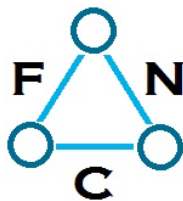


# Welcome to



**FNC 2015**

The 10th International Conference  
on Future Networks and  
Communications



**MobiSPC 2015**

The 12th International Conference  
on Mobile Systems and Pervasive  
Computing

August 17 – 20, 2015  
Belfort, France

With support of

Université Paris-Est Créteil, France  
Acadia University, Canada & Hasselt University, Belgium



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# **FNC / MobiSPC**

## **SYMPOSIA AND WORKSHOPS**

<b>FNC</b>	The 10th International Conference on Future Networks and Communications
<b>MobiSPC</b>	The 12th International Conference on Mobile Systems and Pervasive Computing
<b>CSDI</b>	International Workshop on Communicating Objects and Machine to Machine for Mission-Critical Applications
<b>DPNoC</b>	The 2nd International Workshop on the Design and Performance of Networks on Chip
<b>EICM</b>	The 2nd International Symposium on Emerging Inter-networks, Communication and Mobility
<b>EWAD</b>	International Workshop on Software Defined Networks for a New Generation of Applications and Services
<b>FoIoT</b>	The 2nd International Workshop on the Future of the Internet of Things
<b>HARMS</b>	International Workshop on Communication for Humans, Agents, Robots, Machines and Sensors
<b>MSIS</b>	International Workshop on Mobile Spatial Information Systems
<b>NAT_IoT</b>	International Workshop on Networking Algorithms and Technologies for IoT
<b>UFMFCN</b>	International Workshop on the Use of Formal Methods in Future Communication Networks
<b>WSVNRS</b>	International Workshop on Wireless Sensor-Vehicular Networks and Road Safety

# PROGRAM AT A GLANCE

## FNC 2015, MobiSPC 2015 and Workshops Program Time Slots

Timing	Monday 17 August 2015	Room			
16:00-18:00	Registration	Welcome Hall, Building I			
Timing	Tuesday 18 August 2015	Room			
08:00-12:00	Registration	Welcome Hall, Building I			
08:30-09:00	Opening Ceremony	Auditorium I102			
09:00-10:00	Keynote Speaker I	Auditorium I102			
10:00-10:30	Coffee Break	Hall of Building 1			
	Technical Sessions (1)	<b>FNC-S1</b>	<b>MobiSPC-S1</b>	<b>HARMS-S1</b>	<b>EICM</b>
10:30-12:00	Room	A 304	A 306	A 206	A 210
12:00-13:15	<b>LUNCH</b>	Hall of Building A			
	Technical Sessions (2)	<b>FNC-S2</b>	<b>MobiSPC-S2</b>	<b>HARMS-S2</b>	<b>UFMFCN/WSVNR</b>
13:30-15:00	Room	A 304	A 306	A 206	A 210
15:00-15:30	Coffee Break	Hall of Building I			
	Technical Sessions (3)	<b>FNC-S3</b>	<b>MobiSPC-S3</b>	<b>HARMS-S3</b>	
15:30-17:00	Room	A 304	A 306	A 206	
Timing	Wednesday 19 August 2015	Room			
09:00-10:00	Keynote Speaker II	Auditorium I102			
10:00-10:30	Coffee Break	Hall of Building I			
	Technical Sessions (4)	<b>FNC-S4</b>	<b>MobiSPC-S4</b>	<b>MSIS</b>	<b>DPNoC-S1</b>
10:30-12:00	Room	A 304	A 306	A 206	A 210
12:00-13:15	<b>LUNCH</b>	Hall of Building A			
	Technical Sessions (5)	<b>FNC-S5</b>	<b>MobiSPC-S5</b>	<b>NAT_IoT</b>	<b>DPNoC-S2</b>
13:30-15:00	Room	A 304	A 306	A 206	A 210
15:00-15:30	Coffee Break	Hall of Building I			
	Technical Sessions (6)	<b>FNC-S6</b>	<b>MobiSPC-S6</b>	<b>EWAD/FoIoT</b>	
15:30-17:00	Room	A 304	A 306	A 206	
17:00-20:00	Free				
20:00-23:00	Banquet & Award Ceremony	Conference Center Atria / Novotel			
Timing	Thursday 20 August 2015	Room			
	Technical Sessions (7)		<b>MobiSPC-S7</b>	<b>CSDI</b>	
09:00-10:30	Room		A 306	A 206	
10:30-11:00	Coffee Break	Hall of Building I			
12:00-14:00	Tour	Visit to Belfort Castle/City			
		End of Event			

# KEYNOTE I

Dr. Atta Badii

*School of Systems Engineering  
University of Reading, United Kingdom*

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## **About the Speaker:**

Dr. Atta Badii is the founding director of the Intelligent Systems Research Laboratory (ISR) and the European Inter-Disciplinary Centre of Excellence in Socio-Ethical Privacy-Preserving Video/Data-Analytics at the University of Reading UK, where he is a high ranking Professor of Secure Pervasive Technologies. Atta also holds "the highest designation of Honorary Senior Professor of System Engineering and Digital Innovation" at the Catholic University of Cordoba, Argentina. He has a track record of over 20 years of trans-disciplinary academic and industrial research contributions in systems engineering, rooted in the disciplines that contribute to socially responsible and inclusive innovation of security-privacy-aware ICT to serve pervasive-assistive technologies with significant application domains including i) Smart Cities and IoT, ii) Big Data, e-Learning and e-Government, iii) Cyber Security and Surveillance, iv) Cognitive Robotics for Care-Support, v) e-Health, Biomedical and Rehabilitation Engineering. A detailed information about Dr. Badii can be found at: <http://www.isr.reading.ac.uk/index.php/members/89-individuals/106-prof-atta-badii>

# KEYNOTE II

Self-Adaptive Complex Systems for Sociotechnical Ambient Systems

**Dr. Marie-Pierre Gleizes**  
***Research Laboratory of Computer Toulouse***  
***IRIT - University of Toulouse – France***

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## **Abstract:**

Technological advances have led to an explosion in the number and features of electronic devices which are daily used by everybody. In this context, systems design requires a shift from a focus on multi-function machines to numerous devices more or less autonomous and interacting, distributed and populating the environment (room, building, neighborhood, city), accessible via interfaces, immersing the user in worlds of augmented and mixed reality. These sociotechnical ambient systems are composed of human beings and devices in interaction. Their objectives are to provide services to users and to improve their well-being in all the contexts of their daily life. The devices or ambient entities are defined as autonomous entities, able to perceive, decide and act in their environment. They must self-adapt their behaviour to the current task and the numerical and physical resources availability.

Complexity of sociotechnical ambient systems comes from their inherent characteristics: the great number of their involved components, the distribution of their control and skills, the nonlinearity of their process and their increasing openness. This is also caused by the unpredictable coupling with their environment due to high dynamicity. The properties of these applications deal with the scalability, difficulty to solve problems, dynamics and the under-specifications. In order to tackle the design of such complex systems, self-adaptive multi-agent systems represent a promising approach providing the needed robustness and adaptation in the light of the aforementioned difficulties.

A multi-agent system is defined as a set of autonomous interacting agents in the same environment and a self-adaptive multi-agent system has the property to adapt itself autonomously without the intervention of the designer. Designing these self-adaptive multi-agent systems requires a radical change of perspective. Classically, designers satisfy the requirements by a global and top-down activity. They usually know the purpose of the system (main objective) and the interactions corpus in the future between the system and its environment. Designers must switch to the requirements satisfaction by a local and bottom-up activity. Furthermore, they do not know the purpose of the global system and the corpus of interactions occurring in the future between the system and its environment. In these systems, the agents are autonomous (able to take decision alone) and compliant with the locality principle (have only a partial knowledge of the system). One of the most well-known mechanism used to enable adaptation of a system is inspired from natural systems and social animals like ants, termites... and is called self-organisation.

The Adaptive Multi-Agent System theory, developed in the SMAC team of IRIT-Toulouse, addresses the problematic of complex systems where the concept of cooperation is the core of self-organisation. A general definition of cooperation could be the golden mean between altruism and selfishness. An agent executes its nominal behaviour while it is in a cooperative state. Otherwise three mechanisms allow it repairing an uncooperative state

- Tuning: the agent self-calibrates its internal parameters to modify its behaviour,
- Reorganisation: the agent modifies the way it interacts with its neighbourhood,
- Evolution: the agent can create other agents or destroy itself when there is no other agent to produce a functionality or when a functionality is useless.

The system will then self-organise to stay in a cooperative state. From cooperative interactions between the system's entities emerges a global function that is more than the sum of the parts. Several applications were done in using this generic approach in various domains.

### **Reference**

Self-organising Software: From Natural to Artificial Adaptation, Springer Series: Natural Computing Series, Di Marzo Serugendo, Giovanna; Gleizes, Marie-Pierre; Karageorgos, Anthony (Eds.), 1st Edition, 2011.

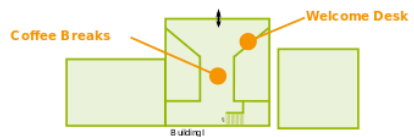
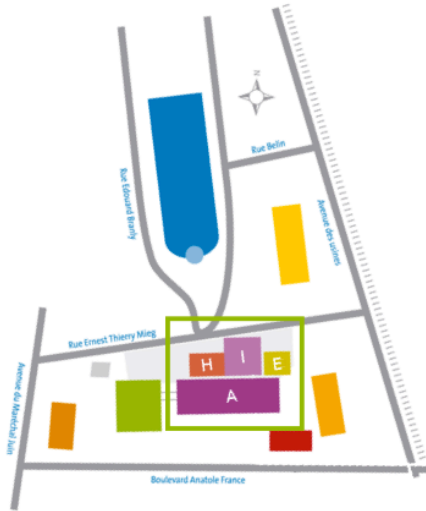
### **About the Speaker:**

Marie-Pierre Gleizes is Full Professor at the University Paul Sabatier of Toulouse and researcher at IRIT (Institute of Computer Science in Toulouse – France, [www.irit.fr](http://www.irit.fr)). She manages the laboratory strategic axis about ambient intelligence composed of 11 research teams and 66 permanent members. She is in charge of the SMAC (Systèmes Multi-Agent Coopératifs or Cooperative Multi-Agent Systems) team composed of 21 permanent members and 24 PhD and post-docs students. She is one leader of the strategic axis of the laboratory "ambient socio-technical systems" ([www.irit.fr/SSTA](http://www.irit.fr/SSTA)). At the university level, she manages the neOCampus project, which aims at designing a smart, innovative, sustainable campus at Toulouse III University. Her main topics of interest are the design of complex systems with emergent functionality. Usually, classical design of computational systems requires some important initial knowledge: first, the exact purpose of the system, and second, every interaction with which the system may be confronted in the future. On the contrary, her researches are concerning theories and methods based on a multi-agent approach in which the global function emerges from the evolving reorganization between the agents. She works on adaptive multi-agent systems, self-organisation mechanisms, cooperation and in particular on methodologies to design this kind of systems and she applies these concepts to the ambient system design with a particular focus on context management. She has participated to works about the AMAS theory and the ADELFE methodology. She has applied the adaptive multi-agent systems approach in several national and European projects. Since 2006, she co-chairs the organisation of the Technical Fora which is a meeting with all European working groups on Multi-Agent Systems. In the context of her scientific activities, she participates in several program committees and she was co-chair of several workshops such as: EUMAS'S 2009 "Workshop on Multi-Agent Systems and Simulation", AOSE 2010 and AOSE 2009 "Agent-oriented Software Engineering", EUMAS 2005 "European Workshop on Multi-Agent Systems", ESAW 2004 & 2005 "Engineering Societies in the Agents' World" and co-chair of workshops organisation collocated with SASO 2008 (Self-Adaptive and Self-Organising Systems). She was co-chair of the program committee of SASO 2012. She also has written numerous papers in journals, conferences and workshops.

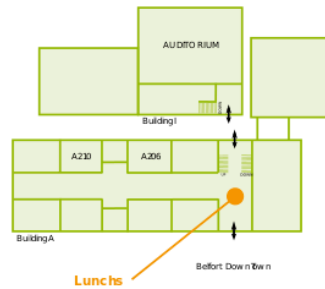
# CONFERENCE VENUE

Belfort Campus of the University of Technology of Belfort-Montbéliard (UTBM)  
Rue Ernest-ThierryMieg, 90000 Belfort, France

## Campus of Belfort



Level 0



Level 1



Level 2



# DETAILED PROGRAM

**Monday, August 17, 2015**

**Registration 16:00-18:00**

Room: Welcome Hall, Building I

**Tuesday, August 18, 2015**

**Registration 08:00 – 12:00**

Room: Welcome Hall, Building I

**Opening 08:30 - 09:00**

Opening Ceremony  
Room: Auditorium I102

**Keynote I 09:00 - 10:00**

**Title**  
Atta Badii, University of Reading, United Kingdom

**Session Chair:** Ansar-UI-Haque Yasar, Hasselt University, Belgium  
**Room:** Auditorium I102

**Coffee Break 10:00 - 10:30**

Room: Hall of Building I

**Technical Sessions 10:30 - 12:00**

**MobisPC Session S-1: Pervasive Computing**  
**Session Chair:** Nawaz Mohamudally, University of Technology Mauritius, Mauritius  
**Room:** A 306

A Practical Approach to Partition Applications in Pervasive Computing Environments

*Nevin Vunka Jungum, Nawaz Mohamudally and Nimal Nissanke*

Context-Aware Mobile Language Learning

*Roberto Morales, Bodo Iglar, Stephan Böhm and Pichaya Chitchaipoka*

Designing a data management pipeline for pervasive sensor communication systems

*Jussi Ronkainen and Antti Iivari*

An Energy-Efficient and Robust Indoor-Outdoor Detection Method Based on Cell Identity Map

*Zhongwei Liu, Hyuncheol Park, Zili Chen and Hosik Cho*

**FNC Session: S-1**

**Session Chair:** Basem Almadani, KFUPM, Saudi Arabia  
**Room:** A 304

Formalization of the Behavior of Content-Centric Networking

*Sosuke Moriguchi, Takashi Morishima, Mizuki Goto and Kazuko Takahashi*

SSMAB: A Slotted Sense Multiple Access Broadcasting Protocol for Dynamic Wireless Sensor Networks

*Mung Tran Van and Hoon Oh*

Adding support for delay tolerance to IPv6 networks

*Tyler Ward, Kirk Martinez and Tim Chown*

Satisfying QoS Requirements in NGN Networks using a dynamic adaptive Queuing Delay Control Method

*Cherif Ghazel and Leila Saidane*

**HARMS Workshop: Session S-1****Session Chair:** Eric T. Matson, Purdue University, USA**Room:** A 206

A Context-Aware Mobile User Behavior based Preference Neighbor Finding Approach for Personalized Information Retrieval

*Qian Gao, Xiangjun Dong, Deqian Fu*

Multi-Agent Based Anti-Locust Territory Protection System

*Abu Kuandykov, Raissa Uskenbayeva, Young Im Cho, Dinara Kozhamzharova, Olimzhon Baimuratov, Yersain Chinibayev, Nurlan Karimzhan*

Semantic reasoning method for the target image based on probability model

*Sumei Xi, Xiaoqiang Ren, Qian Gao*

Analyze Cost-Efficient System for Small UAS Tracking Using Agent-Based Modeling

*Sangmi Shin, Seongha Park, Yongho Kim, Eric Matson*

**EICM Workshop****Session Chair:** Elhadi Shakshuki, Acadia University, Canada**Room:** A 210

Robust Digital Retrodirective Beamforming Technique for Multipath Channel Environment

*Changyoung An, Kukhan Jang, Heung-Gyoon Ryu, Jinkyu Choib, Hanbyeog Cho*

Mobile Holistic Enterprise Transformation Framework

*Mohammed Alqahtani, Anthony Atkins and Clare Stanier*

Lessons Learned from Context Aware Service Experiences in the Real World

*Ichiro Satoh*

Smart Tourism in 1-Click

*Fernando Zacarias, Rosalba Cuapa, Guillermo De Ita and Daniel Torres*

**Lunch****12:00 - 13:15**

Room: Hall of Building A

**Technical Sessions****13:30 - 15:00****MobiSPC Session S-2: Enabling Technologies and Emerging Topics****Session Chair:** Tommi Mikkonen, Tampere University of Technology, Finland**Room:** A 306

Content-aware image retargeting for image display on foldable mobile devices

*Li-Wei Kang, Ming-Fang Weng, Chao-Long Jheng, Ching-Yu Tseng, Sudhish Kasaba Ramesh, Ankit Gureja, Huan-Cheng Hsu and Chia-Hung Yeh*

From Apps to Liquid Multi-Device Software

*Antero Taivalsaari and Tommi Mikkonen*

Weaving Risk Identification Into Crowdsourcing Lifecycle

*Faouzi Kamoun, Dima Alhadidi and Zakaria Maamar*

A model of virtual training application for simulation of technological processes

*Bakhyt Mukhanov, Zhanar Omirbekova, Madina Alimanova, Shynara Jumadilova, Dinara Kozhamzharova and Olimzhon Baimuratov*

**FNC Session: S-2****Session Chair:** Qian Gao, Qilu University of Technology, China**Room:** A 304

A Context-based Future Network Infrastructure for IoT Services

*Won Sang Chin, Hyun-Soo Kim, Young Ju Heo and Ju Wook Jang*

A lightweight data interchange format for Internet of Things in the Palcom middleware framework

*Mattias Nordahl and Boris Magnusson*

A Work in Progress: Context based encryption scheme for Internet of Things

*Jungyub Lee, Sungmin Oh and Ju Wook Jang*

Building a simulation-in-the-loop sensor data testbed for cloud-enabled pervasive applications

*Antti Iivari and Jussi Ronkainen*

**HARMS Workshop: Session S-2****Session Chair:** Eric T. Matson, Purdue University, USA**Room:** A 206

A Study about Sound Quality for Violin Playing Robot

*Hyeonjun Park, Wonse Jo, Kyeongmin Choi, Hwonjae Jung, Yura Jargalbaatar, Bum-Joo Kim, Donghan Kim*

A Mobile Robot Localization using External Surveillance Cameras at Indoor

*Jae-Hong Shim and Young-Im Cho*

Theory, Methodology, and Implementation of Robotic Intelligence and Communication

*Victor Raskin*

Mapping Human Understanding to Robotic Perception

*Julia Taylor***UFMFCN/WSVNRS Workshops****Session Chair:** Laid Kahloul, LINFI Laboratory, Biskra University, Algeria**Room:** A 210

Wireless Sensor Networks for the Surveillance of Wide Date Palm Forests: Specification and Verification Levels

*Laid Kahloul*

An Operational Semantics for UML 2 Sequence Diagrams Supported by model Transformation

*Nabil Messaoudi, Allaoua Chaoui and Mohamed Bettaz*

A Framework for Modeling and Analysis UML Activity Diagram using Graph Transformation

*Yasmina Rahmoune, Allaoua Chaoui, Elhillali Kerkouche*

Experimental Evaluation of Safety Beacons Dissemination in VANETs

*Shaima Ahmed, Mohamed Ould-Khaoua, Osama Rehman, Ahmed Al-Maashri, Hadj Bourdoucen***Coffee Break****15:00 - 15:30**

Room: Hall of Building I

**Technical Sessions****15:30 - 17:00****MobiSPC Session S-3: Mobile Systems and Applications I****Session Chair:** Pier Luigi Pau, University of Cagliari, Italy**Room:** A 306

An Anycast Communication Model for Data Offloading in Intermittently-Connected Hybrid Networks

*Armel Esnault, Nicolas Le Sommer and Guidec Frédéric*

Accurate Indoor Proximity Detection Method Based on Time Window and Frequency with Bluetooth Low Energy

*Dae-Yeob Kim, Soo-Hyung Kim, Daeseon Choi and Seung-Hun Jin*

An Adaptive User Interface in Healthcare

*Elhadi M. Shakshuki, Malcolm Reid, Tarek R. Sheltami*

An Analysis of Features and Tendencies in Mobile Banking Apps

*Gianni Fenu and Pier Luigi Pau***FNC Session: S-3****Session Chair:** Hoon Oh, University of Ulsan, Republic of Korea**Room:** A 304

Distributed Control in Virtualized Networks

*Letterio Zuccaro, Federico Cimorelli, Francesco Delli Priscoli, Claudio Gori Giorgi, Salvatore Monaco and Vincenzo Suraci*

Energy-Aware Topology Control And QoS Routing In Ad-Hoc Networks

*Fadoua Yakine and Abdellah Idrissi*

Similarity Flooding for Efficient Distributed Discovery of OWL-S Process Model in P2P Networks

*Adel Boukhadra, Karima Benatchba, Amar Balla*

SPA: Smart Placement Approach for Cloud-service Datacenter Networks

*Ahmad Nahar Quttoum, Mohannad Tomar, Bayan Khawaldeh, Rana Refai, Alaa Halawani, Ahmad Freej***HARMS Workshop: Session S-3****Session Chair:** Eric T. Matson, Purdue University, USA**Room:** A 206

An Analysis and prototyping approach for Cyber-Physical Systems

*Samuel Deniaud, Philippe Descamps, Vincent Hilaire, Olivier Lamotte and Sebastian Rodriguez*

A New Perspective on Multi-Agent Environment with SARL

*Sebastian Rodriguez, Stéphane Galland and Nicolas Gaud*

Data collection and analysis using the mobile application for environmental monitoring

*Bakhytzhhan Akhmetov and Murat Aitimov*

Self-Management Technique for Adaptive Robot Software based on Task Environment Similarity

*Yunsik Son and Jin-woo Jung*

**Wednesday, August 19, 2015**

**Keynote II** **09:00 - 10:00**

**Self-Adaptive Complex Systems for Sociotechnical Ambient Systems**

Marie-Pierre Gleizes, IRIT - University of Toulouse – France

**Session Chair:** Stéphane Galland, Université de Technologie de Belfort-Montbéliard, France

**Room:**

**Coffee Break** **10:00 - 10:30**

Room: Hall of Building I

**Technical Sessions** **10:30 - 12:00**

**MobiSPC Session S-4: Communication in Agents, Humans, Machines, Robots and Sensors I**

**Session Chair:** Dima Alhadidi, Zayed University, UAE

**Room:** A 306

A Robust Human-Robot Communication System Using Natural Language for HARMS

*Amy Wagoner and Eric Matson*

An Adaptive Task-Based Model for Autonomous Multi-Robot Using HARMS and NuSMV

*Yong-Ho Kim, Jin-Woo Jung and Eric Matson*

HARMS-based Service Discovery Protocol using Address-DNS

*Kyuhwan Lee, Yunsuk Yeo and Tai-Myoung Chung*

Analysis and Development of Agent Architecture for Pest Control Systems

*A.A. Kuandykov, R.K. Uskenbayeva, Y.I. Cho, D.K. Kozhamzharova, O.A. Baimuratov, N. Karimzhan, Y. Chinibayev*

**FNC Session: S-4**

**Session Chair:** Ahmad N. Quttoum, The Hashemite University, Jordan

**Room:** A 304

A Memory Efficient DFA using Compression and Pattern Segmentation

*Yeim-Kuan Chang, Yuen-Shuo Li and Yu-To Chen*

AI-Yad: A Wearable Sensor Network over DDS Middleware for Industrial Application

*Basem Almadani, Farouq Aliyu, Elhadi Shakshuki*

A study on turbo coded 16-QAM bit allocation in Rice flat fading channel

*Maria Kovaci and Horia Balta*

Towards a novel optical access networks management solution: addressing general management complexity

*Tiago Gonçalves, Karolina Baras and Lina Brito*

**MSIS Workshop**

**Session Chair:** Nafaâ Jabeur, German University of Technology, Sultanate of Oman

**Room:** A 206

AEGIS App: Wildfire Information Management for Windows Phone Devices

*Nikos Athanasis, Fotis Karagiannis, Palaiologos Palaiologou, Christos Vasilakos, Kostas Kalabokidis*

Using Internet of Things technologies for a collaborative supply chain: Application to tracking of pallets and containers

*David R. Gnimpieba Z., Ahmed Nait-Sidi-Moh, David Durand and Jérôme Fortin*

A Recommendation Approach to Enhance the Interoperability between Spatial Datacubes

*Saida Aissia, Tarek Sboui, Mohamed Gouidera, Mohamed Ali Ben Hassinec, Lamjed Ben Said*

Integrating Multiple Geometric Representations within Spatial Data Warehouse Structures for an Enhanced

Collaborative Decision-Making Processes

*Boubaker Boulekrouche, Hedi Haddad, Nafaâ Jabeur, Zaia Alimazighi*

**DPNoC Workshop: Session S1**

**Session Chair:** Wael El-Medany University of Bahrain, Bahrain

**Room:** A 210

Methodological Framework for NoC Resources Dimensioning on FPGA

*Virginie Fresse; Catherine Combes; Matthieu Payet; Frédéric Rousseau*

FaFNoC: a Fault-tolerant and Bufferless Network-on-chip

*Armin Runge*

The Impact of Traffic Localisation on the Performance of NoCs for Very Large Manycore Systems

*Sharifa Al Khanjari; Wim Vanderbauwhede*

**Lunch 12:00 - 13:15**

Room: Hall of Building A

**Technical Sessions 13:30 - 15:00**

**MobiSPC Session S-5: Communication in Agents, Humans, Machines, Robots and Sensors II**  
**Session Chair:** Dinara Kozhamzharova, K. I. Satpayev Kazakh National Technical University, Kazakhstan  
**Room:** A 306

Integrating of data using the Hadoop and R

*Raissa Uskenbayeva, Abu Kuandykov, Young Im Cho, Tolganay Temirbolatova, Saule Amanzholova, Dinara Kozhamzharova*

A Shadow Removal Method for a Mobile Robot Localization using External Surveillance Cameras

*Jae-Hong Shim and Young Im Cho*

On Constructing Minimum 2-Connected 2-Dominating Set with Maximum Spectrums in Cognitive Radio Networks

*Lihua Han, Deqian Fu, Zifen Yang, Qian Gao and Zhiquan Feng*

An Efficient Centralized Algorithm for Connected Dominating Set on Wireless Networks

*Deqian Fu, Lihua Han, Li Liu, Qian Gao and Zhiquan Feng*

**FNC Session: S-5**

**Session Chair:** Julia Taylor, Purdue University, USA

**Room:** A 304

Distributed workload control for federated service discovery

*Vincenzo Suraci, Claudio Gori Giorgi, Stefano Battilotti and Francisco Facchinei*

HTTP/2 and QUIC in Multi-User Virtual Worlds and the 3D Web?

*Hussein Bakri, Colin Allison, Alan Miller, Iain Oliver*

Real-Time QoS-Aware Vehicle Tracking: An Experimental and Comparative Study

*Basem Almadani, Abdullah Al Mamun and Ahmad Khayyat*

Information Security Management in Saudi Arabian Organizations

*Maryam Alsaif, Nura Aljaafari, Abdul Raouf Khan*

**NAT\_IoT Workshop**

**Session Chair:** Yaser Jararweh and Loai Tawalbeh, Jordan University of Science and Technology, Jordan

**Room:** A 206

Ad Hoc Cloud as a Service: A protocol for setting up an Ad hoc Cloud over MANETs

*Bilel Zaghdoudi, Hella Kaffel- Ben Ayed, Imen Riabi*

AMCC: Ad-hoc based Mobile Cloud Computing Modeling

*Mohammad AL-Rousan, Elham AL-Shara, Yaser Jararweh*

An Enhanced Secure Mobility Management Scheme for Building IoT Applications

*Hyun-Suk Chai, Jae-Young Choi, Jongpil Jeong*

The Internet of Energy: Smart Sensor Networks and Big Data Management for Smart Grid

*Manar Jaradat, Moath Jarrah, Abdelkader Bouselham, Yaser Jararweh, Mahmoud Al-Ayyoub*

**DPNoC Workshop: Session S2**

**Session Chair:** Wael El-Medany University of Bahrain, Bahrain

**Room:** A 210

Shortest Path Routing Algorithm for Hierarchical Interconnection Network-on-Chip

*Omair Inam, Sharifa Al Khanjari, Wim Vanderbauwhede*

An Improved Wireless Communication Fabric for Emerging Network-on-Chip Design

*Michael Opoku Agyeman, Kenneth Tong, Terrence Mak*

Design Trade off and Performance Analysis of Router Architectures in Network-on-Chip

*Jawwad Latif, Hassan Nazeer Chaudhry, Sadia Azam, Naveed Khan Baloch*

**Coffee Break 15:00 - 15:30**

Room: Hall of Building I

**Technical Sessions****15:30 - 17:30****MobiSPC Session S-6: Mobile Social Networking/Cloud Computing****Session Chair:** Young Im Cho, Gachon University, Korea**Room:** A 306

An Intelligent ETL Grid-Based Solution to Enable Spatial Data Warehouse Deployment in Cyber Physical System Context

*Boubaker Boulekrouche, Nafaâ Jabeur, Zaia Alimazighi*

Business Reputation of Social Networks of Web Services

*Zakaria Maamar, Gianpiero Costantino, Marinella Petrocchi and Fabio Martinelli*

Context-Aware Computation Offloading for Mobile Cloud Computing: Requirements Analysis, Survey and Design Guideline

*Gabriel Orsini, Dirk Bade and Winfried Lamersdorf*

**FNC Session: S-6****Session Chair:** Maria Kovaci, University Politehnica of Timisoara, Romania**Room:** A 304

Combining Bond Graphs and Petri Nets Formalism for Modeling Hybrid Dynamic Systems

*Mokhtar Bouhalouane, Sekhri Larbi, Hafid Haffaf*

Drilling Data Management in petroleum industry based on RTPS

*Basem Almadani*

Free space optics attenuation model for visibilities ranging from 9 to 12 Km

*Ahmed D. Kora, Regis Hontinfinde and Tahirou Ouattara*

**EWAD/FoIoT Workshops****Session Chair:** Olimzhon Baimuratov, Suleyman Demirel University, Kazakhstan**Room:** A 206

Representing security specifications in UML state machines

*Muhammad Umair Khan*

Open Source Software (OSS) Quality Assurance: A Survey Paper

*Salem S. Bahamdain*

Reducing Phase Cancellation Effect with ASK-PSK Modulated Stamp in Augmented UHF RFID Indoor Localization System

*Jing Wang, Miodrag Bolic*

**Banquet and Award Ceremony****20:00-23:00**

Conference Center Atria / Novotel

**Thursday, August 20, 2015**

**Technical Sessions 09:00 – 10:30**

**MobiSPC Session S-7: Mobile Systems and Applications II**

**Session Chair:** Nicolas Gaud, Université de Technologie de Belfort-Montbéliard, France

**Room:** A 306

Spatio-Temporal Planning for Mobile Ambient Agents

*Radja Boukharrou, Jean-Michel Ilie and Djamel Eddine Saidouni*

Low-Power Universal Edge Tracer Architecture using Accuracy-Controlled Resource Reallocation for Event-Driven Sensing Applications

*Daejin Park and Jeonghun Cho*

Towards the Dynamic Evaluation of a Public Bus Network for Small Size Urban Environments

*Olivier Lamotte, Nicolas Gaud and Stéphane Galland*

**CSDI Workshop**

**Session Chair:** Farrukh Aslam Khan, King Saud University, Saudi Arabia

**Room:** A 206

Privacy Levels for Computer Forensics: Toward a More Efficient Privacy-preserving Investigation

*Waleed Halboob, Ramlan Mahmood, Nur Izura Udzir, Mohd. Taufik Abdullah*

Survey on Mobile User's Data Privacy Threats, Defense Mechanisms

*Jalaluddin Khan, Haider Abbas and Jalal Al Muhtadi*

Analysis of Detection Features for Wormhole Attacks in MANETs

*Muhammad Imran, Farrukh Khan, Tauseef Jamal, Hanif Durad*

**Coffee Break 10:30 – 11:00**

Room: Hall of Building I

**Tour 12:00 – 14:00**

*Visit to Belfort Castle/City*

**END of Event**