**Workshop Venue**

The workshop will be held on the KIT South Campus in Karlsruhe, in the Messtechnik Lecture Hall (MTI), Building 30.33 (in German: Messtechnik Hörsaal (MTI), Gebäude 30.33, Fritz-Haber-Weg 1).

**By car:** Leave the Autobahn A5 at the exit Karlsruhe-Durlach in direction to Karlsruhe. Drive straight ahead. Do not follow the signs "Innenstadt" (Downtown), but follow the signs "Universität". Thus you will reach the University **Main Entrance**, coming from the Adenauerring. The porter will provide you a parking permission for the campus.

**By train:** From Karlsruhe Central Railway Station take city railway S4 or S41 or streetcar (lines 2 or 3), which are all departing from the central station in an eastward direction. Exit at the stop "Kronenplatz / KIT Campus Süd". The workshop venue is within five minutes walking distance from that stop.

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**Date:**

March 3 - 4, 2010

**Venue:**

Karlsruhe Institute of Technology
South Campus, MTI Lecture Hall,
Fritz-Haber-Weg 1, 76131 Karlsruhe

For **registration** and further information (e.g. hotels), please visit [www.cel.kit.edu](http://www.cel.kit.edu)

**Registration fee:** 110.- €

The registration fee includes

- Admission to sessions
- Proceedings on CD-ROM
- Proceedings as hard copy
- Social event on March 3, 2010

For detailed information about ITG-FA 7.2, please visit [http://www.tu-ilmenau.de/itg_fa7_2](http://www.tu-ilmenau.de/itg_fa7_2)
Wednesday, March 3, 2010

9.00 h Opening and Introduction
F. Jondral

Session 1: Advances in Signal Processing for Cognitive Radio - NEWCom++ Results
9.15 h Hardware Optimized Sample Rate Conversion for Software Defined Radio
C. Schmidt-Knorreck (Institute Eurecom, France) et al.
9.40 h A new CORDIC architecture based on R-LFSR common operator in a Software Radio context
H. Wang (Supélec, Campus de Rennes, France) et al.
10.05 h On decision making for dynamic configuration adaptation problem in cognitive radio equipments: a multi-armed bandit based approach
W. Jouini (Supélec, Campus de Rennes, France) et al.
10.30 h Middleware Extension for Partial Reconfiguration Management in Cognitive Radios
I. Gomez (Polytechnic University of Catalonia, Spain), et al.
10.55 h SDR4all: Software Defined Radio Made Easy
L. S. Cardoso (Supélec, Campus de Rennes, France) et al.
11.10 h Adaptive coded CPM systems: spectral efficiency and complexity evaluation
A. Perotti (Politecnico di Torino, Italy) et al.
11.35 h Adaptive Modulation Systems Subject to Interference
L. Toni (University of Ferrara, Italy) et al.
12.00 h Lunch Break

Session 2: Hardware
13.30 h "Flexnet" – the SCA compliant Radio System
M. Kracht (Thales Defence Deutschland GmbH, Germany)
13.55 h Overview of a Radio Front-End Architecture for tactical SDR
S. Baumert (Thales Defence Deutschland GmbH, Germany)
14.20 h Wideband Receiver for a Spaceborne Software Radio Application
F. Massaro (LuxSpace Sàrl, Luxembourg) et al.
14.45 h A/D Conversion for Software Defined Radio
F. Qazi (Linköping University, Sweden)
15.10 h Coffee Break

Session 3: GNU Radio Implementations
15.30 h Setup and Characterization of a Flexible Low-Cost 2x2 MIMO Testbed Based on USRP2
C. Thein (Leibniz University of Hannover, Germany) et al.
15.55 h IEEE 802.11p Transmission Using GNURadio
P. Fuxjäger (Forschungszentrum Telekommunikation Wien, Austria) et al.
16.20 h RDS-TMC Spoofing using GNU Radio
D. Symeonidis (European Commission – Joint Research Centre, Italy)
16.45 h A Real-Time, Fully-Software Receiver for DVB-T Signals based on the USRP
V. Pellegrini (University of Pisa, Italy) et al.
17.10 h Denial of Service Prevention for SDR
B. Kaur (Copenhagen University College of Engineering & Aalborg University, Denmark) et al.
19.00 h Social Event
Heinrich Hertz House on the KIT South Campus

Thursday, March 4, 2010

Session 4: Scheduling and Partitioning
8.30 h Latency Estimation due to Middleware Used in Software Defined Radio Platforms
G. Abgrall (Université de Bretagne-Sud, France) et al.
8.55 h Thresholding for Optimal Data Processing in a Software Defined Radio Framework
M. L. Dickens (University of Notre Dame, USA) et al.
9.20 h Integrating Schedulability Analysis in DSP baseband processing design process for SDR equipments
N. T. Moyo (Thales Communications S.A, France) et al.
9.45 h Fine-grain partitioning and implementation of a DAB SDR receiver on a FPGA-DSP Platform
M. Ihmig (BMW Research and Technology, Germany) et al.
10.10 h Coffee Break

Session 5: Applications I
10.40 h DVB-T2 – A Software Defined Radio Implementation
A. Viessmann (University of Duisburg-Essen, Germany) et al.
11.05 h Cognitive Professional Audio Industry: a Step Forward
M. D. Perez-Guirao (Leibniz University of Hannover, Germany) et al.
11.30 h Analysis of clock distribution and delay measurements for multi-hop remote radio applications
C. F. Lanzoni (DTU Fotonik, Denmark) et al.
11.55 h Multi Core Performance of a Block Syndrome Decoder for Convolutional Codes
B. Kaur (Copenhagen University College of Engineering & Aalborg University, Denmark) et al.
12.20 h Lunch Break

Session 6: Applications II
14.00 h Using Bottleneck-aware Routing to Improve End-to-End Bottleneck Capacity for Heterogeneous Ad Hoc Networks
B. Han (University of York, United Kingdom) et al.
14.25 h Enabling Glue Code Generation in a Library Based Waveform Development
V. Ramakrishnan (RWTH Aachen University, Germany) et al.
14.50 h Coffee Break

Session 7: Spectrum Sensing and Resource Allocation
15.10 h Eigenspace Approach to Specific Emitter Identification
P. H. Sahmel (Virginia Polytechnic Institute and State University, USA)
15.35 h An Efficient Algorithm for Multi-Channel, Multi-Antenna Resource Allocation
C. I. Phelps (Virginia Polytechnic Institute and State University, USA) et al.
16.00 h Generic Coexistence Method Applied between IEEE 802.16 and IEEE 802.11 based Wireless Networks
M. M. Siddique (University of Bremen, Germany) et al.
16.25 h A Monitoring Network for Spectrum Governance Applications
R. Schiphorst (University of Twente, the Netherlands) et al.
16.50 h Farewell Address