## **Preface**

This volume contains the papers selected for presentation at the 14th International Symposium on Methodologies for Intelligent Systems, ISMIS 2003, held in Maebashi City, Japan, 28–31 October, 2003. The symposium was organized by the Maebashi Institute of Technology in co-operation with the Japanese Society for Artificial Intelligence. It was sponsored by the Maebashi Institute of Technology, Maebashi Convention Bureau, Maebashi City Government, Gunma Prefecture Government, US AFOSR/AOARD, the Web Intelligence Consortium (Japan), Gunma Information Service Industry Association, and Ryomo Systems Co., Ltd.

ISMIS is a conference series that was started in 1986 in Knoxville, Tennessee. Since then it has been held in Charlotte (North Carolina), Knoxville (Tennessee), Turin (Italy), Trondheim (Norway), Warsaw (Poland), Zakopane (Poland), and Lyon (France).

The program committee selected the following major areas for ISMIS 2003: active media human-computer interaction, autonomic and evolutionary computation, intelligent agent technology, intelligent information retrieval, intelligent information systems, knowledge representation and integration, knowledge discovery and data mining, logic for artificial intelligence, soft computing, and Web intelligence.

The contributed papers were selected from approximately 200 full draft papers by the following program committee members: Kenro Aihara, Troels Andreasen, Nadir Belkhiter, Alan Biermann, Henri Briand, Jacques Calmet, Nick Cercone, John Debenham, Robert Demolombe, Tapio Elomaa, Floriana Esposito, Yutaka Funyu, Koichi Furukawa, Patrick Gallinari, Attilio Giordana, Jerzy Grzymala-Busse, Mohand-Said Hacid, Mirsad Hadzikadic, Howard Hamilton, Dave Hislop, Tu Bao Ho, Guangshu Hu, Kenichi Ida, Mitsuru Ishizuka, Yves Kodratoff, Churn-Jung Liau, Donato Malerba, David Maluf, Stan Matwin, Riichiro Mizoguchi, Hiroshi Motoda, Amihai Motro, Masao Mukaidono, Neil Murray, Hideyuki Nakashima, Maria Orlowska, Lin Padgham, Jeng-Shyang Pan, James Peters, Vijay Raghavan, Gilbert Ritschard, Lorenza Saitta, Nahid Shahmehri, Ayumi Shinohara, Andrzej Skowron, Roman Slowinski, Einoshin Suzuki, Atsuhiro Takasu, Kwok Ching Tsui, Hiroshi Tsukimoto, Shusaku Tsumoto, Haruki Ueno, Akira Utsumi, Lipo Wang, Takashi Washio, Alicja Wieczorkowska, Xindong Wu, Takahira Yamaguchi, Yiyu Yao, Tetsuya Yoshida, and Djamel Zighed.

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## Foundations of Intelligent Systems

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