

Grigoris Antoniou
George Potamias
Costas Spyropoulos
Dimitris Plexousakis (Eds.)

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Advances in Artificial Intelligence

4th Hellenic Conference on AI, SETN 2006
Heraklion, Crete, Greece, May 2006
Proceedings



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Volume Editors

Grigoris Antoniou
George Potamias
Dimitris Plexousakis
University of Crete
Department of Computer Science F.O.R.T.H.
Institute of Computer Science, 71409, Heraklion, Crete, Greece
E-mail: {antoniou, potamias, dp}@ics.forth.gr

Costas Spyropoulos
NCSR "Demokritos" Institute of Informatics and Telecommunications
15310 A. Paraskevi Attikis, Greece
E-mail: costass@iit.demokritos.gr

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Lecture Notes in Artificial Intelligence 3955

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Preface

Artificial intelligence is a dynamic field that continuously finds new application areas with new research challenges. The ever-increasing volume, complexity and heterogeneity of knowledge, as well as the increasingly rapid change in the technological, economic and social environment, pose new needs and raise novel challenges for managing complexity and change. AI provides methods to address these challenges and develop solutions.

This volume contains papers selected for presentation at the 4th Hellenic Conference on Artificial Intelligence (SETN 2006), the official meeting of the Hellenic Society for Artificial Intelligence (EETN). Previous conferences were held at the University of Piraeus (1996), Aristotle University of Thessaloniki (2002) and the University of the Aegean (2004). SETN conferences play an important role in the dissemination of the innovative and high-quality scientific results in artificial intelligence which are being produced mainly by Greek scientists in institutes all over the world. However, the most important effect of SETN conferences is that they provide the context in which AI researchers meet, get to know each other's work, as well as a very good opportunity for students to get closer to the results of innovative artificial intelligence research. In addition, the conference series seeks to raise international participation. This year we had submissions from all over the world: USA, Australia, UK, Germany, Italy, France, Romania, Spain, Denmark, Finland, Mexico, Korea, China.

SETN 2006 was organized by EETN, in collaboration with the Institute of Computer Science of FORTH, and the Department of Computer Science of the University of Crete. The conference took place in Heraklion, on the island of Crete, during May 18–20, 2006.

The conference attracted 125 submissions, which underwent a thorough reviewing process; 43 of these were accepted as full papers. In addition, another 34 submissions were accepted as short papers. This proceedings volume includes the full papers and extended abstracts of the short papers. An indication of the scientific quality of the papers is that the *International Journal of Artificial Intelligence Tools* decided to have a special issue based on the best papers of the conference.

SETN 2006 was honored to have hosted invited talks by two distinguished keynote speakers:

- “Planning with Stochastic Nets and Neural Nets” by Nikolaos Bourbakis, OBR Distinguished Professor of Information Technology and Director of the Information Technology Research Institute at Wright State University, USA
- “Data Mining using Fractals and Power Laws” by Professor Christos Faloutsos of Carnegie Mellon University, USA

Finally, SETN 2006 included in its program an invited session on AI in Power System Operation and Fault Diagnosis, chaired by Nikos Hatziaargyriou.

The members of the SETN 2006 Programme Committee and the additional reviewers did an enormous amount of work and deserve the special gratitude of all participants. Our sincere thanks go to our sponsors for their generous financial support and to the Conference Advisory Board for its assistance and support. The conference operations were supported in an excellent way by the Confious conference management system; many thanks to Manos Papagelis for his assistance with running the system. Special thanks go to Theodosia Bitzou for the design of the conference poster, to Babis Meramveliotakis and Vassilis Minopoulos for the design and maintenance of the conference Web-site, and Maria Moutsaki and Antonis Bikakis for assisting with the preparation of the proceedings. We also wish to thank Round Travel, the conference travel and organization agent, and Alfred Hofmann, Ursula Barth and the Springer team for their continuous help and support.

May 2006

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