

Advanced Microsystems for Automotive Applications

Smart Systems for Safe, Sustainable and Networked Vehicles

30-31 May 2012, Harnack House, Berlin, Germany

Call for Papers

Announcement

The ambitious objectives of future road mobility, i.e. fuel efficiency, reduced emissions, and zero accidents, imply a paradigm shift in the concept of the car regarding its architecture, materials, and propulsion technology, and require an intelligent integration into the systems of transportation and power. ICT, components and smart systems have been essential for a multitude of recent innovations, and are expected to be key enabling technologies for the changes ahead, both inside the vehicle and at its interfaces for the communication of data and energy.

It has been the objective of the International Forum on Advanced Microsystems for Automotive Applications (AMAA) for more than fifteen years to detect novel trends and to discuss the technological implications and innovation potential from day one on. In 2012, the topic of the AMAA conference will be "Smart Systems for Safe, Sustainable and Networked Vehicles". Experts from industry and academia are invited to submit proposals for papers addressing current research, developments and innovations in the field of ICT, components and systems and other key enabling technologies leading to the automobile and road transport of the future.

Discussions at the conference will focus on the application areas mentioned below. We are looking forward to receiving your proposals, and to meeting you for an inspiring conference in May 2012.

Deadlines

Abstract Submission: 31 January 2012
Accepted Papers: 29 February 2012

AMAA 2012 – Topics

Information and communication technologies, components, architectures and smart systems enabling safe, sustainable and networked vehicles by the following functionalities:

- **Power Train & Vehicle Efficiency**
Optimized Engine Performance; Advanced Injection and Closed-loop Control of the Combustion Process; Hybridization and Recuperation; Waste Heat Recovery; Emissions and Fuel Efficiency Measurement and Control; Use and Health Monitoring of Lightweight Materials; Adaptive Noise Reduction; Eco Driving.
- **Electrification**
Integrated Power Electronics; Sensing and Adaptive Control of Electric Motors, Wheels and Batteries; Energy-Efficient Auxiliaries; Power Grid Connection; System Integration of Battery Cells; Thermal Management and Comfort; Bus-based Communication and Control; Simplification of the Architecture; Functional Safety and Reliability.
- **Safety & Driver Assistance**
Pedestrian Recognition; Intersection Control; Lane Departure Warning; Stability Control; Night Vision; Autonomous Handling of Routine Conditions; Intelligent Speed Adaptation; Sensing of Driver's Intentions; Driver Information on Traffic.
- **Networked Vehicles**
Interaction Between the Driver, the Vehicle, and the Road; Links to Power and Data Infrastructures and the "Cloud"; Integration of Nomadic Devices; Green and Dynamic Routing; Automated Driving; Car-to-Car/Car-to-X Communication; Road Network Monitoring; Multi-Modal Travel Advice; on-Board Information and Entertainment.
- **Components & Systems**
Sensor Fusion; Virtual Sensors; Power Electronics; Chip Architectures; Interconnects; EcoDesign; Broadband Communication; Integration and Modularity; In-Vehicle Diagnostics; Lightweight Materials; Hardware-in-the-Loop-Testing; Standardization.

Contributions are expected to address recent research, developments, and innovations either for applications or for the enabling technologies.

2012

Advanced Microsystems for Automotive Applications

Smart Systems for Safe, Sustainable and Networked Vehicles

30-31 May 2012, Harnack House, Berlin, Germany



Abstract Submission

Proposals for presentation of a paper at the 16th AMAA should be submitted in the form of an abstract including title, names and affiliations of authors and short summary of content (not exceeding one page A4) to the AMAA Office by **31 January 2012**. The selection criteria include technical excellence and innovative strength of the described work. The evaluation process involves the members of the AMAA Steering Committee will take place in early February 2012. The presenting author of an accepted paper will benefit from a reduced registration fee.

Conference Book

Authors of accepted abstracts will be informed immediately and are expected to submit a paper for the AMAA Conference Book which is published worldwide by Springer prior to the conference. In order to ensure a timely publication of the book, manuscripts of all accepted papers have to be submitted prior to 29 February 2012.

Sponsorship Opportunities

There is a multitude of opportunities to bring your company's activities to the attention of the AMAA community. These are ranging from the inclusion of your company's logo into select communications to a platinum option which includes an entry in the list of sponsors on the first pages of the conference book which is published worldwide by Springer.

Exhibitor Information

The exhibition is an integral part of the AMAA. On both conference days, companies will be given the opportunity to present new products and services as well as novel technologies to an international expert audience representing automakers, suppliers and academia. Prototype vehicles can be shown at a parking lot close to the venue.

Side Events

Working groups e.g. of EPoSS and other initiatives will meet at dedicated satellite events of the AMAA 2012. Information about funding opportunities e.g. in the fourth round of calls of the European Green Cars Initiative PPP will be given in dedicated sessions.

Conference Chairman

Dr. Gereon Meyer

Contact

AMAA Office
c/o VDI/VDE-Innovation + Technik GmbH
Steinplatz 1
10623 Berlin
Germany

Ms. Iohanna Gonzalez
Phone: +49 30 310078319
E-Mail: office@amaa.de

Fees

The payment of a registration fee is mandatory for all participants. It covers a copy of the conference book, the coffee breaks, lunch and the social event including conference dinner on the first day.

Reduced Rate (Presenting Authors – one per paper, and Steering Group Members)
575,- Euro + 19% VAT

Early Bird Rate (Registration prior to 31 March 2012)
825,- Euro + 19% VAT

Regular Rate (Registration prior to 28 May 2012)
1025,- Euro + 19% VAT

On site Registration
1075,- Euro + 19% VAT

Conference Book 2011

G. Meyer, J. Valldorf [Eds.]

Advanced Microsystems for Automotive Applications 2011, Smart Systems for Electric, Safe and Networked Mobility.

Springer, Berlin 2011.

ISBN 978-3-642-21380-9.

Organisers

VDI/VDE Innovation + Technik GmbH

European Technology Platform on Smart Systems Integration (EPoSS)

EU-Project Information and Communication Technologies for the Full Electric Vehicle (ICT4FEV)

EU Project PPP Implementation for Road Transport Electrification (CAPIRE)