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Computer Supported Cooperative Work in Design II

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Preface

The design of complex artifacts and systems requires the cooperation of multidisciplinary design teams using multiple commercial and non-commercial engineering tools such as CAD tools, modeling, simulation and optimization software, engineering databases, and knowledge-based systems. Individuals or individual groups of multidisciplinary design teams usually work in parallel and separately with various engineering tools, which are located at different sites. In addition, individual members may be working on different versions of a design or viewing the design from various perspectives, at different levels of detail.

In order to accomplish the work, it is necessary to have effective and efficient collaborative design environments. Such environments should not only automate individual tasks, in the manner of traditional computer-aided engineering tools, but also enable individual members to share information, collaborate and coordinate their activities within the context of a design project. CSCW (computer-supported cooperative work) in design is concerned with the development of such environments.

A series of international workshops and conferences on CSCW in design started in 1996. The primary goal of the workshops/conferences is to provide a forum for the latest ideas and results on the theories and applications of CSCW in design, research on multi-agent systems, Grid-/Internet-/Web-based applications (including Semantic Web and Web services), electronic commerce and other related topics. It also aims at promoting international scientific information exchange among scholars, experts, researchers and developers in the field. The major topics of CSCWD workshops/ conferences include:

- Techniques, methods, and tools for CSCW in design
- Social organization of the computer-supported cooperative process
- Knowledge-intensive cooperative design
- Intelligent agents and multi-agent systems for cooperative design
- Workflows for cooperative design
- VR technologies for cooperative design
- Internet/Web and CSCW in design
- Grids, Web services and Semantic Web for CSCW in design
- CSCW in design and manufacturing
- Cooperation in virtual enterprises and e-businesses
- Distance learning/training related to design
- Applications and testbeds

The First International Workshop on CSCW in design (CSCWD 1996) was held on May 8-11, 1996, in Beijing, China and the second one (CSCWD 1997) was held on November 26-28, 1997, in Bangkok, Thailand. After the two successful workshops, an international working group on CSCW in Design was created and an International Steering Committee was formed in 1998 (http://www.cscwid.org). The Steering Committee then coordinated two workshops (CSCWD 1998 on July 15-18, 1998, in

Tokyo, Japan and CSCWD 1999 on September 29 to October 1, 1999, in Compiègne, France). During the annual Steering Committee meeting held at CSCWD 1999, the International Steering Committee decided to change the name from the "International Workshop on CSCW in Design" to the "International Conference on CSCW in Design". The 5th International Conference on CSCW in Design (CSCWD 2000) was then held on November 29 to December 1, 2000, in Hong Kong, China, followed by CSCWD 2001 on July 12-14, 2001, in London, Ontario, Canada; CSCWD 2002 on September 25-27, 2002, in Rio de Janeiro, Brazil; CSCWD 2004 on May 26-28, 2004, in Xiamen, China.

The 9th International Conference on CSCW in Design (CSCWD 2005) was held on May 24-26, 2005 in Coventry, UK. Two volumes of conference proceedings were published with 212 papers. The present book includes 65 articles that are the expanded versions of papers presented at CSCWD 2005 and is organized in topical sections on CSCW techniques and methods, Grids and Web services, agents and multi-agent systems, ontology and knowledge management, collaborative design and manufacturing, enterprise collaboration, workflows, and other related approaches and applications.

Many people contributed to the preparation and organization of CSCWD 2005. We would like to thank all Program Committee members for their efforts in promoting the conference and carefully reviewing the submitted papers, as well as the authors who contributed to the conference. We would also like to thank the chairs and members of the Organizing Committee for taking care of all the details that made CSCWD 2005 successful, particularly members of the Distributed Systems and Modeling Research Group at Coventry University.

January 2006

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Table of Contents