

COST IC1102 (VISTA) and COST IC1004 Joint Workshop

"Terminal Antenna Systems for 4G and Beyond"

Ghent, Belgium, Sep 25, 2013

WORKSHOP PROGRAM

Introduction

- 09.00 - 09.10 *Welcome and Introduction (COST IC1102 and COST IC1004)*
Marta Martínez-Vázquez¹ and Buon Kiong Lau²
¹IMST, Kamp-Lintfort, Germany
²Department of Electrical and Information Technology, Lund University, Sweden

Session 1 – "Terminal Antenna Innovations in RF Circuits"
Chair: Cyril Luxey

- 09.10 - 09.50 *Innovate in a 4G World: RFIC Designers Discovering Antennas (Invited, COST IC1102)*
*Fred Giancesello
ST-Microelectronics, France
- 09.50 – 10.10 *Novel architecture for world-phones (COST IC1004/COST IC1102)*
*Samantha Caporal Del Barrio¹, Alexandru Tatomirescu¹, Mauro Pelosi¹ and Gert F. Pedersen¹, and Art Morris²
¹APNet, Department of Electronic Systems, Aalborg University, Denmark
²Wispry Inc. CA, USA
- 10.10 - 10.30 *Efficient Matching Circuit Design Promotes Terminal Antenna Development (COST IC1102)*
*Anu Lehtovuori¹ and Risto Valkonen^{1,2}
¹Department of Radio Science and Engineering, Aalto University, Finland
²Wireless Communications, University of Kiel, Germany
- 10.30 - 11.00 Coffee Break

Session 2 – "Terminal Antenna Design with Characteristic Modes"
Chair: Werner L. Schroeder

- 11.00 - 11.30 *Systematic design of MIMO antenna systems for wireless terminals using the relation between characteristic modes and radiation modes (COST IC1004)*
*Aleksander Krewski, Montaha Bouezzeddine, and Werner L. Schroeder
RheinMain University of Applied Sciences, Germany

11.30 - 11.50 *Novel Orthogonal MIMO Antennas for Mobile Handsets at Frequencies below 1 GHz (COST IC1004)*

*Zachary Miers, Hui Li, and Buon Kiong Lau

Department of Electrical and Information Technology, Lund University, Sweden

11.50 – 12.10 *Small Terminal Multi-Antenna System Based on Two Different Types of Non-Resonant Coupling Elements (COST IC1102)*

*Robert Martens¹, Jari Holopainen², Eugen Safin¹, and Dirk Manteuffel¹

¹Wireless Communications, University of Kiel, Germany

²Department of Radio Science and Engineering, Aalto University, Finland

12.10 – 13.10 Lunch

Session 3 – “Emerging Topics in Terminal Antenna Research”

Chair: Dirk Heberling

13.10 – 13.50 *Milimeterwave communications for 5G cellular networks (Invited, COST IC1102/COST IC1004)*

*Maziar Nekovee

Samsung Electronics R&D Institute, UK

13.50 – 14.10 *Feasibility Study of 4G Cellular Antennas for Eyewear Communicating Devices (COST IC1102)*

Aykut Cihangir¹, Will G. Whittow², Chinthana J. Panagamuwa², Fabien Ferrero¹, Gilles Jacquemod³, Frederic Giancesello⁴, and *Cyril Luxey³

¹CREMANT, Université Nice Sophia Antipolis, Valbonne, France

²School of Electronic, Electrical and Systems Engineering, Loughborough University, UK

³EPIB, Université Nice Sophia Antipolis, Valbonne, France

⁴STMicroelectronics, Crolles, France

14.10 – 14.30 *Performance Assessment of Vehicular MIMO Antennas based on Measured Channels of a Live LTE Network (COST IC1004)*

*Levent Ekiz¹, Adrian Posselt¹, Buon Kiong Lau², Oliver Klemp¹, and Christoph F. Mecklenbräuker³

¹BMW, Germany

²Department of Electrical and Information Technology, Lund University, Sweden

³Institute of Telecommunications, Vienna University of Technology, Austria

14.30 – 15.00 Coffee Break

Session 4 - “Performance Characterization & OTA Testing of Advanced Terminals”

Chair: Gert F. Pedersen

15.00 – 15.30 *Impact of Terminal Orientation on System Performance in an Indoor and in a Cellular Environment (COST IC1004)*

*Evangelos Mellios, Nidhi Bhargav, Di Kong, Geoffrey S. Hilton, Mark A. Beach, D. E. Simmons, and Andrew R. Nix

Centre for Communications Research, University of Bristol, UK

- 15.30 – 16.00 *Performance Test and Modelling of LTE Terminals in Two Limiting Environments (COST IC1102)*
Xiaoming Chen¹, Ahmed Hussain¹, Per-Simon Kildal¹, and *Jan Carlsson^{1,2}
¹Antenna Group, Signals and Systems, Chalmers University of Technology, Sweden
²SP Technical Research Institute of Sweden, Sweden
- 16.00 – 16.20 *Channel Emulation in a Flexible Multi-probe OTA Setup (COST IC1004)*
*Wei Fan¹, Istvan Szini^{1,2}, Jesper Ø. Nielsen¹, Gert F. Pedersen¹
¹APNet, Department of Electronic Systems, Aalborg University, Denmark
²Motorola Mobility Inc., USA
- 16.20 – 16.40 *Proposal and Verification of Single Cluster Solution for MIMO OTA in CTIA IL/IT Test (COST IC1004)*
*Xingfeng Wu¹, Zhi Cao¹, Fan Yang¹, Yujuan Ma², Chi Zhang², Lei Jin², and Zhihua Zhang²
¹Academy of Broadcasting Planning, Beijing, China
²HWA-TECH Co. Ltd, Beijing, China
- 16.40 – 17.00 *Closing Remarks*

NB. * indicates the presenter of the paper