Multi-Agent Systems and Applications IV

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Preface

The aim of the CEEMAS conference series is to provide a biennial forum for the presentation of multi-agent research and development results. With its particular geographical orientation towards Central and Eastern Europe, CEEMAS has become an internationally recognised event with participants from all over the world. After the successful CEEMAS conferences in St. Petersburg (1999), Cracow (2001) and Prague (2003), the 2005 CEEMAS conference takes place in Budapest. The programme committee of the conference series consists of established researchers from the region and renowned international colleagues, showing the prominent rank of CEEMAS among the leading events in multi-agent systems.

In the very competitive field of agent oriented conferences and workshops nowadays (such as AAMAS, WI/IAT, EUMAS, CIA, MATES) the special profile of CEEMAS is that it is trying to bridge the gap between applied research achievements and theoretical research activities. Our ambition is to provide a forum for presenting theoretical research with an evident application potential, implemented application prototypes and their properties, as well as industrial case studies of successful (but also unsuccessful) agent technology deployments. This is why the CEEMAS proceedings volume provides a collection of research and application papers. The technical research paper section of the proceedings (see pages 11–499) contains pure research papers as well as research results in application settings while the application papers section (see pages 500–530) contains papers focused on application aspects. The goal is to demonstrate the real life value and commercial reality of multi-agent systems as well as to foster communication between academia and industry in this field.

CEEMAS is also very special and unique in the fact that it is constantly contributing to building an agent research community. The programme committee has decided to create a special collection of short papers to provide an opportunity to present ongoing research work with the potential of achieving mature and higher-impact research results in the near future. This allows researchers to expose their work for constructive criticism and discuss their projects with other experts in an early phase of their research. On the other hand this also provides the audience with fresh, innovative and highly motivating ideas that may deserve further investigation. Short papers have been also divided into research (see pages 531–631) and application (see pages 632–664) tracks.

The topics of the CEEMAS proceedings cover an enormously wide range of areas such as: abstract and specific agent architectures, methods and modelling approaches for agent oriented software engineering, agent communication and protocols, and also classical problem domains such as learning, planning, trust and reputation. Besides formal domains such as logical modelling and game-theoretical approaches to agency, substantial attention has been paid to scal-
ability, robustness and performance issues as well as methods for coordination and teamwork. CEEMAS also features papers about applications from the field of manufacturing, utility distributions, Internet trading, virtual enterprises or defence.

We received 113 submissions, and each paper was reviewed by at least two independent reviewers. Of the submitted papers, 48 were accepted as full research papers and 3 as full application papers. In addition, 8 short application and 25 short research papers were accepted.

Many individuals and institutions have supported the organisation of this conference and made CEEMAS 2005 a high-quality event. Our special thanks go first to the authors and invited speakers for their invaluable and strenuous work. Also, the work of the Programme Committee members who accepted the heavy load of the two-phase review of a large number of contributions is gratefully acknowledged. We are especially thankful to the conference department of the Computer and Automation Research Institute of the Hungarian Academy of Sciences, and in particular to Magdolna Zsivnovszki, for their excellent organisational activities and the computer work related to the preparation of the electronic versions of this volume.

Separate thanks go to AgentLink, the European Coordination Action for Agent-based Computing, for the continual support of the CEEMAS conferences from their very initiation in 1999 in St. Petersburg, and to AITIA Inc., for supporting CEEMAS 2005.

As a result, the present collection of papers provides a valuable resource for researchers in the field of multi-agent systems and open distributed systems in general.

July 2005

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