

EDCC 2010



Eighth European Dependable Computing Conference
Valencia, Spain, April 28-30, 2010

<http://edcc.dependability.org/>



Workshop CARS Critical Automotive applications: Robustness & Safety

April 27, 2010

Call for Contributions

Workshop objectives

The increasing range and complexity of automotive applications, the need to master development costs using off-the-shelf components, the coexistence of critical and non-critical applications, and the emergence of new architectural paradigms may have a strong impact on dependability of automotive embedded systems. This situation calls for novel design and validation methods, but also tools to improve the robustness of automotive systems and their safety properties. The evolution of automotive systems is currently supported by standards (like AUTOSAR and ISO26262) that respectively advocate a software architecture but also recommend specific development approaches.

The goal of the workshop is to bring together researchers and practitioners interested in the design, implementation and operation of critical automotive applications and systems. Particular emphasis will be put on dependability issues, software engineering for robustness, security and safety issues, real time embedded systems technologies, architectural solutions and development processes for dependable automotive embedded systems.

Topics of interest for the workshop include (but not limited to):

- Architectures for robust automotive application.
- Hardware mechanisms for dependable automotive systems.
- Real-time operating systems, WCET estimation, etc.
- Coordination, communication, networking and distributed control.
- Analysis and verification techniques for automotive systems.
- Middleware and tool support for dependable automotive systems.
- Safety architectures, processes, analyses, and standards .
- Failure data collection and analysis, diagnosis approaches.
- Practical experience and case studies on critical applications.
- Modelling and code generation techniques.

Primary application areas of interest to the workshop focus on the **automotive domain**. However, methods and techniques developed in other fields of application of critical embedded systems (e.g., avionics, railways, space, etc.) can be of interest for the automotive domain.

Organizers

Jean-Charles Fabre (LAAS-CNRS, Toulouse, France)
Olivier Guetta (Renault TechnoCentre, Paris, France)
Mario Trapp (Fraunhofer IESE, Kaiserslautern, Germany)

Organizers e-mail: cars-at-edcc2010@laas.fr

Program committee

Jean Arlat, LAAS-CNRS, France
Andrea Bondavalli, Univ. of Florence, Italy
Vincent David, CEA-LIST, France
Luc Fougousse, Valeo, France
Per Johannessen, Volvo Car Corporation, Sweden
Christoph Jung, BMW, Germany
Johan Karlson, Chalmers Univ., Sweden
Philip Koopman, Carnegie Mellon Univ., USA
Hermann Kopetz, TU Vienna, Austria
Antonio Kung, Trialog-Paris, France
Nils Oppermann, Audi Electronics Venture, Germany
Massimo Osella, General Motors R&D, USA
François Ougier, Renault SAS, France
Yiannis Papadopoulos, Univ. of Hull, UK
Juan-Carlos Ruiz-Garcia, Univ. Politécnic de Valencia, Spain
Jürgen Schwarz, Daimler AG, Germany
Françoise Simonot, INRIA, France
Yvon Trinquet, IRCCYN, France

Submission information

To contribute to the workshop, authors are invited to submit a position paper of no more than 4 pages (10-pt font, single space, double-column format, IEEE styles). The submission of contributions can be made through the CARS workshop page:

<http://www.laas.fr/CARS@EDCC2010>.

The program committee will carefully review each position paper. The review will focus not only on the paper's quality but also on its novelty and ability to engender fruitful discussions. All authors of accepted position papers are invited to attend the workshop. Authors of accepted papers must guarantee that their paper will be presented at the workshop.

The accepted papers will be published in a workshop volume at ACM Digital Library with an ISBN.

Important dates

Workshop papers submission	20 January 2010
Workshop papers acceptance:	5 March 2010
Camera ready workshop papers:	26 March 2010
EDCC Workshops date:	27 April 2010

Sponsors: This workshop will be partially supported by the research project SCARLET, funded by ANR (the French National Research Agency, ground transportation research program PREDIT).



UNIVERSIDAD
POLITECNICA
DE VALENCIA

