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Adam Grzech Moonis Ali (Eds.)

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Preface

The 21st International Conference on Industrial, Engineering and Other Applications of Applied Intelligent Systems (IEA-AIE 2008) held in Wroclaw, Poland was an international scientific forum for researchers in the field of applied artificial intelligence. The presentations of the invited speakers and the authors focused on developing and employing methods and systems to solve real-life problems in all applied intelligence areas. The IEA-AIE conference series, chaired by Moonis Ali, has a very long tradition, and it is the first time it was hosted in Poland.

We received 302 papers from 52 countries. Each paper was sent to at least three Program Committee members for review. Although the general quality of the submissions was very high, only 90 best papers were selected for oral presentation and publication in the LNAI proceedings. The papers in the proceedings cover the following topics: computer vision, fuzzy system applications, robot, manufacturing, data mining and knowledge discovery, neural network, machine learning, natural language processing, Internet application, e-learning, heuristic search, application systems, agent-based system, evolutionary and genetic algorithms, knowledge management, and other applications.

These papers highlight new trends and frontiers of applied artificial intelligence and show how new research could lead to new and innovative applications. We hope you will find these works useful and inspiring for your own research.

We would like to express our sincere thanks to the Program Committee members and all the reviewers for their hard work, which helped us to select the highest quality papers for the conference.

The conference was organized by the Institute of Information Science and Engineering, Wroclaw University of Technology, in cooperation with the International Society of Applied Intelligence (ISAI). We would like to thank our main sponsors, ISAI and Wroclaw University of Technology. Our special thanks are due also to the other sponsors: American Association for Artificial Intelligence (AAAI); Association for Computing Machinery (ACM/SIGART); Canadian Society for the Computational Studies of Intelligence (CSCSI/SCEIO); European Neural Network Society (ENNS); International Neural Network Society (INNS); Japanese Society for Artificial Intelligence (JSAI); Taiwanese Association for Artificial Intelligence (TAAI); and Texas State University-San Marcos.

We wish to thank the members of the Program and Organizing Committees for their very substantial work, especially those who played essential roles: Radosław Katarzyniak (Organizing Chair), Ryszard Kowalczyk (Special Session Chair) and the organizers of the special sessions: Zbigniew Banaszak, Oleg Zaikin, Gordan Jezic, Dan Popescu, Costin Badica, Adrian Giurca, Heloisa de Arruda Camargo, Maria do Carmo Nicoletti, Estevam Rafael Hruschka Jr. and Abdelhamid Bouchachia.

Our special thanks go to the Foundation for Development of Wroclaw University of Technology for the efficient dealing with the registration and management issues.

We would like to thank the invited speakers for their interesting and informative talks of world-class standard. We cordially thank the authors for their valuable

contributions as well as the other participants of this conference. The conference would not have been possible without their support.

Thanks are also due to the many experts who contributed to making the event a success.

March 2008

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2 Joint Session on Adaptive Networked Systems and Fuzzy Knowledge Bases
Costin Badica, Heloisa de Arruda Camargo et al.

3 Software Agents and Multi-agent Systems
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