New Technologies, Mobility and Security

Proceedings of NTMS'2016 Conference and Workshops

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To be completed by Kathryn (IEEE)

PREFACE

This volume contains papers presented at the 8th International Conference on New Technologies, Mobility and Security (NTMS 2016) held in Larnaca, Cyprus during November 21 – 23, 2016. The conference was co-organized by CNRS, TELECOM ParisTECH and University of Cyprus.

In response to the call for papers, 107 papers were submitted to the NTMS conference and workshops. These papers were evaluated on the basis of their significance, novelty, and technical quality. Each paper was reviewed by at least two members of the program committee. From the papers submitted to the main conference, 38 were selected as regular papers for presentation at the conference, giving an acceptance rate of about 40%. An additional 18 papers which described potentially interesting work were accepted after a major revision was made or as invited papers.

Seven prior editions of NTMS were organized. The first edition, NTMS 2007, took place in Paris, France, the second edition, NTMS 2008, took place in Tangier, Morocco, the third edition took place in Cairo, Egypt, the fourth edition took place in Paris, France, the fifth edition took place took place in Istanbul, Turkey, the sixth edition took place in Dubai, while the last edition took place in Paris, France. The current edition of NTMS conference is organized through collaboration with many sponsors (IEEE, COMSOC, IFIP, Telecom ParisTech, CNRS and University of Cyprus). We are grateful for their support to the conference organisation.

We want to thank the authors for their diligence and hard work in ensuring high quality contributions. Also, we address our gratitude to the reviewers for their multiple reviews during the selection process. We give a special thanks to Giovanni Pau and Vasos Vassiliou for chairing the conference; Samuel Pierre, Haidar Safa, Hadi Otrok, Azzam Mourad, George Xylomenos and Gustavo Marfia to co-chair the technical program committee of the three NTMS tracks. We thank also Layth Sliman for serving on the workshop committee; Francine Krief and Badr Benmammar, for the tutorial/keynote organization; George Pallis and Petros Stratis for chairing the sponsorship committee; Ibrahim Hajjeh for chairing the finance committee; Petros Stratis and Chrysostomos Chrysostomou for chairing the local organization committee,

We would also like to thank the following persons for their great support: Kathryn Alcorn from IEEE eXpress Conference Publishing, Phyllis ONeill from IEEE Communications Society, and Brianna Hunt from IEEE MCE.

There is a long list of people who volunteered their time and energy to put together the conference and who deserve acknowledgment. Thanks to all members of the Technical Program Committee, and the external reviewers, for their hard work in evaluating and discussing papers.

Last but not least, we wish to thank all the authors who submitted papers and all conference attendees. We welcome you to NTMS 2016 and hope that you will enjoy it.

Mohamad Badra

College of Technological Innovation, Zayed University, UAE

On behalf of the Steering Committee

Message from the Conference Chairs

On behalf of the organizing and technical program committees of the seven International Conference on New Technologies, Mobility and Security – NTMS 2016, it is a great pleasure for us to welcome you in the heart of Larnaca to participate in this exciting technical program. This conference is technically co-sponsored by IEEE, IEEE COMSOC and IFIP TC6.5 working group.

NTMS'2016 aims at fostering advances in the areas of New Technologies, Wireless Networks, Mobile Computing, Ad hoc and Ambient Networks, QoS, Network Security and E-commerce, to mention a few, and provides a dynamic forum for researchers, students and professionals to present their state-of-the-art research and development in these interesting areas. The event will be combined with tutorial sessions and workshops. Tutorials will precede the main program, aiming at the dissemination of mature knowledge and technology advances in the field.

This event combined three main tracks (Mobility & Wireless Networks, Security, New Technologies & Services) and three workshops, Innovative Projects 2016, WSN 2016 ("Deployment, and Reliability of Networks and Network Applications, Wireless Sensor Networks: Architectures") and CID 2016 (International Workshop on Cybercrime Investigation and Digital forensics (CID)).
The conference also welcome two tutorial preceding the main program from Dr. Nicolas Sklavos and Dr.I. D. Zaharakis ("Cryptography and Security in Internet of Things (IoTs): Models, Schemes, and Implementations"), and from Dr. Vasos Vassiliou and Dr. Charalambos Sergiou ("Performance guarantees in Wireless Sensor Networks: Issues, challenges and solutions, from congestion control to mobility management approaches"), and a keynote given by Professor Andreas Pitsillides ("Adopting nature inspired techniques in solving communication problems").

NTMS2016 received 91 submissions. The full papers were subjected to multiple independent peer review and 38 papers were recommended by the respective program committees under the guidance of the track chairs for presentation at this conference. The quality of accepted papers is reflected in the acceptance rate of 40%. We express our highest appreciation for all who contributed to the success of this conference; we duly recognize the work undertaken by the track chairs in helping to generate such program across broad range technologies.

We also express our gratitude to all workshop chairs as well as technical program committee members and the reviewers who gave their valuable time in providing critical reviews. The conference would not have been possible without the help of the organizing committee and the volunteers and we thank them most sincerely.

Finally, we would like to welcome you all to NTMS 2016, we hope you will enjoy the Impressionists city and its famous Iron Lady. Our greatest reward and pleasure is meeting each of you, reconnecting with old friends and making new ones, exchanging new ideas, and to present you all with a high technical value.

NTMS 2016 General Co-chairs.
Giovanni Pau, LIP6, France
Vasos Vassiliou, University of Cyprus

NEW TECHNOLOGIES TRACK CHAIRS Welcome Message

On behalf of the Organizing Committee, we are delighted to welcome you to Larnaca, for the 8th IFIP International Conference on New Technologies, Mobility and Security – Track: New Technologies & services, which take place from November 21 to 23, 2016.

As the Co-Chairs of this Track, we have done our best to provide you with a solid technical program. The aim of this Track is to provide participants a platform to exchange ideas, discover novel opportunities, meet new friends, and broaden their knowledge.

This year, we have received a large number of submissions. Every paper has been peer-reviewed by at least three reviewers. We are very grateful to the Technical Program Committee of our Track and all the reviewers for their careful evaluation of submissions, which enabled us to put together an excellent technical program, covering cutting edge topics such as applying intelligent techniques to network management, information-centric networking, the Internet of things and mobile, wireless and sensor networking.

We would like to deeply thank the organizing committee of the 8th IFIP International Conference on New Technologies for their great help and guidance at all stages. We wish to thank our main sponsors.

Finally, we would like to thank all of you for your participation in the New Technologies and Services Track. We sincerely hope that you enjoy the Conference.

New Technologies & services Program co–chairs
Gustavo Marfia,University of Bologna, Italy
George Xylomenos, Athens University of Economics and Business, Greece

MOBILITY TRACK CHAIRS Welcome Message

It is a great pleasure to welcome everyone to the Mobility and Wireless Networks Track within the eighth edition of the NTMS 2016 conference held in Larnaca, Cyprus November 21st – 23rd 2016 following the great success of the previous editions.

The Mobility and Wireless Networks Track is particularly interested on the new approaches, technologies, architectures and applications in the areas of mobile computing and wireless networking and addresses topics related to their performance, configuration, cross-layer approaches, scalability, resilience and survivability; offering the opportunity for a more focused exchange of ideas and presentation of on-going research relevant to these areas.

This year, we have received a 41 submissions among which 17 papers were selected after a thorough peer review process. We would like to thank all researchers who submitted their papers, and the Technical Program Committee members for their valuable time and careful evaluation of submissions.

We also express our gratitude to for the steering committee who devoted an enormous amount of time in assembling a great technical program committee and following the papers review process. A special thanks also to Dr. Mohamad Badra who was extremely available in following and supporting the track organisation.

Finally, we would like to thank all of you for your participation in the Mobility and Wireless Networks Track. We sincerely hope that you enjoy the eighth edition of NTMS 2016 and wish you a fruitful and nice Conference.

Mobility and Wireless Networks Track, NTMS 2016, Track Chairs,
Professor Haidar Safa - American University of Beirut, Lebanon
Professor Samuel Pierre, École Polytechnique de Montréal, Canada
Professor Panayiotis Kolios, University of Cyprus

SECURITY TRACK CHAIRS Welcome Message

The security track of the NTMS 2016 international conference was conceived with the intention of dealing with the security aspects of modelling, designing and implementing heterogeneous wired and wireless communications networks, services and applications.

The track received 34 international submissions that were all initially revised by the track co-chairs to determine that a minimum quality level was reached. Only 12 papers were selected for presentation in the track. Moreover, 9 papers were accepted as short papers where authors will present them during the short papers sessions.

It would be impossible to organize this track without the hard work and dedication of many people. In particular, we would like to thank all researchers and practitioners who submitted their papers, and thank the program committee members for reviewing the papers. We also appreciate the help from General co-chairs, and the Steering committee.

We see this tack as an opportunity for all researchers coming from different institutes working on different security problems to interact with each other and brainstorm on new open challenges. Wish you all a pleasant stay in Cyprus and looking forward to hear your feedback about the track and the conference.

Security Program co–chairs
Hadi Otrok, Khalifa University, Abu Dhabi, UAE
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Andreas	Wespi	IBM Zurich Research Laboratory

The 8th IFIP International Conference on New Technologies, Mobility and Security

(NTMS 2016)

➔ PROGRAM

The 2016 Eighth IFIP International Conference on New Technologies, Mobility and Security

Program

Monday, November 21			
09:00 am-09:30 am	Opening Session		
09:30 am-10:30 am	Keynote: Adopting nature inspired techniques in solving communication problems		
10:30 am-11:00 am	Coffee Break		
11:00 am-12:30 pm	Security Session 1	Mobile, Wireless and Sensor Networks	
12:30 pm-02:00 pm	Lunch		
02:00 pm-03:30 pm	Power Saving in WSN	Security Session 2	Intelligent Networks
03:30 pm-04:00 pm	Coffee Break		
04:00 pm-06:00 pm	Wirelss Sensor Networks	Security Session 3	Information Centric Networking
Tuesday, November 22			
09:00 am-10:30 am	Wireless Networks: Design and tools	Security Session 4	Internet of Things
10:30 am-11:00 am	Coffee Break		
11:00 am-12:30 pm	Cognitive Radio Networks and Channel Measurement	Security Session 5	4G and 5G Networks
12:30 pm-02:00 pm	Lunch		
02:00 pm-05:30 pm	Tutorial 1: Cryptography and Security in Internet of Things (IoTs): Models, Schemes, and Implementations	Tutorial 2: Performance guarantees in Wireless Sensor Networks: Issues, challenges and solutions, from congestion control to mobility management approaches	
03:30 pm-04:00 pm	Coffee Break		
04:00 pm-06:00 pm	Tutorial 1	Tutorial 2	
06:30 pm-10:00 pm	Banquet (Departure from the Hotel at 6 :30 pm)		
Wednesday, November 23			
09:00 am-10:30 am	Innovative Projects Session	WSN-ADT Workshop	CID Workshop Session
10:30 am-11:00 am	Coffee Break		
11:00 am-12:30 pm	Wireless Vehicular and Ad Hoc Networks	CID Workshop Invited Papers	
12:30 pm-02:00 pm	Cloture & Lunch		

Monday, November 21

09:00 - 09:30

Opening Session

Room: Triton

09:30 - 10:30

Keynote: Adopting nature inspired techniques in solving communication problems

Room: Triton

Prof. Andreas Pitsillides, University of Cyprus, Cyprus

10:30 - 11:00

Coffee Break

11:00 - 12:30

Security Session 1

Room: Arethusa
Chair: Nicolas Sklavos (University of Patras, Greece)

Inherent Resistance of Efficient ECC Designs against SCA Attacks
Zoya Dyka (Innovations for High Performance Microelectronics & IHP, Germany); Estuardo Bock and Ievgen Kabin (IHP, Germany); Peter Langendoerfer (IHP Microelectronics, Germany)

A Brief Survey of Security Approaches For Cyber-Physical Systems
Elias Bou-Harb (National Cyber-Forensics and Training Alliance (NCFTA) Canada & Florida Atlantic University, USA)

Towards a Big Data Architecture for Facilitating Cyber Threat Intelligence
Charles Wheelus (Florida Atlantic University & Cequint Incorporated, USA); Elias Bou-Harb (National Cyber-Forensics and Training Alliance (NCFTA) Canada & Florida Atlantic University, USA); Xinquan Zhu (FAU, USA)

Peer to Peer Botnet Detection Based on Network Traffic Analysis
Suzan Al mutairi (King AbdulAziz University, Saudi Arabia); Saoucene Mahfoudh (INRIA, France); Jalal S Alowibdi (University of Jeddah, Saudi Arabia)

Mobile, Wireless and Sensor Networks

Room: Thetis
Chair: Jose Luis Gomez Ortega (Manchester Metropolitan University, United Kingdom)

Performance Evaluation of a Hybrid Paging Mechanism to Support Locator Identity Split End-Host Mobility
Avinash Mungur (University of Mauritius, Mauritius); Ashfaat Tuhaloo (University Of Mauritius, Mauritius); Muzaffar Jawarun (University of Mauritius, Mauritius)

RT-SENMOS: Sink-Driven Congestion and Error Control for Sensor Networks
Charilaos Stais, George Xylomenos and Evangelos Zafeiratos (Athens University of Economics and Business, Greece)

TSimNet: An industrial Time Sensitive Networking simulation framework based on OMNeT++
Peter Heise and Fabien Geyer (Airbus Group Innovations, Germany); Roman Obermaisser (University of Siegen, Germany)

12:30 - 14:00

Lunch

14:00 - 15:30

Power Saving in WSN

Room: Triton
Chair: Evangelia Tsiontsiou (Université de Lorraine, France)

Optimal Probabilistic Energy-Aware Routing for Duty-Cycled Wireless Sensor Networks
Evangelia Tsiontsiou (Université de Lorraine, France); Bernardetta Addis (LORIA & Université de Lorraine, France); YeQiong Song (LORIA - University of Lorraine - France, France); Alberto Ceselli (Università degli Studi di Milano, Italy)

Toward Energy Profiling of Connected Embedded Systems
Nadir Cherifi (University of Lille 1 & Worldline Company, France); Gilles Grimaud (University of Lille, France); Thomas Vantroys (University of Lille 1, France); Boe Alexandre (IEMN, France)

Opportunistic Routing and Data Dissemination Protocol for Energy Harvesting Wireless Sensor Networks
Ons Bouachir (Canadian University Dubai, United Arab Emirates (UAE)); Adel Ben Mnaouer (Canadian University of Dubai & School of Engineering, Applied Sciences and Technology, United Arab Emirates (UAE)); Farid Touati (Qatar University, Qatar); Damiano Crescini (University of Brescia, Italy)

Grid Based Energy-Aware MAC Protocol for WNSN
Rawan Alshaikh, Nadine Akkari Adra and Etimad Fadel (King Abdulaziz University, Saudi Arabia)

Security Session 2

Room: Arethusa
Chair: Kris Shrishak (Technische Universität Darmstadt, Germany)

Towards User-centred Privacy Risk Detection and Quantification Framework

Welderufael Tesfay (Goethe University Frankfurt, Germany)

Enhancing User Privacy in Federated eID Schemes
Kris Shrishak (Technische Universität Darmstadt, Germany); Zeki Erkin (Delft University of Technology, The Netherlands)

New types of Alert Correlation for Security Information and Event Management Systems
Gustavo Gonzalez Granadillo and Mohammed El Barbori (CNRS Samovar UMR5157, Institut Telecom, Telecom SudParis, France); Herve Debar (Télécom SudParis & Institut Télécom, France)

An Approach to Detecting Text Autorship in the Spanish Language
Mauricio Iturralde, Roberto Maldonado and Daniel Fellig (Universidad San Francisco de Quito (USFQ), Ecuador)

Intelligent Networks

Room: Thetis
Chair: George Xylomenos (Athens University of Economics and Business, Greece)

A Case of Service Interaction in M2M Device Management
Anastas Nikolov, Evelina Pencheva, Ivaylo Atanasov and Kamelia Nikolova (Technical University of Sofia, Bulgaria)

A Novel Dynamic Hidden Semi-Markov Model (D-HSMM) for Occupancy Pattern Detection from Sensor Data Stream
Jose Luis Gomez Ortega, Liangxiu Han and N Bowring (Manchester Metropolitan University, United Kingdom)

Achieving Intelligent Traffic-aware Consolidation of Virtual Machines in a Data Center Using Learning Automata
Akaki Jobava and Anis Yazidi (Oslo and Akershus University College, Norway); John B. Oommen (Carleton University, Canada); Kyrre Begnum (Oslo and Akershus University College, Norway)

15:30 - 16:00

Coffee Break

16:00 - 18:00

Wireless Sensor Networks

Room: Triton
Chair: Nadine Akkari Adra (King Abdulaziz University, Saudi Arabia)

HAMA: A Highly Adaptive Mobility Aware MAC Protocol for WSN
Eyuel Debebe Ayele (University of Twente, The Netherlands & University of Dresden, Germany)

Evaluation of a Fluid Dynamic Model in Wireless Sensor Networks for the Estimation of Maximum Traffic Volume
Charalambos Sergiou, Vasos Vassiliou and Aristodemos Paphitis (University of Cyprus, Cyprus)

MAC-aware Routing in Multi-Sink WSN with Dynamic Back-off Time and Buffer Constraint

Lucas Leão (Université de Franche-Comté & FEMTO-ST, France); Violeta Felea (LIFC, Université de Franche-Comté, France); Herve Guyennet (University of Franche-Comte, France)

Superregenerative wake-up receiver with 20 µW power consumption for human body communications
Juha Petäjäjärvi and Konstantin Mikhaylov (University of Oulu, Finland); Heikki Karvonen (University of Oulu, Centre for Wireless Communications, Finland); Risto Vuohtoniemi and Jari Iinatti (University of Oulu, Finland)

Security Session 3

Room: Arethusa
Chair: Badis Hammi (Télécom ParisTech, France)

Modeling of IP scanning activities with Hidden Markov Models: Darknet case study
Giulia De Santis (INRIA - Nancy Grand Est, France); Abdelkader Lahmadi (LORIA, France); Jérôme François (INRIA Nancy Grand Est, France); Olivier Festor (INRIA Nancy - Grand Est, France)

TerminAPTor: Highlighting Advanced Persistent Threats through Information Flow Tracking
Guillaume Brogi (Conservatoire National des Arts et Métiers & Akheros, France); Valérie Viet Triem Tong (Inria - CentraleSupelec, France)

Extending TLS with KMIP protocol for Cloud Computing
Mounira Msahli (TELECOM ParisTech, France); Ahmed Serhrouchni (ENST, France); Mohamad Badra (Zayed University, United Arab Emirates (UAE))

ANASTASIA: ANdroid mAlware detection using STAtic analySIs of Applications
Hossein Fereidooni and Mauro Conti (University of Padua, Italy); Danfeng Yao (Virginia Tech, USA); Alessandro Sperduti (Università degli Studi di Padova, Italy)

Adaptive Security Framework for Resource-Constrained Internet-of-Things Platforms
Enrico Ferrera (Istituto Superiore Mario Boella (ISMB), Italy); Davide Conzon (Istituto Superiore Mario Boella, Italy); Rosaria Rossini (Istituto Superiore Mario Boella (ISMB), Italy); Claudio Pastrone (Istituto Superiore Mario Boella, Italy); Sandro Tassone (Politecnico di Torino, Italy)

Information Centric Networking

Room: Thetis
Chair: Elias Z. Tragos (Institute of Computer Science, FORTH, Greece)

Securing Information-Centric Networking without negating Middleboxes
Nikos Fotiou (Mobile Multimedia Lab, Athens University of Economics and Business, Greece); George Xylomenos and George C. Polyzos (Athens University of Economics and Business, Greece)

Supporting the IoT over Integrated Satellite-Terrestrial Networks using Information-Centric Networking
Vasilios A. Siris (Athens University of Economics and Business, Greece); Yannis Thomas (Athens University of Economics and Business (AUEB), Greece); George C. Polyzos (Athens University of Economics and Business, Greece)

CoAP over ICN
Nikos Fotiou (Mobile Multimedia Lab, Athens University of Economics and Business, Greece); H. Islam and Dmitrij Lagutin (Aalto University, Finland); Teemu Hakala (Ell-i, Finland); George C. Polyzos (Athens University of Economics and Business, Greece)

Tuesday, November 22

09:00 - 10:30

Wireless Networks: Design and tools

Room: Triton
Chair: Aniruddha Chandra (Brno University of Technology & National Institute of Technology, Durgapur, WB, Czech Republic)

A Component-based Cross-Layer Framework for Software Defined Wireless Networks
Vasileios A Karyotis (Institute of Communication and Computer Systems (ICCS) & National Technical University of Athens, Greece); Eleni G Stai (Institute of Communications and Computer Systems / National Technical University of Athens, Greece); Symeon Papavassiliou (National Technical University of Athens, Greece)

Efficient Communications for Location-Based Services Using Spare Extensions of Control Channels in Mobile Networks
Mohammed I Aal-Nouman (University of Salford); Haifa Takruri and Martin Hope (University of Salford, United Kingdom)

Applying and Comparing Two Measurement Approaches for the Estimation of Indoor WiFi Coverage
Jouni Tervonen (University of Oulu, Finland); Markku Hartikainen, Marjo Heikkilä and Marjut Koskela (Centria University of Applied Sciences, Finland)

Security Session 4

Room: Arethusa

Parameterizing Moving Target Defenses
Nicholas Anderson and Robert Mitchell (Sandia National Laboratories, USA); Ing-Ray Chen (Virginia Tech, USA)

Refining the Foundations for Cyber Zone Defense
Robert Mitchell and Paul Sery (Sandia National Laboratories, USA)

Comparison of EM Probes using SEMA of an ECC Design
Christian Wittke (IHP, Germany); Zoya Dyka (Innovations for High Performance Microelectronics & IHP, Germany); Peter Langendoerfer (IHP Microelectronics, Germany)

JTAG Combined Attack
Fabien Majeric (University of Lyon and Gemalto, France); Benoit Gonzalvo (Gemalto, France); Lilian Bossuet (University of Lyon, France)

Internet of Things

Room: Thetis
Chair: George C. Polyzos (Athens University of Economics and Business, Greece)

RFID Based Smart Fridge
Hachani Abderrazak (ESPRIT School of Engineering)

Social Location Awareness: a Prototype of Altruistic IoT
Silvia Mirri, Catia Prandi and Paola Salomoni (University of Bologna, Italy); Lorenzo Monti (Università di Bologna, Italy)

An IoT middleware for enhanced security and privacy: the RERUM approach
George Moldovan (Siemens, Romania); Elias Z. Tragos and Alexandros Fragkiadakis (Institute of Computer Science, FORTH, Greece); Henrich C. Pöhls (University of Passau, Germany); Daniel Calvo (Atos, Spain)

Time Slotted Channel Hopping and Information-Centric Networking for IoT
Oliver Hahm (INRIA, Germany); Cedric Adjih and Emmanuel Baccelli (INRIA, France); Thomas C. Schmidt (Hamburg University of Applied Sciences, Germany); Matthias Wählisch (Freie Universität Berlin, Germany)

10:30 - 11:00

Coffee Break

11:00 - 12:30

Cognitive Radio Networks and Channel Measurement

Room: Triton
Chair: Haidar Safa (American University of Beirut, Lebanon)

Green Power Control in Underlaying Cognitive Radio Networks
Jerzy Martyna (Jagiellonian University, Poland)

Cross Layer Design to Evaluate Scalable Video Traffic in Multihop Cognitive Radio Environment
Salman Saadat (Huazhong University of Science & Technology & IEEE, PMI, P.R. China)

60 GHz mmW Channel Measurements inside a Bus
Aniruddha Chandra (Brno University of Technology & National Institute of Technology, Durgapur, WB, Czech Republic); Tomas Mikulasek and Jiri Blumenstein (Brno University of Technology, Czech Republic); Ales Prokes (Brno University of Technology & Sensor, Information and Communication Systems Research Centre, Czech Republic)

Optimal Power Allocation in Two-tier MIMO Cognitive Femtocell Radio Networks
Jerzy Martyna (Jagiellonian University, Poland)

Security Session 5

Room: Arethusa
Chair: Robert Mitchell (Sandia National Laboratories, USA)

Towards MPTCP Aware Security Technologies
Zeeshan Afzal, Stefan Lindskog and Anna Brunstrom (Karlstad University, Sweden); Anders Lidén (Clavister AB, Sweden)

Remote Identification of Port Scan Toolchains
Christian Doerr, Norbert Blenn and Vincent Ghiette (Delft University of Technology, The Netherlands)

A Framework for Security Enhancement in SDN-based Datacenters
Mostafa Ammar (Alexandria University & AASTMT, Egypt); Mohamed Rizk (Alexandria University, Egypt); Ayman A. Abdel-Hamid (Arab Academy For Science, Technology, and Maritime Transport, Egypt); Ahmed Aboul-Seoud (Alexandria University, Egypt)

Amplified Distributed Denial of Service Attack in Software Defined Networking

Moreno Ambrosin and Mauro Conti (University of Padua, Italy); Fabio De Gaspari (Sapienza University of Rome, Italy); Nishanth Devarajan (Indian Institute of Technology, Roorkee, India)

4G and 5G Networks

Room: Thetis
Chair: Mohammed I Aal-Nouman (University of Salford, United Kingdom)

Coordination strategy for dense 5G femtocell deployments
Christos J Bouras (University of Patras CTI&P-Diophantus & University of Patras, Greece); Georgios Diles (Computer Engineering and Informatics Dept., University of Patras, Greece)

Fully Distributed Approach for Energy Saving in Heterogeneous Networks
Hocine Ameur (University of Technology of Troyes, France); Moez Esseghir (Technology University of Troyes & Charles Delaunay Institute, France); Lyes Khoukhi (University of Technology of Troyes, France)

Energy efficient multi-layer femtocell networks
Jun Zhang (Telecom ParisTech, France); Houda Labiod (TELECOM ParisTech (ex: ENST), France)

Scalable Processing in 5G Cloud-RAN Networks Using MapReduce Framework
Ali Mahmood and Adil Al-Yasiri (University of Salford, United Kingdom)

12:30 - 14:00

Lunch

14:00 - 17:30

Tutorial: Cryptography and Security in Internet of Things (IoTs): Models, Schemes, and Implementations

Room: Triton

Dr. Nicolas Sklavos
Computer Engineering Informatics Department, University of Patras, Hellas

Dr. I. D. Zaharakis
Computer Informatics Engineering Department, Technological Educational Institute of Western Greece, Hellas
Computer Technology Institute Press “Diophantus”, Hellas

Tutorial: Performance guarantees in Wireless Sensor Networks: Issues, challenges and solutions, from congestion control to mobility management approaches

Room: Arethusa

Dr. Vasos Vassiliou, & Dr. Charalambos Sergiou
Department of Computer Science, University of Cyprus

15:30 - 16:00

Coffee Break

18:30

Departure from the Hotel for the banquet.

Wednesday, November 23

09:00 - 10:30

Innovative Projects Session

Room: Triton
Chair: Pascal Urien (Télécom ParisTech, France)

Exploiting Ubiquitous Computing, Mobile Computing and the Internet of Things
Ioannis D. Zaharakis (Technological Educational Institute of Western Greece & Computer Technology Institute, Greece); Nicolas Sklavos (University of Patras, Greece); Achilles Kameas (Hellenic Open University & Computer Technology Institute, Greece)

Three Innovative Directions Based on Secure Elements for Trusted and Secured IoTPlatforms
Pascal Urien (Télécom ParisTech, France)

Evaluation of the Redundancy-Bandwidth Trade-off and Jitter Compensation in rMPTCP
Pascal Aljoscha Klein (University of Duisburg-Essen, Germany); Axel Hunger (UDE, Germany); Martin Verbunt (Universität Duisburg-Essen, Germany)

WSN-ADT WorkWSN-ADT Workshop

Room: Arethusa
Chair: Patrick Hosein (The University of the West Indies, Trinidad and Tobago)

SenNet: A Programming Toolkit To Develop Wireless Sensor Network Applications
Aymen Salman (University of Salford & School of Computing, Science, and Engineering, United Kingdom); Adil Al-Yasiri (University of Salford, United Kingdom)

WSNs Self-Calibration approach for Smart City applications leveraging Incremental Machine Learning Techniques
Rosaria Rossini *and* Enrico Ferrera *(Istituto Superiore Mario Boella (ISMB), Italy);* Davide Conzon *and* Claudio Pastrone *(Istituto Superiore Mario Boella, Italy)*

Cyclic Beam Switching for Smart Grid Networks
Patrick Hosein *and* Laurielyse Girod-Williams *(The University of the West Indies, Trinidad and Tobago);* Cornelius van Rensburg *(Huawei, USA)*

CID Workshop Session

Room: Thetis
Chair: Farkhund Iqbal (Zayed University, United Arab Emirates (UAE))

White-hat Hacking Framework for Promoting Security Awareness
Sultan Al Sharif *and* Farkhund Iqbal (Zayed University, United Arab Emirates (UAE)); Thar Baker (Liverpool John Moores University, United Kingdom); Asad Masood Khattak (Zayed University, United Arab Emirates (UAE))

Magec: An Image Searching Tool for Detecting Forged Images in Forensic Investigation
Sultan Al Sharif and Farkhund Iqbal (Zayed University, United Arab Emirates (UAE)); Thar Baker (Liverpool John Moores University, United Kingdom); Andrew Marrington (Zayed University, United Arab Emirates (UAE))

10:30 - 11:00

Coffee Break

11:00 - 12:30

Wireless Vehicular and Ad Hoc Networks

Room: Triton
Chair:
Thomas C. Schmidt (Hamburg University of Applied Sciences, Germany)

Performance Analysis of NEMO with MPTCP
Pratibha Mitharwal (Institut Mines Telecom - Telecom Bretagne, France); Christophe Lohr (Telecom Bretagne, France); Annie Gravey (Institut Mines Telecom - Telecom Bretagne & UMR CNRS 6074 IRISA, France)

Proposal of new solution for service advertisement for ETSI ITS environments: CAM-Infrastructure
Houda Labiod (TELECOM ParisTech (ex: ENST), France); Alain Servel (PSA Peugeot Citroen, France); Gérard Segarra (VICI, France); Badis Hammi (Télécom ParisTech, France); Jean-Philippe Monteuuis (Telecom ParisTech, France)

Cooperative Watchdog for Malicious Failure Notification in Wireless Ad-Hoc Networks
Hiroaki Higaki *and* Norihiro Sota (Tokyo Denki University, Japan)

CID Workshop Invited Papers

Room: Thetis
Chair: Farkhund Iqbal (Zayed University, United Arab Emirates (UAE))
TBC

The Risk-Utility Tradeoff for Data Privacy Models
M. Moein Almasi, Taha R. Siddiqui, Noman Mohammed, Hadi Hemmati

Behavioral Service Graphs: A Big Data Approach for Prompt Investigation of Internet-wide Infections
Elias Bou-Harb, Mark Scanlon, Claude Fachkha

Towards the Leveraging of Data Deduplication to Exceed Past the Disk Acquisition Speed Limit
Hannah Wolahan, Claudio Chico Lorenzoy, Elias Bou-Harb, Mark Scanlon

12:30 - 14:00

Cloture and Lunch