

Proceedings

Edited by  
F. Golshani

Eighth International Conference on

# DATA ENGINEERING

February 3-7, 1992  
Tempe, Arizona

Sponsored by  
IEEE Computer Society Technical Committee on Data Engineering  
With Corporate Support by  
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The Institute of Electrical and Electronics Engineers, Inc.


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THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

## Message from the General Chairperson

I would like to welcome you to Phoenix and the Eighth International Conference on Data Engineering (ICDE-8). ICDE is back in the United States after its first successful overseas conference in 1991 in Kobe, Japan. Given the strategic position that computer technologies play in the Phoenix area, this is a very exciting place to host ICDE-8. We hope that you will find both the tutorials and technical program useful and stimulating, and that you will take advantage of this opportunity to engage in social and technical dialog with your colleagues from other parts of the world. The submissions we received for this conference from so many different countries makes ICDE-8 a truly international conference.

An international conference of this size and diversity requires much effort and coordination from many people and organizations. It is simply impossible to recognize all persons who have contributed their efforts to make ICDE-8 what it is today. Nevertheless, we would like to acknowledge the invaluable support we have received from the following individuals. As General Chairperson, my primary responsibility is coordinating various tasks carried out by other willing and talented volunteers. I would like to take this opportunity to express my sincere appreciation to Dr. Forouzan Golshani, Program Chair; Carol Chapman, his assistant; and his 60-member program committee for doing an excellent job in selecting 69 high-quality papers for presentation at the conference. Forouzan made my job easy. Thanks are due to Tom Howell for arranging excellent tutorials. Special thanks go to Lana Ruch for taking care of local arrangements, to Julie Mumpy for awards, to our publicity chair Mansur Samadzadeh, to our European coordinator, Herbert Weber, and our industry coordinator, Bob Horton, to our registration chair Oris Frieson, to our treasurer Richard Snodgrass, and for publications, Chenho Kung. I would like to express my thanks to the ICDE steering committee for their vote of confidence.

I would also like to express my appreciation to both Professor Stefano Ceri and Dr. Laszlo for accepting our invitation to be the keynote speakers. Both of them are highly active and productive researchers who have made significant contributions to many areas of computer science and engineering.

Special mention must be made to Bull Worldwide Information Systems; without their generosity, the conference would not be as successful as we expect. Finally, I would like to thank all the attendees of ICDE-8, and hope that you will find time to enjoy both the conference and the city of Phoenix to the utmost extent.

*Nick Cercone*  
General Chairperson  
Vancouver, 1992

## Message from the Program Chairperson

First and foremost, I would like to acknowledge the generous financial support that Bull Worldwide Information Systems has provided to this conference. I would also like to thank numerous employees of Bull for their assistance in various capacities. Several other companies, including American Express, Honeywell and Intel, have made valuable contributions to the organization of this event.

Following the tradition of previous meetings, this eighth occurrence of IEEE International Conference on Data Engineering begins with a keynote address from Dr. Laszlo Beladey, a leader for many years in various R & D centers. Dr. Stefano Ceri, known for his numerous achievements in the database field, will deliver the other keynote address.

During the planning phase, our hope was to make this conference a meeting place for industry, academia and research centers. Thus, the theme of technology transfer seemed appropriate. As a first step, we organized a plenary session with a highly qualified panel of experts, each representing a particular segment of the computer science community in general and databases in particular.

The number of papers submitted to the 1992 conference was consistent with the figures from previous years. Each submission was reviewed by at least three referees. When there was no consensus, as many as five people read the paper to determine its acceptability. A total of 213 papers were submitted, out of which 69 were selected for inclusion in the proceedings. This represents an acceptable rate of less than one third. In addition, two panel proposals were accepted for inclusion in the program.

On behalf of the Program Vice Chairs, members of the program committee, and the entire Phoenix crew, I welcome you to Phoenix and hope that you will enjoy this conference.

*Forouzan Golshani*  
Program Chairperson

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Kunihiko Moriya  
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