Intelligent Systems 2007 Second Symposium of Young Scientists

Selected Papers

Guest Editors:

Tibor Gregorics

Department of Software Technology
and Methodology
Eötvös Loránd University
Budapest, Hungary

gregorics@inf.elte.hu

Péter Szeredi

Department of Computer Science
and Information Theory
Budapest University of Technology
and Economics
Budapest, Hungary

szeredi@cs.bme.hu

Bálint Molnár

Department of Information Systems
Corvinus University of Budapest
Budapest, Hungary

molnar@informatika.bke.hu

Zoltán Vámossy

Institute of Software Technology
Budapest Tech
Budapest, Hungary

vamossy.zoltan@nik.bmf.hu

Edit Sántáné-Tóth

Department of Software Technology
and Methodology
Eötvös Loránd University
Budapest, Hungary

santa@inf.elte.hu

László Zsolt Varga

System Development Department
Computer and Automation Research
Institute of the Hungarian Academy
of Sciences (MTA SZTAKI)
Budapest, Hungary

laszlo.varga@sztaki.hu

Preface

This issue of *Acta Cybernetica* contains eight papers originally presented at the Second Symposium of Young Scientists, entitled *Intelligent Systems 2007*, held in Budapest, on November 23, 2007. The Symposium, with the Hungarian acronym IRFIX'07, was organised by the Artificial Intelligence Section of the John von Neumann Computer Society (JvNCS), the Hungarian member of the European Coordinating Committee for Artificial Intelligence (ECCAI). The Programme Committee was led by the Chair of the AI Section of JvNCS, Péter Szeredi, and included the five members of the Executive Board of the AI Section, listed as Guest Editors below.

The main goal of the meeting was to provide a forum for young researchers in both theoretical and practical AI for presenting their work, and to support the exchange of ideas between the Hungarian research groups in AI. The Symposium was part of the Hungarian Science Festival, a month-long series of lectures, conferences, celebrations, and other events commemorating the founding of the Hungarian Academy of Sciences in 1825.

The IRFIX'07 Symposium included 12 talks and 12 poster presentations, in various subfields of Artificial Intelligence. The talks were organised in three sessions, entitled Declarative Technologies, Machine Learning, and Applications. The conference featured an invited talk by prof. Tibor Vámos, ECCAI fellow, entitled "What is the use of epistemology, the critical examination of knowledge?". There were over 50 participants, representing a broad range of Hungarian higher education and research institutions, as well as company research labs. There was a lively discussion after each talk, which continued during the concluding poster session.

The event was hosted by the John von Neumann Faculty of Informatics of the Budapest Tech, in its new building at Bécsi út, Budapest.

Following the Symposium the authors of both standard and poster presentations were invited to submit papers to this Special Issue of *Acta Cybernetica*. Fourteen papers were received and were then subjected to the normal refereeing process of the Journal. The eight accepted papers cover a broad spectrum of topics, and report on progress both in the theory and in the practice of AI. The first three papers discuss declarative technologies and their applications: a web application development framework (Hunyadi), a semantic approach to content management (Kovács), and Prolog-based tools for teaching chemistry (Pántya and Zsakó). The next three articles, all from the research group of András Lőrincz, deal with various aspects of reinforcement learning (Szita and Lőrincz, Jeni et al., Gyenes et al.). The Special Issue is concluded with two papers on AI algorithms and theory: a novel evolutionary algorithm is presented by Lomonosov and Renner, while Kárász discusses a mathematical model of a discrete retrial system.

Thanks are due to all the authors presenting their work at IRFIX'07 and especially those submitting their contributions to this Special Issue. In addition to the Guest Editors, the following colleagues took part in the reviewing process: Tibor Ásványi, Balázs Csanád Csaji, László Csink, Zoltán Istenes, Attila Kiss, László Lakatos, Gergely Lukácsy, József Kázmér Tar, and Zsolt Zombori. Their help is very much appreciated. Special thanks are due to Zoltán Vámossy, for his excellent work on the local organisation of the event.

The Third Symposium of Young Scientists, *Intelligent Systems 2008*, is held on November 28, 2008, and a similar Special Issue of Acta Cybernetica is scheduled for 2009.

<div align="center">

Tibor Gregorics   Péter Szeredi
Bálint Molnár   Zoltán Vámossy
Edit Sántáné-Tóth   László Zsolt Varga

Guest Editors
Members of the Executive Board of the
Artificial Intelligence Section of JvNCS

</div>