

Mobile and Embedded Interactive Systems (MEIS'09)

Michael Rohs

Deutsche Telekom Laboratories
Technische Universität Berlin
michael.rohs@telekom.de

Paul Holleis

Smart and Secure Services Research Group
DOCOMO Euro-Labs, München
paul@hcilab.org

Matthias Kranz

Lehrstuhl für Medientechnik
Technische Universität München
matthias.kranz@tum.de

Heinrich Hußmann

Lehrstuhl für Medieninformatik
Ludwig-Maximilians-Universität München
heinrich.hussmann@ifi.lmu.de

Paul Lukowicz

Embedded Systems Lab
Universität Passau
paul.lukowicz@uni-passau.de

Interaction with mobile devices and embedded systems has become a part of everyday life. As these devices and systems get more sophisticated and increasingly interconnected, the creation of usable interactive software poses many new challenges. In facing these challenges, emerging user interface paradigms offer potential opportunities but also pose new research questions. Especially tangible and tactile interaction, sensor-based and perceptual systems, implicit interaction, as well as device and interfaces ecologies create new requirements for user centered design and system development.

MEIS'09 provides a forum for discussing research on these issues. MEIS'09 is a continuation of the MEIS'06 workshop at Informatik 2006 in Dresden and the MEIS'08 workshop at Informatik 2008 in Munich. The workshop seeks to bring together researchers and practitioners from academia and industry who are concerned with envisioning, creating, and implementing mobile and embedded interactive systems. The workshop provides a venue to present research in this field and to openly discuss novel ideas and ongoing research. By bringing together different viewpoints, on embedded systems, complex software systems, mobile interaction, and user centered design we hope to encourage a broader understanding of the area. The overall aim of the workshop is to foster a community in mobile and embedded interactive systems.

Two types of submissions were encouraged: *research papers* describing original and high quality research work in the area of mobile and embedded interactive systems and *research questions, problem statements, or claims* on the general topics outlined above accompanied by a short description which can serve as a basis for discussion. We selected seven papers and problem statements for presentation at the workshop. The selection was based on reviews by experts in the area. Herewith we would like to thank the members of the program committee for their efforts in providing constructive and helpful feedback to the authors.

A broad range of interesting topics will be covered by the workshop. Bashar Altakrouri proposes a model for flow-driven interactions to support user goals and activities, aiming for interaction consistency across multiple pervasive applications in the physical surroundings. Breiner, Görlich, Maschino, and Meixner present a system for automatically generating user interfaces from usage models and description languages in the context of production facilities, which include a multitude of interconnected devices and systems. Eichler, Lüke, and Aydin provide a classification and overview of mobile barcode and tagging applications. Eikerling and Benesch describe a browser-based architectural framework for interaction with ambient services. The framework takes context data into account, such as the status of surrounding devices. Hamed Ketabdar presents challenges in using mobile phones for constantly monitoring activity patterns and physical conditions of users. The raw data can be provided by various sensors, like accelerometers, but has to be analyzed in order to infer higher-level information, such as health related factors. René Reiners highlights the importance of appropriate interaction metaphors that allow users to intuitively discover physical objects with computational capabilities in smart environments. Wittke, Jänen, Duraslan, Cakar, Steinberg, and Brehm show how different kinds of user activity can be recognized using the integrated cameras of mobile phones.

We thank the authors for submitting their work to MEIS'09 and we are looking forward to the workshop!

June 2009

Michael Rohs, Paul Holleis, Matthias Kranz, Heinrich Hußmann, and Paul Lukowicz

MEIS'09 Program Committee

Elisabeth André	University of Augsburg, Germany
Stefan Arbanowski	Fraunhofer FOKUS, Germany
Patrick Baudisch	Hasso-Plattner-Institut, Germany
Susanne Boll	University of Oldenburg, Germany
Sebastian Boring	Ludwig-Maximilians-Universität, München, Germany
Manfred Broy	Technische Universität München, Germany
Tom Gross	Bauhaus-University Weimar, Germany
Andreas Holzinger	Medical University Graz, Austria
Christian Kray	Newcastle University, UK
Antonio Krüger	Saarland University & DFKI, Germany
Marc Langheinrich	University of Lugano, Switzerland
Enrico Rukzio	Lancaster University, UK
Albrecht Schmidt	University of Duisburg-Essen, Germany