

*The Fourth IFIP International Conference  
on  
New Technologies, Mobility and Security  
Program (NTMS 2011)*



*Organizers:  
CNRS - LIMOS  
Telecom ParisTech (INFRES)  
University Pierre and Marie CURIE (LIP6)  
University PARIS-SUD 11 (LRI)*

NTMS 2011  
7 to 10th February 2011 / Paris - FRANCE



## ➤ The program

Monday, February 7				
09:00 - 12:30	Tutorial 1: Joint Protocol-Channel decoding: Taking the best from noisy packets - By P. Duhamel & M. Kieffe			
14:00 - 17:30	Tutorial 2: Open smart cards for networks and cloud identity - By P. Urien			
Tuesday, February 8				
Time	Amphi 120	Room 125	Room 126	
09:00 - 10:30	Opening Session	SCLP 2011	WSN 2011	
10:30 - 11:00	Coffee Break			
11:00 - 12:30	SECURITY	SCLP 2011	WSN 2011	
14:00 - 16:00	NEW TECH	SECURITY	WSN 2011	
16:00 - 16:20	Coffee Break			
16:20 - 18:20	NEW TECH	SECURITY	WSN 2011	
Wednesday, February 9				
Time	Amphi 120	Room 125	Room 126	
09:00 - 10:40	NEW TECH	MOBILITY	WSN 2011	
10:40 - 11:00	Coffee Break			
11:00 - 12:30	MOBILITY	SECURITY	WSN 2011	
14:00 - 16:00	NEW TECH	MOBILITY	WSN 2011	
16:00 - 16:20	Coffee Break			
16:20 - 18:20	NEW TECH	MOBILITY	SECURITY	
Thursday, February 10				
Time	Amphi 120	Room 125	Room 126	Room 119
09:00 - 10:40	NEW TECH	MOBILITY	SECURITY	Innov'Projects
10:40 - 11:00	Coffee Break			
11:00 - 12:30	NEW TECH	MOBILITY	SECURITY	Innov'Projects
14:00 - 15:00	KEYNOTE II	POSTERS		Innov'Projects
15:00 - 16:20	NEW TECH	MOBILITY	SECURITY	Innov'Projects
16:20 - 16:40	Coffee Break			
16:40 - 18:30	NEW TECH	MOBILITY	SECURITY	Innov'Projects

➤ Tuesday, February 8

09:00 - 10:30

## Opening Session

**Keynote: Adaptive Multi-Core Architectures for future Mobility & Nano Era Views**

Prof. Dr.-Ing. Jürgen Becker

Karlsruhe Institute of Technology

KIT Dept. Electrical Engineering & Information Technology

Institute for Information Processing -

Germany



Room: Amphi 120

09:00 - 10:30

## SCLP I : Service computing, Context-aware, Location-aware and Positioning techniques

Room: Room 125

Chair: Ahmed Nait-Sidi-Moh (University of Technology of Belfort Montbéliard, France)

***Performance of Localization Algorithm under Corrupted Measurement Data and Lopsided Sensor Arrangement***

Hiroyuki Hatano (Shizuoka University, Japan), Tomoharu Mizutani (Shizuoka University, Japan), Kazuya Sugiyama (Shizuoka University, Japan), Yoshihiko Kuwahara (Shizuoka University, Japan)

***Secure Instant Messaging Protocol for Centralized Communication Group***

Mohamed Hamdy Eldefrawy (King Saud University, Saudi Arabia), Khaled Alghathbar (King Saud University, Saudi Arabia), Muhammad Khurram Khan (King Saud University, Saudi Arabia), Hassan Elkamchouchi (Alexandria University, Egypt)

***Hybrid Indoor Positioning Approaches Based on WSN and RFID***

Zhoubing Xiong (Politecnico di Torino, Italy), Francesco Sottile (Istituto Superiore Mario Boella, Italy), Roberto Garelo (Politecnico di Torino, Italy), Maurizio A. Spirito (Istituto Superiore Mario Boella, Italy)

09:00 - 10:40

## WSN I: Management, Auto-configuration, Fault-tolerance and reliability

Room: Room 126

Chair: Kun Mean Hou (LIMOS, France)

### Energy Efficient Data Restoring After Power-Downs for Wireless Sensor Networks Nodes with Energy Scavenging

Konstantin Mikhaylov (University of Oulu, Finland); Jouni Tervonen (University of Oulu, Finland)

### A Distributed Data Collection Algorithm for Wireless Sensor Networks with Persistent Storage Nodes

Salah A Aly (Princeton University, USA); Ahmed Ali-ELDin (Umeå University, Sweden); H. Vincent Poor (Princeton University, USA)

10:30 - 11:00

## Coffee Break I

11:00 - 12:20

## SEC I: Authentication

Room: Amphi 120

Chair: Maryline Laurent (Institut Télécom, Télécom SudParis, France)

### On the Security of Two Fuzzy Identity-Based Signature Schemes

Syh-Yuan Tan (Tunku Abdul Rahman University, Malaysia); Swee-Huay Heng (Multimedia University, Malaysia); Bok-Min Goi (Universiti Tunku Abdul Rahman (UTAR), Malaysia)

### A Batch Authentication Protocol for V2G Communications

Huaqun Guo (Institute for Infocomm Research, Singapore)

### Ensuring Low Cost Authentication with Privacy Preservation in Federated IMS Environments

Kheira Bekara (Telecom and Management Sud Paris, France); Ben Mustapha Yosra (TMSP, France); Samia Bouzefrane (Conservatoire National des Arts et

Métiers, France); Khaled Garri (Conservatoire National des Arts et Métiers, France); Maryline Laurent (Institut Télécom, Télécom SudParis, France); Pascal Thoniel (NTX Research, France)

#### **Securing Communications between Multiple Entities Using a Single TLS Session**

Mohamad Badra (Dhofar University, Oman)

### **WSN II: Cross-layer design and optimization methods; Energy-efficient embedded protocols including MAC layer**

Room: Room 126

Chair: Antonio J. Caamaño (Rey Juan Carlos University of Madrid, Spain)

#### **TCP over low-power and lossy networks: tuning the segment size to minimize energy consumption**

Ahmed Ayadi (Telecom Bretagne, France); Patrick Maillé (Telecom Bretagne, France); David Ros (TELECOM Bretagne, France)

#### **Adaptive Fuzzy-MAC for Power Reduction in Wireless Sensor Networks**

Erwing R. Sanchez (Politecnico di Torino, Italy); Bartolomeo Montrucchio (Politecnico di Torino, Italy); Laura Murillo (Politecnico di Torino, Italy); Maurizio Rebaudengo (Politecnico di Torino, Italy)

#### **Powering Wireless Sensor Networks Nodes in Northern Europe Using Solar Cell Panel for Energy Harvesting**

Jakob Gakkestad (Norwegian Defence Research Establishment, Norway); Leif Hanssen (Norwegian Defence Research Establishment, Norway)

### **SCLP II : Service computing, Context-aware, Location-aware and Positioning techniques**

Room: Room 125

Chair: Ahmed Nait-Sidi-Moh (University of Technology of Belfort Montbéliard, France)

#### ***Fusion of Artificial Vision and GPS to Improve Blind Pedestrian Positioning***

Adrien Brilhault (Université de Toulouse 3, France) , Slim Kammoun (Université de Toulouse 3, France), Olivier Gutierrez (Université de Toulouse 3, France), Philippe Truillet (Université de Toulouse 3, France) , Christophe Jouffrais (Université de Toulouse 3, France)

#### ***Network Selection Using AHP and TOPSIS in a Heterogeneous Multi Access Environments***

Mohamed Lahby (Faculté des sciences et techniques, Maroc), Charkaoui Lghris (Faculté des sciences et techniques, Maroc), Abdellah Adib (Faculté des sciences et techniques, Maroc)

14:00 - 16:00

## **MOB I: Mobility, location and handoff management**

Room: **Amphi 120**

Chair: Ahmed Nait-sidi-moh (University of Technology of Belfort-Montbélaird, France)

### **A Mobility Management Solution for Simultaneous Mobility with mSCTP**

Kaibo Zhou (China Academy of Telecom Research, P.R. China); Gang Liu (China Academy of telecom Research, P.R. China); Yong Yao (Blekinge Institute of Technology, Sweden); Adrian Popescu (Blekinge Institute of Technology, Sweden)

### **Optimizing Position Updates for kNN - Is It Worth It?**

Philipp Engel (Aloqa GmbH (a Motorola Mobility Company), Germany)

### **Cooperative Mobility Management in Multihomed End-to-End Communications**

Xiaofei Zhang (University of Paris 6, France); Nguyen T. Trang (LIP6, France); Guy Pujolle (University of Paris 6, France)

### **Well-Conditioned Sensor Placement for Range-Only Localization**

Kamal Shadi (Sharif University of Technology, Iran); Hooman Lal Dehghani (Nanoelectronics Group University of Tabriz, Iran); Iman Gholampour (Sharif University of Technology, Iran)

### **An Efficient Paging Scheme for Terminal Mobility using Personal Mobility Management Information in Interworked Fixed and Mobile Networks**

Yun Won Chung (Soongsil University, Korea)

### **Agent-Based Approach to Plan Sensors Relocation in a Virtual Geographic Environment**

Nabil Sahli, Nafaa Jabeur, Mohamad Badra (Dhofar University, Oman)

## **SEC II: Web, e-mail, and e-commerce security**

Room: **Room 125**

Chair: Albert Levi (Sabanci University, Turkey)

### **A dual approach to detect pharming attacks at the client-side**

Sophie Gastellier-Prevost (CNRS Samovar UMR5157, Institut Telecom, Telecom SudParis, France); Gustavo Gonzalez Granadillo (CNRS Samovar UMR5157, Institut

Telecom, Telecom SudParis, France); Maryline Laurent (Institut Télécom, Télécom SudParis, France)

#### **Term-Rewriting Deobfuscation for Static Client-Side Scripting Malware Detection**

Gregory Blanc (Nara Institute of Science and Technology, Japan); Ruo Ando (National Institute of Information and Communication Technology, Japan); Youki Kadobayashi (Nara Institute of Science and Technology, Japan)

#### **Augmenting a webmail application with cryptographic puzzles to deflect spam**

Marius Cristea (Politehnica University of Timisoara, Romania); Bogdan Groza (Politehnica University of Timisoara, Romania)

#### **Fair and Abuse-free Contract Signing Protocol Supporting Fair License Reselling**

Tarek Gaber (University of Manchester, United Kingdom); Ning Zhang (University of Manchester, United Kingdom)

#### **eTNet: A Smart Card Network Architecture for Flexible Electronic Commerce Services**

Takeshi Yashiro (University of Tokyo, Japan); Muhammad Fahim Ferdous Khan (The University of Tokyo, Japan); So Ito (The University of Tokyo, Japan); Masahiro Bessho (The University of Tokyo, Japan); Shinsuke Kobayashi (The University of Tokyo, Japan); Tomonori Usaka (The University of Tokyo, Japan); Noboru Koshizuka (The University of Tokyo, Japan); Ken Sakamura (The University of Tokyo, Japan)

### **WSN III: Energy-efficient embedded protocols including MAC layer**

Room: [Room 126](#)

Chair: Kun Mean Hou (LIMOS, France)

#### **Channel Loss Based Energy Consumption Model for Low-Power Wireless Communications**

Nikola Zogovic (University of Belgrade, Serbia); Goran Dimic (University of Belgrade, Serbia); Dragana D. Bajic (University of Novi Sad, Yugoslavia (defunct))

#### **Upper bounds on network lifetime for clustered wireless sensor networks**

Maciej Nikodem (Wroclaw University of Technology, Poland); Bartosz Wojciechowski (Wroclaw University of Technology, Poland)

#### **Performance Analysis of Node Cooperation with Network Coding in Wireless Sensor Networks**

Hani Attar (Strathclyde university, United Kingdom); Dejan Vukobratović (University of Strathclyde, United Kingdom); Lina Stankovic (University of Strathclyde, United Kingdom); Vladimir Stankovic (University of Strathclyde, United Kingdom)



**Extending Beacon-Enabled IEEE 802.15.4 to achieve Efficient Energy Savings: Simulation-Based Performance Analysis**

Mounib Khanafer (University of Ottawa, Canada); Mouhcine Guennoun (University of Ottawa, Canada); Hussein Mouftah (University of Ottawa, Canada)

**TCP over 6LoWPAN for Industrial Applications: An Experimental Study**

Ahmed Ayadi (Telecom Bretagne, France); Tiancong Zheng (Telecom Bretagne, France); Xiaoran Jiang (Telecom Bretagne, France)

16:00 - 16:20

**Coffee Break II**

16:20 - 18:20

**NT I: Next generation systems & Service-oriented techniques - I**

Room: **Amphi 120**

Chair: Saïd Assar (Institut Telecom, France)

**High Power Efficiency and Low Nonlinear Distortion for Wireless Visible Light Communication**

Sang Burm Ryu (Chungbuk National University, Korea); Haeseong Jeong (Chungbuk National University, Korea); Heung-Gyoon Ryu (Chungbuk National University, Korea)

**Considerations for ubiquitous integration of cooperating objects**

Stamatis Karnouskos (SAP Research, Germany); Vladimir Villaseñor Herrera (Tampere University of Technology, Finland); Muhammad Haroon (University of Duisburg-Essen, Germany); Marcus Handte (University of Duisburg-Essen, Germany); Pedro Jose Marrón (University of Duisburg-Essen and Fraunhofer IAIS, Germany)

**Self-Stabilizing Passive Replication for Internet Service Platforms**

Koji Hasebe (University of Tsukuba, Japan); Kei Yamatozaki (University of Tsukuba, Japan); Akiyoshi Sugiki (University of Tsukuba, Japan); Kazuhiko Kato (University of Tsukuba, Japan)

**Proposal and Evaluation of Dynamic Resource Allocation Method Based on Load of VMs on IaaS**

Atsuo Inomata (NARA Institute of Science and Technology, Japan); Sk. Md. Mizanur Rahman (University of Ottawa, Canada)

**An Agile Service Platform for Telecommunication Environments**

Lajos Lange (Fraunhofer Institut FOKUS, Germany); Alexander Blotny (Fraunhofer FOKUS, Germany); Thomas Magedanz (Fraunhofer FOKUS, Germany)

16:20 - 18:30

### SEC III: Privacy

Room: Room 125

Chair: Mirco Marchetti (University of Modena and Reggio Emilia, Italy)

#### Protecting Privacy while Discovering and Maintaining Association Rules

Tran Khanh Dang (Faculty of CSE, Ho Chi Minh City University of Technology, Vietnam); Josef Kueng (Johannes Kepler University Linz, Austria); Huynh V.Q. Phuong (Faculty of CSE, Ho Chi Minh City University of Technology, Vietnam)

#### Towards usable client-centric privacy advisory for mobile collaborative applications based on BDDs

Mohamed Bourimi (University of Siegen, Germany); Jörn Ossowski (Deutsche Telekom GHS, Germany); Dhiah el Diehn I. Abou-Tair (German-Jordanian University, Jordan); Stefan Berlik (University of Siegen, Germany); Dirar Abu-Saymeh (German Jordanian University, Jordan)

#### CROSS-LAYER Privacy design on TCP/IP and 802.11 for energy saving

Antonio Urbano Fullana (Universitat Illes Balears, Spain); Pep-Lluis Ferrer (Universitat de les Illes Balears, Spain); María Magdalena Payeras-Capellà (Universidad de las Islas Baleares, Spain)

#### Providing Resistance against Server Information Leakage in RFID Systems

Suleyman Kardas (TUBITAK UEKAE, Turkey); Albert Levi (Sabanci University, Turkey); Ertugrul Murat (Tubitak Uekae, Turkey)

#### Anonymization in Intelligent Surveillance Systems

Hauke Vagts (Karlsruhe Institute of Technology, Germany); Jürgen Beyerer (Fraunhofer IOSB, Germany); Christoph Bier (Fraunhofer IOSB, Germany)

16:20 - 18:20

### WSN IV: Application, Measurements and practical experiences; Cross-layer design and optimization methods

Room: Room 126

Chair: Kun Mean Hou (LIMOS, France)

#### A High Performance Neurocomputing Algorithm for Prediction Tasks in Wireless Sensor Networks

Jochen Rust (University of Bremen, Germany); Xinwei Wang (University of Bremen, Germany); Steffen Paul (University Bremen, Germany); Rainer Laur (University of Bremen, Algeria)

### **Interference Modeling and Relay Selection Issue for Dual-hop IR-UWB Wireless Sensor Networks**

Jiejia Chen (IEMN-IRCICA University of Lille 1, France); Clavier Laurent (IEMN, France); Alister G. Burr (University of York, United Kingdom); Xi Yong (National University of Defense Technology, P.R. China); Nathalie Rolland (University of Lille, France); Paul-Alain Rolland (University of Lille, France)

### **Wireless Alarming and Routing Protocol for Earthquake Early Warning Systems**

Jens Nachtigall (Humboldt University Berlin, Germany); Jens-Peter Redlich (Humboldt University Berlin, Germany)

### **On the Partial Ordering of the Discrete Memory Channels Arising in Cooperative Sensor Networks**

Paul Cotae (University of The District of Columbia, USA); Ira Moskowitz (Naval Research Laboratory, USA)

### **PMCMTTP's implementation (in nesC/TinyOS2.x) and Testbed for its operation validation**

Jamila Ben slimane (SUP'COM, Tunisia); Ye-Qiong Song (LORIA, France); Anis Koubâa (Al-Imam Saud University (Riyadh) /IPP-HURRAY Research Group (Porto), Saudi Arabia); Mounir Frikha (High School of Communication in Tunis, Tunisia)



Wednesday, February 9

09:00 - 10:40

## MOB II: Next-generation Cellular Networks

Room: Room 125

Chair: Salah A Aly (Princeton University, USA)

### ***The Femtocell Traffic Offload Scheme for Macro Core Networks***

Roh Jaehoon (Korea Telecom, Korea)

### ***A New Traffic Scheduling Algorithm for Internet Services***

Jahangir Dadkhah Chimeh (Iran Telecommunication Research Center, Iran)

### ***The Effect of Unwanted Internet Traffic on Cellular Phone Energy Consumption***

Ismo Puustinen (Nokia Research Center, Finland); Jukka K. Nurminen (Aalto University, Finland)

### ***Beamforming with Partial Channel Knowledge***

Shimi Shilo (Tel Aviv University, Israel); Anthony Weiss (Tel Aviv University, Israel); Amir Averbuch (Tel Aviv University, Israel)

## NT II: Algorithms, Protocols, and Applications - I

Room: Amphi 120

Chair: Jose Saldana (University of Zaragoza, Spain)

### ***Design and Evaluation of a Location-based Mobile News Reader***

Solveig Bjørnstad (University of Bergen, Norway); Bjørnar Tessem (University of Bergen, Norway); Lars Nyre (University of Bergen, Norway)

### ***Performance Evaluation of Storage-Independent Model for SPARQL-to-SQL Translation Algorithms***

Jiseong Son (Korea University, Korea); Jeong-Dong Kim (Korea University, Korea)

### ***Architectural Design of Unified Multiplex Communications for One-Time Use of IP Addresses***

Shingo Ata (Osaka City University, Japan); Hiroshi Kitamura (NEC Corporation, Japan); Murata Masayuki (Osaka University, Japan)

### ***Information-Centric Multiaccess P2P Networks***

Olli Mammela (VTT Technical Research Centre of Finland, Finland); Kostas Pentikousis (Huawei Technologies, Germany); Petteri Mannersalo (VTT Technical Research Centre of Finland, Finland)

## WSN V: Quality of Service and Security

Room: Room 126

Chair: Hassnaa Moustafa (France Telecom R&D, France)

### *Several Characteristics of Active/Sleep Model in Wireless Sensor Networks*

Wei Li (Texas Southern University, USA)

### *A taxonomy of Wireless Sensor Networks with QoS*

Vasco Pereira (University of Coimbra, Portugal); Jorge Silva (University of Coimbra, Portugal); Jorge Granjal (University of Coimbra, Portugal); Ricardo Silva (University of Coimbra, Portugal); Edmundo Monteiro (University of Coimbra, Portugal); Qiang Pan (Shanghai Institute of Microsystem and Information Technology, P.R. China)

### *M2ANET: a Mobile Medium network*

Przemyslaw Pohec (University of New Brunswick, Canada)

### *Dimensionality Reduction and Noise Removal in Wireless Sensor Networks*

Ehsan Sheybani (Virginia State University, USA)

10:40 - 11:00

## Coffee Break III

11:00 - 12:30

## MOB III: Mobility, location and handoff management (II)

Room: Amphi 120

Chair: Nafaa Jabeur (Dhofar University, Oman)

### *Improvements to Inter System Handover in the EPC Environment*

Sandra Frei (University of Plymouth, United Kingdom); Woldemar Fuhrmann (University of Applied Sciences Darmstadt, Germany); Andreas Rinkel (University of Applied Sciences Rapperswil, Switzerland); Bogdan Ghita (University of Plymouth, United Kingdom)

### *mobSim - A Network Mobility Simulation Tool for Very Large-Scale Scenarios*

Pedro Alexandre Vale Pinheiro (University of Coimbra, Portugal); Fernando Boavida (University of Coimbra, Portugal)

***Mobility Assisted Routing in Mobile Ad Hoc Networks***

Kazi Atiqur Rahman (University of Windsor, Canada); Kemal Tepe (University of Windsor, Canada)

**SEC IV: Monitoring design for security**

Room: Room 125

Chair: Wei Li (Texas Southern University, USA)

***Steps Towards Autonomous Network Security: Unsupervised Detection of Network Attacks***

Pedro Casas (LAAS-CNRS, France); Johan Mazel (LAAS-CNRS, France); Philippe Owezarski (LAAS, France)

***BitTorrent's Mainline DHT Security Assessment***

Juan Pablo Timpanaro (University Nancy 1, France); Thibault Cholez (INRIA Nancy Grand-Est, France); Isabelle Chrisment (Loria, Université Henri Poincaré, Nancy 1, France); Olivier Festor (INRIA Nancy - Grand Est, France)

***Vulnerabilities segregation using CVSS framework***

Laurent Gallon (University of Pau, France)

**WSN VI: Application, Measurements and practical experiences**

Room: Room 126

Chair: Abdellah Chehri (University of Ottawa, Canada)

***Design of Wireless Sensor System for Neonatal Monitoring***

Wei Chen (Eindhoven University of Technology, The Netherlands); Sibrecht Bouwstra (Eindhoven University of Technology, The Netherlands); Roland Coops (Eindhoven University of Technology, The Netherlands); Lindsay Brown (Holst Centre IMEC Netherlands, The Netherlands); Sidarto Bambang Oetomo (Máxima Medical Center, The Netherlands); Loe Feijs (Eindhoven University of Technology, The Netherlands)

***Distributed Detection of Events for Evaluation of Energy Efficiency in Buildings***

Sergio A. de la Campa (Rey Juan Carlos University of Madrid, Spain); Ana Belén Rodríguez-González (Rey Juan Carlos University, Spain); F. Javier Ramos (Rey Juan Carlos University, Spain); Antonio J. Caamaño (Rey Juan Carlos University of Madrid, Spain)

***On the Enhanced Ranging Performance for IEEE 802.15.4 Compliant WSN Devices***

Hemat Kumar Maheshwari (University of Leeds, United Kingdom); Andrew H. Kemp (University of Leeds, United Kingdom)

14:00 - 16:00

**MOB IV: Mobility, location and handoff management (III)**

Room: Room 125

Chair: Ismo Puustinen (Nokia Research Center, Finland)

***Non-Line-Of-Sight Error Mitigation Technique for Wireless Localization in Micro-Cell Networks***

Saeed Golmohammadi (Nanoelectronics Group University of Tabriz, Iran); Hooman Lal Deghani (Nanoelectronics Group University of Tabriz, Iran); Kamal Shadi (Sharif University of Technology, Iran)

***Extended Handover Keying and Modified IEEE 802.21 Resource Query Approach for Improving Vertical Handoff Performance***

Ahmed H. Zahran (University College Cork, Ireland); Cormac J. Sreenan (University College Cork, Ireland)

***MANET Average Communication Interruption Time Evaluation***

Bernardo Leal (University of Cagliari, Italy); Luigi Atzori (University of Cagliari, Italy)

***PM2PLS: Integrating Proxy Mobile IPv6 and MPLS in Wireless Access Networks***

Carlos A. Astudillo (University of Cauca, Colombia); Oscar J. Calderon (Universidad del Cauca, Colombia); Jesus Hamilton Ortiz (University of Castilla y la Mancha, Spain)

***Pre-allocation of DHCP leases: a cross-layer approach***

André V. Zúquete (University of Aveiro, Portugal); Carlos Frade (Institute of Telecommunications, Portugal)

**NT III: Next Generation Networks**

Room: Amphi 120

Chair: Shingo Ata (Osaka City University, Japan)

***Towards an Autonomic Piloting Virtual Network Architecture***

Ilhem Fajjari (Ginkgo Networks, France); Mouna Ayari (University of La Manouba - Tunisia, Tunisia); Othmen Braham (UPMC/VirtuOR, France); Guy Pujolle (University of Paris 6, France); Hubert Zimmermann (Ginkgo Networks, France)

***A new Approach to design graphically Functional Tests for Communication Services***

Patrick Wacht (University of Applied Sciences Frankfurt, Germany); Thomas Eichelmann (University of Applied Sciences Frankfurt, Germany); Armin Lehmann (University of Applied Sciences Frankfurt, Germany); Ulrich Trick (University of Applied Sciences Frankfurt/M., Germany)

***QoS and Admission Probability Study for a SIP-based Central Managed IP Telephony System***

Jose Saldana (University of Zaragoza, Spain); Jenifer Murillo (University of Zaragoza, Spain); Julián Fernández-Navajas (University of Zaragoza, Spain); José Ruiz (University of Zaragoza, Spain); Eduardo Antonio Viruete Navarro (University of Zaragoza, Spain); José Aznar (University of Zaragoza, Spain)

***SLA Management & Monitoring based-eTOM and WS-Composite for IMS network***

Raouyane Brahim (FST, Morocco); Mostafa Bellafkih (INPT, Morocco); Errais Mohammed (FSTM, Morocco); Daniel Ranc (Intitut National des Télécommunications, France)

***QMoEs: A Bandwidth Estimation and Monitoring Tool for QoE-Driven Broadband Networks***

José Aznar (University of Zaragoza, Spain); Eduardo Antonio Viruete Navarro (University of Zaragoza, Spain); José Ruiz (University of Zaragoza, Spain); Julián Fernández-Navajas (University of Zaragoza, Spain); Jose Saldana (University of Zaragoza, Spain); Jenifer Murillo (University of Zaragoza, Spain)

**WSN VII: Application, Measurements and practical experiences; Management, Auto-configuration, Fault-tolerance and reliability**

Room: Room 126

Chair: Jean Pierre Chanet (Cemagref, UR TSCF, France)

***Selective Reprogramming in Sensor Networks***

Daniela Krüger (University of Lübeck, Germany); Dennis Pfisterer (University of Luebeck, Germany); Carsten Buschmann (University of Luebeck, Germany)

***A Novel Clustering Scheme for Sensor Networks Based on Intra-cluster Connectivity***

Chen Jiehui (Waseda University, Japan); Mitsuji Matsumoto (Waseda University, Japan); Mariam B. Salim (Waseda University, Japan)

***Dynamic Topology Control for WSNs in Critical Environments***

Zinon Zinonos (University of Cyprus, Cyprus); Vasos Vassiliou (University of Cyprus, Cyprus); Christiana Ioannou (University of Cyprus, Cyprus); Marios Koutroullos (University of Cyprus, Cyprus)



***Coverage-Aware Node-Disjoint Multipath Selection in Wireless Multimedia Sensor Networks***

Daniel G. Costa (State University of Feira de Santana, Brazil); Luiz A. H. Guedes (Federal University of Rio Grande do Norte, Brazil)

***Neighbour Discovery for Transmit Power Adjustment in IEEE 802.15.4 using RSSI***

Wilawan Rukpakavong (Loughborough University, United Kingdom); Iain Phillips (Loughborough University, United Kingdom); Lin Guan (Loughborough University, United Kingdom)

16:00 - 16:20

**Coffee Break IV**

16:20 - 18:30

**MOB V: Wireless and mobile multimedia systems; PAN, BAN, WSN, UWB**

Room: [Room 125](#)

Chair: Khaldoun Al Agha (University of Paris XI, France)

***Broadband Video Streaming with Built-in Resiliency***

Ismail Ali (University of Essex, United Kingdom); Salah M Saleh Al-Majeed (University of Essex, United Kingdom); Sandro Moiron (University of Essex, United Kingdom); Martin Fleury (University of Essex, United Kingdom); Mohammad Ghanbari (University of Essex, United Kingdom)

***A Scheme of H.264/SVC Video Broadcasting Over IEEE 802.11 WLAN***

Young-Hwan Kim (Yonsei University, Korea); Hae-Ryeon Park (Yonsei University, Wonju, Korea); Jung-Bong Suk (Yonsei University, Wonju, Korea)

***Topology Dynamics and Network Architecture Performance in Wireless Body Sensor Networks***

Elyes Ben Hamida (CEA-LETI, Minatec, France); Raffaele D'Errico (CEA-LETI, France); Benoit Denis (CEA-Leti Minatec, France)

***Sinks Mobility Strategy in IPv6-based WSNs for Network Lifetime Improvement***

Leila Ben Saad (ENS Lyon INRIA, France); Bernard Tourancheau (EA CITI at INSA-Lyon and INRIA, France)

16:20 - 18:20

## NT IV: Content-based networking

Room: Amphi 120

Chair: Tarek El-Ghazawi (The George Washington University, USA)

### ***Digital Fountains + P2P for Future IPTV Platforms: A Test-bed Evaluation***

Gustavo Marfia (Università di Bologna, Italy); Marco Rocchetti (University of Bologna, Italy)

### ***An Analysis of Web Caching in Current Mobile Broadband Scenarios***

Daniel Catrein (Ericsson Research, Germany); Bernd Löhner (Ericsson GmbH, Germany); Christoph Meyer (Ericsson, Germany); René Rembarz (Ericsson Research, Germany); Thomas Weidenfeller (Ericsson GmbH, Germany)

### ***Active ISP Involvement in Content-Centric Future Internet***

Salekul Islam (Institut National de la Recherche Scientifique (INRS), Canada); Jean-Charles Gregoire (University of Quebec, INRS, Canada)

### ***A Semi-Markovian Individual Model of Users for P2P Video Streaming Applications***

Grégory Bonnet (University of Caen Lower-Normandy, France); Ihsan Ullah (Troyes University of Technology, France); Guillaume Doyen (Université Technologique de Troyes, France); Lionel Fillatre (UTT, France); Dominique Gaiti (University of Technology of Troyes, France); Igor Nikiforov (Université de Technologie de Troyes, France)

### ***A Chemical Model to enable Context Awareness***

Ahsan Ikram (University of the West of England, United Kingdom); Nigel Baker (University of the West of England, United Kingdom); Michael Knappmeyer (University of Applied Sciences Osnabrück, Germany); Ralf Tönjes (University of Applied Sciences Osnabrück, Germany)

## SEC V: Denial of service

Room: Room 126

Chair: Guy Pujolle (University of Paris 6, France)

### ***The problem of NIDS evasion in mobile networks***

Michele Colajanni (University of Modena and Reggio Emilia, Italy); Luca Dal Zotto (University of Modena and Reggio Emilia, Italy); Mirco Marchetti (University of Modena and Reggio Emilia, Italy); Michele Messori (University of Modena and Reggio Emilia, Italy)

### ***Inductive Intrusion Detection in Flow-Based Network Data using One-Class Support Vector Machines***

Philipp Winter (Upper Austria University of Applied Sciences, Austria); Eckehard Hermann (Upper Austria University of Applied Sciences, Austria); Markus Zeilinger (University of Applied Sciences Upper Austria, Austria)

***A Novel Attack Model Simulation in DSDV Routing***

Rajbir Kaur (Malaviya National Institute of Technology, India); Manoj Singh Gaur (Malaviya National Institute of Technology, India); Vijay Laxmi (Malaviya National Institute of Technology, India)

***Message Denial and Alteration on IEEE 802.15.4 Low-Power Radio Networks***

Colin P. O'Flynn (NewAE, Canada)

***Statistical analysis of self-similar Session Initiation Protocol (SIP) messages for anomaly detection***

Vijay Gurbani (Bell Laboratories, Alcatel-Lucent, USA); Anil Mehta (Southern Illinois University Carbondale, USA); Neda Hantehzadeh (Southern Illinois University, USA); Tin Ho (Bell Labs, Lucent Technologies, USA); Lalit Gupta (Southern Illinois University, USA); Gayan Wilathgamuwa (Southern Illinois University, USA)

➤ Thursday, February 10

09:00 - 10:40

## MOB VI: Advances in sensor and ad hoc networks

Room: Room 125

Chair: Ismo Puustinen (Nokia Research Center, Finland)

### ***PHY-MAC Cross-Layer Optimized Design for Power Conservation in Wireless Ad Hoc Networks***

Hussein Elattar (Arab academy for science and Technology and Maritime transport, Egypt)

### ***COSMIC: A Cooperative MAC Protocol for WSN with Minimal Control Messages***

Ahmed Ben Nacef (INP Toulouse, Tunisia); Sidi-Mohammed Senouci (University of Bourgogne - ISAT Nevers, France); Yacine Ghamri-Doudane (LIGM and ENSIE, France); Andre-Luc Beylot (ENSEEIH, France)

### ***An Energy Considered Routing Protocol of Free Space Optical Sensor Network***

Rong Xie (Chonbuk National University, Korea); Fei Tong (Chonbuk National University, Korea); Young-Chon Kim (Chonbuk National University, Korea)

### ***A Hybrid Stateless QoS Approach for Wireless Mobile Ad hoc Networks***

Lyes Khoukhi (University of Technology of Troyes, Canada); Ali El Masri (University of Technology of Troyes, France); Dominique Gaiti (University of Technology of Troyes, France)

## NT V: Web Technologies

Room: Amphi 120

Chair: Bernd Löhner (Ericsson GmbH, Germany)

### ***HTTP acceleration over high latency links***

Paul Davern (UCC, Ireland); Noor Nashid (University College Cork, Ireland); Ahmed H. Zahran (University College Cork, Ireland); Cormac J. Sreenan (University College Cork, Ireland)

### ***Reformulating user's queries for Intentional Services Discovery using Ontology-based Approach***

Kadan Aljoumaa (Université Paris 1 - Panthéon Sorbonne, France); Saïd Assar (Institut Telecom, France); Carine Souveyet (Université Paris 1 - Panthéon Sorbonne, France)

### ***An ontological Approach to Interoperation of Mobile Services***

Tara Raafat (University of Surrey, United Kingdom); Franjo Cecelja (University of Surrey, United Kingdom)

***MMOR: Mapping Method for Ontology Registration to Improve XMDR***

Jeong-Dong Kim (Korea University, Korea); Jiseong Son (Korea University, Korea)

**SEC VI: Access Control and authentication**

Room: Room 126

Chair: Huaqun Guo (Institute for Infocomm Research, Singapore)

***OST-tree: An Access Method for Obfuscating Spatio-Temporal Data in Location Based Services***

Quoc Cuong To (Ho Chi Minh University of Technology, Vietnam); Tran Khanh Dang (Faculty of CSE, Ho Chi Minh City University of Technology, Vietnam); Josef Kueng (Johannes Kepler University Linz, Austria)

***UACML: Unified Access Control Modeling Language***

Nadera Slimani (University of Quebec in Outaouais, Canada); Hemanth Khambhammettu (University of Quebec in Outaouais, Canada); Kamel Adi (University of Quebec in Outaouais, Canada); Luigi Logrippo (Universite de Quebec a l'Outaouais, Canada)

***Managing Access Control in Delay/Disruption Tolerant Networking (DTN) Environment***

Enyenihi H Johnson (University of Surrey, United Kingdom); Haitham Cruickshank (University of Surrey, United Kingdom)

***Ontology Based Interoperation for Securely Shared Services***

Ioana Ciuciu (Vrije Universiteit of Brussels, Belgium)

**Innov'Projects I : INNOVATIVE NTMS 2011 Projects**

Room: Room 119

Chair: Mohamad Badra (CNRS, France)

***The EtherTrust OPENID Infrastructure: An Identity Model For WEB and Cloud Applications***

Christophe Kiennert (EtherTrust, France) ,

***User-Centric Personalized IPTV Ubiquitous and Secure Services (UP-TO-US) Eureka Celtic Project***

Hassnaa Moustafa (Orange FT, France)

***Green Mesh and Ad Hoc Networks***

Thomas Claveirole (Green-Communications, France), Ignacy Gawłdzki (Green-Communications, France)

**EPOD : Enhanced PON using OFDM modulation**

Naveena Genay (Orange, FT)

10:40 - 11:00

**Coffee Break V**

11:00 - 12:30

**MOB VII: WiMAX, WLAN, DVB, WiFi**

Room: Room 125

Chair: Kemal Tepe (University of Windsor, Canada)

***Can WiMAX be Viable Alternative for Wireless Broadband Operators in Europe?***

Marco Araújo (University of Aveiro, Portugal); Manuel Duarte (University of Aveiro, Portugal)

***Evaluation of Path Loss Models at WIMAX Cell-edge***

Mohammed Alshami (The University of Edinburgh, United Kingdom); Tughrul Arslan (University of Edinburgh, United Kingdom); John Thompson (University of Edinburgh, United Kingdom); Ahmet Erdogan (The University of Edinburgh, United Kingdom)

***Outdoor Path Loss Measurements of WiMAX at 2.5 GHz in Suburban Environment***

Marco Petracca (University of Rome "Tor Vergata", Italy); Francesco Vatalaro (University of Rome Tor Vergata, Italy); Annalisa Durantini (RadioLabs - University of Rome Tor Vergata, Italy); Marco Vari (University of Tor Vergata-Rome, Italy)

**NT VI: Algorithms, Protocols, and Applications - II**

Room: Amphi 120

Chair: Nafaa Jabeur (Dhofar University, Oman)

***Comparisons of Home Area Network Connection Alternatives for Multifamily Dwelling Units***

Dana Wang (University of British Columbia, Canada); Victor CM Leung (The University of British Columbia, Canada)

***Assessing the impact of signaling on the QoE of push-based P2P-TV diffusion algorithms***

Paolo Veglia (TELECOM ParisTech, France); Dario Rossi (TELECOM ParisTech, France)

***Ethernet Access Networks Resources Sharing from a Signalling Perspective***

Maxweel Carmo (Universidade Federal de Mato Grosso, Brazil)

**Innov'Projects II : INNOVATIVE NTMS 2011 Projects**

Room: Room 119

Chair: Mohamad Badra (CNRS, France)

**Integrated Service Architectures (ISA): "Agile Service Composition Platform Enables ResourceCollaboration between Service Providers"**

Lajos Lange (Univ. Fraunhofer, Germany)

**Phytoplankton monitoring system and countermeasures to prevent toxics algae blooms**

Emilie Caillault Poisson (ULCO/LISIC, France), Alain Lefebvre (IFREMER/LER, France)

**The ENVISION Project Fostering Cooperation between Overlay Applications and Underlying Networks**

Bertrand Mathieu (Orange Labs, France)

11:00 - 12:20

**SEC VII: Security management and tools**

Room: Room 126

Chair: Pedro Casas (LAAS-CNRS, France)

***An optimal guard-intervals based mechanism for key generation from multipath channels***

Youssef El Hajj Shehadeh (University of Goettingen, Germany); Dieter Hogrefe (University of Goettingen, Germany)

***Secure delivery of equipment identity from vendor to operator***

Konstantin Shemyak (Nokia Siemens Networks, Finland); Jussi Kosonen (Nokia Siemens Networks, Product Security Manager, Finland)

***Replication schemes in Unattended Sensor Networks***

Domenico Vitali (Università Sapienza, Italy); Angelo Spognardi (University of Rome "La Sapienza", Italy); Luigi Vincenzo Mancini (Universita' di Roma Sapienza, Italy)

14:00 - 15:00

**Keynote: Self-Aware Pervasive Systems**

Prof Erol Gelenbe

PhD DSc CEng FIET FIEEE FACM

Professor in the Dennis Gabor Chair, Imperial College

Dept of Electrical and Electronics Eng'g

Head of Intelligent Systems and Networks Group



**Keynote :**

Room: Amphi 120

Chair: Tarek El-Ghazawi (The George Washington University, USA)

**Posters**

Room: Room 125

***High Performance Implementation of Snow3G Algorithm in Memory Limited Environments***

Vaidyanathan Jairaj (Nokia Siemens Networks, India); Jaakko Pohjonen (Nokia Siemens Networks, Finland); Konstantin Shemyak (Nokia Siemens Networks, Finland)

***Using OTP with PAKE: An Optimized Implementation of a Synchronization Window***

Moez Ben MBarka (Cryptolog International, France)

***Implementation of complex strategies of security in secure embedded systems***

Bruno Robisson (CEA, France); Michel Agoyan (CEA, France); Sébastien Le Henaff (Viaccess, France); Patrick Soquet (Viaccess, France); Guillaume Phan (Trusted Logic, France); Franck Wajsburt (LIP6, France); Pirouz Bazargan-Sabet (LIP6, France)

***A Multi Tier Group Location Management Scheme for Multi Interface Mobile Station***

Yun Won Chung (Soongsil University, Korea)



15:00 - 16:20

## MOB VIII: Cognitive radio networks

Room: Room 125

Chairs: Kun Mean Hou (LIMOS, France), Usama Mir (University of Technology, Troyes (UTT), France)

### ***Dynamic Spectrum Hole Management in Cognitive Radio***

Inès Aissa (SUP'COM, Tunisia)

### ***A Markov Process for Dynamic Spectrum Access***

Usama Mir (University of Technology, Troyes (UTT), France); Leila Merghem-Boulahia (UTT, France); Moez Esseghir (University of Technology of Troyes, France); Dominique Gaiti (University of Technology of Troyes, France)

### ***RMC-MAC: A Reactive Multi-Channel MAC Protocol for Opportunistic Spectrum Access***

Sonia Fourati (Ecole Supérieure des Communications de Tunis, Tunisia); Soumaya Hamouda (Ecole Supérieure des Communications de Tunis, Tunisia); Sami Tabbane (Sup Telecom, Tunisia)

## NT VII: Algorithms, Protocols, and Applications - III

Room: Amphi 120

Chair: Tarek El-Ghazawi (The George Washington University, USA)

### ***Microwave Autodyne Sensor for Monitoring of Cardiac Rhythm of Mines Workers***

Igor Borisovich Shirokov (Sevastopol National Technical University, Ukraine)

### ***A Connection Oriented Framework for effectively using multicore in the Enterprise***

Suresh Venugopal (Cognizant Technology Solutions Inc, India); Sravan Kumar Desikan (Cognizant Technology Solutions Inc, India)

### ***IPv4/IPv6 Handoff on Lock-Keeper for High Flexibility and Security***

Ahmad AlSa'deh (Hasso Platner Institute, University of Potsdam, Germany)

## SEC VIII: Cryptographic Hardware and embedded systems

Room: Room 126

Chair: Josef Kueng (Johannes Kepler University Linz, Austria)

### ***How resistant are SBoxes to Power Analysis Attacks?***

Kean Hong Boey (Queen's University Belfast, United Kingdom); Maire O'Neill (Queen's University Belfast, United Kingdom); Roger Woods (Queens University Belfast, United Kingdom)

#### ***Implementation of a PUF Circuit on an FPGA***

Mehmet Soybali (Eng., Turkey); Berna Ors (Istanbul Technical University, Turkey); Gokay Saldamli (Bogazici University, Canada)

#### ***Performance of the Controlled Randomness Protocol on .NET Compact Framework Embedded Systems***

Kyriakos Stefanidis (University of Patras, Greece); Artemios G. Voyiatzis (Industrial Systems Institute / RC Athena, Greece); Dimitrios Serpanos (University of Patras, Greece)

16:00 - 16:20

### **Coffee Break VI**

16:40 - 18:30

### **MOB IX: Self-organizing wireless networks**

Room: [Room 125](#)

Chair: Houda Labiod (TELECOM ParisTech (ex: ENST), France)

#### ***A Research on the Flexible Bus Systems Using Zigbee as a Communication Medium***

Razi Iqbal (Akita University, Japan)

#### ***C-DRIVE: Clustering based on Direction in Vehicular Environment***

Nitin Maslekar (Esigelec-Irseem, France); Mounir Boussedjra (Esigelec-Irseem, France); Houda Labiod (TELECOM ParisTech (ex: ENST), France); Joseph Mouzna (Esigelec-Irseem, France)

#### ***A Self-stabilizing Algorithm for Stable Clustering in Mobile Ad-hoc Networks***

Junpei Kuroiwa (Nara Institute of Science and Technology, Japan); Yukiko Yamauchi (Nara Institute of Science and Technology, Japan); Weihua Sun (Nara Institute of Science and Technology, Japan); Minoru Ito (Nara Institute of Science and Technology, Japan)

#### ***A Path Selection Criterion for Advance Resource Reservation***

Eraldo Silveira e Silva (UFSC UniversityFed Santa Catarina, Brazil); Jean-Marie Farines (Universidade Federal de SC, Brazil); Michel Diaz (Laas CNRS, France)

### **NT VIII: Next generation systems & Service-oriented techniques - II**

Room: [Amphi 120](#)

Chair: Maxweel Carmo (Universidade Federal de Mato Grosso, Brazil)

### ***3GPP IMS-based Inter-Device Collaboration***

Syed Husain (Telecom Consultant-Industry Standards, USA); Shin-ichi Isobe (NTT DOCOMO, Japan); Kaniz Mahdi (Ericsson, USA); LaeYoung Kim (LG Electronics, Korea); Arnaud Vedrine (LG Electronics, France); Andreas Kunz (NEC Europe Ltd., Germany); Antoine Mouquet (Orange Labs, France); Rajat Ghai (Team Fringe, USA); Mario Madella (Telecom Italia, Italy)

### ***Shared Backup & Restore***

Vittorio Ottaviani (University of Rome "Tor Vergata", Italy); Alessandro Lentini (University of Rome "Tor Vergata", Italy); Antonio Grillo (University of Rome "Tor Vergata", Italy); Silvia Di Cesare (University of Rome "Tor Vergata", Italy); Giuseppe F. Italiano (University of Rome "Tor Vergata", Italy)

### ***Services Composition based on Next-Generation Service Overlay Networks Architecture***

Christian Makaya (Telcordia, USA); Ben Falchuk (Telcordia Technologies, Inc., USA); Dana A Chee (Telcordia Technologies, USA); Fuchun J Lin (Telcordia Technologies, USA); Subir Das (Telcordia Technologies, USA); Manabu Ito (KDDI R&D Laboratories Inc., Japan); Satoshi Komorita (KDDI R&D Laboratories Inc., Japan); Tsunehiko Chiba (KDDI R&D Laboratories, Inc., Japan); Hidetoshi Yokota (KDDI Labs, Japan)

### ***Distributed Resource Allocation Mechanism for SOA Service Level Agreements***

Kostas Katsalis (University of Thessaly, Greece); Leandros Tassioulas (University of Thessaly, Greece); Yannis Viniotis (North Carolina State University, USA)

### ***Deeploc: Discreet Indoor People Location Application***

Sergio Lujan (Polytechnic University of Cartagena, Spain); Juan Suardíaz-Muro (Polytechnic University of Cartagena, Spain); Andres Cabrera-Lozoya (Polytechnic University of Cartagena, Spain); Fernando Cerdan (Polytechnic University of Cartagena, Spain)

## **SEC IX: Information hiding and watermarking**

Room: Room 126

Chair: Albert Levi (Sabanci University, Turkey)

### ***Robust Blind and Secure Biometric Watermarking Based on Partial Multi-Map Chaotic Encryption***

Mohamed El-Mahallawy (Arab Academy for science and technology, Egypt)

### ***OverCovert: Using Stack-Overflow Software Vulnerability to Create a Covert Channel***

Tamer Fatayer (Cairo University, Palestine); Sherif Khattab (Cairo University, Egypt); Fatma Abd El-Sattar Omara (-Cairo University, Egypt)

***Distribution of Individually Watermarked Content in Peer-to-Peer Networks***

Karl-Göran Stenborg (FOI Swedish Defence Research Agency, Sweden); Robert Forchheimer (Linköping University, Sweden); Magnus Herberthson (FOI - Swedish Defence Research Agency, Sweden)





## Message from the General Chairs

The IFIP International Conference on New Technologies, Mobility and Security has established itself as a leading forum for scientists and engineers to exchange ideas, innovations, and results of advanced research that is shaping the future of digital communications technology.

We are proud to bring to you the 4rth edition of this leading event in Paris, February 7-10, 2011. This year we are quite fortunate to have a very strong technical program as demonstrated by the competitive research paper acceptance rates, and the quality of the tutorials and workshops.

We are also proud to feature this year keynote speeches by two distinguished technical leaders, Erol Gelenbe, ACM and IEEE Fellow and Professor in the Dennis Gabor Chair at the Electrical and Electronic Engineering Department, Imperial College London; and Professor Prof. Jürgen Becker a renowned researchers in reconfigurable computing and hardware/software co-design, and the Vice President of Universität Karlsruhe (TH) and Chief Higher Education Officer (CHEO) of the Karlsruhe Institute of Technology.

Putting an important and complex event like this one together can be only made possible through the orchestrated hard work of many individuals. We would like to thank all the organizing committee and all chairs for their diligent work throughout the whole process. In particular, we would like to thank Mohamed Badra and Ibrahim Hajjeh for their help, relentless work and support.

On this note, we would like to welcome you all to NTMS 2011. Our greatest reward and pleasure is meeting each of you, reconnecting with old friends and making new ones, and to present you all with a high technical value.

***Prof. Tarek El-Ghazawi, The George Washington University, USA***  
***Prof. Luigi Fratta, Politecnico di Milano, Italy***