

Announcement and Call for Contributions:

ERCIM/DECOS-Interest Group/COOPERS Workshop 2008 on Dependable Embedded Systems at SAFECOMP 2008, Newcastle, UK, Sept. 25, 2008 (full day)

“Dependable Embedded Systems – Challenges, Impact, Solutions, Project Reports, Industrial Experience, Professional and Academic Education and Training”

Chairs Erwin Schoitsch (Austrian Research Centers – ARC), Amund Skavhaug (NTNU Trondheim)

“Smart Systems” (including all types of embedded control systems with “intelligence”) are nowadays omnipresent in our daily life. Applications range from non-safety critical applications (entertainment, infotainment, edutainment, non-critical communications, home appliances (“ambient intelligence”) to safety related ones. These systems include industrial control systems, embedded systems in cars, railways, aircraft and other vehicles, wireless sensor surveillance and monitoring networks, building automation systems, critical infrastructures and many others. Nowadays a large amount of research is done on these topics separately – domain independent as well as domain dependent.

One of the goals of the workshop is to provide an overview on related projects and initiate experience exchange – take your chance for your project dissemination!!!

You can register for the workshop as SAFECOMP participant or only for the workshop which is free of charge (via www.safecomp.org, registration SAFECOMP 2008)

Specific issues are now addressed by European Technology Platforms like Artemis (Joint Undertaking), EPoSS (Smart systems Integration), and projects like DECOS, MOGENTES (Model-based Generation of Tests), COOPERS (co-operating systems for intelligent road safety), ADOSE (Automotive sensors for Road Safety), Watch-Over, SENSE and ProSE (Artemis based project on “Promoting Standardization for Embedded Systems”) and others. Reports from these projects are prepared. A panel discussion on co-operative systems will close the workshop in the evening.

In the near future, the trend to connect embedded control systems and subsystems, including public networks and automation networks, vehicles and critical infrastructure systems, will raise new concerns in the “safety” world (catch phrases are: “industrial control via internet”, “car on the internet”, “Power grids control via internet” etc.). Security breaches will impact safety and vice versa: a holistic system view is required, covering all life cycle phases – from concept, risk/hazard analysis, development to maintenance and disposal, and all system aspects (control system, system under control, environment, human interaction and usage).

Topics:

- **Reports from research projects and from industrial experience**
- Design concepts and architectures for dependable networked embedded systems (DES)
- Methods, means and techniques to tolerate, remove, to prevent and forecast faults in DES
- Functional Safety and Security Standards, validation and certification of DES
- Tools and tool chains to facilitate design, development, operation and maintenance effectively and efficiently of dependable networked embedded systems in industrial context
- Co-operative networked systems to solve complex tasks e.g. to achieve road safety
- Education and Training issues, means and methods to cope with the growing demand for people being aware of the need for a holistic way of thinking

The presentations will be grouped, discussions on (hopefully) even controversial issues are encouraged and moderated by the chairpersons. Papers will be peer reviewed and proceedings be published by ERCIM after the workshop, including results of discussions as well.

Important dates to contribute:

Send **title and names of authors as well as a short abstract addressing the key message of your presentation NOW!** (Deadline to be included into final program Sept. 8, additional short presentations are possible during the workshop and panel)

Full papers will be published after the workshop as ERCIM Proceedings and be available on the web as well as in printed form to be sent to all participants.

Information/Contributions to erwin.schoitsch@arcs.ac.at , amund.skavhaug@ntnu.no