

Lecture Notes in Artificial Intelligence
Subseries of Lecture Notes in Computer Science
Edited by J. Siekmann

Lecture Notes in Computer Science
Edited by G. Goos and J. Hartmanis

Editorial

Artificial Intelligence has become a major discipline under the roof of Computer Science. This is also reflected by a growing number of titles devoted to this fast developing field to be published in our Lecture Notes in Computer Science. To make these volumes immediately visible we have decided to distinguish them by a special cover as Lecture Notes in Artificial Intelligence, constituting a subseries of the Lecture Notes in Computer Science. This subseries is edited by an Editorial Board of experts from all areas of AI, chaired by Jörg Siekmann, who are looking forward to consider further AI monographs and proceedings of high scientific quality for publication.

We hope that the constitution of this subseries will be well accepted by the audience of the Lecture Notes in Computer Science, and we feel confident that the subseries will be recognized as an outstanding opportunity for publication by authors and editors of the AI community.

Editors and publisher

Lecture Notes in Artificial Intelligence

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Subseries of Lecture Notes in Computer Science

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G. Gottlob W. Nejdl (Eds.)

Expert Systems in Engineering

Principles and Applications

International Workshop

Vienna, Austria, September 24–26, 1990

Proceedings



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Editors

Georg Gottlob

Wolfgang Nejdl

Christian Doppler Laboratory for Expert Systems

Department of Computer Science, Technical University of Vienna

Paniglgasse 16, A-1040 Vienna, Austria

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Preface

The application of expert systems in a technical environment has been an important topic in the last years. Techniques for this area have been described in all artificial intelligence conferences in more or less detail.

This volume contains the final versions of papers that were presented at the International Workshop on Expert Systems in Engineering held on three days in September 1990 in Vienna. Out of 49 papers submitted, 15 papers were accepted as long paper and 4 as short papers, all of which are reprinted in this volume.

Of course it is not possible to cover all facets of such a large area during one workshop, so the papers presented mainly focus on four distinct areas: model-based diagnosis (8 papers + 1 invited talk), planning/design/scheduling (5 papers), general reasoning (3 papers) and applications (3 papers).

The members of a panel discussion described and discussed applications of several of these expert system techniques in the steel industry. Abstracts of their presentations have also been included.

We thank all who have submitted a paper to this workshop and are grateful to the members of the program committee and the additional referees, who contributed a lot to the success of this workshop. The workshop was sponsored by the Austrian Industries in the context of the Christian Doppler Laboratory for Expert Systems and took place at the Technical University of Vienna.

We think the included papers will enable the reader to identify important topics and results in this field and hope that the publication of these results will further stimulate research in this rapidly changing and expanding area.

Vienna, September 1990

Georg Gottlob, Wolfgang Nejdl

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