Workshop CARS@EDCC2010
Critical Automotive applications: Robustness & Safety
April 27, 2010

PRELIMINARY PROGRAM

08:00-08:30 REGISTRATION
08:30-08:45 WELCOME ADDRESS,
   Chaired by CARS organizers

08:45-09:30 KEYNOTE SPEECH
   ISO 26262: Challenge or chance in Automotive Industry
   Speaker: Christoph Jung
   (Formerly BMW AG, now with CATS Software Tools GmbH, Germany)
   Chaired by Mario Trapp (Fraunhofer IESE, Kaiserslautern, Germany)

09:30-10:30 SESSION 1: SAFETY AND DEVELOPMENT PROCESS
   Chaired by Olivier Guetta (Renault TechnoCentre, Paris, France)
   ➢ Application of ISO DIS 26262 in Practice,
     Marc Born, Olaf Kath (ikv++ technologies ag Berlin, Germany), John Favaro (Intecs S.p.A. Pisa, Italy), Olaf Kath (ikv++ technologies Berlin, Germany)
   ➢ Automatic Allocation of Safety Integrity Levels,
 Requirement traceability in safety critical systems,
*Marie-Agnès Peraldi-Frati* (CNRS, University of Nice Sophia-Antipolis, INRIA, France),
*Arnaud Albinet* (Continental Automotive SAS Toulouse, France)

**BREAK, 10:30-11:00**

**11:00-12:00  SESSION 2: ARCHITECTURE FOR ROBUSTNESS**
Chaired by *Johan Karlsson* (Chalmers University of Technology Göteborg, Sweden)

- Memory Protection at Option,
  *Michael Stilkerich, Daniel Lohmann, Wolfgang Schröder-Preikschat* (Friedrich-Alexander University Erlangen-Nuremberg, Germany)

- A Road-Map for Enabling System Analysis of AUTOSAR-Based Systems,

- Temporal isolation for the cohabitation of applications in automotive embedded software,
  *Dominique Bertrand, Sebastien Faucou, Yvon Trinquet* (IRCCyN, Université de Nantes, France)

**12:00-12:45  WRAP-UP / DISCUSSION SESSION**
Chaired by Morning sessions chairs, Mario Trapp, Olivier Guetta, Johan Karlsson

Morning sessions discussion

**LUNCH, 13:00-14:30**

**14:30-15:30  WORK IN PROGRESS SESSION**
Chaired by *Jean-Charles Fabre* (LAAS-CNRS, INP / University of Toulouse, France)

- A Calculation Method for Software Safety Integrity Level
  *Takaji Fujiwara, Juan Manuel Estevez* (Business Cube & Partners, Inc, Japan),
  *Yoshinobu Satoh, Shigeru Yamada* (Tottori University, Japan)

- Towards Verification-based Development of In-Vehicle safety Critical Software: A Case Study
  *Martijn M.H.P. van den Heuvel, Reinder J. Bril* (Technische Universiteit Eindhoven, The Netherlands),
  *Peter van de Velde* (Verum B.V., The Netherlands), *Johan J. Lukkien* (Technische Universiteit Eindhoven, The Netherlands)

- Unambiguous Semantics in Automotive Timing Modelling
  *Johan Nordlander* (Lulea University, Sweden), *Rolf Johansson* (Mentor Graphics, Sweden),
  *Risat Mahmud Pathan* (Chalmers University, Sweden)

- Enforcing Trust in Control Automotive Platforms
  *Christophe Jouvray, Grégoire Chartier, Nicolas François* (Trialog, France), *Ismael Ripoll, Miguel Masmano, Alfons Crespo* (Universidad Politecnica de Valencia, Spain)
VESBA – A Middleware Oriented Architecture for Virtualized Embedded Systems  
Artur Schiefer, Gruhn Volker, Hrushchak Ruslan (Leipzig University, Germany)

15:30-16:30  SESSION 3: DESIGN AND VALIDATION

Chaired by (to be announced shortly)

- Use of Formal Methods for Building Qualified Code Generator for Safer Automotive Systems, Nassima Izerrouken (Continental Automotive, Université de Toulouse/IRIT, France), Olivier Ssi Yan Kai (Continental Automotive Toulouse, France), Marc Pantel (Université de Toulouse/IRIT, France), Xavier Thiroux (Université de Toulouse/IRIT, France)
- Conditional Safety Guarantees in Open Systems, Daniel Schneider, Mario Trapp (Fraunhofer Institute for Experimental Software Engineering, IESE Kaiserslautern, Germany)
- Opportunities from Standardization in Automotive Safety Assessment, Raul Barbosa, Johan Karlsson (Chalmers University of Technology Göteborg, Sweden)

BREAK, 16:30-17:00

17:00-18:00  SESSION 4: SCHEDULING AND REAL-TIME,

Chaired by (to be announced shortly)

- Experimentation of WCET computation on both ends of automotive processor range, Hugues Cassé, Pascal Sainrat, Clément Ballabriga, Marianne De Michiel (Université de Toulouse, IRIT, France)
- Tree scheduling versus sequential scheduling, Christian Fotsing, Annie Geniet (LISI, ENSMA, France), Guy Vidal-Naquet (Supelec, France)
- Enabling Mode Changes in a Distributed Automotive System, Martin Mitzlaff (Ingolstadt Institute of the Friedrich-Alexander University Erlangen-Nuremberg, Germany), Rüdiger Kapitza, Wolfgang Schröder-Preikschat (Friedrich-Alexander University Erlangen-Nuremberg, Germany)

18:00-18:45  WRAP-UP / DISCUSSION SESSION,

Chaired by Afternoon sessions chairs

Afternoon sessions discussion

18:45-19:00  CLOSING ADDRESS

Chaired by CARS organizers

Organizers final comments