



NEWCOM⁺⁺
WPS1 - Workshops and Conferences Activities
Year 1 Report (*January 1 - December 31, 2008*)

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Participating institutions: All

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Abstract: This yearly report addresses the main activities done over the period of January 31 - December 31, 2008, mainly concerning:

- Organization of major, already existing international conferences and workshops to be held in the participating countries.
- Organization of the special sessions within the framework of NEWCOM⁺⁺ during the major international conferences on the subject of wireless communications and related issues.
- Organization of specific annual NoE workshops that have to be coordinated in a uniform way throughout the life of the NoE.

Keyword list: Conferences, Special Sessions, Workshop
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SECTION 1 – INTRODUCTION

The main objectives of the work package WPS1- **Workshops and Conferences Activities** are as follows:

- Promote the NEWCOM involvement in the organization of major, already existing international conferences and workshops to be held in the participating countries.
- Organize special sessions within the framework of NEWCOM⁺⁺ during the major international conferences on the subject of wireless communications and related issues.
- Organize specific annual NoE workshops that have to be coordinated in a uniform way throughout the life of the NoE.

SECTION 2 – ACTIVITY DONE DURING THE FIRST YEAR

2.1 The following NEWCOM conference and workshop events were organized:

No NEWCOM conference or workshop was organized during 2008. Note that, such large events need at least one year of preparation; it is normal that after the first year this part is empty.

2.2 Special Sessions and workshops Organized by WPA

1. **NEWCOM⁺⁺ Special Session on “Flexible Radio Digital Design“**
Organized within the framework of WPRC at EUROMICRO DSD 2008 in Parma, 2008
Session Organizer: Dominique Noguet
2. **NEWCOM⁺⁺ special session on "Physical Layer security"** at PIMRC 2008
Session Organizer: Mérouane Debbah (Supélec), 16 September 2008.
Scope & Objective: The objective of this NEWCOM⁺⁺ special session was to host papers/presentation on recent advances on wireless physical layer security. Wireless physical layer security has attracted a lot of attention recently in the communication society due to recent breakthrough results with respect to broadcast channels.
3. **Name of the workshop:** RAS "Hot Topics" workshop
Date: 29 September 2008
Location: Brussels, Belgium
Duration: 1 day
Organizer: Jossy Sayir (Chairman and main organizer)
4. **Name of the workshop:** N⁺⁺ Physical Layer Security Course/workshop
Date: Wednesday 16th and Tuesday 17th of June 2008
Location: Université Catholique de Louvain, Place du Levant, 2 B-1348 Louvain la Neuve, Belgium
Organizers: Luc Vanderdorpe (UCL Louvain) and Mérouane Debbah (Supélec)
Number of attendees: around 25
Speakers: Prof. Vincent Poor (Princeton University), Prof. Hesham El Gamal (Ohio State University)
Number of attendees: around 25.

2.3 Conferences, Workshops and Special Sessions Planned

1. NEWCOM⁺⁺ ACoRN Joint Workshop

Date: March 30 – April 1, 2009.

Location: Barcelona, Spain

Duration: 3 days

General Chair: Ramon Agusti

Technical Program Chair: Andreas Polydoros

Information: The workshop web site is ready in its main parts at <http://www.newcom-acorn.org/naw09>. In particular, you will find there the Call for Papers and the procedure to submit papers. The Barcelona event will be a 3-day event in which the first day will be devoted to 4 half-day tutorials with free access, the second to the First Dissemination Day, and the third will be the workshop with papers presented by N⁺⁺, ACoRN and COST 2100 researchers.

2. IEEE Wireless Communications & Networking Conference (WCNC) 2009 Special Session NEWCOM⁺⁺ “Situation-Aware Communications”

Date: April 5-8, 2009.

Location: Budapest, Hungary

Duration: 4 days

Organizer: Andrea Conti, Jossy Sayir, Velio Tralli

Information: <http://www.ieee-wcnc.org>

This session aims to host research papers in the framework of the European network of excellence NEWCOM⁺⁺. You are invited to submit papers in all areas of wireless communications, networks, services, and applications. Potential topics are solicited in, but are not limited to, the following categories:

- ▶ context-aware communications
- ▶ adaptive modulation and coding
- ▶ ranging, localization and tracking
- ▶ feedback channels
- ▶ channel estimation
- ▶ MIMO, micro- and macro-diversity techniques
- ▶ iterative receivers
- ▶ scheduling for fading channels

3. International Workshop on Synergies in Communications and Localizations (SYCoLo 2009)

Date: June 18, 2009, in conjunction with [ICC 2009](#).

Location: Dresden, Germany

Duration: 1 day

Organizer: Marco Luise (WP.B)

Information: Within the framework of the WP.B, the participating partners have been involved in the preparation of the International Workshop on Synergies in Communications and Localization (SyCoLo) 2009. The workshop will take place in conjunction with ICC 2009, Dresden, Germany, on June 18, 2009.

The main objective of this workshop is to show how wireless communications and navigation/localization techniques can benefit from each other. With respect to these synergies the workshop aims at the following fundamental questions:

- How can navigation systems benefit from existing communications systems?
- How can communications systems benefit from positioning information of mobile terminals?

This Workshop, whose proposal was jointly generated by the EU Research Projects WHERE and NEWCOM⁺⁺, aims at inspiring the development of new position-aware procedures to enhance the efficiency of communication networks, and of new positioning algorithms based both on (outdoor or indoor) wireless communications and on satellite navigation systems. Original full papers submitted will be on the most recent results and technology trends in the fields of:

- Hybrid positioning using both wireless communications and satellite navigation systems;
- Resource management with positioning information;
- Location-aware PHY/MAC algorithms/procedures;
- Indoor positioning combined with short range communications;
- Signal Processing techniques for (seamless) indoor/outdoor localization.

The submission procedure is as described on the [ICC 2009 website](#). All papers will be included in the IEEE Xplore.

2.4 Proposals of several workshops and special sessions at cluster level on behalf of NEWCOM⁺⁺.

1. **Name of the Activity:** RAS special session at VTC '09 Spring, Barcelona
Co-organizer: Jossy Sair
Status: proposal
2. **Name of the Activity:** Pre-conference workshop on "Dynamic Spectrum Management in Cognitive Radio Networks" for ICT MobileSummit 2009.
Co-organizer: Jossy Sayir
Status: proposal
3. **Name of the Activity:** Pre-conference workshop on "Channel Coding and Cooperation in Wireless communications" for ICT MobileSummit 2009.
Co-organizer: Jossy Sayir
Status: proposal
4. **Name of the Activity:** Plenary Panel Session on "Spectrum without Boundaries" for ICT Mobile Summit 2009.
Main organizer: Jossy Sayir
Status: proposal

- 5. Name of the Activity:** Special Panel Session at CrownCom'09
Co-organizer: Jossy Sayir
Status: proposal

SECTION 3 - CONCLUSIONS

The activities foreseen for WPS1 seem to increase substantially in time after an initialization process in 2008. The work package is in good shape and the activities in the work package are going on the right track. One of the main and important activities of the work package is the organization of special NEWCOM++ Sessions at international conferences. All work package leaders should encourage their participating partners to organize at least one special session in such international conferences highlighting their joint research results.