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Series Editors
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Volume Editor

Abdul Sattar
Griffith University, School of Computing and InformationTechnology
Faculty of Information and CommunicationTechnology
Nathan, Brisbane, Australia, 4111
E-mail: sattar@cit.gu.edu.au

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Preface

The Australian Joint Conference on Artificial Intelligence series is steered by the Australian Computer Society's (ACS) National Committee on Artificial Intelligence and Expert Systems. It aims at stimulating research by promoting exchange and cross-fertilisation of ideas among different branches of Artificial Intelligence. It also provides a common forum for researchers and practitioners of AI to exchange new ideas and share their experience.

This volume contains the proceedings of the Tenth Australian Joint Conference on Artificial Intelligence (AI'97) held in Perth, Australia. AI'97 received 143 submissions, of which 46 came from 18 overseas countries. From these, 48 papers (33.5%) were accepted for presentation and included in this volume. Over 30 papers were accepted for poster presentations and are published separately. Most of the papers were refereed by three reviewers (at least one from overseas) selected by the Program Committee members.

The papers in this volume give an indication of recent advances in Artificial Intelligence. The topics covered include Knowledge Representation and Reasoning, Machine Learning, Knowledge-Based Systems, Constraint Satisfaction and Scheduling, Distributed Artificial Intelligence, Neural Networks, Robotics and Machine Perception, Image Analysis and Vision, Evolutionary Computation, Natural Language and User Interfaces, and Temporal/Qualitative Reasoning.

The technical program comprised two days of workshops and tutorials, followed by paper sessions, keynote talks, and special sessions. The keynote speakers — Hector Levesque, Ruud Bolle, and Leon Sterling — are internationally distinguished researchers and need no introduction. I must thank them for preparing full papers on their talks. These papers are included in these proceedings. The special session on Robotics and Machine Perception was chaired by Ray Jarvis and that on Learning and Machine Vision was chaired by Terry Caelli.

The success of a conference depends on the support and cooperation from many individuals and organisations; AI'97 is no exception. The Conference Committee gratefully acknowledges financial support from the ACS National Committee on AI & ES, the Australian Artificial Intelligence Institute, Curtin University and IBM Australia.

I would like to take this opportunity to thank the authors, Program Committee members, reviewers and fellow members of the Conference Committee for their time and effort spent on making AI'97 a successful and enjoyable conference. Among all these people, I must single out Terry Caelli who has been a cheerful guide throughout this process.

Finally, I thank Springer-Verlag and its Computer Science Editor Alfred Hofmann, and Anna Kramer for efficient assistance in publishing these proceedings of AI'97 as a volume in its Lecture Notes in Artificial Intelligence series.

December 1997

Abdul Sattar
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