

**Session on  
Wireless Digital Communications:  
Systems and Technologies**

**13 -16 February 2006  
Damascus - Syria**

**Welcome:**

The Arab School for Science and Technology (ASST) has the pleasure of inviting you to attend a session on '**Wireless Digital Communications: Systems & Technologies**' to be held from the 13<sup>th</sup> to the 16<sup>th</sup> of February 2006 in Damascus, Syria.

**Description**

The gain of this session is to explain the system design, and technologies of wireless systems.

This session is intended for systems engineers, hardware and software designers, R&D managers, and product planners who would like to gain an understanding of the principles, advantages, significant products and services, and current trends in the area of wireless systems.

During the session, participants could hear about the latest research results. The Wireless Digital Communications will features a track of executive and expert panels, where top experts and executives, mostly from industry operators, will discuss the current trends in wireless digital communications and give their vision on the evolution of this field.

The 4-day programme session will be covered by internationally renowned lecturers.

**Main Topics:**

- 1- Overview of Wireless Communications
- 2- Wireless Channel Characterization: Propagation, Modeling & Performance
- 3- Baseband transmission
- 4- Digital Modulation Techniques
- 5- Receiver Techniques
- 6- Channel Coding & Error Control
- 7- Software Radio Communications
- 8- Spread Spectrum Technology
- 9- Multicarrier Transmission
- 10- The Multiple Access Techniques

**Official languages:**

The official language of the session is **ENGLISH** and is used in all presentations, discussions, and printed materials.

**Lectures:**

About twenty two hours of lectures series form the basis of this workshop. Lectures are presented by prominent international experts who are available during the workshop to discuss other matters of interest with the participants.

**Participants:**

About 50 professionals who are actively involved in the field of wireless digital communication will attend every session of the seminar.

**Scientific Consultant:****Professor Hikmet Sari**

Head of Departement of Telecommunications

Ecole Supérieur d'Electricité (SUPÉLEC)

Plateau de Moulon, 3 Rue Joliot-Curie

F-91192 Gif sur Yvette

France

E-mail: [hikmet.sari@supelec.fr](mailto:hikmet.sari@supelec.fr)

**Scientific Committee:**

Mohammad Talal (Chair)	(SSRC)
Moheidin Wainakh	(HIAST)
Ghassan Chaddoud	(AECS)

**Lecturers:****Professor Marco Chiani**

DEIS, University of Bologna

V.le Risorgimento 2, 40136 Bologna

Italy

E-mail: [mchiani@deis.unibo.it](mailto:mchiani@deis.unibo.it)

**Professor Luc Vandendorpe**

Communications and Remote Sensing Lab.

Université Catholique de Louvain

Place du Levant, 2

B-1348 Louvain la Neuve

Belgium

E-mail: [vandendorpe@tele.ucl.ac.be](mailto:vandendorpe@tele.ucl.ac.be)

E-mail: [l.vandendorpe@ieee.org](mailto:l.vandendorpe@ieee.org)

**ASST Organizing Committee:**

Dr. Samer Rifai  
ASST Secretary General

Souraya Kanawati  
ASST Session Coordinator

Alia Kouatly  
Internal Relations Officer

Ramzi Rifai  
Public Relations Officer

Violet Kalemkerian  
Secretariat

Sahar Shalati  
Secretariat

## Programme Outline

### First Day: Monday 3 February 2006

08.30 - 09.00 Registration

09.00 - 09.30 Opening Ceremony  
Secretary General, ASST  
Scientific Committee Chair  
General Director, SSRC

09.30 - 10.30 Opening Lecture  
Prof. Hikmet Sari

10.30 - 11.00 Coffee Break

#### **11.00 - 12.30 Session 1**

Chairman: Dr. Mohammad Talal

11.00 - 12.30 Prof. Marco Chiani  
Overview of wireless communications

12.30 - 14.00 Lunch Break

#### **14.00 - 15.30 Session 2**

Chairman: Dr. Moheidin Wainakh

14.00 - 15.30 Prof. Marco Chiani  
Wireless channel characterization

15.30 - 16.00 Coffee Break

#### **16.00 - 17.30 Session 3**

Chairman: Prof. Hikmet Sari

16.00 - 17.30 Prof. Marco Chiani  
Multiple antenna systems

### Second Day: Tuesday 14 February 2006

#### **09.00-10.30 Session 4**

Chairman: Prof. Luc Vandendorpe

09.00 - 10.30 Prof. Marco Chiani  
Basedband transmission

10.30 - 11.00 Coffee Break

#### **11.00 - 12.30 Session 5**

Chairman: Prof. Luc Vandendorpe

11.00 - 12.30 Prof. Marco Chiani  
Basedband transmission

12.30 -14.00 Lunch Break

**14.00 -15.30 Session 6**

Chairman: Dr. Moheidin Wainakh

14.00 -15.30 Prof. Marco Chiani  
Channel coding and error control

15.30 -16.00 Coffee Break

**16.00 -18.30 Session 7**

Chairman: Dr. Moheidin Wainakh

16.00 -17.30 Prof. Marco Chiani  
Channel coding and error control

**Third Day: Wednesday 15 February 2006**

**09.00-10.30 Session 8**

Chairman: Dr. Mohammad Talal

09.00 - 10.30 Prof. Luc Vandendorpe  
Digital modulation techniques

10.30 -11.00 Coffee Break

**11.00 -12.30 Session 9**

Chairman: Dr. Mohammad Talal

11.00 -12.30 Prof. Luc Vandendorpe  
Digital modulation techniques

12.30-14.00 Lunch Break

**14.00 -15.30 Session 10**

Chairman: Prof. Hikmet Sari

14.00- 15.30 Prof. Luc Vandendorpe  
Receiver techniques

15.30 -16.00 Coffee Break

**16.00 -17.30 Session 11**

Chairman: Prof. Hikmet Sari

16.00 -17.30 Prof. Luc Vandendorpe  
Receiver techniques

## **Fourth Day: Thursday 16 February 2006**

### **09.00-10.30 Session 12**

Chairman: Dr. Mohammad Talal

09.00 - 10.30 Prof. Luc Vandendorpe

Spread spectrum

10.30 -11.00 Coffee Break

### **11.00 -12.30 Session 13**

Chairman: Dr. Moheidin Wainakh

11.00 -12.30 Prof. Luc Vandendorpe

Multicarrier transmission

12.30-14.00 Lunch Break

### **14.00 -15.30 Session 14**

Chairman: Prof. Luc Vandendorpe

14.00- 15.30 Prof. Hikmet Sari

Multiple access techniques

15.30 -16.00 Coffee Break

### **16.00 -17.30 Session 15**

Panel Discussion - Closing Session