

Advanced Microsystems for Automotive Applications

Smart Systems for Green Cars and Safe Mobility

10 -11 May 2010, Harnack House, Berlin, Germany

Agenda

Scope

The automobile of the future has to meet two primary requirements: the super-efficient use of energy and power and the ultra-safe transportation of people and goods. Both features are growingly enabled by smart, adaptive and context aware ICT components and systems rather than by the mechanical means of classic automotive engineering alone. The most advanced case of this trend is the electrified vehicle combining a full electric power train with completely electronic controls like smart power and energy managers, steer by wire technologies and intelligent networking capabilities. It can be foreseen that beyond being beneficial for climate protection the electrified vehicle will contribute to a further reduction of road accidents and traffic deaths. Moreover, it will revolutionize the way a car is manufactured: the change of engineering focus from mechanics to information technology will make it easier than ever before to deliver cars individually configured to customer demands. It has been the mission of the International Forum on Advanced Microsystems for Automotive Applications (AMAA) for more than twelve years now to detect paradigm shifts like these and to discuss the technological implications from early on. Therefore, the topic of the AMAA 2010 will be "Smart Systems for Green Cars and Safe Mobility".

More than 50 papers addressing ongoing research and novel developments in the field of ICT components and systems for the automobile and road transport of the future have been selected for presentation at the AMAA 2010 and will be published in the Springer book.

Topics

Electrified Vehicles • Road and Passenger Safety

Driver Assistance • Traffic Management

Power Train Efficiency

Venue

Harnack House
 Ihnestr. 16-20
 14195 Berlin, Germany
www.harnackhaus-berlin.mpg.de
 Subway: U3 Thielplatz

Located in the noble neighbourhood of Dahlem and close to numerous renowned academic institutions the prestigious Harnack House has been the favourite venue for international conferences and exclusive meetings of the scientific elite since the 1920s.

Exhibitor Information

Promote your company at AMAA 2010 through sponsorship and visibility at the exhibition.

The exhibition is an integral part of the conference and will be located in the get-together area. Product demonstrators and information material may be exposed. The parking lot in front of the conference venue will serve as an exclusive exhibition ground.

Matchmaking Service

To support bilateral interaction a pre-arranged meeting service will be offered at the AMAA 2010. Interested participants will have the opportunity to identify potential partners for collaboration and business during the conference. Meetings will take place in a quiet lounge area. The formation of consortia for European FP7 projects, particularly for the European Green Cars Initiative will be facilitated.

Conference Chairs

Dr. Gereon Meyer & Dr. Jürgen Valldorf

Organisers

VDIIVDE Innovation + Technik GmbH
 European Technology Platform on Smart Systems
 Integration (EPOSS)

2010

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AMAA 2010

Monday, May 10, 2010

- 9:00 - 10:30 **Opening Session**
Chairman: Werner Wilke, VDI/VDE-IT
Research and Development for Electromobility in Germany
Ulrich Katzenkamp / Federal Ministry of Education and Research (D)
ICT for the Fully Electric Vehicle
Augusto de Albuquerque / DG Info (EC)
Electric Vehicles: R&D, Innovation, Deployment
Gonzalo Hennequet / Renault (F)
- 10:30 - 11:00 **Coffee Break I Exhibition and Demonstrations**
- 11:00 - 12:30 **Session A: Electrified Vehicles**
Chairman: Günter Lugert, Siemens AG (D)
Embedded Systems: The Migration From ICE Vehicles to EV
Marco Otella / Fiat Research Center (I)
Alternator - Capacitor Load System
Ludwig Brabetz / Universität Kassel (D)
Inverter Losses Reduction Control Techniques for Plug-In HEV and FEV Traction Drive
Ferdinando Mapelli / Politecnico di Milano (I)
Smart Power Control and Architecture for an Efficient Vehicle
Green Combustion Cars Drive on Electric (BLDC) Motors
Dirk Leman / Melexis (B)
- 12:30 - 13:00 **Elevator Session: AMAA 2010 Posters I**
- 13:00 - 14:00 **Lunch Break I Exhibition and Demonstrations**
- 14:00 - 14:30 **Elevator Session: AMAA 2010 Posters II**
Networking Session Green Cars Initiative
Chairman: Gereon Meyer, VDI/VDE-IT (D)
Thomas Reibe / DG Info (EC)
Frédéric Sgarbi / DG RTD (EC)
- 14:30 - 15:30 **Session B: Power Train Efficiency**
Chairman: Jonathan Borg / Hitachi (D)
Vehicle Energy Management - Energy Related Optimal Operating Strategies for CO2 Reduction
Thomas Eymann / Robert Bosch GmbH (D)
Active Engine Management Sensors for Power Train
Peter Slama / Infineon Technologies Austria AG (A)
Thermal Systems Integration for Fuel Economy - TIFFE
Carlo Andrea Malvicino / Fiat Research Center (I)
- 15:30 - 16:00 **Coffee Break I Exhibition and Demonstrations**
- 16:00 - 17:00 **Session C: Safety**
Chairman: Christian Rousseau / Renault (F)
ADOSE - New Bio-Inspired In-Vehicle Sensor for Active Safety
Christoph Sulzbachner / AIT (A)
Improving Pedestrian Safety in Urban Scenarios Through Autonomous Collision Avoidance
Martin Roehder / Audi Electronics Venture GmbH (D)
An Occupancy Grid Based Architecture for ADAS
Olivier Aycard / University of Grenoble (F)
- 19:00 **Conference Tour & Dinner**
Boat Trip along the Spree river (end 23:00h)

Fees

The registration fee covers a copy of the conference book, the coffee breaks, lunch and the social event including conference dinner on the first day.

Reduced Rate (Steering Group + Presenting Authors - one per paper) 525,- Euro + 19% VAT

Regular Rate (Registration prior to 30 April 2010)

975,- Euro + 19% VAT

Tuesday, May 11, 2010

- 9:00 - 10:30 **Session D: Components and Systems**
Chairman: Roger Grace, Roger Grace Associates (USA)
From Sensor to Sensor Systems
Stefan Güntner / Continental (D)
Solutions for Safety Critical Automotive Applications
Cherif Assad / Freescale Semiconductors (F)
Secure Wireless Control Area Network
Dat Nguyen / La Trobe University (AUS)
Linear Electromagnetic Active Vehicle Suspension
Jiabin Wang / University Sheffield (UK)
- 10:30 - 11:00 **Coffee Break I Exhibition and Demonstrations**
- 11:00 - 12:30 **Session E: Driver Assistance**
Chairman: Roland Müller-Fiedler, Robert Bosch GmbH (D)
Stable Road Lane Model Based on Clothoids
Christina Gackstatter / Audi Electronics Venture GmbH (D)
Utilizing Near Infrared and Color Information in an Automotive Wide Dynamic Range Night Vision System for Driver Assistance
Dirk Hertel / Melexis (USA)
Advanced Rider Assistance Systems for Improved Safety of Powered Two Wheelers
Tim Edwards / Mira Ltd. (UK)
The Multi-Functional Front Camera - Challenge and Opportunity
Andreas Tewes / Hella Aglaia Mobile Vision GmbH (D)
- 12:30 - 13:30 **Lunch Break I Exhibition and Demonstrations**
- 13:30 - 15:30 **Session F: Intersection Safety**
Chairman: Olivier Aycard / University of Grenoble (F)
INTERSAFE-2: Progress on Cooperative Intersection Safety
Bernd Rössler / Sick AG (D)
Intersection Safety for Heavy Goods Vehicles
Malte Ahrholdt / Volvo Technology Corporation (S)
Progress of Intersection Safety System Development of Volkswagen Within the INTERSAFE-2 Project
Jörn Knaup / Volkswagen AG (D)
On-Board 6d Visual Sensor for Intersection Driving
Sergiu Nedevschi / Technical University of Cluj-Napoca (RO)
Cooperative Intersection Infrastructure Monitoring System
Pasi Pyykönen / VTT Technical Research Center of Finland (FIN)
Coffee Break I Exhibition and Demonstrations
- 15:30 - 16:00 **Session G: Traffic Management**
Chairman: Jürgen Valldorf, VDI/VDE-IT (D)
Guaranteed Arrival Times Based on Traffic Shaping
Dan Marinescu / Trinity College Dublin (UK)
Simulation Process for Vehicle Applications Depending on Alternative Routes Between Real-World Cities
Thomas Ganslmeier / Audi AG (D)
Galileo Based Mobility Services
Rainer Uhle / SAP AG (D)
A Comprehensive Simulation Tool Set for Cooperative Systems
Thomas Benz / PTV AG (D)
- 16:00 - 17:30 **Closing Remarks**
- 17:30

Contact

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