

Minutes
COST Action 289
13th Management Committee Meeting
13th April 2007
Chalmers University of Technology
Göteborg, Sweden

1. Opening

The Chairman opened the Management Committee Meeting (MCM) and welcomed the participants. The Chairman thanked the authors, the invited speakers and the host of the 4th and last COST 289 Workshop, which took place in Chalmers University of Technology during 11-12 April 2007. The schedule of the 4th COST 289 Workshop is given in Annex I.

2. Adoption of the agenda and the approval of the minutes of 12th MCM.

The proposed agenda for the 13th MCM, given in Annex II, was adopted. The minutes of the 12th MCM was unanimously approved.

3. Technical Reports and Contributions

3.1 COST289 4th Workshop

17 technical contributions and presentations, listed in Annex I, were discussed during the 4th COST289 Workshop. Workshop Proceedings was distributed to the participants as a CD and a hard-copy.

In addition, the following four very interesting invited presentations on different aspects of wireless communications were given:

- **Prof. Anna Brunstrom, Karlstad University, Sweden**
Reliable data transport in wireless networks
- **Dr. Henrik Sahlin, Ericsson AB, Mölndal, Sweden**
Mobile Broadband Technologies, where are we and where are we going?
- **Prof. Bernard H. Fleury, Aalborg University, Denmark**
Recent advances in radio channel characterization – The contribution from the NoE NEWCOM
- **Dr. Fredrik Florén, TeliaSonera AB, Malmö, Sweden**
Views on future wireless access from a Nordic and Baltic perspective

3.2. The 13th and the last MCM

During the MCM , April 13, 2007, the following presentations were given:

- **Prof. Arne Svensson**

Scientific Activities in Division of Communication Systems, Department of Signals and Systems of Chalmers University of Technology, summarized the recent research activities in Chalmers.

- **Prof. Mehmet Safak**

[Towards Cognitive Communications](#), A new COST Action proposal, summarized the technical aspects of this proposal, which is based on heterogeneous networks with improved capabilities via cognitivity and cross-layer designs.

The copies of all presentations are available in the Action web site.

4. Evaluation of the Workshop and the Action

The 13th MCM and the 4th COST 289 Workshop represent the final scientific activities of this Action. The Action rapporteur Mr. Hans Schmiedel and the external examiner Prof. Oßwald Ruger also attended the Workshop and the MCM. Therefore, it was considered appropriate to evaluate the Workshop and the Action in their presence.

These papers presented during the Workshop are the result of cooperation during four years between different institutions participating to the COST Action 289. It was noted that 10 out of these 17 papers represent the result of joint research between different institutions. This number may be considered as a measure of cooperation between the Action members. This cooperation was attributed to the successful use of the Short Term Scientific Mission program by sending young researchers for scientific visits to cooperating institutions.

The approach followed for encouraging and educating the young researchers was also considered as a positive part of the Action.

Based on the past experience, different ideas for increasing the cooperation and productivity of a COST Action were discussed. New schemes for cooperation between the participants are proposed.

5. Final Report

The final report of the Action will consist of three parts:

- An extended and up-dated version of the Annual Progress Reports, including a section on self-assessment.
- The Proceedings of the four Workshops organized during the four-year period, and
- The Special Issue (SI) of *Wireless Personal Communications*. This Springer Journal is one of the leading publications in wireless communications. Its editor-in-chief is Prof. Ramjee Prasad from Aalborg University, Denmark. A SI of this journal will be dedicated to publishing 13 papers (see Annex III) selected among the papers presented during the 4th COST289 Workshop.

6. Publishing in the Special Issue of *Wireless Personal Communications*

The thirteen papers among the papers presented during the Final Workshop are selected, based on the review results, by the editorial board, consisting of Prof. Hermann Rohling, Prof. Arne Svensson, Prof. Armin Wittneben and Prof. Mehmet Safak. These papers will be published in a SI of *Wireless Personal Communications*,

edited by Prof. Ramjee Prasad, from University of Aalborg, Denmark. These papers will be reviewed once more by the editorial board and the authors will be asked to improve the content and the presentation of their papers, if necessary. The authors and the editorial board will work in cooperation so as to submit these papers to the editor of Wireless Personal Communications before the end of June 2007. The SI is expected to be published in early 2008.

7. New COST Action

Prof. Safak gave a presentation about the highlights of a new COST Action proposal that he submitted to the COST Office.

These proposals will be assessed by the members of the Domain Committee on Information and Communication Technologies (DC-ICT) according to the COST guidelines for assessment of new COST Actions. By mid-May 2007, the results of the first elimination will be announced. The closing date for the submission of full proposals is 27th July 2007. Decisions are expected about the acceptance of full proposals in October 2007.

8. Closing remarks and any other business

The Chairman thanked Prof. Arne Svensson and his colleagues for their warm welcome, outstanding hospitality and successful organization of the 4th Workshop and the 13th MCM. The Chairman also thanked the participants, listed in Annex IV, for their cooperation, productive research efforts and the friendly atmosphere they created during the four years of the COST Action 289.

Annex I:

Schedule 4th COST289 workshop

April 11

- 09.00 Welcome, Mehmet Safak and Arne Svensson
- 09.30 **Reliable data transport in wireless networks**, Anna Brunstrom, Karlstad University (Invited)
- 10.30 **D-STAR MAC Protocol: a Cross Layer Solution for Wireless Sensor Networks Endowed with Directive Antennas**, Gianfranco Manes, Romano Fantacci, Francesco Chiti, Michele Ciabatti, Giovanni Collodi, Davide Di Palma, Ilaria Nelli, and Antonio Manes
- 11.00 Coffee and tea
- 11.30 **Adapting the Ranging Algorithm to the Positioning Technique in UWB Sensor Networks**, Luca Reggiani, Mats Rydström, Erik G. Ström and Arne Svensson
- 12.00 **Narrowband interference mitigation in UWB systems**, Miglen Ovtcharov, Georgi Iliev, and Vladimir Poulkov
- 12.30 Lunch
- 13.30 **Mobile Broadband Technologies, where are we and where are we going?** Henrik Sahlin, Ericsson AB (Invited)
- 14.30 **A Finite State Modeling for Adaptive Modulation in Wireless OFDMA Systems**, Dania Marabissi, Daniele Tarchi, Federico Genovese, and Romano Fantacci
- 15.00 **Adaptive Bit Loading and Transmit Diversity for Iterative OFDM Receivers**, Stephan Sand, Christian Mensing, Carlo Mutti, and Armin Wittneben
- 15.30 Coffee and tea
- 16.00 **Performances of the H-ARQ Adaptive-QAM Transmissions over Multipath Mobile Channels**, Vasile Bota, Zsolt A. Polgar, and Mihaly Varga
- 16.30 **Methods for compression of Feedback in Adaptive Multi-carrier 4G Schemes**, Víctor P. Gil Jiménez, Thomas Eriksson, Ana García Armada, M. Julia Fernández-Getino García, Tony Ottosson, and Arne Svensson
- 17.00 **Adaptive Code Allocation for Interference Exploitation on the Downlink of MC-CDMA Systems**, E. Alsusa and C. Masouros
- 17.30 **Uplink channel estimation for multi-user OFDM-based systems**, Carlos Ribeiro, M. Julia Fernández-Getino García, Víctor P. Gil Jiménez, Atilio Gameiro, and Ana García Armada

April 12

- 09.00 **Recent advances in radio channel characterization – The contribution from the NoE NEWCOM**, Bernard Fleury, Aalborg University (Invited)
- 10.00 **Effect of Carrier Frequency Offset on Channel Capacity in Multi User OFDM-FDMA Systems**, Martin Stemick and Hermann Rohling
- 10.30 **On the MIMO Channel Capacity Predicted by Kronecker and Müller Models**, Müge Karaman Çolakoğlu and Mehmet Şafak
- 11.00 Coffee and tea
- 11.30 **High Spectral Efficient and Flexible Next Generation Mobile Communications**, Simon Plass, Stephan Sand, Mikael Sternad, and Arne Svensson
- 12.00 **Robust Transmission over Fast Fading Channels on the Basis of**

- OFDM-MFSK**, Matthias Wetz, Ivan Periša, Werner G. Teich, and Jürgen Lindner
- 12.30 **Multi-user detection of nonlinearly distorted MC-CDMA symbols by microstatistic filtering**, J. Krajčák, M. Deumal, P. Pavelka, D. Kocur, J.L. Pijoan, and P. Galajda
- 13.00 Lunch
- 14.00 **Views on future wireless access from a Nordic and Baltic perspective**, Fredrik Florén, TeliaSonera AB (Invited)
- 15.00 **Coding Schemes for Crisscross Error Patterns**, Simon Plass, Gerd Richter, and A.J. Han Vinck
- 15.30 Coffee and tea
- 16.00 **Evaluation of performance improvement capabilities of PAPR-reducing methods**, Marc Deumal, Ali Behravan, Thomas Eriksson, and Joan Lluís Pijoan
- 16.30 **Joint modeling of the multipath radio channel and user-access method**, Zsolt A. Polgar, Vasile Bota, Mihaly Varga, Atilio Gameiro
- 19.00 Dinner

Annex II
Agenda of the 13th MCM
April 13, 2007

1.	Opening
2.	Adoption of the agenda and the approval of the minutes of 12th MCM
3.	Technical reports and contributions
4.	Evaluation of the 4th Workshop and the Action
5.	Final Report
6.	Publishing in Special Issue of Wireless Personal Communications
7.	New COST Action Application
8.	Closing remarks and any other business

Annex III

The list of papers which have been accepted for publication in the COST289 special issue in [Springer Journal on Wireless Personal Communications](#) :

Number	Paper title	Authors
101	Effect of Carrier Frequency Offset on Channel Capacity in Multi User OFDM-FDMA Systems	Martin Stemick and Hermann Rohling
102	D-STAR MAC Protocol: a Cross Layer Solution for Wireless Sensor Networks Endowed with Directive Antennas	Gianfranco Manes, Romano Fantacci, Francesco Chiti, Michele Ciabatti, Giovanni Collodi, Davide Di Palma, Ilaria Nelli, and Antonio Manes
103	Adapting the Ranging Algorithm to the Positioning Technique in UWB Sensor Networks	Luca Reggiani, Mats Rydström, Erik G. Ström and Arne Svensson
105	Coding Schemes for Crisscross Error Patterns	Simon Plass, Gerd Richter, and A.J. Han Vinck
106	Adaptive Bit Loading and Transmit Diversity for Iterative OFDM Receivers	Stephan Sand, Christian Mensing, Carlo Mutti and Armin Wittneben
108	Performances of the H-ARQ Adaptive-QAM over Multipath Mobile Channels	V.Bota, Zs. A. Polgar, M.Varga
109	High Spectral Efficient and Flexible Next Generation Mobile Communications	Simon Plass, Stephan Sand, Mikael Sternad, and Arne Svensson
110	On the MIMO Channel Capacity Predicted by Kronecker and Müller Models	Müge Karaman Çolakoğlu and Mehmet Şafak
112	Methods for compression of Feedback in Adaptive Multi-carrier 4G Schemes	Víctor P. Gil Jiménez, Thomas Eriksson, Ana García Armada, M. Julia Fernández-Getino García, Tony Ottosson, and Arne Svensson
113	Robust Transmission over Fast Fading Channels on the Basis of OFDM-MFSK	Matthias Wetz, Ivan Periša, Werner G. Teich, Jürgen Lindner
115	Uplink channel estimation for multi-user OFDM-based systems	Carlos Ribeiro, M. Julia Fernández-Getino García, Víctor P. Gil Jiménez, Atilio Gameiro, and Ana García Armada
116	Evaluation of performance improvement capabilities of PAPR-reducing methods	Marc Deumal, Ali Behravan, Thomas Eriksson, and Joan Lluís Pijoan

117	Multi-user detection of nonlinearly distorted MC-CDMA symbols by microstatistic filtering	J. Krajňák, M. Deumal, P. Pavelka, D. Kocur, J.L. Pijoan, P. Galajda
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Annex IV

List of Participants

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