# 1st IEEE International Workshop on Component-Based Design of Resource-Constrained Systems (CORCS 2008)

## In conjunction with COMPSAC 2008. Turku, Finland, July 28 - August 1, 2008

The category of resource-constrained systems encompasses a broad range of systems, from very simple and heavily resource-constrained systems to complex distributed systems. Such systems should be customizable, easy to use, upgrade and maintain. A time-tested way to build diverse systems with these desirable attributes at low cost is through componentization and reuse: building systems by integrating configurable and evolvable components in a systematic way. The latter creates the need for models and associated rules to guide componentization, frameworks for system integration, and techniques for verification and validation of component-based design and implementation. The component-based techniques should cover systems having minimal resource requirements, yet be usable on all ranges of resource-constrained systems that fulfill these requirements.

The aim of this workshop is to discuss but also advance the state-of-the-art, research and development in the area of resource constrained systems, and to promote the study of both fundamental and practical aspects of component based design of such systems. The workshop addresses researchers from different disciplines in academia and industry, as well as practitioners, who share interests in resource constrained system design. The focus will be on techniques and experiences drawn from current component-based system design practice, as well as on emergent topics.

Any submission whose content is relevant to the area of resource-constrained system design will be considered, but submission whose subject matter is related to one of the following topics will be particularly welcome:

- models for software components and component interaction: real-time, safety-critical, embedded, or mobile systems
- specification of extra-functional properties of components
- resource models
- formal techniques for verification and validation of component software: model-checking, abstraction, refinement, code synthesis, testing, monitoring, debugging, model extraction
- compositional theories
- execution platform mechanisms
- scheduling and resource management
- componentization of legacy code
- impact analysis
- service oriented architectures
- certification of components and software architectures
- applications, experience reports and case studies in component software
- system-on-chip (SoC)/networks-on-chip (NoC)/multi-processor system-on-chip (MPSoC) component-based design
- component-driven hardware-software co-design

## Important Dates:

- March 8th, 2008: Extended deadline for paper submission
- April 14th, 2008 : Notification of acceptance
- April 30th, 2008: Camera-ready due

## Program Committee:

- Christo Angelov (Mads Clausen Institute, Denmark)
- Tughrul Arslan (Univ. of Edinburgh, UK)
- Marius Bozga (CNRS, France)
- Ivica Crnkovic (Mälardalen Univ., Sweden)
- Alexandre David (Aalborg Univ., Denmark)
- David Garlan (Carnegie Mellon Univ., USA)
- Hans Hansson (Mälardalen Univ., Sweden)
- Paola Inverardi (Univ. of L'Aquila, Italy)
- Mathai Joseph (Tata Consultancy Services, India)
- Kim Larsen (Aalborg Univ., Denmark)
- Insup Lee (Univ. of Pennsylvania, USA)
- Johan Lilius (Åbo Akademi, Finland)
- Tiziana Margaria (Univ. of Potsdam, Germany)
- Thomas Nolte (Mälardalen Univ., Sweden)
- Frantisek Plasil (Charles Univ., Czech Republic)
- Heinz Schmidt (RMIT Univ., Australia)
- Ana Sokolova (Univ. of Salzburg, Austria)
- Bernhard Steffen (Univ. of Dortmund, Germany)
- Dragos Truscan (Åbo Akademi, Finland)
- Wang Yi (Uppsala Univ., Sweden)

**Submission**: Papers must be submitted electronically via the CORCS 2008 Submission Page. The format of submitted papers should follow the guidelines for the IEEE conference proceedings. All papers will be carefully reviewed by at least three reviewers. Papers should be no more than 6 pages.

**Proceedings**: Accepted papers will be published in the workshop proceedings of COMPSAC 2008, by the **IEEE Computer Society Press**. At least one of the authors of each accepted paper must register as a participant of the workshop and present the paper at the workshop, in order to have the paper published in the proceedings.

## Organizers:

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