



## NEWCOM DISSEMINATION DAY

15 FEBRUARY 2007

### Espace Hamelin

17, rue de l'Amiral Hamelin  
F-75783 Paris Cedex 16, France

#### Organizer:

Prof. Hikmet Sari,  
SUPELEC

The Network of Excellence in Wireless Communications (NEWCOM) is a large network gathering researchers from 59 European institutions (universities, private and public R&D organizations) funded by the European Commission. This network of excellence (NoE), which started at the beginning of March 2004, is completing its first phase at the end of February 2007. The purpose of the NEWCOM Dissemination Day is to present to European wireless industry the results of joint research activities over the past three years by leading research groups involved in this NoE. This event should not be missed by R&D engineers and managers in wireless industry, operators and service providers. It is also a unique opportunity for all those interested in wireless research and technology.

## PROGRAM

The program of the NEWCOM Dissemination Day is composed of presentations by the Department and Project Heads in the morning and of demos and poster presentations in the afternoon. In their presentations, the Department and Projects Heads will highlight the research results coming from their department/project that may be of interest to industry in the short and medium terms and will particularly focus on those that are not covered by the demos and posters in the afternoon. The afternoon program features 16 demos and 9 posters covering a large variety of hot topics in wireless communications and networking.

08:15 ▪ 09:00 | Registration

09:00 ▪ 13:00 | Morning Program

09:00 ▪ 11:00 | PART 1

### Welcome Addresses

Sergio Benedetto, NEWCOM Director, Politecnico di Torino, Italy  
Hikmet Sari, Organizer of the Dissemination Day, SUPELEC, France

**Dept. 1** – Analysis and Design of Algorithms for Signal Processing in Wireless Systems

Luc Vandendorpe, Université Catholique de Louvain, Belgium

**Dept. 2** – Radio Channel Modeling for Design Optimization and Performance Assessment of Next-Generation Communication Systems

Bernard Fleury, Aalborg University, Denmark

**Dept. 3** – Design, Modeling and Experimental Characterization of RF and Microwave Devices and Subsystems

Abdullah Atalar, Bilkent University, Turkey

**Dept. 4** – Analysis, Design and Implementation of Digital Architectures and Circuits

Guido Masera, Politecnico di Torino, Italy

**Dept. 5** – Source Coding and Reliable Delivery of Multimedia Contents - Pierre Duhamel, CNRS, France

**Dept. 6** – Protocols, Architectures and Traffic Modeling for Reconfigurable/Adaptive Wireless Networks  
Anna Brunstrom, Karlstad University, Sweden

11:00 ▪ 11:30 | COFFEE BREAK

11:30 ▪ 13:00 | PART 2

**Dept. 7** – QoS Provisioning in Wireless Networks: Mobility, Security and Radio Resource Management

Ramon Agustí, Politecnico University of Catalunya, Spain

<http://newcom.ismb.it>

**Project A** – Ad-Hoc and Sensor Networks  
Sergio Palazzo, University of Catania, Italy

**Project B** – Ultra-Wide Band Communication Systems  
Giorgio Vitetta, University of Modena, Italy

**Project C** – Functional Design Aspects of Future-Generation  
Wireless Systems - Andrea Conti, CNIT, Italy

**Project D** – Flexible Radio  
Andreas Polydoros, University of Athens, Greece

**Project E** – Cross-Layer Optimization - Leandros Tassioulas,  
Center for Research and Technology Hellas, Greece

13:00 ▪ 14:30 | LUNCH

## 14:30 ▪ 17:30 | Afternoon Program

### 1. Demos

**D01.** Channel Characterization and Modelling for MIMO and UWB Applications  
Institutions: Bilkent, Eurecom, Thales, CNIT, FTW, Univ. Oulu, Techn. Univ. Ilmenau, Univ. of Bristol, Elektrobit, Univ. Bologna, Vienna Univ. Techn., Aalborg Univ

**D02.** Adaptive Digital Predistortion - Institutions: Bilkent University., Chalmers University, Politecnico di Torino

**D03.** Simplified Real Frequency Technique to Design Practical Power Transfer Networks for Communication Systems  
Institutions: Istanbul University, Uppsala University, Technical University of Ilmenau

**D04.** ASIP Design and Synthesis for Nonlinear Filtering in Image Processing  
Institutions: Technical University of Aachen, University of Pisa

**D05.** Channel emulators and simulations for multimedia applications - Institutions: University of Surrey

**D06.** Tools for Joint source and channel coding/decoding using IT++ - Institutions: CNRS

**D07.** A Flexible High-Fidelity Network Emulation Platform for Verification and Evaluation of Protocols and Distributed Applications - Institutions: CNRS, Karlstad University

**D08.** Simulator for Evaluating Advanced Scheduling Techniques Based on a Cross-Layer Approach  
Institutions: CNIT, Technical University of Munich

**D09.** Simulator for Network Planning in Realistic and Dynamic Mobility Environments - Institutions: University of Gent, Budapest University of Technology and Economics

**D10.** Wimeter — A New Bandwidth Optimization Tool and its

Assistance to QoS Provisioning in Multiple Hotspot WNANs  
Institution: Eurecom

**D11.** VanetMobiSim — A Flexible Framework for Advanced User Mobility Modeling  
Institutions: Eurecom, Politecnico di Torino

**D12.** IEEE 802.15.4 Standard and ZigBee Compliant Wireless Sensor Network Platform  
Institution: CNIT – University of Bologna

**D13.** Ultra Wide Band Simulation Platform  
Institutions: CNIT, Supélec, Eurecom, Chalmers University

**D14.** Flexible MPSoC Radio Design by Programmable Hardware Abstraction and Configuration Management  
Institutions: Supélec, Technical University of Aachen

**D15.** Energy-Aware Cross-Layer Optimization in Multihop Communications - Institution: CNIT – University of Ferrara

**D16.** System-Level Simulator for Ad-Hoc Networks for the DQMAN and Multi-Relay Access Control Protocol  
Institutions: CTTC, Politecnico University of Catalunya

### 2. Poster Presentations

**P1.** Flexible Radio Systems - A.Zaloni, N.Dimitriou, A. Polydoros (Univ. of Athens), H.Bogucka (University of Poznan)

**P2.** 4x4 MIMO-OFDM Demonstrator for WiFi/WiMAX Systems  
X. Mestre, L. Ventura (CTTC), A.Pascual-Iserte, A. Perez-Neira (UPC)

**P3.** Analysis of Hybrid Acquisition Schemes for UWB Impulse Radio  
L. Reggiani (CNIT - Politecnico di Milano) and J. Fiorina (Supélec)

**P4.** Channel Division Multiple Access Technique  
R. De Lacerda, A. Menouni Hayar, M. Debbah (Eurecom), and C. Le Martret (Thales)

**P5.** Common Performance Metrics for Investigation of Cross-Layer Adaptivity in Heterogeneous Wireless Networks  
A. Bazzi, M. Lanaro, A. Conti (CNIT), and N. Dimitriou (University of Athens)

**P6.** Optimized Scheduling via Opportunistic Beamforming and Channel Quality Prediction  
M. Jordan, G. Ascheid, H. Meyr (Technical University of Aachen)

**P7.** Impact of Physical Layer Design on the Deployment of a Sensor Network with Correlated Observations  
M. Debbah (Eurecom) and A. Roumy (IRISA)

**P8.** Low-Complexity Iterative Decoding techniques  
G. Lechner, J. Sayir (FTW), I. Land (Aalborg University)

**P9.** Iterative Decoding of Entropy-Constrained Multiple-Description Trellis-Coded Quantization - M. H. Larsen (Aalborg University), C. Weidman (FTW), M. Kieffer (CNRS)

## REGISTRATION

On-line registration to the NEWCOM Dissemination Day is managed by the SEE (Société de l'Electricité, de l'Electronique et des Technologies de l'Information et de la Communications). To register, please go to one of the NEWCOM web sites (<http://newcom.ismb.it> and <https://dbkn.ismb.it>) and follow the instructions. The on-line registration form is accessible from the home pages of these web sites.

### Registration Fee:

The registration fee is 150 Euros (incl. VAT). This fee covers attendance to the technical program and includes the morning and afternoon coffee breaks as well as the lunch.

### Presenter Registrations:

Registration for presenters is complimentary. This applies to the NEWCOM Department and Project Heads giving an oral presentation in the morning, as well as to demo and poster presenters in the afternoon. The presenters are requested to register on-line like other attendees. On the on-line registration form, they should select "Complimentary Registration".

## CONTACT

**Ms. Valérie ALIDOR** - SEE

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E-mail: [valerie.alidor@see.asso.fr](mailto:valerie.alidor@see.asso.fr)

## HOTEL BOOKING

The SEE has negotiated special rates at a number of hotels conveniently located close to the venue. To benefit from these rates, please contact the SEE's travel agency:

**Voyages C.MATHEZ Viazur**

**Address : 124 Bis, avenue de Villiers 75017 PARIS - FRANCE**

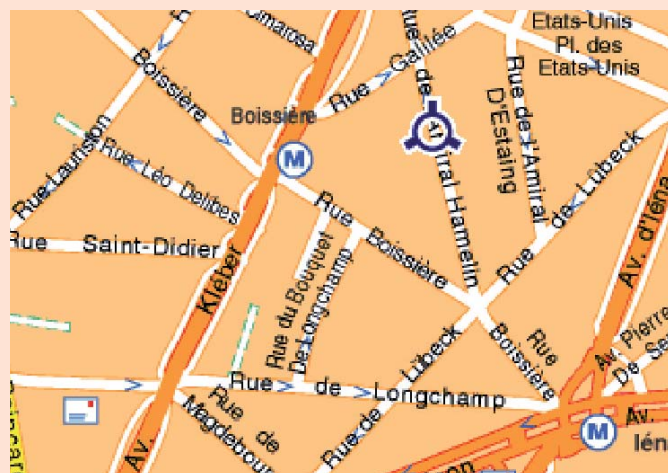
**Tel: +33 1 43 18 28 28**

**Fax: +33 1 43 18 28 29**

**E-mail: [celia.lorrain@mathez-viazur.com](mailto:celia.lorrain@mathez-viazur.com)**

Early booking is recommended, as the number of rooms is limited and will be confirmed on a first-come first-served basis.

## VENUE



### Metro stations :

- Trocadéro (Line 9)
- Léna (Line 9)
- Boissière (line 6)

### Bus :

- Lines 22 - 30 - 32 - 63 - 82

### Address :

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