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Preface

Artificial intelligence (AI) is a dynamic field that is constantly expanding into new application areas, discovering new research challenges and facilitating the development of innovative products. Today's information overload and rapid technological advancement raise needs for effective management of the complexity and heterogeneity of knowledge, for intelligent and adaptable man-machine interfaces and for products and applications that can learn and take decisions by themselves. Although the mystery of human-level intelligence has just started to be uncovered in various interdisciplinary fields, AI is inspired by the respective scientific areas to explore certain theories and models that will provide the methods and techniques to design and develop human-centered applications that address the above-mentioned needs.

This volume contains papers selected for presentation at the 5th Hellenic Conference on Artificial Intelligence (SETN 2008), the official meeting of the Hellenic Society for Artificial Intelligence (EETN). Previous conferences were held at the University of Piraeus (1996), at the Aristotle University of Thessaloniki (2002), at the University of the Aegean (2004) and at the Institute of Computer Science at FORTH (Foundation for Research and Technology - Hellas) and the University of Crete (2006).

SETN conferences play an important role in the dissemination of innovative and high-quality scientific results in AI which are being produced mainly by Greek scientists in institutes around the world. However, the most important aspect 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 AI research.

SETN 2008 was organized by the Hellenic Society of Artificial Intelligence and the Department of Product and Systems Design Engineering of the University of the Aegean. The conference took place in Hermoupolis, on the island of Syros, during October 2–4, 2008. We wish to express our thanks to the sponsors of the conference, the University of the Aegean, the Department of Product and Systems Design Engineering, the Prefecture of the Cyclades and the Holy Metropolis of Syros.

The program of the conference included presentations of research results and applications from distinguished Greek and foreign scientists in institutes all over the world; 38% of the submitted papers were authored or co-authored by non-Greek researchers. Each submitted paper was evaluated by two independent reviewers of the Program Committee, with the invaluable help of additional reviewers, on the basis of their relevance to AI, originality, significance, technical soundness and presentation. The selection process was hard, with only 27 papers out of the 76 submitted being accepted as full papers. In addition, another 17 submissions were accepted as short papers. We must emphasize the high quality of the majority of the submissions and we would also like to thank all those who submitted papers for review and for publication in the proceedings.

This proceedings volume also includes two prestigious invited papers presented at SETN 2008 by the two distinguished keynote speakers:

- “Grounding Concrete Motion Concepts with a Linguistic Framework” by Yiannis Aloimonos of the University of Maryland, USA
- “Emotion in Cognitive Systems Architectures” by Tom Ziemke of the University of Skövde, Sweden

Finally, SETN 2008 included in its program an invited session on “Applications of AI Research in Engineering Design,” chaired by Argiris Dentsoras.

The editors would like to thank all those who contributed to the success of SETN 2008. In particular, they would like to express their gratitude to the Organizing Committee, for implementing the conference schedule in a timely and flawless manner, the Steering Committee, for its assistance and support, the Program Committee and the additional reviewers, for the time and effort spent in reviewing the papers, and the two invited speakers for their kind participation. Special thanks go to Alfred Hofmann and Ursula Barth and the Springer team for their continuous help and support.

October 2008

John Darzentas
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