Preface

The ARCS series of conferences has over 30 years of tradition reporting top-notch results in computer architecture and operating systems research. It is organized by the special interest group on "Computer and System Architecture" of GI (Gesellschaft für Informatik e.V.) and ITG (Informationstechnische Gesellschaft im VDE - Information Technology Society). In 2009, ARCS will be hosted by the Delft University of Technology, which has one of the leading information technology schools in Europe.

This year's special focus is set on energy awareness viewed from two different perspectives. Firstly, this deals with the improvement of computer systems to be as energy-efficient as possible (particularly for specific applications). One can think of heterogeneous multi-core architectures or reconfigurable architectures for this purpose. Secondly, this addresses the usage of computer systems to reduce the energy consumption of other systems, which might lead to problems of communication and cooperation. Like the previous conferences in this series, it continues to be an important forum for computer architecture research.

The call for papers resulted in a total of 57 submissions from around the world. Every submission was assigned to at least three members of the program committee for review. The program committee decided to accept 21 papers, which are arranged into eight sessions with the result of a strong program. The accepted papers are from: Finland, France, Germany, Japan, The Netherlands, Singapore, Spain, United Kingdom, and USA. Three intriguing keynotes from academia and industry complement the technical program.

We would like to thank all who contributed to the success of this conference, in particular the members of the program committee (and the additional reviewers) for carefully reviewing the contributions and selecting a high quality program. Our Workshop and Tutorial Chair Jörg Hähner did a perfect job in organizing the tutorials and coordinating the workshops. Our special thanks go to the members of the organizing committee for their numerous contributions: Thomas B. Preußer set up the conference software and designed and maintained the conference web site. Dimitris Theodoropoulos took over the tedious job to prepare this volume. We would like to especially thank Carlo Galuzzi for taking care of the local arrangements and many other aspects in the organization of the conference.

We hope that all participants enjoy a successful conference, make a lot of new contacts, engage in fruitful discussions, and have a pleasant stay in Delft.

March 2009

Christian Hochberger and Stephan Wong
Program Chairs
Mladen Berekovic and Christian Müller-Schloer
General Chairs