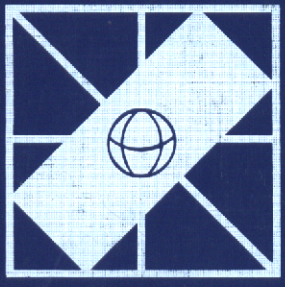
fifth generation computer architectures

edited by
j.v. woods



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FIFTH GENERATION COMPUTER ARCHITECTURES

IFIP TC 10 Working Conference on
Fifth Generation Computer Architectures
Manchester, U.K., 15-18 July, 1985

NORTH-HOLLAND
AMSTERDAM · NEW YORK · OXFORD · TOKYO

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J. V. WOODS
University of Manchester
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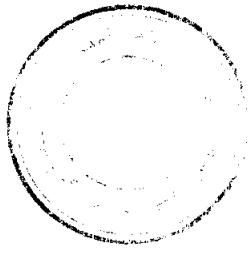

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FOREWORD

This book contains a collection of the papers that were presented at the Working Conference on Fifth Generation Computer Architectures held at the University of Manchester Institute for Science and Technology from July 15th to 18th, 1985. The Conference was sponsored by Technical Committee TC-10 of the International Federation for Information Processing (IFIP).

The aim of the Working Conference was to draw together 50 or so of the world's leading reseachers in the area of novel computer architecture so that they could present ongoing work and disseminate their recent results. The following areas were thought to be of interest: architectures for functional and logic programming, parallel dataflow and reduction machines, inference architectures and human-machine interfaces. Both formal and informal submissions were sought, the latter being progress reports on projects of general interest. The Programme Committee invited three speakers to give keynote talks and selected 15 of the 51 submitted papers for formal presentation. A number of informal presentations were also selected. Authors were invited to prepare written versions of their papers which would be considered for publication in the Proceedings. Referees' comments were sought and the resultant changes included.

The Programme Committee felt that the main objective of the Working Conference had been achieved in that many leading researchers attended and disseminated their latest work. The discussion sessions were particuarly lively and informative. There was an interesting mix of the famous and the less well-known which added an extra dimension to the event. All in all the Conference was another testimony to the benefit of the international collaboration that is fostered by IFIP.

Of course, these events always rely on the hard work of the few altruistic persons who can turn such an idea into a reality. We would like to offer our sincere thanks to everyone who assisted in making the Working Conference a success: firstly to our late Conference Chairman, Professor Tohru Moto-oka; secondly to the Chairman of IFIP TC-10, who was also our Chairman of Local Affairs, Professor David Aspinall; thirdly to our Proceedings Editor and Conference Secretary, Dr. Viv Woods; and finally to the Members of the Programme Committee and all the local helpers who contributed to the smooth running of the conference.

Professor Tohru Moto-oka

It is a matter of great sadness that these Proceedings must open by reporting that the Conference Chairman, Professor Moto-oka, of the University of Tokyo, died on the 11th November, 1985. Professor Moto-oka was renowned throughout the world for his leading role in the Japenese Fifth Generation Computer Systems Project and he was a key member of IFIP TC-10. His achievements already attest to his stature, but it is particularly sad that he will not be able to see the final fruits of his endeavours in the above areas. He will be greatly missed.

Hideo Aiso and John Gurd
Programme Committee Chairman and Deputy

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