



Conference & Exhibition

Future Network & MobileSummit 2012 Final Programme Berlin - Germany



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04 - 06 July 2012

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Introduction

Future Network & MobileSummit 2012 Conference & Exhibition takes place 04 - 06 July 2012 in the Estrel Berlin, Germany. This is the twenty-first 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 2012 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, Integrated Satellite Communications 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 2012

Conference & Exhibition attracts practitioners and researchers from leading commercial and research organisations around the world. Unlike many research conferences, **Future Network & MobileSummit 2012** 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 2012

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 Estrel Hotel, Sonnenallee 225, 12057 Berlin.

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, Integrated Satellite Communications and Future Internet Technologies.

The Conference Programme is complemented by a demonstration and technology exploitation focused Exhibition, a Reception which will take place on Wednesday 04 July 2012 and a Conference Dinner on Thursday 05 July 2012.

The Conference Programme is subject to change and the **Future Network & MobileSummit 2012** 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 2012** 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 2012**, 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.

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 Berlin. 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 Estrel Hotel (Conference venue).

Conference hotel accommodation should be booked online on the **Future Network & MobileSummit 2012** 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/2012

Net!Works Reception - 04 July

The Organising Committee is pleased to announce that Net!Works will host a Networking Cocktail Reception on Wednesday 04 July from 18:30 - 20:00 in the Exhibition area. Delegates should indicate participation in this event as part of online registration.

Conference Dinner - 05 July

The Organising Committee is pleased to announce that the Conference Dinner will be held on Thursday 05 July at 20:00.

The dinner venue has a fixed capacity and delegates are requested to confirm their participation no later

than 08 June as part of online registration.

Organisers & Conference Secretariat

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



IIMC Ltd

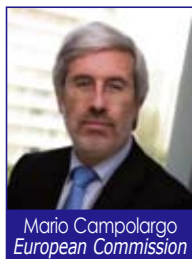
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Plenary Session Speakers



Mario Campolargo
European Commission



Hossein Moiin
Nokia Siemens Network



Prof. H.J. Grallert
Fraunhofer, Germany



Reiner Liebler
BnetZA, Germany



Chris Woolford
OFCOM UK



Dr. Peter Meissner
NGMN



Ruprecht Niepold
European Commission



Dr. Lutz Stobbe
IZM, Germany



Mark Daly
ESB, Ireland



Prof. Klaus David
University of Kassel



Prof. Paul Müller
TU Kaiserslautern



Radoslaw Krzywania
PSNC, Poland



Dai Davies
Dante, UK

Plenary Speakers confirmed as at 2 July include:

- **Mario Campolargo**, Net Futures, DG Communications Networks, Content and Technology, European Commission
- **Hossein Moiin**, Chief Technology and Strategy Officer, Nokia Siemens Networks
- **Prof Hans-Joachim Grallert**, Director, Fraunhofer Heinrich-Hertz Institut, Germany
- **Reiner Liebler**, BnetZA, Germany
- **Chris Woolford**, Director of Spectrum and International Policy, OFCOM UK
- **Dr. Peter Meissner**, Operating Officer, NGMN Next Generation Mobile Networks Alliance
- **Ruprecht Niepold**, Adviser Radio Spectrum Policy, DG Information Society and Media, European Commission
- **Dr Lutz Stobbe**, Fraunhofer-Institut für Zuverlässigkeit und Mikrointegration IZM, Germany
- **Mark Daly**, ESB, Ireland
- **Didier Bourse**, Alcatel-Lucent Bell Labs
- **Prof. Klaus David**, University of Kassel, Germany
- **Prof. Paul Müller**, University of Kaiserslautern, Germany
- **Radoslaw Krzywania**, Poznan Supercomputing and Networking Center, Poland
- **Dai Davies**, Dante, UK
- **Rolf Sperber**, Alcatel-Lucent

Technical Committees

The **Future Network & MobileSummit 2012**

Technical Programme Committee includes

- **Prof. Klaus David**, Kassel University, Germany (TPC Chair 2012)
- **Henrik Abramowicz**, Ericsson, Sweden
- **Dr. Rui Luis Aguiar**, Universidade de Aveiro, Portugal
- **Maurice Bellanger**, CNAM, France
- **Dr. Friebert Berens**, FBConsulting 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. 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
- **Alexandre Gouraud**, France Telecom, France
- **Uwe Herzog**, EURESCOM, Germany
- **Dr. Jacek Izydorczyk**, Institute of Electronics, Silesian University of Technology, Poland
- **Jean-Philippe Javaudin**, France Telecom, France
- **Nigel Jefferies**, 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 Slawomir Kuklinski**, Warsaw University of Technology, Poland
- **Konstantinos P. Liolis**, SPACE HELLAS S.A., Greece
- **Dr. Roberto Llorente**, UPV, Spain
- **Prof. Marco Luise**, University of Pisa, Italy
- **Dr. Paulo Marques**, Instituto de Telecomunicações, Portugal
- **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
- **Pirabakaran Navaratnam**, University of Surrey, United Kingdom
- **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
- **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
- **Dr Anna Tzanakaki**, AIT, Greece
- **Bogdan Uscumlic**, Institute Mihailo Pupin, Serbia
- **Dr Hans van den Berg**, TNO ICT, Netherlands
- **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



Wednesday, July 4, 2012

08:00 Registration

09:00 Opening Plenary 1a

Chair: [Luis Rodrigues-Rosello, European Commission, Belgium](#)

Panel participants include

- Welcome - Prof Klaus David, University of Kassel, Germany (TPC Chair)
- Mario Campolargo, Director, Net Futures, DG Communications Networks, Content and Technology, European Commission
- Hossein Moiin, Chief Technology and Strategy Officer, Nokia Siemens Networks
- Prof Hans-Joachim Grallert, Director, Fraunhofer Heinrich-Hertz Institut

11:00 Coffee Break

11:30 Session 2a: [Next-generation Radio System Architectures and Protocols](#)

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

Colony-RAN Architecture for Future Cellular Network

Shinobu Nanba, KDDI R&D Laboratories, Japan

On designing next generation MAC for cellular networks using the FLAVIA paradigm

Vincenzo Mancuso, Institute IMDEA Networks, Spain

Joint User Scheduling, Power Control and Beam-forming for Multi-Cell Distributed Antenna Systems with Imperfect CSI

Ramiro Samano, Institute of Telecommunications, Portugal

Wireless Card Virtualization: From Virtual NICs to Virtual MAC Machines

Pierluigi Gallo, Università di Palermo, Italy

Decentralized phase synchronization scheme for Distributed Beamforming in WSN with Quantized Phase Feedback

Lazar Berbakov, Centre Tecnologic de Telecomunicacions de Catalunya (CTTC), Spain

11:30 Workshop 2b: [Cognitive Radio/Cognitive Networks](#)

Chair: [Jorge Pereira, European Commission, Belgium](#)

CONSERN: Empowering Network Agility with Self-growing Capabilities - From Concept to Validation

Nancy Alonistioti, University of Athens, Greece

FLAVIA: Fostering Cognitive Radio Deployment: A New Architecture for Real-time Wireless Stack Reconfiguration

Giuseppe Bianchi, CNIT - University of Roma Tor Vergata, Italy

CREW: Shape-Shifting Wireless Networks: The Role of TV Spectrum in Future Network Architectures

Luiz DaSilva, Trinity College Dublin, Ireland

How to Access and Use the CREW Open Federated Test Platform for Wireless Experimentation of Advanced Cognitive Radio / Cognitive Networking Solutions

Ingrid Moerman, IBBT - Ghent University, Belgium

Panel Discussion on Cognitive Radio/Cognitive Networks and the role of Experimentation

11:30 Workshop 2c: [Optical Networks Standardization in FP7 projects](#)

Chair: [Juan Pedro Fernandez-Palacios, TELEFONICA R&D, Spain](#)

ACCORDANCE Standardization Activities on NGPON2

Thomas Pfeiffer, Alcatel-Lucent

On the IETF Standardization Opportunities for Sub-wavelength Optical Networks

Juan Pedro Fernandez-Palacios, TELEFONICA R&D, Spain

Multilayer and Multidomain Interworking Architectures based on PCE

Oscar Gonzalez de Dios, Telefonica I+D, Spain

Standardization Opportunities on Optical network and IT Convergence

Nicola Ciulli, Nextworks, Italy

Challenges of Cognitive Networks Standardization - CHRON

Andrzej Tymecki, Telekomunikacja Polska SA, Poland

Inter-project Standardization Strategies on Optical Networking - Panel Discussion

11:30 Session 2d: [Future Internet Architecture](#)

Chair: [David Kennedy, Eurescom, Germany](#)

A New Inter-networking Architecture for Mobile Oriented Internet Environment

Heeyoung JUNG, Electronics and Telecommunications Research Institute (ETRI), Republic of Korea

On Converged Multidomain Management of Connectivity in Heterogeneous Networks

Michael Soellner, Alcatel-Lucent Deutschland AG, Germany

Research and Experimentation With the HIMALIS Network Architecture for Future Internet

Pedro Martinez-Julia, University of Murcia, Spain

Socioeconomic Tussles Analysis of the ETICS Approach for Providing QoS-enabled Inter-domain Services

Costas Kalogiros, AUEB, Greece

11:30 Session 2e: [Quality in Future Internet](#)

Chair: [Uwe Herzog, EURESCOM, Germany](#)

Internet Interconnection Assured Quality Services: Issues and Strategic Impact

Manos Dramitinos, Athens University of Economics and Business, Greece

A Global Customer Experience Management Architecture

Jukka-Pekka Laulajainen, VTT Technical Research Centre, Finland

Service Level Management Convergence for Future Network Enterprise Platforms

Philip Robinson, SAP UK Ltd, United Kingdom

Modelling Quality of Experience in Future Internet networks

Antonio Pietrabissa, Univ. Rome Sapienza, Italy

11:30 Poster Session 2f: [FI Poster Session](#)

Chair: [Rui Aguiar, Instituto de Telecomunicacoes, Portugal](#)

Supporting an Architecture for Cross-layer Optimization

Gianmarco Panza, CEFRIEL, Italy

Evaluating Secure Identification in the Mobile Oriented Future Internet (MOFI) Architecture

Pedro Martinez-Julia, University of Murcia, Spain

Virtualization of Real-world Objects for a full realization of the Internet of Things

Vera Stavroulaki, University of Piraeus, Greece

Managing Customer Experience through Service Quality Monitoring

Anderson Morais, Telecom SudParis, France

Network architectures for end-to-end business and traffic collaborations among carriers

Nicolas Le Sauze, Alcatel-Lucent, Italy

13:15 Lunch

14:15 Workshop 3a: [IC1004 Cooperative Radio Communications I](#)

Chair: [Narcis Cardona, Universidad Politecnica de Valencia, Spain](#)

Keynote - Cooperation: A Key Feature of Oncoming Cellular Systems

Halim Yanikomeroglu, Carleton University, Canada

Measurement-based Stochastic Modeling for Co-existing Propagation Channels in Cooperative Relay Scenarios

Jinyi Liang, Tongji University, China

Cooperative Radio Communications over Correlated Shadowing: Outage Analysis

Athanasios D. Panagopoulos, National Technical University of Athens, Greece

A Wireless Transceiver Power Consumption Model and Two-hop vs. Single-hop Energy Efficiency Ratio

Goran Dimic, Institute Mihajlo Pupin, Univ. of Belgrade, Serbia

Dynamic Management of Cooperative Communication in Body Area Networks

Raffaele D'Errico, CEA-Leti, Minatec Campus, France

14:15 Session 3b: [LTE Advanced Systems: PHY Layer Issues](#)

Chair: [Werner Mohr, Nokia Siemens Networks GmbH & Co. KG, Germany](#)

Advanced Relaying Concepts for Future Wireless Networks

Agisilaos Papadogiannis, Chalmers University of Technology, Sweden

Data Aggregation Schemes for Machine-to-Machine Gateways: Interplay with MAC Protocols

Carles Anton-Haro, CTTC, Spain

Interference Avoidance Techniques for Improving Ubiquitous User Experience

Nicolas Gresset, Mitsubishi Electric R&D Centre Europe, France

Interference Control in LTE-Advanced: An ARTIST4G Overview

Michael Grieger, TU Dresden, Germany

Experiments on Downlink 4-by-2 MU-MIMO with Quantized CSI

Feedback for LTE-Advanced Deployment Scenarios

Yuichi Kakishima, NTT DOCOMO, INC., Japan

14:15 Session 3c: [Optical Access Networks](#)

Chair: [Jean-Charles Point, JCP-Consult, France](#)

First Experimental Demonstrations of Real-time Optical OFDMA PONs with Adaptive Dynamic Bandwidth Allocation and Colorless ONUs

Jianming Tang, Bangor University, United Kingdom

Power Consumption Measurements of Access Networks in a Wide Geographical Area Test Bed and Economic Perspectives

Alessandro Valenti, Fondazione Ugo Bordoni, Italy

Optical Wireless Communication - Jump on a new Experience

Frank Deicke, Fraunhofer IPMS, Germany

Adding Mobile Base Station Support to PONs

Alexandros Stavdas, University of Peloponnese, Greece

Impairment Compensation in Long-reach Integrated Optical-Wireless PON

Roberto Llorente, Universidad Politécnica de Valencia, Spain

14:15 Workshop 3d: [Cloud Networking – Technical and Business Challenges I](#)

Chair: [Thomas Edwall, Ericsson AB, Sweden](#)

Opening

Benoit Tremblay, Ericsson AB, Sweden

Libnetvirt: The Network Virtualization Library

Daniel Turull, KTH Royal Institute of Technology, Sweden

Performance of Virtualized Routers: Isolation Properties on Different Time Scales

Markus Fiedler, Blekinge Institute of Technology (BTH), Sweden

Planning Optimized Virtual Infrastructures over Converged Optical Network and IT Physical Infrastructures

Anna Tzanakaki, AIT, Greece

14:15 Workshop 3e: [Green Communications and Networks I](#)

Chair: [Stefano Buzzi, CNIT / University of Cassino, Italy](#)

Network evolution steps towards power efficiency

Juan Pedro Fernandez-Palacios, TELEFONICA R&D, Spain

Power Consumption in Future Ultra Broadband Networks

Alessandro Valenti, Fondazione Ugo Bordoni, Italy

ECONET Green Abstraction Layer: A Common Interface Proposal for Controlling the Power Management Capabilities of Networking Devices

Leonardo Fialho, Dublin City University, Ireland

A Smart Proxy Architecture for Power Consumption Reduction in the Home Environment

Roberto Bruschi, CNIT, Italy

How to deploy and operate mobile networks in an energy efficient manner?

István Gódor, Ericsson, Hungary

14:15 Poster Session 3e: [RAS Poster Session](#)

Chair: [Jorge Carvalho, European Commission, Belgium](#)

System Architecture for LTE-based Coverage Solution using UE Relays

Ravikumar Pragada, InterDigital Communications, United States

Future Networks to Enable Wireless Broadband Technologies and Services for the Next Billion Users

Fisseha Mekuria, CSIR Meraka Institute, South Africa

Network Coded Assisted Data Collection over RPL-based Wireless Sensor Networks

Monica Navarro, CTTC, Spain

Slow and fast beamforming as energy saving enablers towards C-RAN

Sven Petersson, Ericsson, Sweden

16:00 [Coffee Break](#)

16:45 Session 4b: [LTE Advanced Systems - Future Challenges and Way ahead](#)

Chair: [Petru Ciudin, European Commission, Belgium](#)

Operator-governed SON Coordination in downlink LTE Networks

Panagiotis Demestichas, University of Piraeus, Greece

Adaptive energy efficient scheduling algorithm for LTE pico base stations

Björn Debaillie, IMEC, Belgium

Network Monitoring Challenges in the Evolved Packet Core

Bachar Wehbi, Montimage, France

Field Experiments on Throughput Performance of Carrier

Aggregation with Asymmetric Bandwidth in LTE-Advanced

Keisuke Saito, NTT DOCOMO, Japan

Intrinsic challenges (and opportunities) to deploy LTE in Europe's TV white spaces

Jaap van de Beek, Huawei Technologies, Sweden

16:45 Session 4c: [Optical Technologies and Networking](#)

Chair: [Anna Tzanakaki, AIT, Greece](#)

Real-Time 11.25Gb/s Optical OFDM Signal Transmission Over 2000m Legacy MMFs Using Centre Launching

Emilio Hugues-Salas, Bangor University, United Kingdom

Routing in medium term optical networks in ICT STRONGEST

Alexandros Stavdas, University of Peloponnese, Greece

Beyond 100G - High-Capacity Transport Technologies for Next Generation Optical Core Networks

Johannes Karl Fischer, Fraunhofer Institute for Telecommunications

Heinrich Hertz Institute, Germany

E2E-OAM in convergent Sub-wavelength-MPLS environments

Juan Pedro Fernandez-Palacios, TELEFONICA R&D, Spain

16:45 Workshop 4d: [Cloud Networking – Technical and Business Challenges II](#)

Chair: [Thomas Edwall, Ericsson AB, Sweden](#)

Business aspects of Cloud Networking

João Soares, PT Inovação, SA, Portugal

Cloud Computing - Challenges and Risks

Burkhard Stiller, University of Zurich, Switzerland

Panel Discussion including

Thomas Edwall, Ericsson, Sweden (SAIL Project)

Pascale Vicat-Blanc, Lyatiss, France (GEYSERS Project)

Burkhard Stiller, University of Zurich, Switzerland, (SESERV Project)

Markus Fiedler, Blekinge Institute of Technology, Sweden (EURO-NF Project)

Azimeh Sefidcon, Ericsson, Sweden (SAIL Project)

16:45 Workshop 4e: [Green Communications and Networks II](#)

Chair: [Stefano Buzzi, CNIT / University of Cassino, Italy](#)

"Greening" Mobile Communication via Mitigation of Traffic Growth

Adam Wolisz, Technische Universität Berlin, Germany

Energy efficiency of vertical handovers under different traffic profiles

Jacek Kibilda, Wrocławskie Centrum Badań EIT+, Poland

Energy efficient wireless radio networks: The Greenet approach

Angelos Antonopoulos, CTTC, Spain

Energy Savings with new BS Hardware Solutions

Dieter Ferling, Alcatel-Lucent Deutschland AG, Germany

Holistic energy consumption evaluation of wireless networks using efficient components and systems

Björn Debaillie, imec, Belgium

16:45 Poster Session 4f: [Poster Session 3](#)

Chair: [Rudiger Martin, European Commission, Belgium](#)

Context-Awareness and Self-Localization in Wireless Networks: The WHERE2 Proposals

Ronald Raulefs, CEA, France

Mobility control in cognitive radio system

Janos Bito, Budapest University of Technology and Economics,

Hungary

A Statistical Moment Deviation Approach to Identify Outliers in Collaborative Spectrum Sensing for Cognitive Radio

Klaus Moessner, University of Surrey, United Kingdom

Real-time Ultra-wideband Spectrum Management in Critical Civil Infrastructures: UCELLS project

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

18:15 End of Parallel Sessions



Thursday,
July 5, 2012

9:00 Session 5a: **Plenary II - Radio Access Spectrum**

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

Panel participants include

Reiner Liebler, BnetzA, Germany

Peter Meissner, NGMN Alliance

Ruprecht Niepold, Adviser Radio Spectrum Policy, DG Information Society and Media, European Commission

11:00 Coffee Break

11:30 Session 6a: **Enabling technologies for flexible spectrum usage**

Chair: **Ralf Tönjes, Uni. Appl. Sci. Osnabrück, Germany**

Environment aware spectrum shaping for cognitive radio systems
Pawel Kryszkiewicz, Poznan University of Technology, Poland

Towards spectrum micro-trading

Pål Grønsund, Telenor, Norway

Low ACLR communication systems for TVWS operation

Rohit Datta, TU Dresden, Germany

Testbed for coexistence evaluation in TV White Spaces

Juergen Lauterjung, Rohde & Schwarz, Germany

Cross-platform Demonstrator Combining Spectrum Sensing and a Geo-location Database

Paulo Marques, Instituto de Telecomunicações, Portugal

11:30 Session 6b: **Integrated Satellite Communications**

Chair: **Sandro Scalise, DLR, Germany**

SatCom Research Trends

Sandro Scalise, German Aerospace Center, Germany

Optical GEO Feeder Link Design

Nicolas Perlot, Deutsches Zentrum für Luft- und Raumfahrt, Germany

Using Cognitive Radio Interference Mitigation Technique to Enhance Coexistence and Sharing Between DVB-T and LTE System

Sara Sangtarash, Victoria University, Australia

MONET - From Optimised Mechanisms Definition to Lab and Real Field Tests of an Hybrid Satellite / Ad-hoc Network

Michael Crosnier, Astrium, France

Broadband Access via Integrated Terrestrial & Satellite Systems

Graham Peters, Avanti Communications, United Kingdom

11:30 Session 6c: **Optical Network Control**

Chair: **Anna Tzanakaki, AIT, Greece**

Benefits of Optical Packet Switching for Router By-pass in Metro Networks

Oscar Gonzalez de Dios, Telefonica I+D, Spain

A Cognitive Decision System for Heterogeneous Reconfigurable Optical Networks

Ignacio de Miguel, University of Valladolid, Spain

Control and Transport of Time Shared Optical Networks (TSON) in Metro Areas

Bijan Rahimzadeh Rofee, University of Essex, United Kingdom

A Network Control Plane architecture for on-demand co-provisioning of optical network and IT services

Nicola Ciulli, Nextworks, Italy

11:30 Session 6d: **Self Management**

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

Network Management without Payload Inspection: Application Classification via Statistical Analysis of Bulk Flow Data

Baris Kurt, Bogazici University, Turkey

On Accomplishing Context Awareness for Autonomic Network Management

Beatriz Fuentes, TID, Spain

Formal Verification of the Cooperative Behaviour of Network Nodes for Routing and Context Dissemination

Stylianios Georgoulas, University of Surrey, United Kingdom

Designing the core components of an operator-driven framework for unifying autonomic network and service management

Kostas Tsagkaris, University of Piraeus Research Center (UPRC), Greece

On the role of learning in autonomic network management: the UniverSelf project approach

Panagiotis Spapis, National And Kapodistrian University of Athens, Greece

11:30 Session 6e: **Future Internet Experimental Facilities**

Chairs: **Klaus David, University of Kassel, Germany**

Benchmarking the Encoding Efficiency of H.265/HEVC and H.264/AVC

Harilaos Koumaras, NCSR Demokritos, Greece

A Five Year Perspective of Traffic Pattern Evolution in a Residential Broadband Access Network

Manxing Du, Acreo AB, Sweden

An OpenFlow-based Testbed for Information Centric Networking

Stefano Salsano, Univ. of Rome "Tor Vergata", Italy

AAA-based Infrastructure for Industrial Wireless Sensor Networks

Markus Wehner, University of Applied Sciences Dresden, Germany

13:15 Lunch

14:15 Plenary 7a: **Plenary III - Sustainability**

Chair: **Fiona Williams, Ericsson GmbH, Germany**

Panel participants include

Green IT Evolution - From Energy Efficiency towards Life Cycle Optimization

Lutz Stobbe, Fraunhofer-Institut für Zuverlässigkeit und Mikrointegration IZM, Germany

Smart Energy / eMobility - Challenging ICT Models

Mark Daly, ESB, Ireland

Didier Bourse, VP Alcatel Lucent Bell Labs

Prof. Klaus David, University of Kassel, Germany

16:15 Coffee Break

16:45 Session 8a: **Cognitive and Reconfigurable Radio Systems I**

Chair: **Reijo Savola, VTT Technical Research Centre of Finland**

A Spectrum Selection Framework for Opportunistic Networks

Jordi Perez-Romero, Universitat Politècnica de Catalunya (UPC), Spain

Resource Management of Centrally Controlled Cognitive Radio Networks

Genevieve Mange, Alcatel Lucent Bell Labs, Germany

Spectrum aware routing in ad-hoc cognitive radio networks

Athina Bourdena, University of the Aegean, Greece

Probabilities for opportunistic networking in different scenarios

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

Multi-Antenna Cyclostationarity Feature Detection for Parallel Sensing in Cognitive Radio

David Depierre, Thales Communications and Security, France

16:45 Session 8b: **Content Distribution**

Chair: **Nigel Jefferies, HUAWEI, United Kingdom**

Publish/Subscribe over Information Centric Networks: a Standardized Approach in CONVERGENCE

Nicola Blefari Melazzi, University of Rome Tor Vergata, Italy

Architecture for Adaptable QoE-Centric Mobile Video Delivery

Michelle Wetterwald, EURECOM, France

SVC Multicast Video Mobility Support in MEDIEVAL Project

Rui Aguiar, Instituto de Telecomunicações, Portugal

Realistic Media Streaming over BitTorrent

George Xylomenos, Athens University of Economics and Business, Greece

16:45 Workshop 8c: **FINSENY**

Chair: **Fiona Williams, Ericsson GmbH, Germany**

Future Internet Requirements for Microgrid Development

Juergen Goetz, Siemens AG, Germany

Smart Building Energy Management: A "Future Internet" Perspective

Gilles Privat, Orange Labs, France

Electric Mobility - Driving Change in the Smart Grid

Mark Daly, ESB, Ireland

16:45 Session 8d: **Scalable Architectures for the Real World Internet**

Chair: **Markus Fiedler, Blekinge Institute of Technology (BTH), Sweden**

A Test-driven Approach for Life Cycle Management of Internet of Things enabled Services

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

Experience on the demonstration of the ETSI M2M architecture Release 1

Claudio Cicconetti, Intecs SpA, Italy

An overview of project COMPOUND: Cooperative Communications and Positioning in Mobile Underwater Networks

Joao Gomes, ISR - Instituto Superior Tecnico, Portugal

Concept for a M2M Communications Infrastructure via Airliners

Simon Plass, DLR, Germany

Power control and management in the NetFPGA Gigabit Router

Diego Reforgiato, University of Catania, Italy

16:45 Session 8e: **Network Overlay, Virtualization and Federation**

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

From Softrouter to Current SDNs

Michael Scharf, Alcatel-Lucent, Germany

Cloud Networking: An Infrastructure Service Architecture for the Wide Area

Paul Murray, HP, United Kingdom

Virtual Infrastructure Planning: The GEYSERS Approach

Anna Tzanakaki, AIT, Greece

A modular, flexible and virtualizable framework for IEEE 802.11

Pierpaolo Loreti, University of Rome Tor Vergata, Italy

An experimental investigation of indoor localization by

unsupervised Wi-Fi signal clustering

Yaqian Xu, University of Kassel, Germany

18:30 End of Parallel Sessions



Friday,
July 6, 2012

DAY

09:00 Session 9a: **Cognitive and Reconfigurable Radio Systems II**

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

Femtocell-based capacity extension of wireless access infrastructures

Dimitrios Karvounas, University of Piraeus, Greece

Experimental assessment of WLAN performance in a fiber supported fiber-radio network

Luis Pessoa, Inesc Porto, Portugal

Robust distributed sensing with heterogeneous devices

Peter Van Wesemael, imec, Belgium

Detection of Jointly Active Primary Systems

Burak Yilmaz, Kadir Has University, Turkey

Secure Broadcasting in Cooperative Cognitive Radio Networks

Maksym Girnyk, KTH Royal Institute of Technology, Sweden

09:00 Workshop 9b: **Network Federation I**

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

Opening Keynote - Standardising Autonomous Networks: ETSI AFI

Ranganai Chaparadza, Fraunhofer Institute for Open Communication, Germany

UniverSelf: UMF - A Unified Management Framework

Gerard Nguengang Fanmegne, THALES COMMUNICATIONS SA, France

OneFIT: An Architecture for operator governed opportunistic networking

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

GEYSERS: An architecture and a Service Delivery Framework for

operating and offering services over Virtual Infrastructures

Sergi Figuerola, i2CAT, Spain

09:00 Workshop 9c: **Machine to Machine Communications: Maintaining User Capacity and Pursuing Energy Efficiency in the Internet of Things I**

Chair: **Angeliki Alexiou, University of Piraeus, Greece**

Current Developments in IoT Forum & IoT Week – Shaping Europe's Impact on the IoT

Sebastian Lange, VDI/VDE-IT, Germany

Presentation title to be confirmed

Martin Beale, IPWireless, United Kingdom

The Role of Standards in M2M – Targets, Challenges and Outlook

Joerg Swetina, NEC Laboratories Europe, Germany

09:30 Session 9d: **Future Network Stability: Threats and Challenges I**

Chair: **Antonio Manzalini, Telecom Italia, Italy**

Utility Functionals for Optimization and Stability of Future Networks

Antonio Manzalini, Telecom Italia, Italy

Knowledge in Support of Congestion Control Mechanisms

Giorgos Poullos, University of Piraeus Research Center, Greece

Coordination of self-optimizing functionalities in LTE networks

Zwi Altman, Orange Labs, France

An Efficient Load balancing Scheme for Network Stability in Future Networks

Eleni Patouni, University of Athens, Greece

09:00 Workshop 9e: **Fostering Programmability of Wireless Networks I**

Chair: **Xavier Perez Costa, NEC, Germany**

FLAVIA - Technology Development Update in the Wireless Programmability Area

Giuseppe Bianchi, CNIT, Italy and Xavier Perez Costa, NEC, Germany

FIGARO – Project Overview and Potential Benefits of Wireless Programmability

Henrik Lundgren, Technicolor, France

MEDIEVAL - Project Overview and Potential Benefits of Wireless Programmability

Telemaco Melia, Alcatel-Lucent, France

10:45 Coffee Break11:15 Session 10a: **Novel radio network technologies, including energy-efficiency**Chair: **Didier Bourse, Alcatel-Lucent, France****A Tight Closed-Form Approximation of the SISO Energy Efficiency-Spectral Efficiency Trade-Off**

Fabien Heliot, University of Surrey, United Kingdom

Energy-Aware Non-Cooperative Resource Allocation in Relay-Assisted MIMO IC Considering Circuit Dissipated Power

Stefano Buzzi, CNIT / University of Cassino, Italy

Mu-MaxWeight Queueing Network Control With Application To In-Flight Entertainment Systems

Gerhard Wunder, Fraunhofer Heinrich Hertz Institute, HHI, Germany

Analysis of energy saving using cooperation Use-case: WiFi and WiMedia

Ayman Radwan, Instituto de Telecomunicações, Portugal

Energy efficient cooperative data relaying in Future Networks

Jacek Kibilda, Wrocławskie Centrum Badań EIT+, Poland

Integration Strategy of EARTH Energy Efficiency Enablers

Magnus Olsson, Ericsson AB, Sweden

11:15 Workshop 10b: **Network Federation II**Chair: **Klaus Moessner, University of Surrey, United Kingdom****UniverSelf: Bringing UMF to Reality: a Network and Service Governance Use Case**

Beatriz Fuentes, TID, Spain

OneFIT: Algorithms for Opportunistic Network Management and Infrastructure Coordination

Jordi Perez-Romero, Universitat Politècnica de Catalunya, Spain

ONE: Prototyping the ONE: Architecture and Implementation

Mohit Chamania, TU Braunschweig, Germany

GEYSERS: The LICL: a prototype for the composition of Logical Infrastructures

Joan A. Garcia-Espín, i2CAT, Spain

Wrap up Panel – Standardising Challenges for Future Networks11:15 Workshop 10c: **Machine to Machine Communications: Maintaining User Capacity and Pursuing Energy Efficiency in the Internet of Things II**Chair: **Angeliki Alexiou, University of Piraeus, Greece****From Open IMS and OpenEPC to OpenMTC: An Extensible Control Platform for the Efficient Enablement of M2M Applications in the Future Internet and Emerging Smart Cities**

Thomas Magedanz, Fraunhofer FOKUS, Germany

Network Assisted D2D Communications: Challenges and Solution Approaches

Gabor Fodor, Ericsson Research, Sweden

M2M Communications - Technology Trends and Research Challenges

Angeliki Alexiou, University of Piraeus, Greece

11:15 Workshop 10d: **Future Network Stability: Threats and Challenges II**Chair: **Antonio Manzalini, Telecom Italia, Italy****Stability in Dynamic Networks**

Stuart Clayman, University College London, United Kingdom

Distributed control loops: towards a cooperative autonomic management framework for the Future Internet

Steven Latre, Ghent University - IBBT, Belgium

Network Stability based on Distributed Constraints Systems

Septimiu Nechifor, Siemens Program and System Engineering SRL, Romania

11:15 Workshop 10e: **Fostering Programmability of Wireless Networks II**Chair: **Xavier Perez Costa, NEC, Germany****ECONET - Network programmability for green networking**

Roberto Bruschi, CNIT, Italy

Operator Business View on Wireless Network Programmability Solutions

Yan Grunenberger, Telefonica Research, Spain

Operator Business View on Wireless Network Programmability Solutions

Hans Joachim Einsiedler, Deutsche Telekom Laboratories, Germany

Wireless Processor - Technology Overview and Demonstration

Ilenia Tinnirello, University of Palermo, Italy

13:00 Lunch14:00 Plenary Session 11a: **Plenary IV**Chair: **Jacques Magen, InterInnov, France****Introduction**

Jacques Magen, InterInnov, France

G-Lab: A Software Defined Networking Perspective

Paul Mueller, University Kaiserslautern, Germany

PL-LAB: Polish Distributed Laboratory for Testing Future Internet Solutions

Radosław Krzywania, Poznan Supercomputing and Networking Center - IBCh PAS, Poland

Bandwidth on Demand- The next Internet Innovation

Dai Davies, Dante, United Kingdom

Federation of Data sets for Multinational Research Projects

Rolf Sperber, Alcatel-Lucent, Germany

16:00 Closing Plenary 12: **Closing Plenary**Chair: **Andrew Houghton, European Commission, Belgium****16:30****End of Conference**

Programme as at 2 July 2012. Please check online Programme for most up to date information

Registration Information

It is necessary for all **Future Network & MobileSummit 2012** delegates to register online. Each delegate should be registered separately.

Conference Fees

Authors Fees (Due by 31 March)

- Authors **€550**

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 Delegate Fee **€600**

Delegates' Fees - Full Fee from 01 April

- Delegate Full Price **€700**

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

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



Exhibition

Future Network & MobileSummit 2012 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	IRT GmbH	Germany
CONSERN FP7 Project: COoperative aNd Self growing Energy awaRe Networks	University of Athens	Greece
Cognitive Radio Experimentation World	Technical University Berlin	Germany
CROWN	Eurecom	France
EARTH: Energy Aware Radio and neTwork techNologies	Bell Labs, Alcatel-Lucent	Germany
EXALTED	Sagemcom	France
Fraunhofer HHI	Fraunhofer	Germany
Geysers	Lyatiss	France
iCore	University of Piraeus	Greece
IPNQSIS (IP Network Monitoring for QoS Intelligent Support)	VTT	Finland
OneFIT	University of Piraeus	Greece
QoS MOS FP7 Project	BT	UK
Rohde & Schwarz	Rohde & Schwarz	Germany
SAMURAI and LOLA	Agilent Technologies	France
SAIL - Cloud Networking	Ericsson AB	Sweden
SAPHYRE – Sharing Physical Resources in Wireless Networks	TU Dresden	Germany
STRONGEST	Telecom Italia	Italy
UNIVERSELF UMF DEMO	University of Piraeus	Greece
WHERE 2	DLR e.V.	Germany