Welcome to the 20th International Conference on Data Engineering (ICDE 2004). This year's conference is being held in Boston Massachusetts, a center for technology and biotechnology and the home of many world-renowned universities. ICDE 2004 continues the tradition of being a premier forum for the presentation of both theoretical and practical research in database management systems and data-centric applications. We hope you will find the program both stimulating and informative.

The success of any large conference such as this one depends on the hard work and cooperation of many people. The local arrangements committee, George Kollios, Betty O'Neil, Arnon Rosenthal and Donghui Zhang, selected the hotel, chose the Aquarium for the banquet, and helped with numerous details to make the conference run smoothly. The publicity chair, Dina Goldin, worked tirelessly on keeping the webpage up to date and providing advertisements and flyers. The treasurer, Eric Hughes, was always up-to-date with budgets and correspondence with the IEEE.

The ICDE 2004 technical program includes 3 invited talks by David H. Lehman, Steven Hagen and Eric K. Neumann, 21 research paper sessions, 2 poster sessions, 3 panels, 4 industrial paper sessions, and 16 demos. We have a very diverse and international program committee from universities, research institutions and industry in 16 different countries. The Program Committee, consisting of 12 area vice chairs and 127 program committee members, provided extensive and detailed reviews for the evaluation and ranking of papers, selecting 63 research papers and 20 posters out of 441 submissions.

Vice chairs Panos Chrysanthis, Mary Fernandez, Dimitris Gunopulos, Jiawei Han, Joe Hellerstein, Ling Liu, Guy Lohman, Jeff Noughton, Beng Chin Ooi, Yannis Papaconstantinou, Louiqa Rachid and Aidong Zhang worked hard in organizing the discussions of papers within their sub-areas. Nesime Tatbul spent many hours with Microsoft CMT, communicating with authors, and in general doing much of the heavy lifting. We thank Surajit Chaudhuri and Tim Olson for their help and support regarding CMT software. Gail Mitchell, our industrial chair, not only organized the industrial program but also invited the plenary speakers. Mitch Cherniak chose the advanced seminars and Ugur Cetintemel organized the demos. Pat O'Neil found panel chairs to lead provocative panel discussions. Last but not least, Elke Rundensteiner has put together this proceedings issue.

We also thank the ICDE Steering Committee for their support and the IEEE CS staff, especially Maggie Johnson, for help and advice.

Welcome to Boston and enjoy the conference and the invigorating New England Spring weather.

Betty Salzberg and Mike Stonebraker, co-general chairs
Meral Ozsoyoglu and Stan Zdonik, co-program chairs