

# TECHNICAL PROGRAM

MONDAY, 2 JULY 2007

## **09:00-10:00 Opening Ceremony (Plenary Hall)**

*Dr. János Kóka*, Minister of Economy and Transport

*Dr. Joao da Silva*, Director of Converged Networks and Services, representing the European Commission

*Prof. József Gyulai*, President, Section of Engineering Sciences, Hungarian Academy of Sciences

*Prof. István Frigyes*, General Chair of the Summit

## **10:00-11:00 Keynote Talk (Plenary Hall)**

Enabling Technologies for Broadband Wireless and Optical/Wireless Integration

*Prof. Stephen B. Weinstein*, Communication Theory and Technology Consulting LLC, USA

## **11:30-13:30 Special Session A1 (Hall A)**

### **North-American Special Session**

Organizer & Chair: *Witold A. Krzymien*, University of Alberta, Edmonton, Canada

A1.1 3D Mobile-to-mobile Channel Simulation

*A. G. Zajic, G. L. Stüber*, USA

A1.2 Precoder Quantization for MIMO OFDM Systems over Frequency Selective Channels

*Q. Li, C. N. Georghiades*, USA

A1.3 Autonomous Infrastructure Wireless Networks

*E. S. Sousa*, Canada

A1.4 Fair Scheduling and Antenna Selection Algorithms for Multiuser MIMO Orthogonal Space Division Multiplexing Downlink

*S. Sigde, W. A. Krzymien*, Canada

## **11:30-13:30 Oral Session B1 (Hall B)**

### **Spectrum Management, Share & Coexistence**

Chair: *László Pap*, Budapest University of Technology and Economics, Budapest, Hungary

B1.1 A Simulation Approach to a Robust Multi-radio Multi-channel Wireless Ad Hoc Network

*Jan Stemerding*; ITEA Easy Wireless, IST HIDENETS

B1.2 One-Shot Multi-Bid Auction Method in Dynamic Spectrum Allocation Networks

*László Kovács, Attila Vidács*; Hungary

B1.3 Spectrum Measurements supporting Reconfiguration in Heterogeneous Networks

*T. Renk, C. Kloeck, F. K. Jondral, P. Cordier, O. Holland, F. Negro*; E<sup>2</sup>R

B1.4 End-to-End Coexistence Tests in an Interworking UWB-UMTS Platform

*Jorge Hernández Pablo, Juan Chóliz Muniesa, Ignacio Alastruey Benedé, Miguel Gimeno Martín, Begoña Molinete Cuezva, Romeo Giuliano*; PULSERS

B1.5 Performance of Cooperative and Non-Cooperative Detect and Avoid Procedures for UWB

*Romeo Giuliano, Franco Mazzenga, Jorge Hernandez Pablo, Ignacio Alastruey Benedé*; PULSERS

B1.6 Business Models and Charging for Mobile Services in the Air Travel Value Chain

*Massimo De Sanctis, Markus Werner, Richard Walker, Vincent Boutroux, Margarita Patesti*; SMS

## 11:30-13:30 Oral Session C1 (Hall C)

### Location Based Services & Positioning

Chair: *Mathias Pätzold*, Agder University College, Grimstad, Norway

- C1.1 A New Low-Complexity User Tracking Algorithm for WLAN-Based Positioning Systems  
*Stefano Severi, Gianluigi Liva, Marco Chiani, Davide Dardari*; Italy
- C1.2 Distributed Spatial Database Management for Context Aware Computing Systems  
*Carsten Pils, Ioanna Roussaki, Maria Strimpakou*; DAIDALOS
- C1.3 A Novel TOA-based Indoor Tracking System over IEEE 802.11 Networks  
*M. Ciurana, F. Barcelo-Arroyo, S. Cugno*; LIAISON
- C1.4 RESOLUTION: Reconfigurable Systems for Mobile Local Communication and Positioning  
*Philippos Tragas, Antonis Kalis, Constantinos Papadias, Frank Ellinger, Ralf Eickhoff, Thomas Ussmuller, Ralf Mosshammer, Mario Huemer, Alexander Dabek, Dimosthenes, Doumenis, Anastassios Kounoudes*; RESOLUTION
- C1.5 Localization and Tracking for LDR-UWB Systems  
*Giuseppe Destino, Davide Macagnano, Giuseppe Abreu, Benoit Denis, Laurent Ouvry*; PULSERS
- C1.6 Comparative Statistical Analysis of New Adaptive Filtering Techniques for Precise Indoor Local Positioning  
*Haytham Qasem, Leonhard Reindl*; Germany

## **11:30-13:30 Oral Session D1 (Hall D)**

### **Broadband & Fixed Wireless Networks**

Chair: *Fiona Williams*, Ericsson, Herzogenrath, Germany

D1.1 FEC Performance Analysis for the under-11GHz 802.16 SC Specifications

*Nicolae Crisan, Ligia Cremene, Emanuel Puschita*; BROADWAN

D1.2 Security Requirements for IP over Satellite DVB Networks

*S. Iyengar, H. Cruickshank, P. Pillai, G. Fairhurst, L. Duquerroy*; SATNEX

D1.3 A Simple Blind CFO Estimation Algorithm for Multi-User OFDM System

*Tianpeng Ren, Eryang Zhang*; China

D1.4 Adaptive Power Allocation against Rain Fading in Satellite Fed BFWA Systems

*Gábor Szládek, János Bitó*; SATNEX

D1.5 Achieving Reliability via Multi-Homing and Path Redundancy in Multi-hop Wireless Networks for Internet Access in Rural Areas

*Luca Leschiutta, Giampietro Zicca, Frank Y. Li, Lorenzo Vandoni, Nikos Fragoulis*; ADHOCSYS

D1.6 The Effect of a Rapidly Changing Urban Environment on Nomadic WiMAX Performance

*Konstantinos G. Filis, Eleni D. Theodoropoulou, George L. Lyberopoulos*; Greece

## **14:30-16:30 Oral Session A2 (Hall A)**

### **Multiple Access Techniques**

Chair: *Mo Adda*, Portsmouth University, Portsmouth, UK

A2.1 Multi-user Frequency Domain Scheduling for WiMAX OFDMA

*Alexander A. Maltsev, Andrey V. Puduev, Alexander A. Maltsev Jr.*; MEMBRANE

A2.2 Performance Comparison of Energy-Efficient Power Control for CDMA and Multiuser UWB Networks

*Giacomo Bacci, Marco Luise, H. Vincent Poor*; NEWCOM

A2.3 Suppression of ISI Caused by Sampling Time Offset in IFDMA Systems

*Alexander Arkhipov, Michael Schnell*; 4MORE

A2.4 A Control Theoretical DAMA Algorithm in DVB-RCS Satellite Systems with QoS Support

*Gianfranco Santoro, Antonio Pietrabissa*; SATSIX

A2.5 A Low-Complexity Spreading-Code Allocation Strategy for Reduced-PAPR MC-CDMA Transmissions

*Filippo Giannetti, Vincenzo Lottici, Ivan Stupia, Luc Vanderdorpe*; NEWCOM

A2.6 B-IFDMA – A Power Efficient Multiple Access Scheme for Non-frequency-adaptive Transmission

*Tommy Svensson, Tobias Frank, David Falconer, Mikael Sternad, Elena Costa, Anja Klein*; WINNER

## **14:30-16:30 Oral Session B2 (Hall B)**

### **Multiuser Detection**

Chair: *Paul-Jean Etienne Jeszensky*, University of São Paulo, São Paulo SP, Brazil

- B2.1 Time Reversal Technique for Multi-user Wireless Communication with Single Tap Receiver  
*Hung Tuan Nguyen, Persefoni Kyritsi, Patrick C. F. Eggers*; Denmark
- B2.2 A Decentralized Optimization Approach to Backhaul-Constrained Distributed Antenna Systems  
*Patrick Marsch, Gerhard Fettweis*; Germany
- B2.3 An Iterative Multiuser Detection for LDPC Coded FFH/MFSK Systems  
*Szu-Lin Su, Her-Chang Tsai, Ye-Shun Shen*; Taiwan
- B2.4 Simplified Local Search Algorithm for Multiuser Detection in Multipath Rayleigh Channels  
*Leonardo D. de Oliveira, Taufik Abrao, Paul Jean E. Jeszensky*; Brazil
- B2.5 Performance Analysis of an Adaptive Two-Stage Partial PIC Receiver  
*Yu-Tao Hsieh, Yu-Tao Hsieh*; Taiwan
- B2.6 Emerging Directions in Wireless Location: Vista from the COMET Project  
*Francescantonio Della Rosa, Gianluca Simone, Phillippe Gerald Romain Laurent, Nurul Huda Mahmood, Radwan Charafeddine, Beatrice Pietrarca, Persefoni Kyritsi, Gian Paolo Perrucci, Nicola Marchetti, João Figueiras, Simone Frattasi*; COMET

## **14:30-16:30 Oral Session C2 (Hall C)**

### **Cognitive / Software Radio**

Chair: *Gyula Sallai*, Budapest University of Technology and Economics, Budapest, Hungary

C2.1 Nonlinear Distortion Cancellation using Particle Swarm Optimization (PSO) based Predistortion in OFDM systems

*Pedro Luis Carro, Paloma Garcia Ducar, Jesus de Mingo, Antonio Valdovinos; PULSERS*

C2.2 A Reconfigurable Baseband Transmitter for Adaptive Image Coding

*Amor Nafkha, Renaud Seguier, Jacques Palicot, Christophe Moy, Jean-Philippe Delahaye; E<sup>2</sup>R*

C2.3 Integrated Resource Management in Cognitive Radio

*Vuk Marojevic, Nemanja Vucevic, Xavier Revés, Antoni Gelonch; DURSI*

C2.4 Towards Cognitive B3G Networks: Autonomic Management of Access Points

*K. Demestichas, E. Adamopoulou, P. Demestichas, D. Boscovic, D. Bourse; E<sup>2</sup>R*

C2.5 Simulation-based Evaluation of Spectrum Opportunities in UMTS Cellular Networks

*Artur Pereira, Atilio Gameiro; ORACLE*

C2.6 Evolution in Equipment Management Concepts: from Reconfigurable to Cognitive Wireless Terminals

*V. Stavroulaki, P. Demestichas, A. Katidiotis, D. Petromanolakis; E<sup>2</sup>R*

## **14:30-16:30 Oral Session D2 (Hall D)**

### **UWB Techniques**

Chair: *Otto Koudelka*, TU Graz, Graz, Austria

D2.1 Clock Management in Ultra-wideband Ranging

*Bin Zhen, Huan-Bang Li, Ryuji Kohno*; Japan

D2.2 Impulse UWB Radio System Architecture for Body Area Networks

*Djordje Simić, Adalbert Jordan, Rui Tao, Norbert Gungl, Jasmina Simić, Marcus Lang, Luong van Ngo, Veselin Brankovic*; PULSERS

D2.3 UWB Car Attenuation Measurements

*Friedbert Berens, Hartmut Dunger, Sven Czarnecki, Thomas Bock, Ralf Reuter, Sven Zeisberg, Jens Weber, Joaquim Fortuny Guasch*; PULSERS

D2.4 The PULSER II View towards Very High Data Rate OFDM Based UWB Systems

*Friedbert Berens, Emil Dimitrov, Thomas Kaiser, Antti Anttonen, Amir Krause, Alexander Weir*; PULSERS

D2.5 Evaluation of UWB Interference on 3.5 GHz Fixed WiMax Terminal

*A. Rahim and S. Zeisberg*; PULSERS

D2.6 A LDR IR-UWB Demonstration Platform for Services based on Location and Tracking

*Manuel Pezzin, Benoît Denis, Régis Guillermin, Bernard Piaget*; PULSERS

## 14:30-16:30 Poster Session P1 (Poster Area)

### Applications & Services & Systems

Chair: *Avi Gal*, Gilat Satellite Network, Petach Tiqva, Israel

- P1.1 An Ontology-Based Multi-Protocol Service Discovery Framework  
*Silvano Mignanti, Vincenzo Suraci, Carmine Di Menna*; DAIDALOS
- P1.2 The Impact of Interactivity on Mobile Broadcasting Value Chains  
*Roman Högg, Robert Martignoni, Katarina Stanoevska-Slabeva*; C-MOBILE
- P1.3 New Applications for NFC Devices  
*Márton Csapodi, András Nagy*; MOBILSEC
- P1.4 Modeling Context Information for Realizing Simple Mobile Services  
*Gregor Broll, Heinrich Hußmann, George N. Prezerakos, Georgia Kapitsaki, Stefano Salsano*; SMS
- P1.5 Reconfigurable Wireless Communication Systems applying Distributed Decision-Making in a Heterogeneous Radio Environment  
*Markus Muck, Soodesh Buljore, Didier Bourse, Patricia Martigne*; E<sup>2</sup>R
- P1.6 Advanced Device self Management through Autonomics and Reconfigurability  
*Bernd Steinke, Klaus Strohmenger*; E<sup>2</sup>R
- P1.7 Feasibility of Face Animation on Mobile Phones for Deaf Users  
*Takács György, Tihanyi Attila, Bárdi Tamás, Feldhoffer Gergely*; Hungary
- P1.8 Communications and GNSS based Navigation: A Comparison of Current and Future Trends  
*Stephan Sand, Christian Mensing, Sireesha Ancha, Graham Bell*; GREAT
- P1.9 An Enhanced Adjacent Partitioning PTS Technique with Low Computational Complexity  
*Jae-Kwon Lee, Jeong-Sang Park, Jin-Up Kim*; Korea
- P1.10 A Framework for Adapting Services' Design and Execution to Privacy Regulations  
*Alexander De Luca, Giuseppe Tropea, Georgios V. Lioudakis, Eleftherios A. Koutsoloukas, Nikolaos L. Dellas, Fabio Testa, Markus Blanchebarbe*; DISCREET
- P1.11 Understanding Today's Mobile Users' Expectations of Tomorrow's Mobile Services  
*Roman Högg, Robert Martignoni, Katarina Stanoevska-Slabeva*; C-MOBILE
- P1.12 Strategic Policy Options on Spectrum Management for the Development of Mobile TV Market in Europe  
*Sergio Ramos, Antolín Moral, Arturo Vergara, Jorge Pérez*; Spain
- P1.13 SISTER: Service Information Scheduling and Transmission and Epg control – A new open source SW solution for local/regional operators

*Juan Ramón López Caravantes, Sergio Fernández, Carlos Ceacero; Spain*

- P1.14 Flexible QoS Provisioning for SIP Telephony over DVB-RCS Satellite Networks  
*Teemu Kärkkäinen, Jörg Ott; VIVALDI*
- P1.15 Dynamic Resource Calculation Algorithm in MF-TDMA Satellite Networks  
*Dionysia K. Petraki, Markos P. Anastasopoulos, Athanasios D. Panagopoulos, Panayotis G. Cottis; SATNEX*
- P1.16 SATSIX PROJECT: A First Approach to IPv6 over Satellite Networks  
*Raúl Muñoz Martínez, Miriam Catalán de Domingo, José Antonio Guerra Expósito; SATSIX*
- P1.17 On the Evaluation of Header Compression for VoIP Traffic over DVB-RCS  
*Gerasimos Dimitriadis, Niovi Pavlidou; VIVALDI*
- P1.18 Evaluation of CINR in Multiple HAP Constellations Considering Terrain Configuration  
*T. Celcer, M. Mohorcic, T. Javornik, G. Kandus; Capanina*
- P1.19 Optical Satellite Downlinks to Optical Ground Stations and High-Altitude Platforms  
*Dirk Giggenbach, Joachim Horwath, Bernhard Epple; Germany*
- P1.20 Optical Interplatform Links Scenarios for 20 km Altitude  
*Elias Katimertzoglou, Demosthenes Vouyioukas, Panagiotis Veltsistas, Philip Constantinou; Greece*
- P1.21 Dynamic Fair Power Sharing Admission Control for HAP-UMTS communication system  
*Pasquale Pace, Enrico Natalizio; Italy*
- P1.22 Performance Analysis of Adaptive Antennas in the Uplinks of WIMAX (802.16e) Systems  
*A. Şafak, I. Şafak; Turkey*
- P1.23 A Future-Proof Network Architecture  
*M. Johnsson, B. Ohlman, A. Surtees, R. Hancock, P. Schoo, K. Ahmed, F. Pittmann, R. Rembarz, M. Brunner; WWI Ambient Networks*
- P1.24 Management Strategies for Distributed Cross-Layer Reconfigurations in the Context of Cognitive, B3G Infrastructures  
*G. Dimitrakopoulos, K. Tsagkaris, E. Adamopoulou, K. Demestichas, P. Demestichas; E<sup>2</sup>R*
- P1.25 Physical Layer Performance of Long Term Evolution Cellular Technology  
*Juan J. Sánchez, D. Morales-Jiménez, G. Gómez, J. T. Enbrambasaguas; Spain*
- P1.26 Impact of Intra-LTE Handover with Forwarding on the User Connections  
*Lajos Bajzik, Péter Horváth, László Kőrössi, Csaba Vulkán; Hungary*
- P1.27 Test-bed Development & Measurement Plan for Evaluating Transmit Diversity in DVB Networks  
*Hamidreza Shirazi, Raffaele Di Bari, John Cosmas, Rajagopal Nilavalan, Yue Zhang, Maurice Bard, Jonathan Loo; PLUTO*
- P1.28 Ambient Networks Integrated Prototype Design and Implementation

*Cs. Simon, R. Rembarz, P. Pääkkönen, H. Perkuhn, C. Bento, N.Akhtar, R. Agüero, T. Katona, P. Kersch; WWI Ambient Networks*

P1.29 Automated Troubleshooting in WLAN Networks

*A. Samhat, R. Skehill, Z. Altman; Ireland*

P1.30 In-vivo Biomedical Application of Antennas

*Adam Cseh; Hungary*

**17:00-19:00 Plenary Session 1 (Plenary Hall)**

**B3G/4G: The Road Ahead**

Chair: *Dr. Stephan Scholz*, CTO of NSN

**TUESDAY, 3 JULY 2007**

**09:00-10:30 Plenary Session 2 (Plenary Hall)**

**Media in the New Internet Age**

Chair: *Bosco Fernandes*, NSN, Responsible of Industry Relationships

## **11:00-13:00 Special Session A3 (Hall A)**

### **ICT in Healthcare**

Organizer & chair: *Ryuji Kohno*, Yokohama National University, Yokohama, Japan

A3.1 Body Area Networks and its Standardization at IEEE 802.15.MBAN

*Huan-Bang Li, Kenichi Takizawa, Bin Zhen, and Ryuji Kohno*, Japan

A3.2 A Matrix Representation to Increase the Resolution of a Region of Interest (ROI) for Medical Images

*Reza Dilmaghani, Mohammad Ghavami*, UK

A3.3 Requirements and Application Scenarios for Body Area Networks

*Stefan Drude*, The Netherlands

A3.4 Advanced Wireless ICT Healthcare Research

*Matti Hamalainen, Zach Shelby*, Finland

A3.5 Channel Modeling and Signaling of Medical Implanted Communication Systems and a Step to Medical ICT

*Kazunari Tai, Hiroki Harada, Ryuji Kohno*, Japan

## **11:00-13:00 Oral Session B3 (Hall B)**

### **Satellite Systems**

Chair: *Erich Lutz*, German Aerospace Center, Oberpfaffenhofen, Germany

B3.1 Cross-Layer Rate Control of VoIP over DVB-S2/RCS

*M. Ángeles Vázquez Castro, D. Pradas Fernández, Catherine Morlet*; SATNEX

B3.2 Emergency Communications over Satellite: the WISECOM Approach

*Matteo Berioli, Nicolas Courville, Markus Werner*; WISECOM

B3.3 Aspects of Satellite Delivered Mobile TV (SDMB)

*B. G. Evans, P. T. Thompson*; SATNEX

B3.4 UNIC: A Novel Bi-directional Satellite-Based Platform to Provide TV-Centric Triple Play Services

*G. Boccolini, B. Garnier, J.-M. Merour, A. Brunelle, S. Titomanlio, D. Muster, V. Mignone, P.-O. Agné, M. Luise, G. Pala, J.-P. Bucau, M. A. Sasse*; UNIC

B3.5 Triple Play Services Delivery over a DVB-S2 Satellite Network

*Georgios Gardikis, Nikolaos Zotos, Anastasios Kourtis*; IMOSAN

B3.6 Secure Composite Satellite IP multicast architecture for heterogeneous groups

*H. Cruickshank, S. Iyengar, L. Fan, Z. Sun, J. A. Guerra, M. Mezzalla*; SATSIX

## **11:00-13:00 Oral Session C3 (Hall C)**

### **Modelling, Analysis & Simulation**

Chair: *Yi Qian*, University of Mayaguez, Mayaguez, Puerto Rico

- C3.1 Performance Analysis of IPsec in Mobile IPv6 Scenarios  
*Zoltán Faigl, Péter Fazekas, Stefan Lindskog, Anna Brunstrom*; NEWCOM
- C3.2 Bit Error Rate Calculation for OFDM Direct Conversion Receivers with Synchronization and Channel Estimation Imperfections  
*Marco Krondorf, Gerhard Fettweis*; ORACLE
- C3.3 An Analytical Optimization of CDMA Networks  
*Adam J. Pomianek, Piotr M. Slobodzian, Maciej J. Nawrocki*; Poland
- C3.4 WiMax Capacity Enhancements Introducing MIMO 2x2 Diversity and Spatial Multiplexing  
*C. F. Ball, E. Humburg, S. Eder, L. Lacinak*; Germany
- C3.5 Speech Quality Evaluation and Benchmarking in Cellular Mobile Networks  
*Oliver Nipp, Marc Kuhn, Armin Wittneben, Thomas Schweinhuber*; Switzerland
- C3.6 Towards a Coherent Framework for Automated RF Front-End Design Using Hardware Abstraction  
*Sabeur Lafi, Ammar B. Kouki, Jean Belzile, Adel Ghazel*; Tunisia

## **11:00-13:00 Oral Session D3 (Hall D)**

### **Future Broadband Wireless Communication**

Chair: *Werner Mohr*, Nokia Siemens Networks, Munich, Germany

D3.1 Sampling Time Offset Estimation for IFDMA Uplink Systems

*Alexander Arkhipov, Michael Schnell*; 4MORE

D3.2 Cooperative Infrastructure Relay System and its Capacity Analysis

*Yoonsun Kim, Hui Liu*; USA

D3.3 Echo Cancellation and Channel Estimation for On-Channel Repeaters in DVB-T/H Networks

*Karim M. Nasr, John Cosmas, Maurice Bard, Jeff Gledhill*; PLUTO

D3.4 4G Converged Environment: Modeling Network Selection as a Game

*Josephina Antoniou, Andreas Pitsillides*; C-MOBILE

D3.5 Multimedia Congestion Control for Broadband Wireless Networks

*Arjuna Sathiaseelan, Gorry Fairhurst*; SATSIX

D3.6 MULTINET: Enabler for Next Generation Pervasive Wireless Services

*O. Lazaro, A. Gonzalez, L. Aginako, T. Hof., F. Filali, R. Atkinson, S. de la Maza, P. Vaquero, B. Molina, J. O'Flaherty, R. Mazza*; MULTINET

## **14:00-16:00 Oral Session A4 (Hall A)**

### **Applications & Services/I**

Chair: *Markus Werner*, TriaGnoSys, Wessling, Germany

A4.1 Designing a Service Platform for B3G Environments

*Michail N. Masikos, Dimitrios G. Nikitopoulos, Dimitrios I. Axiotis, Michail E. Theologou;*  
MOTIVE

A4.2 Service Mobility – a Challenge for Semantic Support

*Josip Zoric, Njål Arne Gjermundshaug & Stian Alapnes;* SPICE

A4.3 Context-aware Data Dissemination and Service Adaptation

*Carsten Jacob, David Linner, Ilja Radusch, Stephan Steglich;* Germany

A4.4 Context-aware Service Discovery in Mobile Heterogeneous Environments

*N. Blefari-Melazzi, E. Casalicchio, S. Salsano;* SMS

A4.5 Design and XDI/XRI-based Implementation of a Profile Management Architecture for Next Generation Networks

*Giovanni Bartolomeo, Nicola Blefari Melazzi, Drummond Reed, Stefano Salsano;* E<sup>2</sup>R

A4.6 MOBILE PROBING KIT: User Centered Development of Personal Networks Services and Applications

*Jakob Eg Larsen, Lene Sørensen, Jannick K. Sørensen, Nette Schultz;* Magnet, Magnet Beyond



## **14:00-16:00 Oral Session B4 (Hall B)**

### **MIMO and Space-Time Techniques/I**

Chair: *Horst Bessai*, University of Siegen, Siegen, Germany

B4.1 On the Design of Minimum BER Linear MIMO Transceivers with Perfect or Partial Channel State Information;

*Luis G. Ordóñez, Alba Pagès-Zamora and, Javier Rodríguez Fonollosa*; SURFACE

B4.2 On Decoupling of Quasi-Orthogonal Space-Time Block Codes based on Inherent Structure

*Vasilios M. Kapinas, George K. Karagiannidis*; SATNEX II

B4.3 Combining Spatial Multiplexing and Transmit Diversity in SCFDE Systems in High-Mobility Environment

*Nicola Marchetti, Ernestina Cianca, Ramjee Prasad*; Denmark

B4.4 Performance of STBC Transmissions with Real Data

*José Antonio García-Naya, Tiago Fernández-Caramés, Héctor Pérez-Iglesias, Miguel González-López, Luis Castedo, David Ramírez, Ignacio Santamaría, Jesús Pérez-Arriaga, Javier Vía, José M. Torres-Royo*; FEDER

B4.5 Impact of Channel Estimation Errors on Various Spatial-Temporal Transmission Schemes

*Kai Yu, Angeliki Alexiou*; MEMBRANE

B4.6 Building an Experimental Infrastructure for B3G Testing Using an Event-based Distributed System

*George Kormentzas*; UNITE

## **14:00-16:00 Oral Session C4 (Hall C)**

### **Channel Estimation & Modelling/I**

Chair: *Gordon L. Stüber*, Georgia Tech, Atlanta GA, USA

- C4.1 Moment-Based Estimation of the Signal-to-Noise Ratio for Oversampled Narrowband Signals  
*Wilfried Gappmair, Markus Flohberger, Otto Koudelka; SATNEX*
- C4.2 Adaptive Pilot Signaling in the Uplink of OFDM-Based Wireless Systems  
*Cheong-Hwan Kim and Yong-Hwan Lee; Korea*
- C4.3 Synchronization of Large Carrier Frequency Offsets at Low Signal-to-Noise Ratios  
*Susanne Godtmann, Niels Hadaschik, Wolfgang Steinert, Gerd Ascheid, Heinrich Meyr; Germany*
- C4.4 Joint Detection and Channel Estimation for OFDM Signals with Implicit Pilots  
*Rui Dinis, Nuno Souto, João Silva, Atul Kumar, Américo Correia; C-MOBILE*
- C4.5 The Effect of Antenna Deployment in Outdoor to Indoor MIMO Measurements at 5.25 GHz  
*Veli-Matti Holappa, Mikko Alatossava, Juha Ylitalo; WINNER*
- C4.6 Rain Attenuation Time Series Generation on Terrestrial Microwave Links with General N-State Markov Model  
*Balázs Héder, János Bitó; SATNEX*

## **14:00-16:00 Oral Session D4 (Hall D)**

### **End-to-End Reconfiguration**

Chair *Avi Gal*, Gilat Satellite Network, Petach Tiqva, Israel

D4.1 A Framework for Dynamic Link and Network Layer Protocol Optimisation

*Nikos Georganopoulos, Tim Lewis; E<sup>2</sup>R*

D4.2 A Component based Reconfigurable Baseband Architecture

*Björn Mennenga, Jie Guo, Gerhard Fettweis; E<sup>2</sup>R*

D4.3 End-to-End Reconfigurability in Heterogeneous Wireless Systems – Software and Cognitive Radio Solutions enriched by Policy- and Context-based Decision Making

*Markus Muck, Didier Bourse, Klaus Moessner, Nancy Alonistioti, Panagiotis Demestichas, Eric Nicollet, Enrico Buracchini, David Bateman, Zachos Boufidis, Eleni Patouni, Vera Stavroulaki, Alessandro Trogolo, Paolo Goria; E<sup>2</sup>R*

D4.4 Dynamic Scalable Software Downloads for Mobile Terminal Mass-upgrades

*Oliver Holland, A. Hamid Aghvami; E<sup>2</sup>R*

D4.5 A Vertical Handover Architecture for End-to-End Service Optimization

*John Williams Floroiu, Marius Corici, Byoung-Joon Lee, Suwon Lee, Stefan Arbanowski, Thomas Magedanz; Germany*

D4.6 End-to-End Architecture for Cognitive Reconfigurable Wireless Networks

*Zachos Boufidis, Nancy Alonistioti, Rémi Feuillet, Oliver Holland, Jianming Pan, Klaus Moessner; E<sup>2</sup>R*

## 14:00-16:00 Poster Session P2 (Poster Area)

### Networks/I

Chair: *Sarolta Dibuz*, Ericsson Hungary, Budapest, Hungary

- P2.1 Context-Aware End-to-End QoS Architecture in Multi-technology, Multi-interface Environments  
*S. Sargento, V. Jesus, F. Sousa, F. Mitrano, T. Strauf, C. Schmoll, J. Gozdecki, G. Lemos, M. Almeida, D. Corujo*; DAIDALOS
- P2.2 Performance Issues for VoIP Call Routing in a Hybrid Ad hoc Office Environment  
*Marc Portoles-Comeras, Josep Manges-Bafalluy, Marc Cardenete-Suriol*; WIP
- P2.3 On-Board Link Layer Relay Mechanism to Enhance TCP in Satellite IP Networks  
*Zongyang Luo, Zhili Sun, Haitham Cruickshank*; EuroNGI
- P2.4 DiffServ-based Service-specific VCM in DVB-S2  
*Peter Maurutschek, Andreas Maier*; Austria
- P2.5 Mobility and QoS Support for a Commercial Mobile Grid in Akogrimo  
*Peter Racz, Juan E. Burgos, Nuno Inacio, Cristian Morariu, Vicente Olmedo, Victor Villagra, Rui L. Aguiar, Burkhard Stiller*; Akogrimo
- P2.6 Low-power SDRs through Cross-layer Control: Concepts at Work  
*A. Dejonghe, J. Declerck, F. Naessens, M. Glassée, A. Dusa, E. Umans, A. Ng, B. Bougard, G. Lenoir, J. Craninckx, L. Van der Perre*; NEWCOM
- P2.7 A Cross-Layer Two-Stage Scheduler for Wireless LANs  
*Andreas Könsen, Waldemar Herdt, Andreas Timm-Giel, Carmelita Görg*; xLAYER
- P2.8 Increasing the Throughput of Wireless Mesh Networks with Cooperative Techniques  
*Christian Ibars, Aitor del Coso, Yan Grunenberger, Fabrice Theoleyre, Franck Rousseau*; WIP
- P2.9 A Cross-Layer Solution for Dynamic Selection of Data-Rate in WLAN using Traffic Differentiation  
*S. Khan, S. A. Mahmud, H. S. Al-Raweshidy*; UK
- P2.10 Access Network Controlled Fast Handoff for Streaming Multimedia in WLAN  
*B. Jooris, A. Schoutteet, F. Vermeulen, I. Moerman*; Easy Wireless
- P2.11 High Gain Printed Ultra Wideband Antenna Concept  
*Veselin Brankovic, Adalbert Jordan, Djordje Simić, Jens Weber, Jagjit Bal*; PULSERS
- P2.12 Ultra-wideband Performance in a Dense Multipath Environment with Time and Spatial Diversity  
*Bruno Augusto Angélico, Paul Jean Etienne Jeszensky, Lisiane C. Heringer, Taufik Abrão*; Brasil

- P2.13 Overview of an UWB System for LDR-L/T in Industrial and Logistics Scenarios  
*H. Luediger, M. D. Perez Guirao, D. Cassioli, E. Stenzel*; PULSERS
- P2.14 Downlink based Intercell Time Synchronization using Maximum Likelihood Estimation  
*Markus Jordan, Martin Senst, Yang Cui, Gerd Ascheid, Heinrich Meyr*; Germany
- P2.15 Exploiting AMR-WB Audio Bandwidth Extension for Quality and Capacity Increase  
*R. Müllner, C. F. Ball, K. Ivanov, H. Winkler, R. Perl, K. Kremnitzer*; Germany
- P2.16 Cellular Network Performance Aspects of Monitoring End-to-End User Experience  
*D. I. Axiotis, C. Desiniotis, M. E. Theologou*; MOTIVE
- P2.17 Self-Adaptive Neighbor Discovery in Ad Hoc Networks with Directional Antennas  
*Xueli An, Ramin Hekmat*; ESENSE
- P2.18 Adaptive expanding search methods to improve AODV Protocol  
*David Espes, Zoubir Mammeri*; France
- P2.19 Localized Algorithms for Virtual Backbone Formation in Wireless Multi-hop Networks with Unidirectional Links  
*Yaoda Liu, Erling V. Matthiesen, Hans-Peter Schwefel*; HIDENETS
- P2.20 Strategies for Reducing Information Dissemination Overhead in Disconnected Networks  
*L. Bacsárdi, M. Bérces, E. Varga, T. Csvórics, V. Simon and S. Szabó*; BIONETS
- P2.21 A Dialogue-based MAC Protocol for Efficient Broadcasting in Ad Hoc Networks  
*Keigo Hasegawa, Takeo Fujii, Kenta Umabayashi, Yukihiro Kamiya, Yasuo Suzuki*; Japan
- P2.22 Content Adaptation for Virtual Office Environment Using Scalable Video Coding  
*C. T. E. R. Hewage, H. Kodikara Arachchi, T. Masterton, A. C. Yu, H. Uzuner, S. Dogan, A. M. Kondoz*; VISNET II
- P2.23 Enhancing Wireless Video Transmissions in Virtual Collaboration Environments  
*O. Abdul-Hameed, S. Nasir, H. Karim, T. Masterton, A. M. Kondoz*; VISNET II

## 16:30-18:30 Oral Session A5 (Hall A)

### Applications & Services/II

Chair: *Didier Bourse*, Motorola, Paris, France

A5.1 Introducing Anonymous Real-Time Mobile Community Services

*E. Adamopoulou, K. Demestichas, C. Dessiniotis, J. Markoulidakis, and M. Theologou;*  
MOTIVE

A5.2 A Dynamic Configurable Multimedia Processing Proxy for IPTV Services in Ambient Networks

*Muhammad Adnan Tariq, Markus Kampmann;* WWI Ambient Networks

A5.3 A Novel Method for Pre-Encoding Video Quality Prediction

*Harilaos Koumaras, Thomas Pliakas, Anastasios Kourtis;* ENTHRONE phase II

A5.4 Managing Personal Communication Environments in Next Generation Service Platforms

*Ralf Kernchen, Matthieu Boussard, Cristian Hesselman, Claudia Villalonga, Eric Clavier, Anna V. Zhdanova, Pablo Cesar;* SPICE

A5.5 Service Composition: State of the Art and Future Challenges

*G. Kapitsaki, D. A. Kateros, I. E. Foukarakis, G. N. Prezerakos, D. I. Kaklamani, I. S. Venieris;*  
SMS

A5.6 Enhancing Multiprotocol Service Discovery Framework in Pervasive Computing Networks

*Carmine Di Menna, Silvano Mignanti;* DAIDALOS

## **16:30-18:30 Oral Session B5 (Hall B)**

### **MIMO and Space-Time Techniques/II**

Chair: *Lajos Hanzó*, University of Southampton, Southampton, UK

B5.1 2D-Rake Receiver for the MIMO Channel: Some Generalizations

*V. Ya. Kontorovitch*; Mexico

B5.2 Beamforming in Chunk-based OFDM Systems

*Xiaojia Lu, Hui Xiao, Juha Ylitalo, Markku Juntti*; WINNER

B5.3 Adaptive Transmission with Partial Channel Information in Spatially Correlated MIMO Channels

*Jae-Yun Ko, Yong-Hwan Lee*; Korea

B5.4 Impact of SIB Scheduling on the Standby Battery Life of Mobile Devices in UMTS

*Amer Catovic, Mohit Narang, Ali Taha*; USA

B5.5 Amplify-and-Forward Scheme in Cooperative Spatial Multiplexing

*Andreas Darmawan, Sang W. Kim, Hiroyuki Morikawa*; Japan

B5.6 Optimization for MIMO Antenna System

*Andrea Farkasvölgyi, Lajos Nagy*; Hungary

## 16:30-18:30 Oral Session C5 (Hall C)

### Channel Estimation & Modelling/II

Chair: *Michel Bousquet*, SUPAERO, Toulouse, France,

C5.1 Effects of Noise Cut for Extraction of Wideband Channel Parameters

*Xiongwen Zhao, Juha Meinilä, Lassi Hentilä, Tommi Jämsä, Pekka Kyösti, Jukka-Pekka Nuutinen*; WINNER

C5.2 Attenuation Time Series Synthesis for Land Mobile Satellite Links

*László Csurgai-Horváth, János Bitó*; SATNEX

C5.2 438: Requirements for Indoor Building Databases to Increase the Accuracy of the Propagation Results

*René Wahl, Oliver Staebler, Marián Jurado Gallardo*; Germany

C5.3 361: Short Range Device (SRD) Propagation Modeling for Indoor Environment

*Lajos Nagy*; Hungary

C5.4 434: Prediction of Time Variant Spatial Channel Impulse Responses for Wireless Ad-hoc Networks

*René Wahl, Gerd Wölfle, Robert Weigel*; Germany

C5.5 402: Cluster-level Parameters at 5.25 GHz Indoor-to-outdoor and Outdoor-to-indoor MIMO Radio Channels

*Lassi Hentilä, Mikko Alatosava, Nicolai Czink, Pekka Kyösti*; WINNER

## 16:30-18:30 Oral Session D5 (Hall D)

### Security & Privacy

Chair: *Ryuji Kohno*, Yokohama National University, Yokohama, Japan

D5.1 Right Management Infrastructure for Home Content

*György Kálmán, Josef Noll*; Norway

D5.2 Traffic Masking in IPsec: Architecture and Implementation

*Csaba Kiraly, Giuseppe Bianchi, Fabrizio Formisano, Simone Teofili, Renato Lo Cigno*; DISCREET

D5.3 Randomly Shifted Certification Authority Authentication Protocol for MANETs

*G.A. Safdar, M. McLoone*; EPSRC

D5.4 Policy Driven Formation of Federations between Personal Networks

*Joachim Zeiss, Luis Sanchez, Sandford Bessler*; Magnet, Magnet Beyond

D5.5 P-DIBS: Pseudonymised DIstributed Billing System for Improved Privacy Protection

*Vincenzo Falletta, Simone Teofili, Saverio Proto, Giuseppe Bianchi*; DISCREET

D5.6 A Performance Comparison of Ontology Reasoning and Rule Engines

*Nikolaos L. Dellas, Eleftherios A. Koutsoloukas, Georgios V. Lioudakis, Dimitra I. Kaklamani, Iakovos S. Venieris*; DISCREET

## 16:30-18:30 Poster Session P3 (Poster Area)

### Physical and Access

Chair: *Sándor Imre*, Budapest University of Technology and Economics, Budapest, Hungary

- P3.1 Time-Frequency-Power Adaptive Interference Mitigation for Galileo L1 Band Receivers  
*Chiara Togni, Raffaella Pedone, Marco Villanti, Matteo Iubatti, and Giovanni E. Corazza*; GJU MAGIC
- P3.2 Ricean K-factor Measurements in a Home and an Office Environment in the 60 GHz Band  
*Ioannis Sarris, Andrew R. Nix*; ASTRALS
- P3.3 An Enhanced Adjacent Partitioning PTS Technique with Low Computational Complexity  
*Jae-Kwon Lee, Jeong-Sang Park, Jin-Up Kim*; Korea
- P3.4 Effects of Spectral Shaping on OFDM Transmission Performance in Nonlinear Channels  
*Shigeo NAKAJIMA*; Japan
- P3.5 An Iterative Peak-Power Reduction Method Applicable to OFDMA Systems for Broadband Wireless Communications  
*Shigeru Tomisato, Masaharu Nishizaki, Masaharu Hata, Hiromasa Fujii, Junichiro Hagiwara*; Japan
- P3.6 Space-Time Block Coded MIMO ZP-based OFDM Systems for Complex Input Signals  
*Jung-Lang Yu, Yin-Cheng Lin*; Taiwan
- P3.7 On Performance Limits of DFT Spread OFDM Systems  
*Muhammad Danish Nisar, Hans Nottensteiner, Thomas Hindelang*; Germany
- P3.8 Performance Evaluation of a Beam-Centric Adaptive Admission Control for WCDMA Cellular Networks with Smart Antennas  
*P. Gkonis, G. Tsoulos, D. I. Kaklamani*; Greece
- P3.9 Measurement-Based Detection of Interfering Neighbors for QoS in Wireless Mesh Networks  
*André Herms, Georg Lukas, Svilen Ivanov*; Germany
- P3.10 A Predictive Opportunistic Scheduler for 4G Wireless Systems  
*S. Sorrentino, U. Spagnolini*; Italy
- P3.11 Supporting M-QAM Hierarchical Constellations in HSDPA for MBMS Transmissions  
*Nuno Souto, João Silva, Rui Dinis, Américo Correia, Francisco Cerca*; C-MOBILE
- P3.12 Technical Analysis for Flexible Access Common Spectrum(FACS);  
*Taekjin Hwang, Sanggee Kang, Heonjin Hong*; Korea
- P3.13 Handover Control in MBMS Enabled 3G Mobile Cellular Networks

*Christophoros Christophorou, Andreas Pitsillides, Nicola Binucci; C-MOBILE*

P3.14 A Cost Function for Heterogeneous Networks Performance Evaluation Based on Different Perspectives;

*António Serrador, Luís M. Correia; AROMA*

P3.15 Novel Network Selection Algorithm for Various Wireless Network Interfaces

*Győző Gódor, Gábor Détári; Hungary*

P3.16 Cross-layer User Multiplexing Algorithms Evaluation in MIMO OFDM Wireless Systems

*J. Torres, V. Morillo-Velarde, B. Soret, M.C. Aguayo-Torres, J.T. Entrambasaguas; Spain*

P3.17 A Channel State Aware Uplink Bandwidth Allocation Algorithm for Wireless Networks

*Tao Chen, Imrich Chlamtac; Italy*

P3.18 Enhanced Methods for SIP based Session Mobility in a Converged Network; Karsten Oberle, Stefan Wahl, Arkadiusz Sitek; MUSE

P3.19 Service Discovery as a Key Element for Integrated Service Infrastructure Platforms

*Patrick Mandic, Vicente Olmedo, Juan E. Burgos, Antonio Cuevas, Juergen Jaehnert, Jose I. Moreno, Victor Villagra, Stefan Wesner; Akogrimo*

P3.20 Context-aware Semantic Service Discovery

*Vincenzo Suraci, Silvano Mignanti, Anna Aiuto; DAIDALOS*

P3.21 Blind SNR Estimation on WCDMA System with Unequal Power Signals and Without any Prior Knowledge

*Siavash Ghavami, Vahid Tabataba Vakili; Iran*

P3.22 Fixed WiMAX Field Trial Measurements and Analyses

*Ole Grøndalen, Pål Grønsund, Tor Breivik, Paal Engelstad; Norway*

P3.23 Access and Path Selection in Ambient Networks

*A. Gunnar, B. Ahlgren, O. Blume, L. Burness, P. Eardley, E. Hepworth, J. Sachs, A. Surtees; WWI Ambient Networks*

**WEDNESDAY, 4 JULY 2007,**

**09:00-10:30 Plenary Session 3 (Plenary Hall)**

**The Future Internet will be Mobile**

Chair: *Dr. Tom Rowbotham*, past CTO, BT Labs Worldwide

## **11:00-13:00 Oral Session A6 (Hall A)**

### **Applications & Business Models/I**

Chair: *Stefan Kaiser*, DoCoMo Euro-Labs, Munich, Germany

A6.1 Creating XML Based Scalable Multimodal Interfaces for Mobile Devices

*B. Tóth, G. Németh*; Hungary

A6.2 Business Models for Local Mobile Services Enabled by Convergent Online Charging

*Frank C. Bormann, Stephan Flake, Jürgen Tacke*; LOMS

A6.3 Advice of Charge in Telecommunication Services

*Bálint Ary, Dr. Sándor Imre*; Hungary

A6.4 Techno-Economic Analysis of the Open Broadband Access Network Wholesale Business Case

*J. C. Francis*; OBAN

A6.5 Expectations and Actual Satisfaction about Mobile Communication Terminals before and after Purchase;

*Jung Ji Bum*; Korea

A6.6 Cross-Case Analysis of the User Value Proposition for Next-Generation Mobile Service Platforms

*Michaël Van Bossuyt, Pieter Ballon, Luca Galli, Antonietta Spedalieri, Jordi Rovira*; SPICE

## 11:00-13:00 Oral Session B6 (Hall B)

### Radio Resource Management/I

Chair: *Ramjee Prasad*, Aalborg University, Aalborg, Denmark

B6.1 Revenue and Fairness Guaranteed Downlink Adaptive Power Allocation in WIMAX Access Networks

*Bo Rong, Yi Qian, Kejie Lu; USA*

B6.2 A Self-Adaptive, Utility-based Scheduling for Wireless Cellular Networks

*Mugdim Bublin, Dagmar Bosanska, Ondrej Hlinka, Peter Slanina; WINNER*

B6.3 A Resource Allocation Strategy for SDMA/OFDMA Systems

*Tarcisio F. Maciel, Anja Klein; Germany*

B6.4 Enhancing Packet Data Performance by Dynamic Half-Rate Allocation of Speech Services

*R. Müllner, C. F. Ball, K. Ivanov, H. Winkler, R. Perl, K. Kremnitzer; Germany*

B6.5 SIR Based Adaptive Subchannel Allocation in OFDMA Cellular System

*Shahid Khattak, Gerhard Fettweis, Pradeep Thanneeru, Ratnajit Bhattacharjee; Germany*

B6.6 An Efficient Joint Data Detection and Channel Estimation Technique for Uplink MC-CDMA Systems Based on SAGE Algorithm

*Erdal Panayircı, Hakan Dogan, Hakan A. Cirpan, Bernard H. Fleury; NEWCOM*

## 11:00-13:00 Oral Session C6 (Hall C)

### Ad-hoc Networks

Chair: *Fotini-Niovi Pavlidou*, Aristotle University of Thessaloniki, Thessaloniki, Greece

C6.1 A Fault and Mobility Tolerant Location Server for Large-scale Ad-hoc Networks

*Gareth Owen, Mo Adda*; UK

C6.2 An Abstraction Layer for Neighborhood Discovery and Cross-Layer Metrics

*Fehmi Ben Abdesslem, Luigi Iannone, Marcelo Dias de Amorim, Katia Obraczka, Ignacio Solis, Serge Fdida*; WIP

C6.3 Ubiquitous Access through the Integration of Mobile Ad-hoc Networks

*S. Sargento, R. Sarrô, R. Duarte, P. Stupar, F. Gallera, M. Natkaniec, J.P. Vilela, J. Barros*; DAIDALOS

C6.4 (NIAMac) Neighbor and Interference-Aware MAC Protocol for Wireless Ad Hoc Networks

*Sylwia Romaszko, Chris Blondia*; Belgium

C6.5 Field Division Routing

*Milenko Drinic, Darko Kirovski, Gang Qu, Lin Yuan, Miodrag Potkonjak*; USA

C6.6 An OLSR Extension to Deal with Predefined Groups

*Jérôme Lebegue, Christophe Bidan Thierry Plesse*; France

## 11:00-13:00 Oral Session D6 (Hall D)

### Adaptive Coding & Modulation

Chair: *Huan-Bang Li*, NICT, Yokohama, Japan

D6.1 Interleaving Strategies for Concatenated Zigzag Codes

*Gerhard Bauch, Katsutoshi Kusume*; Germany

D6.2 Frequency-Selective Link Adaptation using Duo-Binary Turbo Codes in OFDM Systems

*Stephan Pfletschinger, Adam Piatyszek, Stephan Stiglmayr*; WINNER

D6.3 Link Adaptation Strategies for Multi-Antenna Assisted WiMAX-like System

*Muhammad Imadur Rahman, Suvra Sekhar Das, Yuanye Wang, Flemming Bjerger Frederiksen, Ramjee Prasad*; Denmark

D6.4 A Hybrid ARQ Scheme using Packet Error Prediction on OFDM based HSDPA Systems

*Daewon Lee, Kyungsu Ko, Chang Hyun Nam, Hwang Soo Lee*; Korea

D6.5 Influence of Inter Carrier Interference on Link Adaptation Algorithms in OFDM Systems

*Suvra Sekhar Das, Muhammad Imadur Rahman, Yuanye Wang, Fleming B. Frederiksen, Ramjee Prasad*; Denmark

D6.6 Performance Analysis of Cross Layer Adaptation of Modulation and Coding in Slow, Flat Fading Channels

*Zoltán Katona, János Bitó*; SATNEX

## 11:00-13:00 Poster Session P4 (Poster Area)

### Techniques & Technologies

Chair: *Sven Zeisberg*, Technical University Dresden, Germany

- P4.1 On the Detection of OFDM Signals in the Presence of Strong Phase Noise  
*Stelios Stefanatos, Andreas Polydoros, Aggelos K. Katsaggelos*; Greece
- P4.2 Distributed Management in Ambient Networks  
*A. Gonzalez Prieto, R. Stadler, P. Kersch, R. Szabo, G. Nunzi, M. Brunner, S. Schuetz*; WWI Ambient Networks
- P4.3 Influence of Extraction Procedures on Estimated Wideband MIMO Channel Parameters  
*Milan Narandžić, Markus Landmann, Christian Schneider, Reiner S. Thomä*; WINNER
- P4.4 On the Relation Between Atmospheric Visibility and Optical Wave Attenuation  
*Martin Grábner, Václav Kvičera*; Czech Republic
- P4.5 Experimental Analysis of the MIMO Channel for In-door NLOS Multi-path Propagation  
*John F. An, We-Tin Liu, Jin-Vi Wan*; China
- P4.6 Performance Analysis of Orthogonal Transmit Diversity over Intra-cell Interference in WCDMA Downlinks  
*John F. An*; China
- P4.7 Cooperative Diversity using Soft Decision and Distributed Decoding  
*Younes Hairej, Andreas Darmawan, Hiroyuki Morikawa*; Japan
- P4.8 Adjacent-channel, Co-channel and Intersymbol Interference Suppression for Carrier Interferometry based One-cell Reuse Single-carrier TDMA Systems  
*Chantima Sritiapetch, Seiichi Sampei*; Japan
- P4.9 An Alternative Concept to Scanning Process for Cognitive Radio Systems: Technical and Regulatory Issues  
*Patricia Martigne, Klaus Moessner, Pascal Cordier, Sana Ben Jemaa, Paul Houzé, Ramon Agusti, Benoist Deschamps, Paul Bender, Lilian Jeanty, Didier Bourse*; E<sup>2</sup>R
- P4.10 Mobile Digital Baseband: From Configurable to Evolutive Platforms  
*Jérôme Martin, Fabien Clermidy*; E<sup>2</sup>R
- P4.11 Partial Reconfiguration of FPGAs for Dynamical Reconfiguration of a Software Radio Platform  
*Jean-Philippe Delahaye, Jacques Palicot, Christophe Moy, Pierre Leray*; E<sup>2</sup>R
- P4.12 A Ka-Band Distributed Voltage-Controlled Oscillator with Constant 15-dBm Output Power  
*Sheng-Fuh Chang, Muh-Dey Wei, Shuen-Chien Chang, Ting-Yuen Chih, Jen-Chieh Wu, Jia-Liang Chen*; Taiwan
- P4.13 A Hierarchical MDS-based Localization Algorithm for Wireless Sensor Networks

*Gwo-Jong Yu, Shao-Chun Wang; Taiwan*

- P4.14 Joint Detection and PN Timing Recovery for DS/CDMA Systems with Smart Antenna  
*Shang-Chun Tsai, Fang-Biau Ueng, Jun-Da Chen, Yen-Han Liao, Ye-Shun Shen; Taiwan*
- P4.15 Adaptive Beamforming with Structured Interference Covariance for Cellular Mobile Systems  
*Hyung-Rae Park, Young-Ho Yun, Chang-Joo Kim; Korea*
- P4.16 Digital Beamformer Antenna System  
*Levente Dudás, Péter Kovács, Árpád Drozdy, Rudolf Seller; Hungary*
- P4.17 Traffic Generation Platform in W-CDMA Networks  
*Nikolaos Chr. Papaoulakis, Maria Marchitti, Sofoklis Kyriazakos, Neeli Prasad; Greece*
- P4.18 Evaluation of VoIP in a Mobile Environment using an end-to-end Handoff Mechanism  
*John Fitzpatrick, Seán Murphy, Mohammed Atiquzzaman, John Murphy; Ireland*
- P4.19 A New Selection Metric for Backup Group Creation in Inter-vehicular Networks  
*Erling Vestergaard Matthiesen, Thibault Renier, Hans-Peter Schwefel; HIDENETS*
- P4.20 Support of Interactive QoS Based Services in Hybrid Broadcast and Mobile IPv6 Environment  
*I. Miloucheva, D. Wagner, J. Mödeker, R. Pascotto, K. Jonas; DAIDALOS*
- P4.21 Towards Self-Characterization of User Mobility Patterns  
*Mathias Boc, Anne Fladenmuller, Marcelo Dias de Amorim; WIP*
- P4.22 Radiation Characteristics of the Wire Antenna for Mobile Terminal Applications  
*Jeong I. Kim, Dongweon Yoon, Kyongkuk Cho, Man-Seok Sung, Woojin Jeong and Sang Kyu Park; Korea*
- P4.23 Increase in Transmitted Data Rate for Adaptively Selected OFDM Signals over a Fading Channel  
*Lei Wang, Dongweon Yoon, Sang Kyu Park, Kyongkuk Cho, Jeong I. Kim; Korea*
- P4.24 Efficient Subcarrier Allocation for Stable Services in Multi-user OFDM Systems  
*Jaeyoon Lee, Dongweon Yoon, Woo Jin Jeong, Kyunghwan Cha, Eunyoung Kim, Sang Kyu Park; Korea*
- P4.25 The Exact Error Probability Expression for Arbitrary Two-Dimensional Signaling over Nonlinear AWGN Channels  
*Jaeyoon Lee, Dongweon Yoon and Kyongkuk Cho; Korea*

## **14:00-16:00 Oral Session A7 (Hall A)**

### **Applications & Business Models/II**

Chair: *Cristoph Cordier*, Orange Ft Group, R&D Division, Issy les Moulineaux, France

A7.1 Compensation – Dynamic Charging and Billing Relationships in Next-Generation Business Environments

*George Huitema, Ralph Kühne, Ulrike Meyer, Johanneke Siljee, Alf Zugenmaier*; WWI Ambient Networks

A7.2 Business Aspects of PN Service Provisioning in Federated Mobile P2P Networking Environments

*Vasileios Kaldanis, Su-En Tan, Iwona Windekilde*; CRUISE, Magnet Beyond

A7.3 The Hybrid Java and XML-based MOBISERVE Rich Media Middleware for DVB IP Datacast

*Philipp Steckel, Marius Spika*; MOBISERVE

A7.4 Market-driven Regulation for Next Generation Ultra-wide-band Technology: Technical-economic Management of a 3G Cell with Coexisting UWB Devices

*Virgilio Rodriguez, Friedrich Jondral*; PULSERS II

A7.5 NFC Applications and Business Model of the Ecosystem

*B. Benyó, A. Vilmos, K. Kovacs, L. Kutor*; StoLPaN

A7.6 Throughput Improvement of Adaptive Modulation System with Optimal Turbo Coded V-BLAST Technique using a STD Scheme

*Intae Hwang*; Korea

## **14:00-16:00 Oral Session B7 (Hall B)**

### **Radio Resource Management/II**

Chair: *Albena Mihovska*, Aalborg University, Aalborg, Denmark

**B7.1 Multi-Cell Slots Allocation in OFDMA Systems**

*David Amzallag, Tomer Armarnik, Michael Livschitz, Danny Raz*; Israel

**B7.2 Policy-Based Mobility Management for Heterogeneous Networks**

*Albena Mihovska, Jijun Luo, Emilio Mino, Elias Tragos, Christian Mensing, Guillaume Vivier, Roberta Fracchia*; WINNER

**B7.3 Inter-cell Interference Management by Dynamic Channel Allocation, Scheduling and Smart Antennas**

*Mugdim Bublin, Iavor Kambourov, Peter Slanina, Dagmar Bosanska, Ondrej Hlinka, Ondrej Hrdlicka, Pavol Svac*; WINNER

**B7.4 Reconfigurable Base Station Processing and Resource Allocation**

*Wolfgang König, Klaus Nolte, Teck Kiong Lee, Raymond J. Jayabal, Frédéric Lafaye, Eric Nicollet*; E<sup>2</sup>R

**B7.5 Scheduling Performance of Multimedia Services over HSDPA**

*Frank Brouwer, Irene de Bruin, Neill Whillans, Yusun Fu, Youqian Xiao*; Easy Wireless, SEACORN

**B7.6 Asymmetric Traffic Accommodation Using Multihop Transmission in CDMA/FDD Cellular Systems**

*Kazuo Mori, Katsuhiko Naito, Hideo Kobayashi*; Japan

## **14:00-16:00 Oral Session C7 (Hall C)**

### **Heterogeneous Wireless Networking**

Chair: *Antonio Moreira*, Lisbon, Portugal

C7.1 Radio Access Technology Selection enabled by IEEE P1900.4

*J. Pérez-Romero, O. Sallent, R. Agustí, J. Nasreddine, M. Muck; E<sup>2</sup>R*

C7.2 A Study of Handover Strategies for Mobile Multiaccess Ambient Networks

*Daniel Hollos, Petteri Poyhonen, Ove Strandberg, Ramón Agüero, Kostas Pentikousis, Oliver Blume; WWI Ambient Networks*

C7.3 Generic Abstraction of Access Performance and Resources for Multi-Radio Access Management

*J. Sachs, R. Agüero, K. Daoud, J. Gebert, G.P.Koudouridis, F. Meago, M. Prytz, T. Rinta-aho, H. Tang; WWI Ambient Networks*

C7.4 A Fast and Heterogeneous Handover Architecture based on an extended EAP lower-layer

*Rafa Marin Lopez, Santiago Zapata Hernandez, Antonio F. Gomez Skarmeta; ENABLE*

C7.5 Ambient Network Attachment

*Teemu Rinta-aho, Rui Campos, András Méhes, Ulrike Meyer, Joachim Sachs, Göran Selander; WWI Ambient Networks*

C7.6 Network and Service Discovery in Heterogeneous Broadcast Environment

*Adrian John Hornsby, Irek Defee; PLUTO*

## **14:00-16:00 Oral Session D7 (Hall D)**

### **Relaying & User Cooperation**

Chair: *John An*, National Taiwan Ocean University, Keelung, Taiwan

- D7.1 Distributed Space-Time Block Coding with Incremental Relay: Performance Improvement under Imperfect Synchronisation  
*F.-C. Zheng, A. G. Burr, S. Olafsson*; UK
- D7.2 On the Performance of Two-Way Relaying with Multiple-Antenna Relay Stations  
*Timo Unger, Anja Klein*; Germany
- D7.3 Dynamic Resource Allocation in Relay Enhanced Cells based on WINNER System  
*Antonio Frediani, Simone Redana, Elena Costa, Antonio Capone, Ying Zhang*; WINNER
- D7.4 Cooperative Communications in Wireless Networks – A Requested Relaying Protocol  
*Tobias Renk, Clemens Kloeck, Dennis Burgkhardt, Friedrich K. Jondral*; E2R II
- D7.5 Extended REACT – Routing information Enhanced Algorithm for Cooperative Transmission  
*Michał Wódczak*; WINNER
- D7.6 On the Integration of Cooperative Relaying into the WINNER System Concept  
*Klaus Doppler, Afif Osseiran, Michał Wódczak, Peter Rost*; WINNER

## 14:00-16:00 Poster Session P5 (Poster Area)

### Networks/II

Chair: *Gerhard Bauch*, DoCoMo Euro-Labs, Munich, Germany

- P5.1 4MORE Uplink System Level Performance  
*M. Shateri, V. Monteiro, J. Rodriguez, A. Gameiro, R. Legouable, N. Ibrahim*; 4MORE
- P5.2 IEEE 802.11-based Wireless Mesh Network Testbed  
*Heecheol Song, Bong Chan Kim, Jae Young Lee, Hwang Soo Lee*; Korea
- P5.3 e-SENSE Protocol Stack Architecture for Wireless Sensor Networks  
*W. Schott, A. Gluhak, M. Presser, U. Hunkeler, R. Tafazolli*; ESENSE
- P5.4 Linear Transceive Filters for Relay Stations with Multiple Antennas in the Two-Way Relay Channel  
*Timo Unger, Anja Klein*; Germany
- P5.5 Quadruple Play – Session Management Enabler for Multimedia Streaming  
*Christian Riede, Adel Al-Hezmi, Thomas Magedanz*; C-MOBILE
- P5.6 IMS – MBMS Integration: Functional Analysis & Architectural Design  
*Madiha Zafar, Nigel Baker, Meir Fuchs, Justino Santos, Ahsan Ikram, Susana Sargento*; C-MOBILE
- P5.7 A faster Handover Mechanism using SIP  
*Fernando Jover, Gidon Reid, Xavier Jover*; UK
- P5.8 Inter-Network Routing in Ambient Networks  
*C. P. Botham, A. L. Burness, P. L. Eardley, A. Eriksson, M. Jimenez-Abelleira, L. Loyola, J. Rajahalme*; WWI Ambient Networks
- P5.9 An Application Controlled Handover for Heterogeneous Radio in Wired Wireless Integrated Networks  
*S. R. Chaudhry, H. S. Al-Raweshidy*; UK
- P5.10 A Protocol Enhancement for IEEE 802.11 Distributed Power Saving Mechanisms: No Data Acknowledgement  
*Xavier Pérez-Costa, Daniel Camps-Mur*; Germany
- P5.11 Home Agent and MSP Relocation in operational Mobile IPv6 networks  
*Wolfgang Fristiche, Michele La Monaca, Ivano Guardini, Elena Demaria*; ENABLE
- P5.12 Accessing the Internet through Moving Networks  
*Carlos J. Bernardos, Ignacio Soto, Santiago Zapata, Dirk v. Hugo, Susana Sargento*; DAIDALOS
- P5.13 Operator's RAT Selection Policies Based on the Fittingness Factor Concept

*O. Sallent, J. Pérez-Romero, R. Ljung, P. Karlsson, A. Barbaresi; AROMA*

P5.14 Migration Approach of the Ambient Control Space

*Nabil Charkani, Mirko Cano, Stein-Wegard Svaet, Martin Johnsson; WWI Ambient Networks*

P5.15 CPC-assisted Network Selection Strategy

*Yang Ji, Kui Zhang, Zhiyong Feng, Cheng Chi, Ping Zhang, Markus Muck; E<sup>2</sup>R*

P5.16 Towards a Multi-Access Prototype in Ambient Networks

*Ramón Agüero, Jens Gebert, Johnny Choque, Harald Eckhardt; WWI Ambient Networks*

P5.17 Cross-System Handover Execution in the context of an Event-based Distributed Virtual Testbed

*Nelson Ruivo, Anastasios Kikilis, Dimitrios Vassis, Dimitrios Loukatos, Lambros Sarakis, Angelos Rouskas, Georgios Kormentzas, Nicolas Ibrahim, Akis Kokkinis, Eliana Stavrou Savva; UNITE*

P5.18 A Performance Management architecture for QoS enabled heterogeneous networks

*Nikos Koutsouris, Krzysztof Loziak, Marek Sikora, Nuno Sénica, Efstathios Sykas; DAIDALOS*

P5.19 A Fuzzy-logic Approach to Edge-to-edge Multicast Admission Control

*Marco Castrucci, Emiliano Guainella; Italy*

P5.20 QoS Management of Multicast and Broadcast Services in Next Generation Networks

*Fabio Mitrano, Emiliano Guainella, Gabriele Tamea, Marco Castrucci, Alessandro Di Giorgio, Omar Benali, Nuno G. Ferreira, Susana Sargento; DAIDALOS*

P5.21 A Model of OFDM System in the Frequency Domain Based on Network Calculus

*Zeng Xian, Ji Yang, Xu Hai-bo, Zhang Ping; China*

**16:30-18:00 Special Panel Session 4 (Plenary Hall)**

**Near-Field Communication Techniques**

Chair: *András Vilmos*, SafePay Systems, Project manager of StoLPaN

## **16:30-18:00 Oral Session A8 (Hall A)**

### **Sensor Networks**

Chair: *Jelena Misic*, University of Manitoba, Winnipeg, Canada

A8.1 Proposition and Simulation of a Network Layer based Hard Real Time Protocol for Wireless Sensor Networks

*T. Qureshi, D. A. Zighed*; France

A8.2 DLNA-ZigBee Gateway Architecture and Energy Efficient Sensor Control for Home Networks

*Ryota Kawamoto, Takumi Emori, Shiro Sakata, Kazunori Furuhata, Kouhei Yuasa, Seiichiro Hara*; Japan

A8.3 SIP meets ZigBee

*Slobodanka Tomic, Petia Todorova*; CRUISE

A8.4 To Acknowledge or Not To Acknowledge: The Case of Interconnected 802.15.4 Clusters

*Jelena Misic*; Canada

A8.5 Secure Hierarchical Communications in Distributed Sensor Networks

*Tassos Dimitriou*; Greece

A8.6 Routing Design for UWB Sensor Networks in Industrial and Logistics Scenarios

*Samuela Persia, Dajana Cassioli*; PULSERS

## **16:30-18:00 Oral Session B8 (Hall B)**

### **Broadcast & Multicast Techniques**

Chair: *Tudor Palade*, Technical University of Cluj-Napoca, Cluj-Napoca, Romania

B8.1 End-to-end Scheduling Techniques for Mobile Broadcast and Multicast Services

*Michael Knappmeyer, Robin Chiang, Nigel Baker, Ralf Tönjes; C-MOBILE*

B8.2 Evaluation of Beamforming for Broadcast Applications in Single Frequency Networks

*Markus Jordan, Martin Senst, Gerd Ascheid, Heinrich Meyr; Germany*

B8.3 Reducing the Transmission Power Requirements of the Multimedia Broadcast/Multicast Service

*George Xylomenos, Vasilis Tsakanikas, George C. Polyzos; IST B-BONE*

B8.4 Downlink Beamforming and SINR Balancing for the Simultaneous Provision of Unicast/Multicast Services

*Yuri C. B. Silva, Anja Klein; Germany*

B8.5 AMUSE - A Platform for Prototyping Live Mobile TV Services

*Raimund Schatz, Siegfried Wagner, Andreas Berger; M2 AMUSE*

B8.6 Network Distribution of Digital Cinema Contents

*Dario Di Sorte, Mauro Femminella, Agnese Grasselli, Gianluca Reali; EDCINE*

## **16:30-18:00 Oral Session C8 (Hall C)**

### **Beyond 3G & 4G Systems**

Chair: *László Zombory*, Budapest University of Technology and Economics, Budapest, Hungary

- C8.1 An Admission Control Framework Integrating Radio and IP-Transport in 3GPP-based Networks  
*R. Ferrús, J. Olmos, O. Sallent, J. Pérez-Romero, F. Casadevall*; AROMA
- C8.2 Handover Performance in 3GPP Long Term Evolution (LTE) Systems  
*Andras Racz, Andras Temesvary, Norbert Reider*; Hungary
- C8.3 Validation Approach for End-to-End Reconfigurable Systems  
*Panagiotis Demestichas, George Dimitrakopoulos, Kostas Tsagkaris, Vera Stavroulaki*; E<sup>2</sup>R
- C8.4 Dynamic Advertisement and Discovery of Services in Future Networks  
*Di Zhou, Wang Yaning, Paulo Mendes, Carlos Pinho*; WWI Ambient Networks
- C8.5 Scalable and Hybrid Radio Resource Management for Future Wireless Networks  
*Emilio Mino, Jijun Luo, Elias Tragos, Alben Mihovska*; WINNER
- C8.6 The Reference Points of an Ambient Network  
*A. Schieder, P. Schoo, J. Gebert, D. Zhou, K. Balos, M. Cano*; WWI Ambient Networks

## **16:30-18:00 Oral Session D8 (Hall D)**

### **Antennas & RF Components**

Chair: *Lajos Nagy*, Budapest University of Technology and Economics, Budapest, Hungary

D8.1 A Low Complexity DDS IC for FM-UWB Applications

*Peter Nilsson, John F. M. Gerrits, Jiren Yuan*; Magnet and Magnet Beyond

D8.2 Cost-Optimised Active Receive Array Antenna for Mobile Satellite Terminals

*Oliver Lücke, Alberto Pellon, Pau Closas, Juan A. Fernandez-Rubio*; Germany

D8.3 Theoretical and Experimental Investigations of Adaptive Reactance Parasitic Antenna Array

*Alan Mainwaring, Alexey L. Umnov, Vladimir A. Filimonov, Ivan S. Shishalov, Maxim O. Shuralev*; USA

D8.4 MIMO Cube Formed of Slot Dipoles

*Ákos Németh, László Szücs, Lajos Nagy*; Hungary

D8.5 Radiation from Commercially Viable Antennas for PCMCIA Cards Housed in Laptops

*Jerzy Guterman, Yahya Rahmat-Samii, António A. Moreira, Custódio Peixeiro*; ACE

D8.6 A Simple Circularly Polarized Wave Antenna Using a Modified Transmission Line Antenna and Spiral Parasitic Element

*Kumon Yasunori*; Japan