Message from the Program Chairs

We welcome you to the Twenty-Eighth International Conference on Software Engineering and Shanghai, China. This is the first instance of the ICSE conference series to be held in China, and it is an exciting time and place for ICSE 2006.

The conference brings researchers, educators, practitioners and students together to present, exchange ideas and engage in discussions about the recent and exciting innovations and research in software engineering. Exciting sessions on practical experience, educational issues, and doctoral and new faculty symposia have been organized. The conference also includes a wide variety of tutorial, workshops and demonstration offerings. Finally, since research and markets in our host country China are continuously growing, ICSE includes a separate Far East Track for discussions on the contributions and challenges of our Chinese colleagues. We trust that this mix will provide interesting and stimulating offerings to all members of our growing community.

The technical program committee is pleased to present this conference proceeding that contains the research papers of the technical program for ICSE 2006. The technical program for this conference focuses on new and innovative software engineering contributions in theory, formal methods, system building and empirical studies. The papers represent an alluring array of topics, including software design, architecture, reuse, testing, analysis, processes and formal methods.

Because of the growing number of paper submission and the resulting large program committees in the past, we instituted a new two-phase reviewing process this year. Our program committee had 36 members. In the first phase, each submitted paper was reviewed by 3 reviewers: 2 from the program committee and an external reviewer from the software engineering community. We had 265 external reviewers who contributed 370 reviews for this phase. Those papers receiving the best reviews were considered in the second phase. A total of 99 papers entered the second phase. Each of these papers was reviewed by another program committee member. Thus, each accepted paper had a total of 4 reviews (3 reviews from pc members and 1 review from an external reviewer). Each rejected paper had at least 3 reviews. The pc members reviewed 24-25 papers in the two phases, a reasonable number. We feel that this system worked very well.

The program committee met for two days in December, 2005 in Frankfurt, Germany. By the end of the meeting, a consensus emerged for the 36 papers in this proceedings (9% of the total submissions). There were many high quality submissions that could not be accommodated in the program; hopefully a revised version will be published elsewhere.

In addition to the papers, we organized four invited sessions. One invited session focuses on empirical studies, an increasingly important component of software engineering research and practice. We also have an invited panel that addresses the value and practice of formal methods. Since software engineering techniques are growing in importance in challenging safety critical domains, we included two invited sessions: one on software engineering for automotive engineering and the other on software engineering for assisted living.

We are very pleased that a notably diverse and outstanding group of three leaders of the software engineering community have agreed to present keynote speeches. The opening day keynote will be presented by Prof. Yang Fuqing, from Peking University, a woman who has been at the very forefront of the software engineering communities of research and practice in China for decades. Her perspectives on the past and future of software engineering in China will be complemented by a keynote on similar themes presented on the second day. This second keynote will be presented by...
delivered by Prof. Barry Boehm, from the University of Southern California, USA. His talk will review the history of software engineering research and practice in the West over the past decades, and project it forward into the 21st century. Finally, the keynote speaker on the third day, Mr. Reinhold Achatz, from Siemens Corp., will present a complementary view of software engineering research and practice, as viewed from the perspective of one of the great multinational corporations, based in Europe. We are truly excited at the prospect that these three keynotes will provide a searching multidimensional view of our community at this time of historic convergence of communities.

The continued success and high quality of the ICSE conference series would not be possible without the help and support of the software engineering community. First, we would like to gratefully acknowledge and thank all of the authors who submitted papers. We especially thank the program committee members for their efforts and commitments in reviewing the papers and securing reviews from external reviewers. They put in an extraordinary amount of their time to provide thoughtful and knowledgeable reviews. The exceptionally strong technical program represented by the papers in this proceeding could not be possible without their efforts.

We also would like to thank the 265 external reviewers for their commitment to the ICSE community and their willingness to ensure that ICSE remains the highest quality conference. It is indeed wonderful to see so many people from our community participating in the development of the ICSE final program.

Lastly, we thank Lee Osterweil, the ICSE 2006 Conference Chair for all of his help, guidance and support. Lee supported our plan to try a different review process and helped in presenting it to the ICSE Steering Committee. He also attended the program committee meeting and provided leadership. We also thank the ICSE Steering Committee for their willingness to try a new program committee process and their valuable suggestions.

We hope your experience at ICSE 2006 and China is both productive and enjoyable.

Dieter Rombach
Program Co-Chair
University of Kaiserslautern and Fraunhofer IESE, Kaiserslautern, Germany

Mary Lou Soffa
Program Co-Chair
University of Virginia Charlottesville, VA USA