Paris South, France); Michel Marot (Institut TELECOM Telecom SudParis, France); Vincent Gauthier (Institut TELECOM; Telecom SudParis; SAMOVAR UMR, France)

**1570101539:** Simultaneous Sense and Access for Cognitive Radio Networks: A Throughput Optimization Perspective, Vishnu Gowravajhala (Indian Institute of Technology Hyderabad, India)

**1570096039:** Incentive for Cooperation in Cognitive Radio Networks with Group Communities, Aykut Soner Demirkol and Tuna Tugcu (Bogazici University, Turkey)

### Coffee Break — (15:30 - 16:00)

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

- **Session Title:** Network Security (Security Symposium) **WA-7: Room:** OLIPA-A  
➤ **Session Chair:** Vojislav Mistic, Ryerson U., Canada & Seyyit Alper Sert, Middle East Tech. U, Turkey

**1570082421:** Resilient Tit-For-Tat (RTFT) - A Game Solution For Wireless Misbehaviour, Jacob Abegunde, Hannan Xiao and Joseph Spring (University of Hertfordshire, United Kingdom)

**1570083575:** Impacts of Routing Attacks on Surveillance Wireless Sensor Networks, Seyyit Alper Sert, Adnan Yazici and Ahmet Cosar (Middle East Technical University, Turkey)

**1570095411:** SensorWatermark: a scheme of software watermark using code obfuscation and tamper-proofing for WSN, Emanuele Jorge (Universidade Federal do Rio de Janeiro, Brazil); Luci Pirmez (Federal University of Rio de Janeiro, Brazil); Claudio Miceli de Farias and Rafael Costa (UFRJ, Brazil); Davidson Boccardo (Inmetro, Brazil); Luiz Fernando Costa Carmo (National Institute of Metrology Quality and Technology, Brazil)

**1570107539:** MANET Security Through a Distributed Policy-Based Evaluation of Node Behaviour, Hanan Lutfiyya (University of Western Ontario, Canada); David Kidston (Communications Research Centre, Canada); Arash Tajalli-Yazdi (The University of Western Ontario, Canada)

**1570107699:** Using K-Nearest Neighbor Algorithm to Reduce False Negatives in P2P Secure Routing Protocols, Haidar Safa, Wassim El-Hajj, Fatima K. Abu Salem and Marwa Moutaweh (American University of Beirut, Lebanon)

**1570108001:** A Symmetric Cryptographic Construct for Securing Wireless Sensor Network Communications, A. Adekunle (University of Greenwich, United Kingdom)

- **Session Title:** Next Generation Networks (Wireless Networking Symposium) **WA-8: Room:** OLIPA-B  
➤ **Session Chair:** Alexandru Vulpe, University Politehnica of Bucharest, Romania

**1570098279:** End-to-end Throughput Evaluation of Consensus TPC Algorithm in Multihop Wireless Networks, Yu Yu and Shashi Shah; Yasuo Tan; Yuto Lim (JAIST, Japan)

**1570083069:** Issues and Challenges in Dense WiFi Networks, Zhenzhe Zhong and Parag Kulkarni; Fengming Cao; Zhong Fan (Toshiba Research Europe, United Kingdom); Simon Armour (University of Bristol, United Kingdom)

**1570097805:** Enabling vertical handover management based on decision making in heterogeneous wireless networks, Murad Khan, Changsu Jung, Paul Uzoh, Cao Zhenbo, Jinbae Kim, Yongtak Yoon, Aamir Nadeem and Ki Jun Han (Kyungpook National University, Korea)

**1570098793:** Learning Gain Mechanism to Promote the Femtocells Hybrid Access Mode, Sihame Elhammani (Université Mohammed V-Rabat Agdal, Morocco); Khalil Ibrahim (University of Ibn Tofail & Faculty of Sciences, Morocco); Houssine Bouyakhf (Université Mohammed V Agdal, Morocco)

**1570082521:** An NC-DTN Framework for Many-to-Many Bulk Data Dissemination in OLSR MANET, Preechai Mekbungwan, Apinun Tunpan and Kanchana Kanchanasut (Asian Institute of Technology, Thailand)

**1570082375:** Recover Algorithm of Distributed Compressed Sensing Based on FOCUSS, Yu-long Gao (Harbin Institute of Technology, P.R. China)

**1570082887:** Framework Design of Monitoring System for Traffic Based on Embedded and RFID Technology, Si Tian; Shuo Shi; Xuemai Gu (Harbin Institute of Technology, P.R. China)

➤ **Session Title:** Heterogeneous Network Mechanisms (WSNs Symposium)

**WA-9: Room:** OLIPA-C

➤ **Session Chair:** Hossam S. Hassanein, Queen's University, Canada

**1570083277:** Adaptive Preamble Padding with Retransmission Control for ZigBee Network under Wi-Fi Interference, Tianyu Du, Zhipeng Wang, Dimitrios Makrakis and Hussein Mouftah (University of Ottawa, Canada)

**1570098521:** A Coalitional-Game-Based Incentive Mechanism for Content Caching in Heterogeneous Delay Tolerant Networks, Omar Ait oualhaj; Abdellatif Kobbane; Mouna Elmachkour (ENSIAS, University Mohammed V of Rabat, Morocco); Essaid Sabir (ENSEM/UH2C, Morocco); Jalel Ben-Othman (University of Paris 13, France)

**1570098903:** Proactive maintenance in RPL for 6LowPAN, Nesrine Khelifi (ENSI, Tunisia); Sharief M.A. Oteafy and Hossam S. Hassanein (Queen's University, Canada); Habib Youssef (Institut Supérieur d'Informatique et des Technologies de Communication, Tunisia)

**1570114501:** Frame Design for 5G Multicarrier Modulations, Simone Morosi and Massimiliano Biagini; Fabrizio Argenti; Enrico Del Re (University of Florence & CNIT, Italy); Laura Yessenturayeva (KazNTU, Kazakhstan)

**1570114975:** Sensor Device Virtualization for Mobile Cloud Systems, Jin-Hwan Jeong (SK telecom, Korea)

**1570115217:** Two-step LMMSE Channel Estimator for Unique Word MB-OFDM based UWB Systems, Moufida Hajjaj (SUP'COM, Tunisia); Walid Chainbi (Sousse University, Tunisia); Ridha R. Bouallegue, B. (Ecole Supérieure des Communications de Tunis, Tunisia)

➤ **Session Title:** Context and Crowds (Mobile Computing Symposium)

**WA-10: Room:** OLIPA-D

➤ **Session Chair:** Daniel Ayala, University of Illinois at Chicago, USA

**1570104807:** CADMANT: Context Anomaly Detection for MAintenance and Network Troubleshooting, Eloy Martinez Colomina (Athlone Institute of Technology & Ericsson, Ireland); Wang MingXue (Ericsson, Ireland); Enda Fallon and Sheila Fallon (Athlone Institute of Technology, Ireland)

**1570106949:** ECAB: An Efficient Context-Aware Multi-hop Broadcasting Protocol for Wireless Sensor Networks, Dhouha Ghrab and Imen Jemili (University of Manouba, Tunisia); Abdelfettah Belghith (University of Manouba & National School of Computer Sciences ENSI, Tunisia); Mohamed Mosbah (University of Bordeaux-1, France)

**1570079381:** TweetGlue: Leveraging a Crowd Tracking Infrastructure for Mobile Social Augmented Reality, Takamasa Higuchi, Hiroki Iwahashi, Hirozumi Yamaguchi and Teruo Higashino (Osaka University, Japan)

**1570106979:** Performance Evaluation of Distributed Data Delivery on Mobile Devices Using WebRTC, Arto Heikkinen, Timo Koskela and Mika Ylianttila (University of Oulu, Finland)

**1570107673:** A Framework on Spatio-Temporal Resource Search, Qing Guo (University of Illinois at Chicago, USA); Ouri Wolfson (University of Illinois, USA); Daniel Ayala (University of Illinois at Chicago, USA)

**1570107615:** ReSCUE: Relatively Stable Clustering for Unbiased Environments in VANETs, Muhammed Nur Avcil and Mujdat Soyuturk (Marmara University, Turkey)

➤ **Session Title:** MIMO and OFDMA (Communication & Information Theory Symp.)

**WA-11: Room:** RUDA

➤ **Session Chair:** Chadi Abou Rjeily, Lebanese American University (LAU), Lebanon

**1570081335:** Energy-efficient AF OSTBC-MIMO Systems for two-way Relaying Considering Circuit Energy Consumption Emna Ben Yahia (ENIT, Tunisia); Noureddine Hamdi (INSAT, Carthage University & ENIT SYSCOM Laboratory, Tunisia)

**1570093783:** Elimination Beam-Forming in Downlink Multi-User MIMO Systems

Mai Hassan (American University in Cairo & Intel Cooperation, Egypt); Ali Esswie (Cairo University Faculty of Engineering, Egypt); Mohamed Abdelsalam (American University in Cairo, Egypt); Mohamed Sameh (Intel Cooperation, Egypt)

**1570107553:** Dynamic Optimization of QoS for Moving Users in an OFDMA Network with Semi-smart Antennas, Aini Li; Laurie Cuthbert (Queen Mary, University of London, United Kingdom); Yapeng Wang (MPI-QMUL Information System Research Centre, Macao)

**1570106893:** Fuzzy Logic-based Downlink Subchannel Allocation for Capacity Maximization in OFDMA Femtocells, Syed Waqar Hasan; Syed Ali Hassan (National University of Sciences and Technology, Pakistan)

**1570126249:** Full-feedback Backoff Algorithm for Distributed Wireless Networks, Xin Zhou; Changwen Zheng; Mingxue Liao (Institute of Software, Chinese Academy of Sciences, P.R. China)

**1570095505:** Compensation of Phase Offsets in MIMO Systems Using an Efficient Differential STBC, Emna Ben Slimane (National Engineering School of Tunis, Tunisia); Slaheddine Jarbouli (National School of Engineers of Tunis, Tunisia)

➤ **Session Title:** M2M Communications I (M2M & IoT Workshop)  
➤ **Session Chair:** Chih-Wei Huang, National Central University, Taiwan

**WA-12: Room:** DAKSA

**1570082123:** A Survey of Technologies for the Internet of Things, Vangelis Gazis, Manuel Goertz, Marco Huber, Alessandro Leonardi, Kostas Mathioudakis, Alexander Wiesmaier and Florian Zeiger (AGT International, Germany); Emmanouil Vasilomanolakis (Technische Universität Darmstadt, Germany)

**1570082739:** RAL: a RESTful M2M communications framework for IoT, Lorenzo Vangelista; Michele Zorzi; Marco Rotoloni and Moreno Dissegna (University of Padova, Italy); Riccardo Manfrin (Athonet S. r. l., Italy)

**1570098563:** The SA-based Group Handoff Scheme for Heterogeneous Wireless Networks in M2M Communications, Heng-Hao Pul and Chung-Ju Chang (National Chiao Tung University, Taiwan); Ray-Guang Cheng (National Taiwan University of Science and Technology, Taiwan)

**1570082839:** CSMA/CA with RTS/CTS Overhead Reduction for M2M Communication with Finite Retransmission Strategy, Baher Mawlawi (CEA - LETI, France); Jean-Baptiste Doré (CEA, France)

**1570106291:** Throughput Enhancement Schemes for IEEE 802.11ah based on Multi-layer Cooperation, BaoFeng Ji Southeast University, P.R. China); Sudan Chen (Henan University of Science and Technology, P.R. China); Kang Song & Chunguo Li (Southeast University, P.R. China); Hongjun Chen (Henan University of Science and Technology, P.R. China); Zhiqun Li (Southeast University, P.R. China)

**1570098477:** M2M Remote Telemetry and Cloud IoT Big Data Processing in Viticulture, George Suciu (Politehnica University of Bucharest & BEIA Consult International SRL, Romania); Alexandru Vulpe and Octavian Fratu (University Politehnica of Bucharest, Romania); Victor Suciu (BEIA/UPB, Romania)

**DINNER BANQUET**

**19:00 – 21:00**



**TECHNICAL PROGRAM**  
**IEEE IWCMC 2015**  
**Dubrovnik, Croatia, August 24<sup>th</sup> — 28<sup>th</sup>, 2015**

**Thursday, August 27<sup>th</sup>, 2015**

**Registration — (8:00 - 15:00)**

**Room: Open Hall**

**KEYNOTE 3 — (9:00 - 10:00)**

**Room: OLIPA**

- **Speaker:** Slim Alouini, KAUST, Saudi Arabia
- **Title:** Addressing Spectrum Scarcity through Optical Wireless Communications
- **Chair:** Mario Gerla, UCLA, USA

**Coffee Break — (10:00 - 10:30)**

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

- **Session Title:** INVITED PAPERS
- **Session Chair:** Slim Alouini, KAUST, Saudi Arabia

**ThM-1: Room: OLIPA-A**

**1570125449:** Maximizing the Spectral and Energy Efficiency of ARQ with a Fixed Outage Probability, Amir Hadjtaieb (King Abdullah University of Science and Technology, Saudi Arabia); Ali Chelli (Norwegian University of Science and Technology (NTNU)); Mohamed-Slim Alouini (King Abdullah University of Science and Technology (KAUST), Saudi Arabia)

**1570098931:** Adaptive Modulation and Coding based Error Resilience for Transmission of Compressed Video, Ryan Perera, Muhammad Ali Imran and Hemantha Kodikara Arachchi (University of Surrey, United Kingdom); Anil Fernando (Center for Communications Research, University of Surrey, UK)

**1570099477:** System Level Power Consumption Model for Mobile Phones as part of E3F, Firat Nur, Muhammad Ali Imran and Oluwakayode Onireti (University of Surrey, UK); Kamran Arshad (University of Greenwich, UK)

**1570107697:** Subband Approach for Wideband Self-Interference Cancellation in Full-Duplex Transceiver, Mir Ghorraishi (University of Surrey, UK)

**1570115623:** An Architectural Framework for 5G Indoor Communications, Kishor Chandra (TU Delft, The Netherlands); Venkatesha Prasad and Ignas G.M.M. Niemegeers (Delft University of Technology, The Netherlands)

**1570116249:** Reduced Out-of-Band Radiation-Based Filter Optimization for UPMC Systems in 5G, Mithun Mukherjee; Lei Shu (Guangdong University of Petrochemical Technology, P.R. China); Vikas Kumar (Indian Institute of Technology Patna & Bharat Sanchar Nagar Limited, India); Prashant Kumar (Indian Institute of Technology Patna, India); Rakesh Matam (Indian Institute of Information Technology Guwahati, India)

- **Session Title:** LTE (Wireless Networking Symp.)
- **Session Chair:** Adriana Lipovac, University of Dubrovnik, Croatia

**ThM-2: Room: OLIPA-B**

**1570108375:** BER-Based BLER Prediction for LTE FDD DL Channel with Small Delay Dispersion, Mirza Hamza (University of Sarajevo, Bosnia and Herzegovina); Vlatko Lipovac and Adriana Lipovac (University of Dubrovnik, Croatia)

**1570089217:** Location Accuracy Impact on Cell Outage Detection in LTE-A Networks, Sergey Chernov (University of Jyväskylä, Finland); Dmitry Petrov (Magister Solutions Ltd., Finland); Tapani Ristaniemi (University of Jyväskylä, Finland)

**1570107657:** On Improving Network Capacity for Downlink and Uplink of Two-Tier LTE-FDD Networks, Abdellaziz Walid (ENSIAS, Mohammed V University of Rabat, Rabat Morocco, Morocco); Essaid Sabir (ENSEM/UH2C, Morocco); Abdellatif Kobbane (ENSIAS, Mohammed V University of Rabat, Morocco); Tarik Taleb (NEC Europe Ltd., Germany); Mohammed El Koutbi (University Mohamed V - Souissi & ENSIAS, Morocco)

**1570082459:** Channel Reciprocity Based Frequency Domain CQI Feedback Algorithm in TD-LTE-A Systems, Xuanli Wu; Nannan Fu and Lukuan Sun (Harbin Institute of Technology, P.R. China); Ye Wang (University of Ontario Institute of Technology, P.R. China)

**1570098549:** A Downlink Scheduling Scheme for Trunking Multimedia Services in TD-LTE Public Networks, Shaochuan Wu, Renqiang Sun, Kangjian Ma and Yang Liu (Harbin Institute of Technology, P.R. China)

**1570107635:** Clustering in Cognitive Radio for Multimedia Streaming over Wireless Sensor Networks, Abbas Bradai

(CNRS Grenoble Informatics Laboratory UMR 5217, France); Kamal Deep Singh (Telecom Saint Etienne/University Jean Monnet, France); Abderrezak Rachedi (University Paris-Est Marne-la-Vallée, France); Toufik Ahmed (University of Bordeaux-1/CNRS-LaBRI, France)

- **Session Title:** Safety, Security and Reliability in WSNs (Security Symp.)
- **Session Chairs:** Ahmed Badawy, Politechnico Di Torini, Italy

**ThM-3: Room:** OLIPA-C

**1570108681:** A Novel Efficient Approach for Protecting Integrity of Data Aggregation in Wireless Sensor Networks, Haythem Hayouni and Mohamed Hamdi (Sup'Com, Tunisia); Tai-Hoon Kim (Sungshin W University, Korea)  
**1570107509:** Social Delay Tolerant Approach for Safety Services in Vehicular Networks, Huong Nguyen-Minh (University of Avignon, France); Abderrahim Benslimane (University of Avignon & LIA/CERI, France); Milena Radenkovic (University of Nottingham, United Kingdom)  
**1570097265:** Reducing Transmission Interferences for Safety Message Dissemination in VANETs, Fatima Zohra Bousbaa (University of Laghouat, Algeria); Fen Zhou (University of Avignon, France); Nasreddine Lagraa; Mohamed Bachir Yagoubi (University of Laghouat, Algeria); Abderrahim Benslimane (University of Avignon & LIA/CERI, France)  
**1570107105:** Low-Power Link Quality Estimation in Smart Grid Environments, Sana Rekik (ReDCAD Laboratory, National School of Engineers of Sfax, Tunisia); Nouha Baccour (ReDCAD Research Unit, National school of Engineers of Sfax, Sfax, Tunisia, Tunisia); Mohamed Jmaiel (ENIS, Tunisia); Khalil Drira (LAAS-CNRS, France)  
**1570107377:** Controlling the Degradation of Wireless Sensor Networks, Alba Rozas, Javier Blesa, Elena Romero and Alvaro Araujo (Universidad Politécnica de Madrid, Spain)

- **Session Title:** Localization in WSNs (WSNs Symp.)
- **Session Chair:** Saurabh Kumar, Chungbuk National University, South Korea

**ThM-4: Room:** OLIPA-D

**1570098079:** Utilization of Convex Optimization for Data Fusion-driven Sensor Management in WSNs, Mohammadreza Soltani, Michael Hempel and Hamid Sharif (University of Nebraska-Lincoln, USA)  
**1570098935:** Cloud-based Self-Organizing Localization for Wireless Sensor Networks in Mixture Environments of LOS and NLOS, Takamasa Kitanouma and Yuto Takashima; Naotoshi Adachi and Yasuhisa Takizawa (Kansai University, Japan)  
**1570107467:** User-Aware Cell Switch-Off Algorithms, İbrahim Aydın (Istanbul Technical University, Turkey); Halim Yanikomeroglu (Carleton University, Canada); Umit Ayygölü (Istanbul Technical University, Turkey)  
**1570081849:** Weighted SLNR-Based Precoding Algorithm for Downlink Multi-Stream CoMP-JP System, Chunyang Tian and Wei Wu; Xuanli Wu and Xuejun Sha (Harbin Institute of Technology, P.R. China)  
**1570096877:** Dynamic threshold adjustment in a proximity-based location tracking system using reference modules, Gel Han; Gudrun J. Klinker (Technische Universitaet Muenchen, Germany)  
**1570098021:** Regression Forecasting Model to Improve Localization Accuracy, Najah A. Abu Ali (UAEU, UAE); Mervat Abu-Elkheir (Mansoura University, Egypt)

- **Session Title:** Wireless Networks (Communication & Information Theory Symp.)
- **Session Chair:** Mohammed W. Baidas, Kuwait University, Kuwait

**ThM-5: Room:** RUDA

**1570098005:** A Matching-Theoretic Approach to Energy-Efficient Partner Selection in Wireless Networks, Mohammed W. Baidas and Masoud M. Afghah (Kuwait University, Kuwait)  
**1570081745:** Efficient Estimator for Distributed RSS-based Localization in Wireless Sensor Networks, Slavisa Tomic (Universidade Nova de Lisboa & Faculdade de Ciencia e Tecnologia, Portugal); Marko Beko (ULHT/UNINOVA & UNINOVA, Caparica, Portugal); Rui Dinis (Instituto de Telecomunicacoes & FCT-UNL, Portugal); Vlatko Lipovac (University of Dubrovnik, Croatia)  
**1570083065:** Control and Data Channel Resource Allocation in Macro-Femto Heterogeneous Networks, Arsalan Saeed; Efsthios Katranaras; Mehrdad Dianati and Muhammad Ali Imran (University of Surrey, United Kingdom)  
**1570081747:** Hybrid RSS-AoA Technique for 3-D Node Localization in Wireless Sensor Networks, Slavisa Tomic (Universidade Nova de Lisboa & Faculdade de Ciencia e Tecnologia, Portugal); Milica Marikj (UNINOVA, Portugal); Marko Beko (ULHT/UNINOVA & UNINOVA, Caparica, Portugal); Rui Dinis (Instituto de Telecomunicacoes & FCT-UNL, Portugal); Nuno Órfão (Polytechnic Institute of Leiria & School of Technology and Management, Portugal)  
**1570080815:** Low-complexity Distributed Power Control for Utility Maximization in Wireless Networks, Konstantinos P. Tsoukatos (TEI of Thessaly, Greece)  
**1570101547:** Stochastic Geometry-based Analysis of Multiple Region Reverse Frequency Allocation Scheme in Downlink HetNets, Rehan Zahid; Syed Ali Hassan (National University of Sciences and Technology, Pakistan)

➤ **Session Title:** M2M Communications II (M2M & IoT Workshop)

**ThM-6: Room:** DAKSA

➤ **Session Chair:** Phone Lin, National Taiwan University, Taiwan

**1570097301:** Modeling LTE Group Paging Mechanism for Machine-Type Communications, Cheng-Ting Chang (National Tsing Hua University, Taiwan); Shun-Ren Yang (NTHU, Taiwan)

**1570099299:** Improvement of Security Protocol for Machine Type Communications in LTE-Advanced, Hyoung-Kee Choi and Chan-Kyu Han (Sungkyunkwan University, Korea); Daesung Choi (Sungkyunkwan, Korea)

**1570107275:** A Scheduled Grouping Scheme for MTC Device ID Sharing, Chi-Wei Tseng (National Taiwan University, Taiwan); Rubbens Boisuene and Chih-Wei Huang (National Central University, Taiwan); Phone Lin (National Taiwan University, Taiwan); Yuichi Kawamoto (Tohoku University, Japan)

**1570107511:** Experimental Implementation of Cooperative Transmission Range Extension in Indoor Environments, Muhammad Shahmeer Omar (National University of Sciences and Technology, Pakistan); Syed Ahsan Raza (National University of Sciences and Technology (NUST), Pakistan); Shahroze Humayun Kabir (School of Electrical Engineering and Computer Science, NUST, Pakistan); Muddassar Hussain and Syed Ali Hassan (National University of Sciences and Technology, Pakistan)

**1570139999:** Implementation of an RFID Relay Attack Countermeasure, Sghaier Guizani (Alfaisal University, SA)

**LUNCH BREAK**

**12:00 – 13:30**

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

➤ **Session Title:** QoS and Performance (Vehicular Symp.)

**ThA-1: Room:** OLIPA-A

➤ **Session Chair:** Syed Ali Hassan, National University of Sciences and Technology, Pakistan

**1570096045:** Low cost QoS and RF power measuring tool for 2G/3G mobile network using Android OS platform, Elson Agastra; Argenti Lala; Bexhet Kamo and Domeniko Kina (Polytechnic University of Tirana, Albania)

**1570097155:** Deploying Public Surface Transit to Forward Messages in DTN, Seilendria Ardityarama Hadiwardoyo (Universidade do Minho, Portugal); Alexandre Santos (University of Minho & Centro Algoritmi, Portugal)

**1570098135:** Relay Antenna Selection for V2V Communications using PLNC over Cascaded Fading Channels, Serdar Özgür Ata; İbrahim Altunbaş (Istanbul Technical University, Turkey)

**1570107573:** Demonstration and Implementation of Energy Efficiency in Cooperative Networks, Shahroze Humayun Kabir; Muhammad Shahmeer Omar; Syed Ahsan Raza; Muddassar Hussain, Syed Ali Hassan (NUST, Pakistan)

**1570109253:** Estimating the Upper Bound of Transmission Capacity in Linear VANET, Weisen Shi, Xinxin He, Tao Luo and Lei Ding (Beijing University of Posts and Telecommunications, P.R. China)

**1570110467:** QoS-OLSR Protocol Based on Intelligent Water Drop for Vehicular Ad-hoc Networks, Doaa Al-Terri; Hadi Otrok; Hassan Barada; Mahmoud Al-Qutayri and Raed Shubair; Yousof Al-Hammadi (KUSTAR, UAE)

**1570103587:** Experimental measurement for vehicular communication evaluation using OBU ARADA System, Sassi Aymen (LETI, Tunisia); Yassin Elhillali (Université De Valenciennes Et Du Hainaut Cambresis, France); Faiza Charfi (LETI, Tunisia)

➤ **Session Title:** Applications (Wireless Networking Symp.)

**ThA-2: Room:** OLIPA-B

➤ **Session Chair:** Soumaya Cherkaoui, Université de Sherbrooke, Canada

**1570082343:** Hierarchical Aggregation for Delay-Sensitive Vehicular Sensing, Jagruti Sahoo (Concordia University, Canada); Soumaya Cherkaoui (Université de Sherbrooke, Canada); Abdelhakim Hafid (University of Montreal, Canada)

**1570107153:** Scan-Or-Not-To-Scan – Balancing Network Selection Accuracy and Energy Consumption, Timothy Casey (Institute of Technology Carlow, Ireland); Gabriel-Miro Muntean (Dublin City University, Ireland)

**1570105783:** Increasing Communication Reliability in Manufacturing Environments, Milena Radenkovic (University of Nottingham, United Kingdom); Ivaylo Kostadinov and Bartosz Wietrzyk (United Kingdom)

**1570081631:** An Instance-Based Physical Violence Detection Algorithm for School Bullying Prevention, Liang Ye (Harbin Institute of Technology, P.R. China); Hany Ferdinando (Petra Christian University, Indonesia); Tapio Seppänen and Tuija Huuki (University of Oulu, Finland); Esko Alasaarela (Oulu, Finland)

**1570098789:** Maximum Number of Co-channel Interfering Tiers for Cellular Systems Operating at Millimeter Wave Carrier Frequencies, Kwashie A Anang, Predrag Rapajic and David Larkai (University of Greenwich, United Kingdom)

**1570108027:** Hardware Implementation on m Parameter ML Estimation of Nakagami-m Fading Channel, Xuhong Chen, Shanyun Liu and Pingyi Fan (Tsinghua University, P.R. China)

**1570109077:** RSSI-Based Dynamic Coalition Formation for Cooperative Interference Management in Femtocell Networks,

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| ➤ <b>Session Title:</b> 5G Theory and Applications II (5G Wireless Networks Workshop) | <b>ThA-3: Room:</b> OLIPA-C |
| ➤ <b>Session Chair:</b> Muhammad Ali Imran, University of Surrey, United Kingdom      |                             |

- 1570098927:** Self-Optimization of Cell Sizes in Cellular Networks, Charalampos Papaioannou, Oluwakayode Onireti and Muhammad Ali Imran (University of Surrey, United Kingdom); Kamran Arshad (University of Greenwich, UK)
- 1570080725:** Nyquist-I pulses designed to suppress the effect of ICI power in OFDM systems, Shaharyar Kamal (KyungHee, Korea); Cesar Azurdia (Universidad de Chile, Chile); Kyesan Lee (Kyung Hee University, Korea)
- 1570082631:** Near Capacity LDPC coded MU-BICM-ID for 5G, Shuang Chen, Kewu Peng, Yushu Zhang and Jian Song (Tsinghua University, P.R. China)
- 1570083053:** Dynamic Frequency Allocation for D2D Communication based on IAR messages in OFDMA Networks, Laila Melki; Hichem Besbes; Sameh Najeh (Sup'com, Tunisia)
- 1570097537:** A Suboptimal Scheme for Uplink NOMA in 5G Systems, Shuang Chen, Kewu Peng and Huangping Jin (Tsinghua University, P.R. China)
- 1570098873:** Overhead Reduced Preamble-Based Channel Estimation for MIMO-FBMC Systems, Sohail Taheri, Mir Ghoraishi and Pei Xiao (University of Surrey, United Kingdom)

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| ➤ <b>Session Title:</b> MAC and Scheduling Protocols for WSNs (WSNs Symp.) | <b>ThA-4: Room:</b> OLIPA-D |
| ➤ <b>Session Chair:</b> Hazem Refai, Oklahoma University, USA              |                             |

- 1570106117:** Energy Detection and Machine Learning for the Identification of Wireless MAC Technologies, Samer Rajab, Walid Balid and Mohamad Omar Al Kalaa; Hazem Refai (Oklahoma University, USA)
- 1570098703:** An Efficient and Fair MAC Scheme for Wireless Mesh Networks using Beamforming Antennas, Ali El Masri (University of Paris-Est Marne-la-Vallée, France); Lyes Khoukhi (University of Technology of Troyes, France); Abdelhakim Hafid (University of Montreal, Canada); Ahmad Sardouk (SARL MobiNets, France); Dominique Gaiti (University of Technology of Troyes, France)
- 1570079995:** Intra-Cluster Multichannel Scheduling Algorithm for Cognitive Radio Sensor Networks, Ons Mabrouk; Hanen Idoudi; Leila Azouz Saidane (University of Manouba, Tunisia); Pascale Minet (INRIA, France)
- 1570082837:** Hierarchical MAC Protocol with Multi-Channel Allocation for Enhancing IEEE 802.11ah Relay Networks, Saurabh Kumar; HoChul Lim; HyungWon Kim (Chungbuk National University, Korea)
- 1570096905:** Performance analysis of AODV and AOMDV over SMAC and IEEE 802.15.4 in Wireless Multimedia Sensor Network, Amira Ben Ammar (CNAM, France); Olfa Bouattay (Sup'Com, Tunisia); Ali Dziri; Michel Terré (CNAM, France); Habib Youssef (Institut Supérieur d'Informatique et des Technologies de Communication, Tunisia)
- 1570098267:** RP-MAC: A Cross-Layer Duty Cycle MAC Protocol with a Reduced Pipelined-Forwarding Feature for Wireless Sensor Networks, Ho Sy Khanh, Cheol-Young Ock and Myung Kyun Kim (University of Ulsan, Korea)

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| ➤ <b>Session Title:</b> Multimedia Communications and Services (Multimedia Symp.) | <b>ThA-5: Room:</b> RUDA |
| ➤ <b>Session Chair:</b> Yi Qian, University of Nebraska–Lincoln, USA              |                          |

- 1570077785:** Delay based channel allocations in multi-hop cognitive radio networks, Zhihui Shu; Yi Qian (University of Nebraska–Lincoln, USA); Rose Qingyang Hu (Utah State University, USA)
- 1570081497:** Scalable Video Transmission System: Design and Field Trial, Huangping Jin, Kewu Peng and Jiachen Huang; Changyong Pan (Tsinghua University, Beijing, P.R. China)
- 1570081639:** Reliable Streaming Protocol for Lossy Networks, Mathias Brulatout (Thales Communications & Security, France); Jeremie Leguay (Huawei Technologies Co. Ltd., France); Hicham Khalife (Thales Communications & Security, France); Emmanuel Lochin (University of Toulouse - ISAE, France); Vania Conan (Thales Communications & Security, France); Jerome Lacan (University of Toulouse, France)
- 1570095201:** Multimedia over Massive MIMO Wireless Systems, Haichao Wang; Ge Xiaohu; Ran Zi; Jing Zhang (HUST, P.R. China); Qiang Ni (Lancaster University, United Kingdom)
- 1570098825:** EMULSIoN: Environment Mitigation on mULTimedia StreamIng Networks, Sean Hayes, Enda Fallon, Niall Murray and Ronan Flynn (Athlone Institute of Technology, Ireland); Gabriel-Miro Muntean (Dublin City University, Ireland)
- 1570105693:** Multi-Path Approach for Real-Time Service Delivery Optimization over HetNets, Anwar Fouad (NTI Egypt, Egypt); Emad Abd-Elrahman (Telecom SudParis (ex. INT), France); Ahmad Yahya (Computer Science, Egypt)
- 1570106409:** Toward Quality of Experience models of Cloud-based Mobile Services, Nouha Samet and Asma Ben Letaïfa (MEDIATRON, Tunisia); Mohamed Hamdi (University of Carthage, Tunisia); Sami Tabbane (MEDIATRON, Tunisia)
- 1570107427:** On the Perceived Quality Evaluation of Opportunistic Mobile P2P Scalable Video Streaming, Constandinos X. Mavromoustakis (University of Nicosia, Cyprus); George Mastorakis (Technological Educational Institute of Crete, Greece); Charalampos Mysirlidis, Tasos Dagiuklas and Ilias Politis (Hellenic Open University & University of Patras,

Greece); Ciprian Dobre (University Politehnica of Bucharest, Romania); Katerina Papanikolaou (European University Cyprus, Cyprus); Evangelos Pallis (Technological Educational Institute of Crete, Greece)

➤ **Session Title:** Algorithms (Wireless Networking Symposium)

**ThA-6: Room:** DAKSA

➤ **Session Chair:** Ramachandran Venkatesan, Memorial University of Newfoundland, Canada

**1570107487:** Compressed Sensing-based Time-Varying Channel Estimation in UWA-OFDM Networks, Yi Zhang, Ramachandran Venkatesan, Cheng Li and Octavia A. Dobre (Memorial University of Newfoundland, Canada)

**1570106125:** Comprehensive Study of Spectrum Utilization for 802.11b/g/n Networks, Walid Balid and Samer Rajab; Hazem Refai (Oklahoma University, USA)

**1570083177:** The r-l square point process: The effect of coordinated multipoint joint transmission, Iyad Lahsen Cherif (Paris Sud, France); Lynda Zitoune (ESIEE-Paris, France); Véronique Vèque (University of Paris-Sud 11, France)

**1570107183:** Network Coding Tree Algorithm for Multiple Access System, Zhengchuan Chen (Tsinghua University, P.R. China); Ke Xiong (Beijing Jiaotong University, P.R. China); Pingyi Fan and Chen Chen (Tsinghua University, P.R. China)

**1570107637:** A Novel Approach for Indoor Wave Propagation Modeling, Ayadi Mohamed (Sup'Com Tunis, Tunisia); Aymen Ben Zineb (Sup'Com Tunis, Tunisia); Sami Tabbane (Sup Telecom, Tunisia)

**1570082155:** RSSI-based Localization in Wireless Sensor Networks Using Regression, Treem Hanen Ahmadi (Université de Tunis El Manar, Tunisia); Ridha Bouallegue (Sup'Com, Tunisia)

**1570092299:** Comparative study of learning-based localization algorithms for Wireless Sensor Networks: Support Vector Regression, Neural Network and Naïve Bayes, Hanen Ahmadi (Université de Tunis El Manar, Tunisia); Ridha R. Bouallegue (Sup'Com, Tunisia)

**END OF SESSIONS**

**TECHNICAL PROGRAM  
IEEE IWCMC 2015**

**Dubrovnik, Croatia, August 24<sup>th</sup> — 28<sup>th</sup>, 2015**

**Friday, August 28<sup>th</sup>, 2015**

***No Sessions Scheduled on Friday***

***EXCURSIONS (On Your Own)***



The **12<sup>th</sup>** International Wireless  
Communications and Mobile Computing  
Conference  
**August 22<sup>nd</sup> - 26<sup>th</sup>, 2016**  
**Frederick University**  
**Coral Beach Hotel, Paphos, Cyprus**

## CALL FOR PAPERS

### “Connecting the World”

The International Wireless Communications and Mobile Computing Conference (IWC MC 2016) will be held in Coral Beach Hotel, Paphos, Cyprus; August 22—26, 2016. Under the theme of "Wireless Connectivity Everywhere," IWC MC 2016 will target a wide spectrum of the state-of-the-art as well as emerging topics pertaining to wireless networks, wireless communications, and mobile computing. Continuing the great success of previous IWC MC events, IWC MC 2016 is anticipated to attract a large number of high-quality submissions and stimulate the cutting-edge research discussions among many academic pioneering researchers/scientists and industrial engineers/leaders from all around the world.

The IWC MC 2016 program will feature a number of symposia, workshops, invited presentations, special sessions, and pioneering keynote speakers. More information can be found at the conference website: <http://iwcmc.org/2016>. Prospective authors are invited to submit original technical papers—up to 6 pages of length, using the EDAS link: <https://edas.info> to various IWC MC 2016 Symposia and Workshops as listed in the conference website for possible publication in the IWC MC 2016 Conference Proceedings, which will be included in the IEEE Digital Library-*Xplore*. Selected papers will be further considered for possible publication in five special issues in the following Journals:

- 1) Wiley Journal of *Wireless Communications and Mobile Computing (WCMC)*
- 2) The *International Journal of Sensor Networks (IJSNet)*
- 3) The *International Journal of Autonomous and Adaptive Communications Systems (IJAACS)*
- 4) *KSII Transactions on Internet and Information Systems*
- 5) *Peer-to-Peer Networking & Applications*

There will also be best paper awards, one best symposium award, and one best Workshop award.

#### **Important Dates:**

Paper Submission Deadline:	<b>15 January 2016</b>
Paper Acceptance Notification:	15 April 2016
Camera-ready Paper Submissions:	10 May 2016
Registration Deadline for Authors:	10 May 2016

For more information, visit the conference website: <http://iwcmc.org/2016>

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