Welcome to the twentieth annual IEEE Real-Time Systems Symposium. During the past twenty years, the field of real-time systems has matured and expanded into many areas of computer and communication technologies. As we move into the twenty-first century, we expect that real-time technology will become an even more important field in computer science and engineering.

The purpose of this symposium is to bring together developers and researchers from universities, industry and government to advance real-time technology and its applications. In addition to regular paper presentations, this year we have organized special events to celebrate the twentieth anniversary of this conference. These events include three keynote presentations given by David Tennenhouse, Jim Kurose, and C.L. Liu, a special panel led by Lui Sha, an award ceremony by IEEE Technical Committee on Real-Time Systems, and publication of a CD that contains all 20 proceedings of RTSS. We appreciate your participation in the symposium. Please join us to help celebrate twenty years of achievement in real-time computing and communication.

Interest in the symposium has been confirmed by the submission of papers from all over the world. There were 146 submissions representing more than 16 countries. The program committee members carefully reviewed and discussed every paper and made difficult decisions at the program committee meeting, held on July 10, 1999. The expert opinions of many outside reviewers were invaluable in making the selections and ensuring the high quality of the program, for which, we express our sincere gratitude. The final program reflects recent developments in operating systems, scheduling algorithms, network protocols, data mining, and tools for specification, modeling, and measurements.

The symposium is the result of the hard work of many authors, reviewers, and conference committee members. We are grateful for everyone’s efforts in making the conference a success. Special thanks are due to Doug Locke and Lui Sha, the chairs of the IEEE Technical Committee on Real-Time Systems, for their help and guidance; Walt Heimerdinger for his effective management of the finances, Linda Buss for her smooth handling of the registration, Sherry Escalante for her professional coordination of various administrative matters, Dong Xuan for his efficient management of the conference web site, Deborah Plummer and Anne Rawlinson of the IEEE Computer Society for their timely production of the proceedings and the CD.

We would also like to acknowledge the generous support of the Office of Naval Research and Microsoft Cooperation.

Richard Gerber  
*General Chair*

Wei Zhao  
*Program Chair*