FACS'05

International Workshop on Formal Aspects of Component Software

UNU-IIST, Macao — October 24-25, 2005

Important Dates:

Submission:	**Jul 15, 2005**
Notification:	**Sep 15, 2005**
Final Version:	**Sep 30, 2005**
Workshop:	**Oct 24-25, 2005**

Organization:
UNU-IIST

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Related Events:
ICTAC'05 will be held in Hanoi, Vietnam, the week before.

Background and Objectives

Component-based software emerged as a promising paradigm to deal with the ever increasing need for mastering systems' complexity, their evolution and reuse, and driving software engineering into sound production and engineering standards. Soon, however, it became a popular technology long before consensual definitions and principles, let alone formal foundations, have been put forward. Issues like mathematical models for components, their interaction and composition, or rigorous approaches to verification, deployment, testing and certification remain open research questions and challenging opportunities for formal methods. Moreover, new challenges are raised by applications to non conventional areas, such as safety-critical, mobile, and/or embedded systems.

The objective of this workshop is to bring together researchers in the areas of component software and formal methods to promote a deep understanding of this paradigm and its applications. In particular, the Workshop will also be interested in defining the common aspects of components and component-based development. It is expected that formal paper presentations be followed by lively debate in a stimulating atmosphere. Possible topics include, but are not limited to:

- formal models for software components and component interaction
- design and verification methods for component software
- component composition and deployment: models, calculi, languages
- component testing
- specification of extra-functional properties in component software
- certification of components and software architectures
- component software *versus* object orientation
- components for real-time, safety-critical, secure and/or embedded systems
- experience reports and case studies in component software

FACS'05 is the second in a series of workshops, founded by the International Institute for Software Technology of the United Nations University. The first FACS workshop was held in Pisa, Italy, in September 2003, collocated with FM'03.

Invited Speakers

- **Farhad Arbab** (CWI, Amsterdam, LIACS, Leiden University, and University of Waterloo)
- **Paolo Ciancarini** (Università di Bologna)
- **Edmund Clarke** (Carnegie Mellon University)

Submission and Publication

Submissions to the workshop will be judged on the basis of originality, relevance, technical soundness and presentation quality. Papers should be written in English and not exceed 15 pages in ENTCS format. Publication of the workshop proceedings in Electronic Notes in Theoretical Computer Science, Elsevier, is anticipated.

www.iist.unu.edu/facs05/