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Preface

The Japanese Society for Artificial Intelligence (JSAI) was established in July 1986. Since then, we have held conferences every year. Although JSAI is the second largest community in the world focusing on the area of Artificial Intelligence and we have over 3,000 members, the importance of the research presented and discussions held at the annual conferences has not been fully recognized in the Artificial Intelligence communities elsewhere in the world, partly because most presentations are made in the Japanese language. Therefore, the program committee of the Fifteenth Annual Conference of JSAI decided to open the door to the world and hold international workshops during the conference on May 20th and 25th, 2001 in Matsue City, Japan.

The workshop proposals were gathered from the members of JSAI. We accepted the following up-to-date and exciting topics: 1) Social Intelligence Design chaired by Prof. Toyoaki Nishida, University of Tokyo, 2) Agent-Based Approaches in Economic and Social Complex Systems chaired by Prof. Akira Namatame, National Academy of Defense, 3) Rough Set Theory and Granular Computing chaired by Prof. Shusaku Tsumoto, Shimane Medical University, 4) Chance Discovery chaired by Prof. Yukio Osawa, and 5) Challenge in Knowledge Discovery and Data Mining chaired by Prof. Takashi Washio, Osaka University. These workshops were highly welcome and successful. A total of 116 people in Japan and 30 researchers from abroad participated in them.

This volume of the proceedings contains selected papers presented at the workshops. The contents of the volume are divided into five parts, each of which corresponds to the topics of the workshops. Each paper was strictly reviewed by the committee members of the workshops. They also cover recent divergent areas of artificial intelligence. We believe that the volume is highly useful for both researchers and practitioners who have interests in recent advances in artificial intelligence.

October 2001

Takao Terano
JSAI Workshops as International Trends

Looking at the current economic, political, and ecological situations, we become aware of the dynamic environment surrounding all human activities. Hand in hand, the expansion of the World Wide Web is activating the whole globe as an information system including humans, computers, and networks.

The workshop topics associated with JSAI 2001 were designed to hit such world wide trends. Social Information Designs are needed to aid the mutual progress of human society and various kinds of information flows. The Agent-Based Simulations consider social behavior from the aspect of economics, with the up-to-date viewpoint of complexity. Rough Set Theories may achieve a breakthrough with regard to dealing with uncertain real world events on the basis of established theories. Chance Discovery is a new direction proposed by Japanese researchers, for helping people and agents be aware of novel information, significant for their own decisions in dynamic environments. KDD-Challengers are responding to requirements for new knowledge to be obtained from new data in new social situations.

I am sure the selected papers from these first international workshops associated with JSAI will win the attention of people from several different areas of research, not only artificial intelligence but also social sciences and other areas looking into the future of human life. A piece of good news for those readers is that JSAI is becoming increasingly international, after many years as a semi-domestic Japanese AI community. With the foundation of five workshop themes this year, the new generation of AI researchers is finding new problems and new solutions in the creative atmosphere. On behalf of all the workshop organizers, I wish to draw readers’ attention to forthcoming international JSAI events.

Before beginning the contents, let us express our gratitude to the great support given by the co-editors who organized each workshop, all authors and audiences. JSAI committee members, Shimane prefecture and Matsue city, and Jun’ichiro Mori of the University of Tokyo whose operations greatly aided this publication.

October 2001

Yukio Ohsawa
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