

WRTP'04

First Announcement  
and  
CALL FOR PAPERS

28th IFAC/IFIP Workshop on Real-Time Programming  
Istanbul, Turkey  
6-8 September 2004

Held jointly with  
International Workshop on Software Systems IWSS 2004

Sponsored by  
IFAC TC3.1 Technical Committee on Real-Time Software Engineering

Co-Sponsored by  
IFIP WG 10.5 Design and Engineering of Electronic Systems  
(approval pending)

Organised by  
IFAC TC3.1 Technical Committee on Real-Time Software Engineering

WRTP 2004 will be held in conjunction with IWSS 2004 - International Workshop on Software Systems. IWSS aims at providing a critical survey of the current status of tools, methods, and technologies for elaborating software and complex systems. Particular emphasis will be laid on software & systems engineering approaches useful in defined, building, verifying today's many safety critical system applications.

Within the framework of IWSS, programming of real-time systems with its specification is one of the most critical domains. Although pervading in more and more safety critical computer control applications, the discipline still lacks systematic elaboration and formalization. Further, novel methodologies and techniques from general computing are making their way into the real-time domain.

The workshop will consist of formal presentations, discussions, and informal meetings covering recent advances and current issues in theory, applications, and technology of real-time programming and real-time database management. It is intended to promote interaction among researchers and practitioners and to evaluate the maturity of new directions in real-time software and real-time database systems.

Scope:

The topics to be covered include, but are not limited to:

- \* Advances in real-time software engineering
  - o Real-time programming languages
  - o Requirements engineering methods for real-time systems
  - o Software analysis and design methods for predictable behaviour and verification & validation

- o Object orientation in real-time environments
- \* Real-time systems issues
  - o Scheduling of real-time tasks and transactions
  - o Real-time concurrency control and resource management
  - o Real-time operating and database systems
  - o Real-time system architectures
  - o Communication in real-time systems
  - o Distributed real-time and database systems
- \* Safety critical computer control applications
  - o Design for safety, dependability and survivability
  - o Verification and validation of real-time software
  - o Fault tolerance
- \* Formal methods in discrete control systems
  - o Formal methods for (re-)programmable logic controllers
  - o Formal verification of programs for logic controllers
- \* New directions in real-time database systems
  - o Active and real-time databases, time-constrained rule management
  - o Event monitoring under temporal constraints
  - o Transactions with temporal urgency and validity constraints
- \* Real-time applications and experience
  - o Industrial applications and experience
  - o Evaluation of current real-time systems and databases
  - o Real-time/control systems with challenging time constraints

Workshop Chair:

Wolfgang A. Halang  
 Faculty of Electrical Engineering  
 Fernuniversität Hagen  
 D-58084 Hagen, Germany  
 Phone: (+49) 2331 987 372  
 Fax: (+49) 2331 987 375  
 E-mail: wolfgang.halang@fernuni-hagen.de

International Programme Committee:

Co-Chairs:

Matjaz Colnaric  
 Faculty of Electrical Engineering and Computer Science,  
 University of Maribor  
 SI-2000 Maribor, Slovenia  
 Phone: (+386 2) 220 7430  
 Fax: (+386 2) 251 1178  
 E-mail: colnaric@uni-mb.si

Marek Wegrzyn

University of Zielona Gora  
 Institute of Computer Engineering and Electronics  
 ul. Podgorna 50  
 65-246 Zielona Gora, Poland  
 Phone: (+48 68) 3282 484  
 Fax: (+48 68) 3244 733  
 E-mail: M.Wegrzyn@iie.uz.zgora.pl

Industrial Co-Chair:

Bran V. Selic, Rational Rose Inc., Canada

Members:

Abd-El-Kader Sahraoui, France  
Alan Burns, UK  
Alejandro Alonso, Spain  
Alfons Crespo, Spain  
António Casimiro, Portugal  
Bran Selic, Canada  
Carlos E. Pereira, Brazil  
Dieter Zoebel, Germany  
Francesca Saglietti, Germany  
Franz Rammig, Germany  
Grace Tsai, USA  
Horst Wedde, Germany  
Jacek Malec, Sweden  
Janusz Zalewski, USA  
Jean-Jacques Schwarz, France  
Joerg Kaiser, Germany  
Jorgen Hansson, Sweden  
Joseph Ng, Hong Kong  
Juan A. de la Puente, Spain  
Juri Vain, Estonia  
Karl-Erik Arzen, Sweden  
Kim-F. Man, Hong Kong  
Krzysztof Sacha, Poland  
Leo Motus, Estonia  
Marek Wegrzyn, Poland  
Marga Marcos Munoz, Spain  
Marian Adamski, Poland  
Mathieu Maranzana, France  
Matjaz Colnaric, Slovenia  
Mehmet Ufuk Caglayan, Turkey  
Nihal Kececi, USA  
Pavel Ettler, Czech Republic  
Ricardo Sanz, Spain  
Sias Mostert, South Africa  
Sten F. Andler, Sweden  
Sven-Arne Andreasson, Sweden  
Swamy Kutti, Oman  
Theodor Tempelmeier, Germany  
Tiberiu Letia, Romania  
Tomasz Szmuc, Poland  
Ulrich Schmid, Austria  
Wolfgang Halang, Germany

National Organizing Committee:

Chair:

Prof. Dr. Yorgo Istefanopulos  
Bogazici University  
Electrical and Electronic Engineering Department  
Bebek, Istanbul, Turkey  
Phone: (+90) 212-3581540-1422 or -1494

Fax: (+90) 212-2872465  
E-mail: istef@boun.edu.tr

Members:

Nihal Kececi                      nkececi@eng.umd.edu  
Mehmet Ufuk Caglayan        caglayan@boun.edu.tr.

Location:

Istanbul Hilton Hotel; please check our web page

Submission Details:

Submissions:

The submission of full papers with up to 6 pages is invited. They should address topics as outlined above and focus on insights and lessons gained from recent research and practical experience. Position papers describing new ideas, promising approaches, and work in progress are considered particularly appropriate. These papers should outline the contribution that the authors intend to make at the Workshop. The papers need to be submitted as PDF files through our WWW server, <http://www.enre.umd.edu/iwss2004/>.

The authors are asked to submit, with their papers, the following information:

- \* Paper Title
- \* Author's Name
- \* Contact Address & E-mail
- \* Abstract
- \* Keyword list

Final Papers:

The final papers must be prepared according to the Author's Kit instructions. A corresponding LaTeX2e style file can be downloaded from our WWW server. Accepted papers must be presented in person at the Workshop.

A selection of the best submissions will be proposed for publication in the IFAC affiliated journals (Pergamon Press' Automatica, Control Engineering Practice, Annual Reviews in Control, Journal of Process Control, Engineering Applications of Artificial Intelligence and Kluwer's Real-Time Systems).

Language:

English will be the working language of the workshop and will be used for the proceedings, the presentations and discussions. No simultaneous translation will be provided.

Correspondence:

All correspondence should be addressed to the Workshop or IPC chairmen.

Important Dates:

Submissions due by: 20. May 2004

Notification of acceptance: 1. June 2004

Final papers due by: 1. July 2004

Early Registration: 10. June 2004

Workshop: 6.-8. September 2004

Participation:

Attendance will be limited to approx. 60 active workers in the field. Participants are requested to register in advance not later than by 30 July 2004.

Copyright Conditions:

The material submitted for presentation at an IFAC meeting (congress, symposium, conference, workshop) must be original, not published or being considered elsewhere. All papers accepted for presentation will appear in the Preprints of the meeting and will be distributed to the participants. Papers duly presented will be archived and offered for sale, in the form of Proceedings. The presented papers will be further screened for possible publication in the IFAC Journals (Automatica, Control Engineering Practice, Annual Reviews in Control, Journal of Process Control and Engineering Applications of Artificial Intelligence), or in IFAC affiliated journals.

Copyright of material presented at an IFAC meeting is held by IFAC. Authors will be sent a copyright transfer form. The IFAC Journals and, after these, IFAC affiliated journals have priority access to all contributions presented. However, if the author is not contacted by an editor of these journals, within three months after the meeting, he/she is free to re-submit the material for publication elsewhere. In this case, the paper must carry a reference to the IFAC meeting where it was originally presented.

For more detailed information see the WWW-Servers:

<http://www.enre.umd.edu/iwss2004/>