Organizing an international conference offers challenges and opportunities for all participants as well as the organizers. The AI community works together amazingly well and Individuals in the community respond to requests generously and efficiently. Because of this help and cooperation, the Program Chairman's job for IJCAI, in particular, is as interesting as It is demanding.

Communication was one problem that surfaced in many interesting forms. Working across both oceans will be much easier when the major academic and research centers of the world are linked electronically. Some manifestations of Parkinson's Law that we encountered were: mail strikes, customs delays, lost telegrams, addresses good for a few weeks, and telephone calls across seven and eleven time zones, not to mention magnificent delays In the notorious postal systems of the world and outrageous lines In our own post office.

Because of these obstacles, the efficiency of both S.Tsuji and P.Hayes was all the more apparent and appreciated. They coordinated all correspondence involving Japanese or European authors or referees and they interpreted and summarized the judgments of their referees.

Several other persons were especially generous of their time in planning the program. The program committee spent many hours sorting papers, assigning papers to referees, reviewing the reviews and the papers themselves, and ultimately selecting the program. These persons are Tom Binford, Jim Davidson, Penny Nil, Earl Sacerdoti, Yoshiaki Shirai, Don Walker, and Richard Weyrauch. T am immensely grateful for their help. In addition Ed Feigenbaum, Peter Hart, Nils Nilsson and Carli Scott provided substantial help when needed.

As always, the success of IJCAI rests with the referees, whose names are listed on a separate page. For every paper we solicited reviews from two or more referees, at least one Japanese referee for every Japanese paper and at least one European referee for every European paper. Their technical comments and global judgments were invaluable to us and, we believe, to the authors. I want to give special thanks to the referees who reviewed more than one set of papers without asking if I'd made a mistake.

The details of organizing the crush of paper and putting together the proceedings fell into the able hands of Bethanne Cellars.

This year we are pleased to introduce the IJCAI Distinguished Service Award to honor a senior AI researcher for contributions and service to AI, with the first award going to Prof. Bernard Meltzer. We are also pleased to announce that the IJCAI fund has been able to endow the Computers and Thought Award, this year given to Dr.David Marr.

For this program we are experimenting with presentations of some papers in poster sessions, because future conferences will have more and more difficulty fitting a reasonable subset of the submitted papers into scheduled talks* In the proceedings we have arranged the papers by authors and provided a rudimentary topic Index, anticipating the day when all the papers will be transmitted electronically and indexed automatically. We are still experimenting with different lengths of papers in order to provide some information about a lot of work. We have encouraged authors to submit longer versions of these papers to major journals, and have sent many papers and reviews to the journal editors. Participants are encouraged to send comments on these (or other) aspects of the program to the next Program Chairman.

The papers printed in these volumes represent the current state of AI research around the world. They do not fit neatly into categories. However the range of topics, as well as the number and geographical distribution of papers, indicates the vigor of AI research.

Bruce C. Buchanan
Program Chairman

GENERAL CHAIRMAN
Prof. Raj Reddy
Dept. of Computer Science
Carnegie-Mellon University
Pittsburgh, PA 15213

GENERAL CO-CHAIRMAN
Prof. Koklchi Tanaka
Dept. of Information
  and Computer Sciences
Osaka University
Toyonaka, Osaka 560, Japan

PROGRAM CHAIRMAN
Prof. Bruce G. Buchanan
Computer Science Department
Stanford University
Stanford, California 94305   USA

PROGRAM COMMITTEE
T.,0. Binford
J. E. Davidson
H.P. Nil
E.,D. Sacerdotl
D.,E. Walker
R.W. Weyhrauch

PROGRAM CO-CHAIRMAN ASIA
Prof. Saburo Tsuji
Dent, of Control Engineerln?
Osaka University
Toyonaka, Osaka 560, Japan

PROGRAM CO-CHAIRMAN, EUROPE
Dr. Patrick Hayes
Dept. of Computer Science
University of Essex
Colchester. C04 3 SQ
Essex, England

LOCAL ARRANGEMENTS CHAIRMAN
Dr. Hiroji Nishino
Electrotechnical Lab
Nacata-cho-2-6-1 Chiyoda-ku
Tokyo 100, Japan

SECRETARY-TREASURER
Dr. Donald E. Walker
SRI International
Menlo Park , CA 94025

PAST GENERAL CHAIRMAN
Prof. Woody Bledsoe
Dept. of Mathematics
University of Texas
Austin, TX 78712

COMMITTTFE MEMBERS

Prof. Dr. Peter Deussen
Instut fuer Informatick I
Universitaet Karlsruhe
Postfach 6300
D-7500 Karlsruhe 1, Germany

Prof. Alan Mackworth
Dept. of Computer Science
University of British Columbia
Vancouver. B.C.
Canada V6T 1W5

Prof. Ugo Montanari
Department of Computer Science
University of Pisa
1-56100 Pisa, Italy

H. Penny Nil
Computer Science Department
Stanford University
Stanford, California, 94305   USA

Dr. Earl Sacerdotl
A I Center
SRI International
Menlo Park, CA 94025

Dr. V.L. Stefanyuk
Institute for Information
  Transmission Problems
Academy of Sciences USSR
Ermolovoy 19
Moscow K-51, USSR

Dr. David L. Waltz
Coor. Science Lab
Univ. of Illinois
Urbana, IL 61801