

2nd International Workshop on Formal Methods for Interactive Systems

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ABSTRACT

This workshop is the second in a series that is intended as a focused forum for researchers from academia and industry interested in the application of formal methods to interactive system design. Topics of interest include, for example, the development of formal tools, techniques and methodologies based on cognitive psychology results, the development and use of formal user models, case studies applying formal methods to interface design, and formal analysis of the design of the wider socio-technical systems.

1. INTRODUCTION

Reducing the likelihood of human error in the use of interactive systems is increasingly important: the use of such systems is becoming widespread in applications that demand high reliability due to safety, security, financial or similar considerations. Interactive systems are also becoming increasingly ubiquitous and being used in new and more complex situations. Consequently, the use of formal methods in analyzing properties of and verifying the correctness of interactive systems should also include analysis of human behaviour in interacting with the interface as well as with the wider socio-technical system.

2. AIMS

The aim of the workshop is to provide a focussed forum for researchers with an interest in both formal methods and interactive systems to discuss how formal methods can be applied to interactive system design. Topics of interest include, for example, the development of formal tools, techniques and methodologies based on cognitive psychology results, the development and use of formal user models, case studies applying formal methods to interface design, and formal analysis of the design of the wider socio-technical systems. The scope of HCI issues covered extends to all aspects of applying formal methods to interactive systems, including usability, user experience, human error, etc.

Application areas considered are intentionally wide and include but are not limited to:

- safety-critical systems,
- high-reliability systems,
- shared control systems,
- mobile devices,
- embedded systems,
- digital libraries,
- eGovernment,
- pervasive systems,
- augmented reality,
- ubiquitous computing, and
- computer security applications.

3. ORGANISATION

The workshop is organised by Paul Curzon of Queen Mary, University of London and Antonio Cerone of UNU-IIST, Macau SAR China, in conjunction with the QMUL-UCL Human Error Modelling Project.

The Programme Committee for the workshop is international in breadth:

- Bernhard Beckert, Germany;
- Ann Blandford, England;
- Judy Bowen, New Zealand;
- Howard Bowman, England;
- Paul Cairns, England;
- Antonio Cerone, Macau SAR China;
- Josè Creissac Campos, Portugal;
- Paul Curzon, England;
- Alan Dix, England;
- Gavin Doherty, Ireland;
- Michael Harrison, England;
- C. Michael Holloway, USA;
- Chris Johnson, Scotland;
- Peter Lindsay, Australia;
- Philippe Palanque, France;
- Fabio Paternò, Italy;
- Chris Roast, England;

- Rimvydas Ruksenas, England;
- Siraj Shaikh, Macau SAR China;
- Daniel Sinnig, Canada;
- Harold Thimbleby, Wales

FMIS consists of a mixture of long and short presentations together with discussion and working sessions. Papers accepted for long presentation will be published as post-proceedings as well as in the participants' proceedings available at the workshop. Papers accepted as short presentations will be

published in the participants' proceedings only. Accepted papers will be made available to participants electronically prior to FMIS to increase the potential for detailed discussion at the Workshop. It is expected that the post-proceedings will be published by Elsevier in the series Electronic Notes in Theoretical Computer Science (ENTCS). This is to be confirmed, however.

4. ACKNOWLEDGMENTS

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