

Announcement of Workshop at SAFECOMP 2011

www.safecomp.org

Naples, Italy, 22. Sept. 2011, 9:00 – 17:30

ERCIM/EWICS/Cyberphysical Systems Workshop

**Resilient Systems, Robotics, Systems-of-Systems Challenges in Design,
Validation & Verification and Certification**

Workshop participation free of charge (can be attended independent from SAFECOMP)

Coffee Break and Lunch included.

Workshop Chairs:

Erwin Schoitsch AIT Austrian Institute of Technology
Amund Skavhaug, NTNU, Trondheim

Computers are everywhere – may they be visible or integrated into every day equipment, devices, and environment, outside and inside us, mobile or fixed, smart, interconnected and communicating. Comfort, health, services, safety and security of people depend more and more on these “cyber-physical systems”. They combine software, sensors and physics, acting independently, co-operative or as “systems-of-systems” composed of interconnected autonomous systems originally independently developed to fulfill dedicated tasks. The impact on society as a whole is tremendous – positive and negative.

Thus dependability in a holistic manner becomes an important issue, covering safety, reliability, availability, security, maintainability, robustness and resilience, despite emergent behaviours and interdependencies. Co-operative, distributed networked systems and resilient systems (adaptive systems maintaining dependability even in changing environments) and their interconnection, integration and interoperation providing completely new functionality add another dimension of complexity.

Technology is developing very fast, and demanding challenges have to be met by research, engineering and education. Smart (embedded) systems are regarded as the most important business driver for European industry. They are a targeted research area for European Research Programmes in Framework 7, the ARTEMIS Joint Undertaking, and in several other dedicated Programmes and European Technology Platforms (ARTEMIS, EPoSS). Their application is not only in the traditional areas of aerospace, railways, automotive, or process industry and manufacturing, but also in robotics and services of all kind, in home appliances (smart environments, smart homes, ambient assisted living) and health care.

Sessions will take place on

- Dependable and resilient embedded systems
- Autonomous Systems and Robotics
- Systems-of-Systems

covering aspects from design, development, verification and validation, certification and maintenance, standardization and education and training. This is a workshop, allowing reports on “work in progress”. Reports on European research projects (is part of the required dissemination) as well as industrial experience reports are welcome, some invited papers will be presented also.

You want to present your ideas and results? What do you have to provide?

Just a short **abstract** (about ½ to one page, including title, authors, affiliation, short description/outline) of your presentation is required until August 31. You will be notified about acceptance until September 5. Expected duration for a presentation is 25 minutes plus 5 minutes discussion.

A full paper (4-8 pages) can be provided afterwards until October 10, 2011, thus allowing to take into account the results of the discussion. The papers will be published as ERCIM proceedings after the workshop, a released set of the presentation slides may be included or put on a workshop web site if you like.

Contacts:

Erwin Schoitsch
AIT Austrian Institute of Technology,
Donau-City-Straße 1, TechGate
A-1220 Vienna, Austria
erwin.schoitsch@ait.ac.at

Amund Skavhaug
The Norwegian University of Science and Technology
Department of Engineering Cybernetics
Skavhaug.amund@ntnu.no