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Juan D. Velásquez  Sebastián A. Ríos
Robert J. Howlett  Lakhmi C. Jain (Eds.)

# Knowledge-Based and Intelligent Information and Engineering Systems

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# Preface

On behalf of KES International and the KES 2009 Organising Committee we are very pleased to present these volumes, the proceedings of the 13th International Conference on Knowledge-Based Intelligent Information and Engineering Systems, held at the Faculty of Physical Sciences and Mathematics, University of Chile, in Santiago de Chile.

This year, the broad focus of the KES annual conference was on intelligent applications, emergent intelligent technologies and generic topics relating to the theory, methods, tools and techniques of intelligent systems. This covers a wide range of interests, attracting many high-quality papers, which were subjected to a very rigorous review process. Thus, these volumes contain the best papers, carefully selected from an impressively large number of submissions, on an interesting range of intelligent-systems topics.

For the first time in over a decade of KES events, the annual conference came to South America, to Chile. For many delegates this represented the antipode of their own countries. We recognise the tremendous effort it took for everyone to travel to Chile, and we hope this effort was rewarded. Delegates were presented with the opportunity of sharing their knowledge of high-tech topics on theory and application of intelligent systems and establishing human networks for future work in similar research areas, creating new synergies, and perhaps even, new innovative fields of study. The fact that this occurred in an interesting and beautiful area of the world was an added bonus.

The year 2009 stands out as being the year in which the world's financial situation has impacted on the economies of most countries. This has made it difficult to develop meetings and conferences in many places. However, we are really happy to see the KES conference series continue to be an attractor engine for many researchers, PhD students and scholars in general, despite its location in a very far away country like Chile.

We are grateful to many friends and colleagues for making the KES 2009 conference happen. Unfortunately the list of contributors is so long that it would be difficult to include every single one of them.

However, we would like to express our appreciation of the Millennium Institute of Complex Engineering Systems, whose financial support made possible the local organization, the Millennium Scientific Initiative of the Chilean Government, the Department of Industrial Engineering (DIE), and the Faculty of Physical Sciences and Mathematics of the University of Chile.

Also we would like to acknowledge the work of Victor Rebolledo and Gaston L'Huillier, who were in charge of local organisation, and the team of DIE students and Juan F. Moreno, local general organiser, all of whom worked hard to make the conference a success.

We would like to thank the reviewers, who were essential in providing their reviews of the papers. We are very grateful for this service, without which the conference would not have been possible. We thank the high-profile keynote speakers for providing interesting and informed talks to provoke subsequent discussions.

An important distinction of the KES conferences over others is the Invited Session Programme. Invited Sessions give new and established researchers an opportunity to present a "mini-conference" of their own. By this means they can bring to public view a topic at the leading edge of intelligent systems. This mechanism for feeding new blood into research is very valuable. For this reason we must thank the Invited Session Chairs who contributed in this way.

In some ways, the most important contributors to the conference were the authors, presenters and delegates, without whom the conference could not have taken place. So we thank them for their contribution.

We hope the attendees all found KES 2009 a marvellous and worthwhile experience for learning, teaching, and expanding the research networks and that they enjoyed visiting Chile. We wish that readers of the proceedings will find them a useful archive of the latest results presented at the conference and a source of knowledge and inspiration for their research.

September 2009

Juan D. Velásquez
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