



Conference & Exhibition



Future Network & MobileSummit 2011 Final Programme

Warsaw - Poland

15 - 17 June 2011

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Information Society and Media



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Introduction

Future Network & MobileSummit 2011 Conference & Exhibition takes place 15 - 17 June 2011 in Warsaw, Poland. This is the twentieth in a series of Annual Conferences supported by the European Commission, which regularly attracts over 500 delegates from industry and research to share experiences and research results, identify future trends, discuss business opportunities and identify opportunities for international research collaboration under the ICT Theme of Framework Programme 7 (FP7). It will thus contribute to showcasing European research in the field, and position it within the multiplicity of related initiatives supported in other regions of the world.

Future Network & MobileSummit 2011 will address all the challenges of building the Future Internet, which will be based on mobile, wireless and fixed broadband communications infrastructures.

The Scientific Programme incorporates all the key constituents of future communication networks including the themes Radio Access and Spectrum, Converged and Optical Networks, and Future Internet Technologies.

Supported by the European Commission and eMobility, the **Future Network & MobileSummit's** reputation is based on high quality networking, plenary sessions that discuss strategic issues in core thematic areas and paper sessions that showcase original results in all areas of mobile, wireless and fixed broadband communications systems and networks.

The goals of the **Future Network & MobileSummit** are Community Building to facilitate research cooperation and successful exploitation of research results, to stimulate take-up of RTD results by industry, to promote knowledge sharing between commercial and research organisations and to exchange experiences about the current state of the art at a sectoral, national or regional level.

Who will you meet?

Future Network & MobileSummit 2011

Conference & Exhibition attracts practitioners and researchers from leading commercial and research organisations around the world. Unlike many research conferences, **Future Network & MobileSummit 2010** provides an opportunity to meet with senior managers, practitioners, project managers, software engineers and researchers. Delegates and speakers attend to share knowledge, experience and lessons learnt, and network with their peers from around the world.

Future Network & MobileSummit 2011

Conference & Exhibition also provides the unique opportunity to identify partners and opportunities to co-operate in international research projects co-funded by the European Commission under Framework Programme 7 (FP7) and in particular, the FP7-ICT Theme.

The Venue

Future Network & MobileSummit Conference & Exhibition takes place in the Marriott Warsaw, which is located at Al. Jerozolimskie 65/79, Warsaw, close to the central train station.

The Programme

The 3-day programme features an invigorating mix of case studies and technical papers. As well as three plenary sessions and panel sessions focused on Future Internet and Spectrum Regulation, delegates may participate in 30 thematically focused parallel sessions featuring different aspects of Radio Access and Spectrum, Converged and Optical Networks, and Future Internet Technologies.

The Conference Programme is complemented by a demonstration and technology exploitation focused Exhibition, a Net!Works Reception which will take place on Wednesday 15 June 2011 and a Conference Dinner on Thursday 16 June 2011.

The Conference Programme is subject to change and the **Future Network & MobileSummit 2011** Organising Committee reserves the right to alter the contents, venue and/or speakers. Please view the Online Programme for the most up-to-date information.

Networking

Networking is a key feature of the **Future Network & MobileSummit** Conference Series. Paper sessions are designed to maximise knowledge sharing by providing time for interactive discussions during the conference programme itself. Coffee breaks will take place in the Exhibition area to maximise exposure for technology demonstrations and posters and to facilitate informal one-on-one and small group discussions following paper or poster sessions. Social events are designed to facilitate informal discussion.

There are a number of dedicated networking areas around the venue with tables and chairs to facilitate short informal meetings.

The Delegate Showcase on the Conference Portal allows registered delegates, speakers and exhibitors to publish their own short profile and research interests to facilitate networking before, during and after the conference. Leverage this functionality to contact potential partners in advance and arrange to meet during the conference.

Conference Proceedings

The **Future Network & MobileSummit 2011** Conference Proceedings will be published on CD-ROM and the Conference Portal. Each delegate will receive a free copy of the conference proceedings at Registration.

Full papers accepted in the Proceedings will also have the option to be published in IEEE Xplore.

Following the conference, registered delegates will have access to all PowerPoint presentations, which will be published on the Conference Portal.

Security, Health and Safety

Please wear your name badge for all activities during **Future Network & MobileSummit 2011**, as it is your identification and allows access to the facilities offered. While the Conference and Exhibition is not open to the general public, it is still necessary to take care of bags, personal computers and other personal belongings.

While security staff will be present at the conference venue, the Organising Committee cannot accept any responsibility for any losses incurred or personal health and safety. Delegates should ensure they have personal health insurance and take due care when exploring Warsaw. Any special needs or requirements should be notified to the Conference Secretariat as far in advance of the event as possible.

Hotel Accommodation

Conference rates have been negotiated for delegates and accompanying persons in the Marriott Warsaw (Conference venue).

Conference hotel accommodation should be booked online on the **Future Network & MobileSummit 2011** Conference portal as part of conference registration.

Delegates are strongly recommended to book their accommodation early as it will be allocated on a first-come, first-served basis. Hotel accommodation can only be confirmed upon receipt of payment. For further information, please visit:

www.FutureNetworkSummit.eu/2011

Net!Works Reception - 15 June

The Organising Committee is pleased to announce that Net!Works will host a Networking Cocktail Reception on Wednesday 15 June from 18:30 - 20:00 in the Exhibition area. Delegates should indicate participation in this event as part of online registration.

Conference Dinner - 16 June

The Organising Committee is pleased to announce that the Conference Dinner will be held on Thursday 16 June at 20:00.

The dinner venue has a fixed capacity and delegates

are requested to confirm their participation no later than 28 May as part of online registration.

Proposers' Networking Day - FP7-ICT Call 8 & Celtic-Plus Call

A Proposers' Networking Day which will take place on Tuesday 14 June as a pre-conference event, will focus on FP7-ICT Call 8 and Celtic-Plus Calls for Proposals. This workshop will be co-organised by Net!Works (previously eMobility), ISI Technology Platforms, Celtic Plus and IdeallST, with support from the European Commission to provide an in depth overview of these Calls. The afternoon session will be focused on project idea presentations that will be submitted in advance.

Pre-Conference Workshops

A number of pre-conference workshops will take place on Tuesday 14 June at the **Future Network & MobileSummit 2011** venue: Marriott Warsaw.

- European Workshop on Broadband Femtocell Networks (Full Day)
- Putting Mobile Services into Context (Tuesday morning)
- Next Generation Converged Access Network, Opportunities, Achievements and Challenges (Tuesday afternoon)

It is necessary for all participants (presenters and delegates) in the Proposers Day and other pre-conference workshops to pre-register in advance as part of online registration.

Summit participants will pay a contribution of 75 euro towards the cost of two coffee breaks, lunch and name badge. Participants only attending the workshops will make a contribution of 100 euro. Delegates can attend multiple workshops during the day.

More information is available at

www.FutureNetworkSummit.eu/2010

Organisers & Conference Secretariat

- **Miriam Cunningham**, IIMC Ltd, Ireland
- **Paul Cunningham**, IIMC Ltd, Ireland



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Plenary Session Speakers



Prof. Maria Orłowska
Secretary of State



Zoran Stancic
European Commission



Prof. Andrzej Jajszczyk
Director NSC, Krakow



Matthew Finnie
Interoute



Thierry Van Landegem
Alcatel Lucent



Lauri Oksanen
Nokia



Jan Faerjh
Ericsson

Plenary Speakers confirmed as at 30 May include:

- **Prof. Maria Elżbieta Orłowska**, Secretary of State, Ministry of Science and Higher Education, Poland
- **Dr Zoran Stancic**, Deputy Director General, DG Information Society & Media, European Commission
- **Prof. Andrzej Jajszczyk**, Director, National Science Centre, Krakow, Poland
- **Matthew Finnie**, Chief Technical Officer, Interoute
- **Dr. Peter Meissner**, Operating Officer, NGMN Next Generation Mobile Networks
- **Thierry Van Landegem**, Vice President Global Operations Bell Labs, Alcatel-Lucent Bell Labs
- **Lauri Oksanen**, Head of Research, Nokia Siemens Networks
- **Jan Faerjh**, Vice President, Head of Research, Ericsson
- **Nicolas Le Sauze**, Alcatel-Lucent Bell Labs France, France
- **Sergi Figuerola**, i2CAT Foundation, Spain
- **Thomas Edwall**, Ericsson AB, Sweden
- **Jose Jimenez**, Telefonica I+D, Spain
- **Dimitri Papadimitriou**, Alcatel-Lucent Bell, Belgium
- **Werner Mohr**, Nokia Siemens Networks GmbH & Co. KG, Germany
- **Dr Cezary Mazurek**, Poznań Supercomputing and Networking Center, Poland

Technical Committees

The **Future Network & MobileSummit 2011** Scientific Steering Committee includes

- **Didier Bourse**, Alcatel Lucent, France
- **Prof. Franco Callegati**, University of Bologna, Italy
- **Nicolas Chuberre**, Thales Alenia Space, France
- **Prof. Klaus David**, Kassel University, Germany
- **Admela Jukan**, Technical University of Braunschweig, Germany
- **David Kennedy**, Eurescom, Germany
- **Sławomir Kukliński**, FEIT, Warsaw University of Technology, Poland
- **Prof. Marco Luise**, University of Pisa, Italy
- **Jacques Magen**, Interinnov, Germany
- **Dr. Werner Mohr**, Nokia Siemens Networks, Germany
- **Prof. Luis Muñoz**, University of Cantabria, Spain
- **Prof. M. Muraszkwicz**, FEIT, Warsaw University of Technology, Poland
- **Prof. George Polyzos**, Athens University of Economics and Business, Greece
- **Radosław Piesiewicz**, EIT+ Wrocław, Poland
- **Dr. Jossy Sayir**, University of Cambridge, UK
- **Mirosław Słomiński**, FEIT, Warsaw University of Technology
- **Dr Fiona Williams**, Ericsson, Germany
- **Dr Josep Vidal**, UPC, Spain

The **Future Network & MobileSummit 2011** Technical Programme Committee includes

- **Henrik Abramowicz**, Ericsson, Sweden
- **Dr. Rui Luís Aguiar**, Universidade de Aveiro, Portugal
- **Prof. Nigel Baker**, UWE Bristol, United Kingdom
- **Maurice Bellanger**, CNAM, France
- **Dr. Friebert Berens**, FBC Consulting Sarl, Luxembourg
- **Prof. Nicola Blefari Melazzi**, Università degli Studi di Roma - Tor Vergata, Italy
- **Prof Raffaele Bolla**, CNIT - C.o. DIST University of Genoa Italy
- **Dr. Sergio Bovelli**, EADS Innovation Works, Germany
- **Marcus Brunner**, NEC Europe Ltd, UK
- **Prof. Wojciech Burakowski**, Institute of Telecommunications, Warsaw University of Technology Poland
- **Jose M^a Cabero Lopez**, ROBOTIKER-Tecnalia, Spain
- **Prof. Franco Callegati**, University of Bologna, Italy
- **Nicolas Chuberre**, Thales Alenia Space, France
- **Laurent Ciavaglia**, Alcatel-Lucent, France
- **Alberto Conte**, Alcatel Bell-Labs
- **Prof. Luis Correia**, Instituto Superior Technico Portugal
- **Prof. Klaus David**, Kassel University, Germany
- **Prof. Panagiotis Demestichas**, University of Piraeus, Greece
- **Prof. Bart Dhoedt**, Ghent University - IBBT, Belgium
- **Dr. Ralf Eickhoff**, Dresden University of Technology, Germany
- **Markus Fiedler**, BTH, Sweden
- **Tomasz Gerszberg**, Polska Telefonia Cyfrowa, Poland
- **Dr.-Ing. Andreas Gladisch**, Deutsche Telekom AG. T-Labs, Germany
- **Uwe Herzog**, EURESCOM, Germany
- **Dr. Jacek Izydorczyk**, Institute of Electronics, Silesian University of Technology, Poland
- **Jean-Philippe Javaudin**, France Telecom, France
- **Nigel Jefferies**, Vodafone, UK
- **Prof. Peter Jung**, Universität Duisburg-Essen, Germany
- **Dr. Stefan Kaiser**, DoCoMo Euro-Labs, Germany
- **James Kempf**, Ericsson Research
- **David Kennedy**, Eurescom, Germany
- **Dr Vinay Kolar**, RWTH Aachen University, Germany
- **Dr. Ibrahim Korpeoglu**, Bilkent University, Turkey
- **Dr Sławomir Kukliński**, Warsaw University of Technology, Poland
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- **Konstantinos P. Lolis**, SPACE HELLAS S.A., Greece
- **Dr. Roberto Llorente**, UPV, Spain
- **Prof. Marco Luise**, University of Pisa, Italy
- **Dr. Paulo Marques**, Instituto de Telecomunicações, Portugal
- **Prof. Józef Modelski**, Institute of Radioelectronics, Warsaw University of Technology, Poland
- **Dr. Klaus Moessner**, CSSR, University of Surrey, UK
- **Dr. Werner Mohr**, Nokia Siemens Networks, Germany
- **Prof. Paul Müller**, University of Kaiserslautern, Germany
- **Prof. Luis Muñoz**, University of Cantabria, Spain
- **Prof. M. Muraszkwicz**, FEIT, Warsaw University of Technology, Poland
- **Pirabakaran Navaratnam**, University of Surrey, United Kingdom
- **Mario Pickavet**, Ghent University - IBBT Belgium
- **Prof. Andrzej R. Pach**, AGH University of Science and Technology, Poland
- **Mario Pickavet**, University of Gent, Belgium
- **Jean-Charles Point**, JCP-Consult, France
- **Miguel Ponce de Leon**, Waterford Institute of Technology (TSSG), Ireland
- **Prof. George Polyzos**, Athens University of Economics and Business, Greece
- **Dr Mikhail Popov**, Acreo AB, Sweden
- **Ronald Raulefs**, DLR, Germany
- **Francisco Javier Ramón Salguero**, Telefónica I+D, Spain
- **Dr Oriol Sallent**, Universitat Politècnica de Catalunya, Spain
- **Reijo Savola**, VTT, Finland
- **Hans Schotten**, University of Kaiserslautern, Germany
- **Pablo Serrano**, Univ. Carlos III de Madrid, Spain
- **Prof. Vasilios Siris**, FORTH-ICS, Greece
- **Rute Sofia**, University Lusofona, Portugal
- **Daniele Tarchi**, Italy
- **Dr Ilenia Tinnirello**, CNIT, Italy
- **Prof. Ralf Tönjes**, University of Applied Sciences Osnabrück, Germany
- **Bogdan Uscumlic**, Institute Mihailo Pupin, Serbia
- **Dr Hans van den Berg**, TNO ICT, Netherlands
- **Dr Liesbet Van der Perre**, IMEC, Belgium
- **Alessandro Vanelli-Coralli**, University of Bologna, Italy
- **Dr Fiona Williams**, Ericsson, Germany
- **Dr Lena Wosinska**, KTH, Sweden
- **Prof Sven Zeisberg**, University of Applied Sciences, Germany
- **Shuang Zhang**, TNO, Netherlands



Wednesday, June 15, 2011

08:00 Registration

09:00 Opening Plenary 1a

Chair: Luis Rodrigues-Rosello, European Commission, Belgium

Panel participants include

Prof. Maria Elzbieta Orłowska, Secretary of State, Ministry of Science and Higher Education, Poland

Dr Zoran Stancic, Deputy Director General, DG Information Society & Media, European Commission

Prof. Andrzej Jajszczyk, Director, National Science Centre, Krakow, Poland

Video presentation, MEP Roza Grafín von Thun Und Hohenstein

11:00 Coffee Break

11:30 Session 2a: [Physical Layer Techniques](#)

Chair: *tbc*

Computational Complexity Analysis of Advanced Physical Layers based on Multicarrier Modulation

Leonardo Gomes Baltar, Technische Universität München, Germany

Physical layer amendments for MIMO features in 802.11a

Michael Wickert, Dresden University of Technology, Germany

Effect of Imperfect Channel Estimation on LTE MU-MIMO Performance

Albert Mráz, Budapest University of Technology and Economics, Hungary

Pilot Design for Multi-Cell MU-MIMO-OFDM with Beamforming

Giovanni Chiurco, University of Bologna, Italy

Multi-beam Assisted MIMO - A Novel Approach to Fixed Beamforming

Agisilaos Papadogiannis, University of York, United Kingdom

11:30 Session 2b: [Fixed Mobile Convergence](#)

Chair: [Roberto Llorente, Universidad Politecnica de Valencia, Spain](#)

Presentation title to be confirmed

Krishan Sabnani, Alcatel-Lucent

Radio-over-Fibre Networks: Developments from the BONE Virtual Centre of Excellence in Access

John Mitchell, University College London, United Kingdom

Quality of Service Management in Hybrid Optical-LTE Access Networks

Marco Giuntini, University of Rome "Tor Vergata", Italy

Performance Evaluation of a Multi-Layer Reconfigurable Optical-Wireless Network Architecture Employing Digitized RoF

Bas Huiszoon, Genexis, Spain

Green networking: Integration of Wireless Sensor Network with Home Gigabit Access

Vincenzo Suraci, Università degli Studi e-Campus, Italy

11:30 Session 2c: [Architecture Approaches](#)

Chair: [Ralf Tönjes, Uni. Appl. Sci. Osnabrück, Germany](#)

On the Applicability of Architecture Description Languages to Future Internet Networking Environments

Stilianos Georgoulas, University of Surrey, United Kingdom

Protecting Digital Identities in Future Networks

Pedro Martinez-Julia, University of Murcia, Spain

Key Concepts for the Future Internet Architecture

Francesco Delli Priscoli, University of Rome "La Sapienza", Italy

GEYSERS: A Novel Architecture for Virtualization and Coupled Provisioning of Dynamic Optical Networks and IT Services

Eduard Escalona, University of Essex, United Kingdom

11:30 Poster Session 2d:

[Physical Layer Design](#)

Chair: *tbc*

Distributed Turbo Coding Techniques with HARQ Relays for Future Mobile Generations

Dimitri Ktenas, CEA, LETI, MINATEC, France

On the Effects of MUI on SVD-based MIMO System-Level Performance

Nikos Pronios, Intracom S.A. Defense Electronic Systems, Greece

Filter Concatenation Impairments Reduction by Adaptively Modulated Optical OFDM Signals for Metro/Regional Networks

Elias Giacomidis, Athens Information Technology, Greece

Evaluation of Link Adaptation Methods in Multi-User OFDM Systems with Imperfect Channel State Information

Yutao Sui, Chalmers University of Technology, Sweden

Relay-Assisted Spectrum and Infrastructure Sharing between Multiple Operators

Martin Haardt, Ilmenau University of Technology, Germany

13:15 Lunch

14:30 Session 3a: [Optimizing Physical Layer and Resources](#)

Chair: [Jacek Izydorczyk, Silesian University of Technology, Poland](#)

Hierarchical Decode & Forward Strategy in IR-UWB Communication Systems

Tomas Hynek, Czech Technical University in Prague, Faculty of Electrical Engineering, Czech Republic

Integration of a GFDM Secondary System in an OFDM Primary System

Nicola Michailow, Technische Universität Dresden, Germany

A Flexible Hardware-In-the-Loop Test Platform for Physical Resource Sharing Mechanisms in Wireless Networks

Jian Luo, Fraunhofer Heinrich-Hertz-Institute, Germany

14:30 Session 3b: [Future Architectures and Control Plane](#)

Chair: [Paul Mueller, TU Kaiserslautern, Germany](#)

Research Approach towards the Profitability of Future FTTH Business Models

Marlies Van der Wee, Ghent University/IBBT, Belgium

An Open GMPLS-enabled Control Plane Testbed for Remote Development and Experimentation of PCE-based Path Computation Algorithms

Raul Muñoz, CTTC, Spain

Experimental Comparison of Impairment-Aware RWA Algorithms in a GMPLS-controlled Dynamic Optical Network

Marianna Angelou, Universitat Politècnica de Catalunya, Spain

Optical Architectures Evaluation for Triple-Play Distribution in FIVER Project

Maria Morant, Nanophotonics Technology Center, Universidad Politécnica de Valencia, Spain

14:30 Session 3c: [Content Networking](#)

Chair: [Henrik Abramowicz, Ericsson, Sweden](#)

A mixed CCN-MAS architecture to handle context-awareness in hybrid networks

Gérald Arnould, CRP Henri Tudor, Luxembourg

COMET: Content mediator architecture for content-aware networks

Andrzej Beben, Warsaw University of technology, Poland

A Content-Centric, Publish-Subscribe Architecture delivering Mobile Context-Aware Health Services

Donato Battaglino, University of Roma "Tor Vergata", Italy

VoPSI: Voice over a Publish-Subscribe Internetwork

Charilaos Stais, AUEB-RC, Greece

14:30 Poster Session 3d: [Spectrum Sensing, Energy Efficiency and Cooperative Techniques](#)

Chair: *tbc*

On Spectrum Sensing based Opportunistic Access for Cognitive Radio Networks

Maurice Bellanger, CNAM, France

Extension of LTE Operational Mode over TV White Spaces

Carlos Silva, Instituto de Telecomunicações, Portugal

Integration of LTE Home eNodeB and Macro eNodeB Handover Self-Optimisation

Kristina Zetterberg, Ericsson AB, Sweden

Energy Efficiency Metrics for Mobile Communication Networks

Albrecht Fehske, Technische Universitaet Dresden, Germany

System Level Energy Efficiency Analysis in Cellular Networks

Magnus Olsson, Ericsson AB, Sweden

Non-Cooperative Games Between Legitimate Nodes and Malicious Coalitions in MANETs

Emmanouil Panaousis, Kingston University London, United Kingdom

16:15 Coffee Break

16:45 Session 4a:

EUWB Session

Chair: *tbc*

UWB LDR-LT Platform - An Overview

Manuel Pezzin, CEA/LETI, MINATEC, France

UWB HDR/VHDR Platform

Kai Dombrowski, TES Electronic Solutions GmbH, Germany

UWB Integrated in Future Mobile Networks

Ana Sierra, Telefónica I+D, Spain

UWB in Daily Life - UWB Application for Public Transport/Cars

Sergio Bovelli, EADS, Germany

UWB in Daily Life - UWB Application in the Home

Pejman Hafezi, Philips Consumer Lifestyle B.V., Netherlands

16:45 Session 4b:

Emerging PON Solutions

Chair: *Jean-Charles Point, JCP-Consult, France*

Evaluation of UHD TV Signal Transmission in FTTH Networks

Using Next Generation WiMedia UWB

Maria Morant, Nanophotonics Technology Center, Universidad Politécnica de Valencia, Spain

PROaccess: A Passive-Components-based Reconfigurable WDM-TDM Optical Access Network

Nguyen-Cac Tran, Eindhoven University of Technology, Netherlands

Performance Evaluation of Intensity Modulated and Direct Detected Electrical OFDM signals for Long Reach and Ultra-High Speed Access Networks

Elias Giacomidis, Athens Information Technology, Greece

Effects of Adaptive Subcarrier Modulation on MAC Operation in OFDMA-PONs

Konstantinos Kanonakis, Athens Information Technology (AIT), Greece

MAC Protocol Design for the Support of DBA in OFDMA-PON Networks

Wansu Lim, University of Hertfordshire, United Kingdom

16:45 Session 4c:

Future Internet - Management

Chair: *Didier Bourse, Alcatel-Lucent, France*

Realizing Autonomics for Future Networks

Laurent Ciavaglia, Alcatel-Lucent France, France

Understanding Brain for Future Networks

Antonio Manzalini, Telecom Italia, Italy

Cognitive Management of Protocol Composition Enhanced Future Internet Elements

David Wagner, University of Stuttgart - IKR, Germany

Bootstrapping a Publish/Subscribe Information Centric Network

Christos Tsilopoulos, Athens University of Economics and Business, Greece

16:45 Poster Session 4d:

Future Internet

Chair: *Slawomir Kuklinski, Institute of Telecommunications, Warsaw University of Technology, Poland*

Opportunistic Networks for Efficient Application Provisioning in the Future Internet: Business Scenarios and Technical Challenges

Panagiotis Demestichas, University of Piraeus Research Center, Greece

Home Network Equipment Virtualization: an overview on the architecture alternatives

Rafael Lopez Da Silva, Telefónica I+D, Spain

Context Provisioning Middleware with Probabilistic Reasoning Support

Ralf Tönjes, Uni. Appl. Sci. Osnabrück, Germany

A Survey of the Future Internet Business Ecosystems

Laurent Ciavaglia, Alcatel-Lucent France, France

18:30 Net!Works Reception - Exhibition



Thursday, June 16, 2011

9:00 Session 5a:

Spectrum Optimization and Cognitive Techniques

Chair: *Paulo Marques, Instituto de Telecomunicacoes, Portugal*

Spectrum Aggregation: initial outcomes from SAMURAI project

Guillaume Vivier, Sequans communications, France

Transmit Beamforming for Inter-Operator Spectrum Sharing

Eleftherios Karipidis, Linköping University, Sweden

Robust Collaborative Spectrum Sensing based on Beta Reputation System

Klaus Moessner, University of Surrey, United Kingdom

TV White Spaces Maps Computation through Interference Analysis

Rogério Dionísio, Instituto de Telecomunicações, Portugal

A Simulation Study of Broadband Mobile Systems Interference on DVB-T Systems Operating in the UHF Frequency Band

Lorenzo Pulcini, Fondazione Ugo Bordoni, Italy

09:00 Workshop 5b:

Cognitive Radio: Technology, Regulation, and Quality of Service and Mobility

Chairs: *Michael Fitch, BT, UK*

Welcome and Introduction

Michael Fitch, BT

Keynote – Operational Views on Cognitive Radio

Wladimir Bocquet, Orange Group Spectrum Office

Technical Presentation 1

Richard MacKenzie, BT, UK

Technical Presentation 2

Dominique Noguét, CEA, France

Authorised Shared Access

Wassim Chourbaji, Qualcomm

09:00 Session 5c:

Location Services and Mobility

Chair: *Uwe Herzog, EURESCOM, Germany*

Novel Indoor Localisation Algorithm using Unsupervised Wi-Fi Signal Clustering Method

Sian Lun Lau, University of Kassel, Germany

HINLO: An ID/LOC Split Scheme for Mobile Oriented Future Internet

Heeyoung Jung, Electronics and Telecommunication Research Institute (ETRI), Republic of Korea

IEEE 802.21: A Shift in the Media Independence

Lucas Eznarriaga, Institute IMDEA Networks, Spain

Media-Independent Multicast Signalling for Enhanced Video Performance in the MEDIEVAL Project

Rui Aguiar, Instituto de Telecomunicacoes, Portugal

09:00 Workshop 5d: *Seamless Advanced Hybrid SatCom-terrestrial Networks Applied to Institutional Missions*

Chairs: *Antonio Alfaro, Rose Vision, Spain & Dimitris Vassiliadis, EXODUS S.A., Greece*

Brief introduction to ISI activities

Antonio Alfaro, Rose Vision, Spain

Crisis Management and First Response in EU-2020: ICT

Dimitris Vassiliadis, EXODUS S.A., Greece

SatCom Capabilities to Support Institutional Demand

Nicolas Chuberre, Thales Alenia Space, France

Satellite Communication Research for Crisis Preparedness and Response

Sandro Scalise, German Aerospace Center, Germany

Discussion

10:45 Coffee Break

11:15 Session 6a: **Radio Resources Management**

Chair: **Panagiotis Demestichas, University of Piraeus Research Center, Greece**

- Identifying Scenarios with High Potential for Future Cognitive Radio Networks**
Richard MacKenzie, BT Innovate and Design, United Kingdom
- Fundamental Limits of Energy-Efficient Resource Sharing, Power Control and Discontinuous Transmission**
Gunther Auer, DOCOMO Euro-Labs, Germany
- Cognitive Resource Management for QoS Support in Mobile Opportunistic Communications**
Genevieve Mange, Alcatel-Lucent Bell Labs, Germany
- Towards Practical REM-based Radio Resource Management**
Siva Subramani, Toshiba Research Europe Ltd, United Kingdom

11:15 Workshop 6b: **Cognitive Radio: Technology, Regulation, and Quality of Service and Mobility**

Chair: **Michael Fitch, British Telecom**

Panel Session 1 – Regulation & Cognitive Radio

Panel members

- Matthias Fehr, APWPT
- Andrew Gowans, Ofcom
- Roland Buetler, SWR Germany
- Jean-Jaques Guitot, ANFR
- Shyamalie Thilakawardana, BBC
- Ben Smith, Agentschap

11:15 Session 6c: **Green Networks, QoS and Scalability**

Chair: **Markus Fiedler, BTH, Sweden**

- A Scalable Solution to provide Quality of Service in Next-Generation Networks**
Gianmarco Panza, CEFRIEL, Italy
- Energy-Efficient Sleeping Modes for Next-Generation Core Networks**
Roberto Bruschi, CNIT, Italy
- On the Scalability of Carrier-grade Mesh Network Architectures**
Cigdem Sengul, Deutsche Telekom Labs, Germany
- Business-driven PCE for Inter-Carrier QoS Connectivity Services**
Nabil Bachir Djarallah, Alcatel-Lucent Bell Labs France, France

11:00 Workshop 6d: **Seamless Advanced Hybrid SatCom-terrestrial Networks Applied to Institutional Missions**

Chairs: **Antonio Alfaro, Rose Vision, Spain & Dimitris Vassiliadis, EXODUS S.A., Greece**

- Network Architectural Issues in Emergency Networks**
Maurizio Casoni, University of Modena and Reggio Emilia, Italy
- Aspects of Autonomic and Cooperative Communications in Emergency Networks**
Michal Wodczak, Telcordia Poland, Poland
- Communications between User Equipment and the Telecommunications Network**
Andreas Hutter, CSEM SA, Switzerland
- Standardization and Regulatory Challenges for SatCom**
Julian Sesena, ROSE Vision, Spain

13:00 Lunch

14:15 Plenary 7a: **Do We Still Need Research on Networks in Europe?**

Chair: **Andrew Houghton, European Commission, Belgium**

- Panel participants include
- Matthew Finnie, Chief Technical Officer, Interoute
- Dr. Peter Meissner, Operating Officer, NGMN Next Generation Mobile Networks
- Thierry Van Landegem, Vice President Global Operations Bell Labs, Alcatel-Lucent Bell Labs
- Lauri Oksanen, Head of Research, Nokia Siemens Networks
- Jan Faerj, Head of Research, Ericsson

16:15 Coffee Break

16:45 Session 8a: **Energy Efficiency**

Chair: **Andreas Gladisch, Deutsche Telekom, Germany**

- Maximising Average Energy Efficiency for Two-user AWGN Broadcast Channel**
Muhammad Ali Imran, University of Surrey, United Kingdom
- On the Energy Efficiency Gain of MIMO Communication under Various Power Consumption Models**
Rahim Tafazolli, CCSR, University of Surrey, United Kingdom
- Concepts for Energy Efficient LTE Transceiver Systems in Macro Base Stations**
Manuel J Gonzalez, TTI (Technologies of Telecommunication and Information), Spain
- Opportunities for Energy Savings in Pico/Femto-cell Base-Stations**
Filip Louagie, IMEC, Belgium
- Multi Antenna Techniques to improve Energy Efficiency in LTE radio access network**
Mauro Boldi, Telecom Italia, Italy

16:45 Workshop 8b: **Cognitive Radio: Technology, Regulation, and Quality of Service and Mobility**

Chair: **Per Lehne, Telenor**

- Technical Presentation 4**
Rohit Datta, TUD
- Standards Presentation 1**
Pierre-Jean Muller, Huawei, ETSI
- Standards Presentation 2**
Bernd Bochow, Fraunhofer, IEEE

Panel session 2: Use Cases for Cognitive Radio

Panel Members include

- Michael Fitch, BT
- Bruno Cendon, TST
- Wladimir Bocquet, France Telecom Orange Group
- Michael Prytz, Ericsson
- Richard MacKenzie, BT
- Dominique Noguet, CEA

Closing Remarks

16:45 Session 8c: **Experimentation on Internet of Things**

Chair: **Luis Muñoz, University of Cantabria, Spain**

- An Experimental Platform for Large-scale Research Facing FI-IoT Scenarios**
Jesus Bernat Vercher, Telefonica Investigación y Desarrollo, Spain
- SmartSantander: The Meeting Point between Future Internet Research and Experimentation and Smart Cities**
Luis Sanchez, University of Cantabria, Spain
- Performance Evaluation of a Generic Driver for Medical Bluetooth Sensors**
Daniel Kümper, University of Applied Science Osnabrueck, Germany
- A Scalable Architecture for Geo-localized Service Access in Smart Cities**
Claudio Cicconetti, Intecs SpA, Italy
- Testbed Federation: An Approach for Experimentation-Driven Research in Cognitive Radios and Cognitive Networking**
Alejandro Sanchez, THALES Communications SA, France

16:45 Session 8d: **Future Internet/Networks Activities in Poland**

Chair: **Artur Binczewski, ICHB PAN - PCSS, Poland**

- Polish Optical Internet as a Component of e-Infrastructure for Future Services and Applications**
Krzysztof Kurowski, Poznan Supercomputing and Networking Center, Poland
- The IIP System: Architecture, Parallel Internets, Virtualization and Applications**
Wojciech Burakowski, Institute of Telecommunications, Poland
- Service Platforms in Future Networks - PLATON Project**
Cezary Mazurek, Poznan Supercomputing and Networking Center, Poland

18:30 End of Parallel Sessions

20:00 Conference Dinner



Friday,
June 17, 2011

DAY

09:00 Session 9a: **Network Planning Optimization**

Chair: **Werner Mohr, Nokia Siemens Networks GmbH & Co. KG, Germany**

UWB Integration into Heterogeneous Access Networks

Ana Sierra, Telefónica I+D, Spain

Planning and Network Management for Energy Efficiency in Wireless Systems

István Törös, Budapest University of Technology and Economics, Hungary

Enhanced Weighted Performance based Handover Optimization in LTE

Irina Balan, Ghent University - IBBT, Belgium

Performance Optimization of Pico Node Deployment in LTE Macro Cells

Stanislaw Strzyz, Nokia Siemens Networks, Poland

Improving Fairness by Carrier Load Balancing in Relay Enhanced Systems

Jacek Gora, NSN-Research, Poland

09:00 Workshop 9b: **Federation Workshop - Session 1 - Management Challenge and Management Systems**

Chair: **Klaus Moessner, University of Surrey, United Kingdom**

Part A "The Management Challenge": Overview of the Approaches

UniverSelf – A Unified Management Framework for Operator - Governed Networks and Services.

Gerard Nguengang

OneFIT - Opportunistic networks for efficient application delivery in the Future Internet

Jens Gebert, Alcatel-Lucent Deutschland, Bell Labs, Germany

One - An IP and Transport Layer Management Ecosystem

Admela Jukan, Technische Universität Carolo-Wilhelmina zu Braunschweig, Germany

Part B "Management Systems "

UniverSelf – "Network Empowerment - Finding the right key to the lock"

Markus Gruber, Alcatel-Lucent, Germany

OneFIT - Algorithms for Opportunistic Network Management and Infrastructure Coordination

Oriol Sallent, Universitat Politècnica de Catalunya, Spain

ONE - Architecture and cooperation with external components and management systems

Maciej Maciejewski, ADVA Optical Networking, Poland

09:00 Workshop 9c: **Technologies for LTE-Advanced: from Theory to Practice**

Chair: **Guillaume Vivier, Sequans Communications, France**

Welcome and Introduction

3GPP LTE / LTE-A standardization: status and overview of technologies

Deepaknath Tandur, Agilent Technologies, Belgium

Design and Challenges for UE with Carrier Aggregation Capability

Guillaume Vivi, Sequans Communications, France

Carrier Aggregation: From Physical Layer to Upper Layers

István Z. Kovács, Nokia Siemens Networks, Denmark

10:45 Coffee Break

11:15 Session 10a: **Next Generation Architectures**

Chair: **Rui Aguiar, Inst. Telecomunicacoes, Portugal**

On the Flexibility of the IEEE 802.11 Technology: Challenges and Directions

Pierluigi Gallo, Università di Palermo, Italy

Specification and assessment of a fitness function for the creation of opportunistic networks

Andreas Georgakopoulos, University of Piraeus, Greece

FLAVIA: Towards a Generic MAC for 4G Mobile Cellular Networks

Andreas Maeder, NEC Network Laboratories Europe, Germany

IEEE 802.21 and Proxy Mobile IPv6: A Network Controlled Mobility Solution

Fabio Giust, Institute IMDEA Networks, Spain

A Topic-based, Publish-subscribe Architecture for Intermittently Connected 802.15.4 Networks

Nicola Blefari Melazzi, University of Rome Tor Vergata, Italy

11:15 Workshop 10b: **Federation Workshop - Session 2 – Federation Approaches and way forward**

Chair: **Antonio Manzalini, Telecom Italia**

UniverSelf – Role and Impact of Autonomics in a Federated Ecosystem

Laurent Ciavaglia, Alcatel-Lucent France, France

OneFIT - Control Channels for the Cooperation of Cognitive Management Systems

Marcin Filo, Wroclawskie Centrum Badan EIT+, Poland

ONE - Federation Use Cases

Oscar Gonzales de Dios, Telefonica I+D, Spain

Panel "Network federation - Way Forward"

11:15 Workshop 10c: **Technologies for LTE-Advanced: from Theory to Practice II**

Chair: **Istvan Zsolt Kovacs, Nokia Siemens Networks, Denmark**

Recent Advances in Relaying Technology

Jacek Gora, Nokia Siemens Networks, Poland

MU-MIMO in LTE/LTE-A: Performance Analysis

Rizwan Ghaffar, Eurecom Institute, France & Biljana Badic, Infineon Technologies, Germany

Wrap up and Conclusion

13:00 Lunch

14:00 Plenary Session 11a: **Future Internet: Stairway To Heaven?**

Chair: **Bernard Barani, European Commission, Belgium**

The vision of Future Internet - ETICS FP7 ICT project

Nicolas Le Sauze, Alcatel-Lucent Bell Labs France, France

The Vision of Future Internet - GEYSERS FP7 ICT project

Sergi Figuerola, i2CAT Foundation, Spain

The Vision of Future Internet - SAIL FP7 ICT project

Thomas Edwall, Ericsson AB, Sweden

The vision of Future Internet in the FI PPP Core Platform project

Jose Jlimenez, Telefonica I+D, Spain

The Work on Internet Architecture from the Future Internet

Architecture Group (FIArch)

Dimitri Papadimitriou, Alcatel-Lucent Bell, Belgium

Future Internet Usage in Other Sectors: Example from an FI PPP Use Case

Werner Mohr, Nokia Siemens Networks GmbH & Co. KG, Germany

Future Internet Week

Cezary Mazurek, Poznań Supercomputing and Networking Center

16:00 Closing Plenary 12: **Closing Plenary**

Chair: **Andrew Houghton, European Commission, Belgium**

16:30

End of Conference

Registration Information

It is necessary for all **Future Network & MobileSummit 2011** delegates to register online. Each delegate should be registered separately.

Conference Fees

Authors Fees (Due by 31 March)

- Authors €550
- Authors - Poland €250

Please note that the author fee is only available to accepted presenters in the Programme (**only one presenter per paper/poster**). Each presenter will present one paper in the Programme. Co-authors who wish to participate should register as Delegates.

Delegates' Fees - Early Bird (Due by 31 March)

- Early Bird €600
- Early Bird - Poland €350

Delegates' Fees - Full Fee from 01 April

- Delegate Full Price €700
- Delegate Full Price - Poland €450

The Conference Fee includes:

- Entrance to all Plenary and Parallel Sessions
- Entrance to Exhibition
- Documentation with Proceedings on CD-Rom
- Three luncheons and refreshments at morning and afternoon breaks
- Net!Works Reception - Wednesday 15 June
- Cyber Café facilities

Terms & Conditions

1. All authors who are presenting a paper at **Future Network & MobileSummit 2011** must complete their payment registration and ensure payment is received by **31 March** at the latest, prior to publication of the Final Programme.
2. In the case where a paper is jointly authored, the presenter of the paper is considered to be the author/presenter from a payment registration point of view. All co-authors are considered to be delegates.
3. Each presenter may present one paper in the Programme. Additional accepted papers must be reassigned to a presenter not already in the Programme.
4. Accepted Exhibitors (other than accepted presenters) must complete payment registration by **31 March**.
5. Delegates' fees must be paid before admission to the Conference and Exhibition.
6. IEEE Members are entitled to apply for a 10% discount on the appropriate fee. Please provide Membership No. as part of online registration and fax a copy of valid Membership card to +353-1-8170606.
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8. The Conference Organisers reserve the right not to accept any conference registration either online or onsite without providing a reason.
9. Each individual must be registered separately on the **Future Network Summit** Conference portal.

10. Payment may be made by bank transfer or credit card (with some restrictions). Payments made by bank transfer must be **net of any bank charges** and the payment instruction should refer to "**Future Network & MobileSummit 2011**", your name, organisation and invoice number (if relevant).

11. Receipts are automatically issued electronically upon receipt of payment. If your organisation requires an invoice to process payment registration by bank transfer, please contact the Conference Secretariat.

12. Conference registration or hotel accommodation is not confirmed until full payment is received.

13. Online registration facilities conference registration, participation in pre-conference event, booking of hotel accommodation, attendance at Welcome Networking Reception and Conference Dinner. It is possible to go back through online registration at any stage, book items not previously confirmed and make payment.

14. The registration desk will open on Tuesday 14 June from 14:30 to 17:00 and will remain open during normal conference hours from 08:00 on Wednesday.

Warsaw

Warsaw is the capital of Poland and incorporates a wide range of culture events and entertainment. Delegates should endeavour to visit some of the many historical and cultural attractions in Warsaw during their stay including the Old Town, Palace of Culture and Science, Royal Castle, Ujazdowski Castle, National Museum, National Theatre and Warsaw Zoological Gardens.

Sponsors

Net!Works is kindly hosting the Networking Reception on Wednesday 14 June in the Exhibition. Bronze Sponsors include Interroute SpA. **Technical Co-Sponsors** include IEEE Poland Communications Chapter Krakow, IEEE Poland Computer Chapter and IEEE UK/RI Computer Chapter.



Exhibition

Future Network & MobileSummit 2011 Exhibition showcases applied ICT research results and applications through technology demonstrations and posters, whether funded commercially, or at a national, regional or European level.

Demonstration Stands

Stand Name	Organisation	Country
DG Information Society and Media	European Commission	Brussels
Net!Works	Ericsson	Germany
Advanced Radio Interface Technologies for 4G Systems (ARTIST4G)	TU Dresden	Germany
COGEU: Exploiting TV white spaces in Europe	Instituto de Telecomunicacoes	Portugal
CREW FP7 Project: Cognitive Radio Experimentation World	IBBT - Ghent University	Belgium
EARTH: Energy Aware Radio and neTwork technologies	Bell Labs, Alcatel-Lucent	Germany
Enhanced video transport over heterogeneous multi-hop wireless networks (CARMEN - MEDIEVAL joint demonstrator)	IMDEA Networks	Spain
EUWB – The European UWB project	GWT-TUD GmbH	Germany
FP7 SAMURAI & LOLA demonstration	Agilent Technologies	Belgium
Generalized Architecture for Dynamic Infrastructure Services	LYaTiss	France
OMEGA	Orange Labs, France Telecom	France
OneFIT	University of Piraeus	Greece
Prediction Based Spectrum Management for Cognitive Radio Networks	University of Oulu	Finland
QoS MOS FP7 Project	BT	UK
SACRA - Spectrum and energy efficiency through multi-band cognitive radio	Thales Communications	France
SAIL - Scalable and Adaptive Internet Solutions	Ericsson AB	Sweden
SPARC: Proof of concept of carrier grade MPLS based on split architecture	Deutsche Telekom	Germany
User Centric Mobility Management: the PERIMETER project	Univ. of Rome "Tor Vergata"	Italy