

**MINUTES**  
**11th MCM and 3rd Workshop of COST 289**  
**12-14 July 2006**  
**Institute of Telecommunications, University of Aveiro**  
**Aveiro, Portugal**

**1. Opening**

The Chairman opened the meeting and welcomed the participants.

**2. Adoption of the agenda and the approval of the minutes of 10th MCM.**

The proposed agenda for the 11th MCM, given in Annex I, was adopted. The minutes of the 10th MCM was unanimously approved.

**3. Presentation by G. Cristea, COST Office, Brussels**

Miss Gabriela Cristea, from the COST Office in Brussels, gave a presentation on the new structure of COST and explained New Scientific and Technical Domains as per June 1<sup>st</sup> 2006. The details of this presentation is available in our web site ([http://cost289.ee.hacettepe.edu.tr/publications/Portugal\\_Cristea\\_01.ppt](http://cost289.ee.hacettepe.edu.tr/publications/Portugal_Cristea_01.ppt)).

She also presented the new procedure for open call for proposals for new COST Actions. The proposals following the open calls will undergo a transparent selection criteria published in the web ([www.cost.esf.org/opencall](http://www.cost.esf.org/opencall)) and a peer review process. The next open call is scheduled for March 2007.

This year, the annual review meeting for the COST Actions in the ICT (Information and Communication Technologies) Domain will take place in Helsinki during 21-22 November 2006 around the IST. Each Action chair will make a presentation summarizing their activities during the period of 1st July 2005-30th June 2006.

Miss Gabriela Cristea stated that the COST Action 289 has been granted a **revised budget of 136.000 €** for the period 2006-2007 for MCM, Workshop and Final Workshop, STSM, Publications and Secretariat. This will definitely give us more flexibility to realize our activities.

**4. Technical Reports and Contributions**

The 17 technical contributions and presentations were discussed during the two-days 3rd COST 289 Workshop. Three of these presentations were invited talks given by

- **Prof. Ramjee Prasad** from Aalborg University, Denmark; *System and Service Aspects of Personal Networks Beyond 3G*
- **Dr. Jorge Ferreira** from EU; *Challenges in Heterogeneous Wireless Networks: Networking Everyone and Everything - The Shock of Two Cultures*
- **Prof. H. Sari** from SUPELEC, France; *Multiple Access Techniques for the Uplink in Future Wireless Communication Systems* (co-authored by Cristina Ciochina and David Mottier)

The programme of this Workshop is given in Annex II. The copies of the presentations are available in the Action web site.

Prof. Mehmet Şafak presented a seminar reviewing the most recent developments on digital video broadcasting (DVB) and its implications on mobile communications. Prof. Safak gave an overview of the recent developments including DVB-T to fixed, portable and mobile devices, DVB-S2, DVB-H, interactive-capability in receivers, data broadcasting over IP-based networks, hybrid networks and multimedia home platform (MHP) to run software applications on all sorts

of terminal devices. He stated that the trends are such that mobile communications, digital broadcasting and Internet are converging.

## 5. Cooperation of research efforts and STSMs

The STSMs that have been accomplished during the 1 July 2005-30 June 2006 are as follows:

- **Wide Area Coverage for 4G:**  
**Host:** Prof. Joan Pijoan, Ramon Llull University, Barcelona, Spain  
**Visitors:**  
Pavol Pavelka (Technical University of Kosice, June 2006)  
Ali Behrevan (Chalmers University of Technology, 20 February 2006-12 March 2006)
- **Pervasive Access for 4G:**  
**Host:** Prof. Armin Wittneben, ETH Zurich, Switzerland  
**Visitor:** Doris Yacoub, (University of Ulm, 11 June 2006-17 June 2006)

It is decided that a researcher from University of Carlos III will visit University of Firenze on STSM during the third quarter of 2006.

## 6. Final Report, Final Workshop and New Action

Prof. Ramjee Prasad, who gave an invited talk in our 3rd Workshop, agreed to consider our suggestion to publish a part of the scientific annex of our final report in a special issue of Wireless Personal Communications (a Springer publication), of which he is the Editor-in-Chief. We are expected to submit this proposal to Prof. Prasad with the list of editors and of the submissions. The publication of these submissions is based on the approval by the Editorial Board of this journal.

This issue has been discussed during the MCM and the following decisions were taken:

- **The submissions of the manuscripts for the final Workshop resulting from the cooperative efforts between different institutions have priority.** These submissions may be the result of the contributions provided to the COST Action 289 during the last four years.
- The papers accepted for the Final Workshop will be considered for publication in the Scientific Annex to the Final Report, in the form of a book.
- A subset of the papers selected by the list of editors (TBD) amongst the papers accepted for the Final Workshop will be considered for publication in the special issue Wireless Personal Communications.
- In the meantime, a proposal may be submitted to the open call for new Actions, to be issued by COST Office in March 2007. The selection of the coordinator of this new Action, who will coordinate the editing efforts of the MoU, and other details may be discussed during the 12th MCM in Firenze in October 2006.

Typically, the titles of the contributions may be finalized during the 12th MCM in Firenze, the manuscripts may be submitted to the final Workshop in January 2007, and final manuscripts may be due to mid-February 2007. This schedule may enable early publication of the papers in the special issue of Wireless Communications and the application for a new COST Action in the earliest time frame.

## 7. Future meetings

- **12<sup>th</sup> MCM:** October 2006, Firenze, Italy. Host: Prof. R. Fantacci and Dr. F. Chiti (The exact date TBD)
- **13<sup>th</sup> MCM and Final Workshop:** March 2007, Switzerland. Host: Prof. S. Robert, University of Applied Sciences, Yverdon, Switzerland (tentative).

Note that the organization of a Final Workshop is mandatory for the ending Actions. The rapporteur of this Action, Prof. G. Brussaard and an external examiner is expected to attend the Final Workshop and give their evaluations about the success of the ending Action. The Final Workshop should thus be prepared with extreme care.

#### **8. Closing remarks and any other business**

The Chairman thanked Prof. A. Gameiro, his colleagues and the participants, listed in Annex III, for a very successful MCM and Workshop.

**Annex I:**

**11<sup>th</sup> Management Committee Meeting  
14th July 2006, Friday  
9:30 hours**

1. Opening
2. Adoption of the agenda and the approval of the minutes of 10th MCM.
3. G. Cristea, COST Office, Brussels, Presentation on COST
4. Technical reports and contributions
  - M. Safak, DVB-An Overview
5. Cooperation of research efforts and STSMs
6. Final Report, Final Workshop and New Action
7. Future meetings
8. Closing remarks and any other business

## Annex II:

# Programme of the 3<sup>rd</sup> COST289 Workshop 12-13 July 2006, Aveiro, Portugal

**Wednesday, 12th July 2006**

10:15 – 10:30 Opening Address

### Session 1: Short Range Systems and Techniques

Session Chair: **Prof. Dr. Ramjee Prasad, Aalborg University, Denmark**

10:30- 11:30 Ramjee Prasad  
System and Service Aspects of Personal Networks Beyond 3G (Invited Talk)

11:30- 12:00 Francesco Chiti, Romano Fantacci, Dania Marabissi and Luciano Innocenti  
Performance Analysis of a Novel Punctured Turbo Coding Scheme Suitable for TH-UWB Systems (not presented)

12:00-12:30 Zlatka Nikolova, Vladimir Poulkov, Georgi Iliev Stoyanov  
Narrowband Interference Cancellation in Multiband OFDM Systems

12:30-14:00 Lunch

### Session 2: Future Wireless Systems

Session Chair: **Dr. Jorge Pereira, CEC, Belgium**

14:00-15:00 Jorge Pereira  
Challenges in Heterogeneous Wireless Networks: Networking Everyone and Everything - The Shock of Two Cultures (Invited Talk)

15:00-15:30 Paulo Marques, Atílio Gameiro  
Opportunistic Use of UMTS TDD Spectrum

15:30-16:00 Jose Angel Rivas Cantero, M. Julia Fernandez-Getino Garcia  
Performance of Frequency Offset Synchronization in a Single and Multi-antenna IEEE 802.16-2004 System

16:00-16:30 Coffee Break

### Session 3: OFDM

Session Chair: **Prof. Dr. Arne Svensson, Chalmers University of Technology, Sweden**

16:30-17:00 Matthias Wetz, Werner G. Teich, Juergen Lindner  
PAPR Reduction Methods for Incoherent OFDM-MFSK

17:00-17:30 Etienne Auger, Carlo Mutti, Marc Kuhn, Armin Wittneben  
Multi-Stream Interference Cancellation for MIMO-OFDM Systems with Outdated Channel State Information

17:30-18:00 Stephan Sand, Christian Mensing, Armin Dammann  
Transfer Chart Analysis of Iterative OFDM Receivers with Data Aided Channel Estimation

**Thursday, 13th July 2006**

**Session 4: Multiple Access**

**Session Chair: Prof. Dr. H. Sari, SUPELEC, France**

09:00–10:00 Cristina Ciochina, David Mottier, Hikmet Sari  
Multiple Access Techniques for the Uplink in Future Wireless Communication Systems  
(Invited Talk)

10:00-10:30 Khairi Hamdi  
On the Channel Spacing of Random Access Wideband Channels

10:30-11:00 Georgios Psaltopoulos, Florian Troesch, Armin Wittneben  
On Achievable Rates of MIMO Systems with Nonlinear Receivers

11:00-11:30 Coffee break

**Session 5: Acquisition, Equalization**

**Session Chair: M. Julia Fernandez-Getino, University Carlos III, Madrid, Spain**

11:30-12:00 Ivan Perisa, Juergen Lindner  
Using Frequency-Offset Estimation Schemes for Acquisition

12:00-12:30 Cenk Toker, Semir Altinis  
Robust Channel Shortening Equalization

12:30-14:00 Lunch Break

**Session 6: Coding**

**Session Chair: Prof. Dr. Vasile Bota, Technical University of Cluj-Napoca, Romania**

14:00-14:30 Vasile Bota, Zsolt Polgar, Mihaly Varga  
Performance Evaluation of H-ARQ Adaptive Coded QAM Transmissions over Multipath  
Mobile Channels

14:30-15:00 Zsolt Polgar, Vasile Bota, Mihaly Varga  
Performance of LDPC-Error Detecting Concatenated Codes Used in Adaptive OFDM  
Transmissions

15:00-15:30 Dejan Vukobratovic, Vojin Senk, Dragana Bajic  
On the Overhead Factors of Optimized LDGM-Staircase and LDGM-Triangle FEC Codes

## Annex III:

### List of Participants

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