Working Group on Formal Methods for Industrial Critical Systems

CNR-ISTI Institute for Computer Science and Technology

and

Georg August University of Göttingen

Call for Participation

Tenth International Workshop on Formal Methods for Industrial Critical Systems (FMICS 05)

http://fmt.isti.cnr.it/FMICS05/

New University of Lisbon, Lisbon, Portugal
5-6 September 2005

Co-located with

ESEC/FSE'05

Scope of the workshop

The aim of the FMICS workshop series, which is celebrating its tenth issue, is to provide a forum for researchers who are interested in the development and application of formal methods in industry. In particular, these workshops are intended to bring together scientists and practitioners who are active in the area of formal methods and interested in exchanging their experiences in the industrial usage of these methods. These workshops also strive to promote research and development for the improvement of formal methods and tools for industrial applications.

Topics include, but are not restricted to:

- Tools for the design and development of formal descriptions
- Tools for formal verification and analysis of system designs
- Verification and validation of complex, distributed, real-time systems and embedded systems
- Verification and validation methods that aim at circumventing shortcomings of existing methods in respect to their industrial applicability
- Case studies and project reports on formal methods related projects with industrial participation (eg. safety critical systems, mobile systems, object-based distributed systems)
- Application of formal methods in standardization and industrial forums

Previous workshops of the ERCIM working group on Formal Methods for Industrial Critical Systems were held in Oxford (March 1996), Cesena (July 1997), Amsterdam (May 1998), Trento (July 1999), Berlin (April 2000), Paris (July 2001), Malaga (July 2002) , Trondheim (June 2003) and Linz (September 2004).

Special event celebrating FMICS's 10th Anniversary

"Ten Commandments Revisited"

A Ten-Year Perspective on the Industrial Application of Formal Methods

Presented by:

Jonathan P. Bowen
London South Bank University
UK

and

Michael G. Hinchey
NASA Goddard Space Flight Center
Greenbelt, MD
USA

Ten years ago, our paper Ten Commandments of Formal Methods suggested some guidelines to help ensure the success of a formal methods project. It proposed ten important requirements (or "commandments") for formal developers to consider and follow, based on our knowledge of several industrial application success stories, most of which were reported in more detail in [M.G. Hinchey and J.P. Bowen, editors, Applications of Formal Methods, Prentice Hall International Series in Computer Science, Hemel Hempstead, 1995.] and [M.G. Hinchey and J.P. Bowen, editors, Industrial-Strength Formal Methods in Practice, Springer, FACIT series, London, 1999.]. The paper was surprisingly popular, is still widely referenced, and used as required reading in a number of formal methods courses. However, not all have agreed with some of our commandments, feeling that they may not be valid in the long-term.

We re-examine the original commandments ten years on, and consider their validity in the light of a further decade of industrial best practice and experiences.

Invited speakers

Luís Andrade, ATX Software SA Title: "**The experience of ATX with the application of formal/rigorous techniques and methods in real projects**".

Christel Baier, University of Bonn Title: to be announced

Important dates

Early Registration Deadline	1 July 2005 (with hotel)/29 July (without hotel)
Late Registration Deadline	15 August 2005
Workshop	5-6 September 2005

Workshop and Hotel registration

The FMICS 05 registration information will be made available at: http://esecfse05.unl.pt/

Programme committee

Alvaro Arenas (CCLRC/RAL, UK)	Lubos Brim (Masaryk Univ. Cz)	Andrew Butterfield (Dublin Univ., Ie)
Marsha Chechik (Univ. of Toronto, Ca)	Alessandro Fantechi (Univ. of Florence, It)	Mike Hinchey (NASA gsfc, US)
Leszek Holenderski (Philips, Nl)	Michaela Huhn (Clausthal Tech. Univ., De)	Hardi Hungar (Univ. Oldenburg, De)
Diego Latella (CNR/ISTI Pisa, It)	Tiziana Margaria (Univ. of Göttingen , De) **co-chair**	Mieke Massink (CNR-ISTI Pisa, It) **co-chair**
Radu Mateescu (INRIA Rhone-Alpes, Fr)	Jaco van de Pol (CWI, Nl)	Ina Schieferdecker (Fraunhofer FOKUS, De

Organisation

The workshop is organised by the Formal Methods and Tools Group at CNR-ISTI and by the University of Göttingen .

Working Group Chair	Stefania Gnesi
Workshop Co-Chair	Tiziana Margaria
Workshop Co-Chair	Mieke Massink

Best paper award

As last year, the European Association of Software Science and Technology will be offering an award to the best FMICS paper.

Venue

FMICS 05 will take place at the Campolide campus of the New University of Lisbon, Portugal, September 2005, as a co-located workshop of ESEC/FSE 2005, the fifth joint meeting of the European Software Engineering Conference and ACM SIGSOFT Symposium on the Foundations of Software Engineering.

Sponsors

Supporters

Georg August University of Göttingen