

Preface

Web engineering is a new discipline that addresses the pressing need for systematic and tool-supported approaches for the development, maintenance and testing of Web applications. Web engineering builds upon well-known and successful software engineering principles and practices, adapting them to the special characteristics of Web applications. Even more relevant is the enrichment with methods and techniques stemming from related areas like hypertext authoring, human-computer interaction, content management, and usability engineering. The goal of the 4th International Conference on Web Engineering (ICWE 2004), in line with the previous ICWE conferences, was to work towards a better understanding of the issues related to Web application development. Special attention was paid to emerging trends, technologies and future visions, to help the academic and industrial communities identify the most challenging tasks for their research and projects.

Following a number of successful workshops on Web engineering since 1997 at well-known conferences, such as ICSE and WWW, the first conference on Web engineering was held in Cáceres, Spain in 2001. It was followed by ICWE 2002 in Santa Fe, Argentina and ICWE 2003 in Oviedo, Spain. In 2004 ICWE moved to the center of Europe and was held in Munich, Germany from July 26 to 30. ICWE 2004 was organized by the Institute for Informatics of the Ludwig-Maximilians-Universität (LMU) Munich.

The ICWE 2004 edition received a total of 204 submissions, out of which 25 papers were selected by the Program Committee as full papers (12% acceptance). Additionally, 60 papers describing ongoing research results were included, as either short papers or posters. The selected papers cover a wide spectrum of topics, including Web development processes, design methods, Web usability, security and performance, Web metrics, personalized and adaptive Web applications, the Semantic Web, and more.

ICWE 2004 attracted people from five continents, with a wide and uniform geographical distribution of the papers' authors. ICWE 2004 also hosted for the first time a tool demonstration track, and featured a two-day tutorial and workshop program, consisting of five tutorials and four workshops. Workshops and tutorials gave to the conference attendees the opportunity to enjoy a more informal forum for discussing the newest Web engineering topics, from Web quality, to the development of secure Web applications, to MDA applied to the construction of Web applications. Links to the workshops and tutorials can be found at the conference Web site: www.icwe2004.org

We wish to express our gratitude to all the individuals and institutions who made this conference possible. We are very grateful to Lutz Heuser, Gerti Kappel and Roel Wieringa for presenting their keynotes at the conference. We would like to acknowledge all workshop organizers and tutorial presenters and the local organizing committee. Our thank goes also to the workshop and tutorial co-chairs

as well as to the demo and poster chair for their engagement. In particular, Maristella Matera did an excellent job managing the workshops organization. Our special thanks go to the program committee members and additional referees for the very professional work done during the review process. The Online Conference System (OCS) was used during the review process for bidding and gathering submitted papers and reviews. We would like to thank the technical support team (Martin Karusseit and Markus Bajohr) at the University of Dortmund, which provided invaluable assistance on the use of the Online Conference Service of METAFrame Technologies. We are also grateful to Springer-Verlag for their helpful collaboration and quick publication schedule. Our deep recognition is due to Florian Hacklinger for his contribution in setting up and updating the conference Web site.

Last but not least, we want to thank the more than 450 authors from over 35 countries who contributed to this book and the conference. We thank them for their submissions and presentations and for providing us with the material in time. We count on them for the next conference edition, ICWE 2005, to be held in Sydney, Australia.

Munich and Milan, May 2004

Nora Koch
Piero Fraternali
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IW³C²

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Yavuz Gurcan	Janaka Pitadeniya	

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Workshops and Tutorials

Workshops

IWWOST 2004

4th International Workshop on Web-Oriented Software Technologies

Gustavo Rossi

Universidad Nacional de La Plata, Argentina

Oscar Pastor

Universidad Politécnica de Valencia, Spain

Daniel Schwabe

PUC Rio de Janeiro, Brazil

Luis Olsina

Universidad Nacional de La Pampa, Argentina

AHCW 2004

Adaptive Hypermedia and Collaborative Web-Based Systems

Rosa Carro

Universidad Autonoma de Madrid, Spain

Johann Schlichter

Technical University of Munich, Germany

WQ 2004

Web Quality

Luciano Baresi

Politecnico di Milano, Italy

Sandro Morasca

Università degli Studi dell'Insubria, Italy

DIWE 2004

Device Independent Web Engineering

Markus Lauff

SAP AG, Germany

Tutorials

Developing Secure Web-Based Applications with UML: Methods and Tools

Jan Jürjens

Technical University of Munich, Germany

MDA Standards for Ontology Development

Dragan Gašević, Vladan Devedžić, Dragan Djurić

FON – School of Business Administration, Belgrade, Serbia and Montenegro

An Introduction to Web Quality

Luciano Baresi

Politecnico di Milano, Italy

Sandro Morasca

Università degli Studi dell’Insubria, Italy

Using MDA for Designing and Implementing Web-Based Applications

Antonio Vallecillo

Universidad de Málaga, Spain

**Providing Interoperability of Information Systems Through
Semantically Enriched Web Services**

Asuman Dogac

University of Ankara, Turkey

Chris Bussler

National University of Ireland, Galway, Ireland