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Knowledge-Based Intelligent Information and Engineering Systems

9th International Conference, KES 2005
Melbourne, Australia, September 2005
Proceedings, Part IV

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Lecture Notes in Artificial Intelligence 3684

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Preface

Dear delegates, friends and members of the growing KES professional community, welcome to the proceedings of the 9th International Conference on Knowledge-Based and Intelligent Information and Engineering Systems hosted by La Trobe University in Melbourne Australia.

The KES conference series has been established for almost a decade, and it continues each year to attract participants from all geographical areas of the world, including Europe, the Americas, Australasia and the Pacific Rim. The KES conferences cover a wide range of intelligent systems topics. The broad focus of the conference series is the theory and applications of intelligent systems. From a pure research field, intelligent systems have advanced to the point where their abilities have been incorporated into many business and engineering application areas. KES 2005 provided a valuable mechanism for delegates to obtain an extensive view of the latest research into a range of intelligent-systems algorithms, tools and techniques. The conference also gave delegates the chance to come into contact with those applying intelligent systems in diverse commercial areas. The combination of theory and practice represented a unique opportunity to gain an appreciation of the full spectrum of leading-edge intelligent-systems activity.

The papers for KES 2005 were either submitted to invited sessions, chaired and organized by respected experts in their fields, or to a general session, managed by an extensive International Program Committee, or to the Intelligent Information Hiding and Multimedia Signal Processing (IIHMSP) Workshop, managed by an International Workshop Technical Committee. Whichever route they came through, all papers for KES 2005 were thoroughly reviewed. The adoption by KES of the PROSE Publication Review and Organisation System software greatly helped to improve the transparency of the review process and aided quality control.

In total, 1382 papers were submitted for KES 2005, and a total of 688 papers were accepted, giving an acceptance rate of just under 50%. The proceedings, published this year by Springer, run to more than 5000 pages. The invited sessions are a valuable feature of KES conferences, enabling leading researchers to initiate sessions that focus on innovative new areas. A number of sessions in new emerging areas were introduced this year, including Experience Management, Emotional Intelligence, and Smart Systems. The diversity of the papers can be judged from the fact that there were about 100 technical sessions in the conference program. More than 400 universities worldwide participated in the conference making it one of the largest conferences in the area of intelligent systems. As would be expected, there was good local support with the participation of 20 Australian universities. There was a significant business presence, provided by the involvement of a number of industry bodies, for example, CSIRO Australia, DSTO Australia, Daewoo South Korea and NTT Japan.

KES International gratefully acknowledges the support provided by La Trobe University in hosting this conference. We acknowledge the active interest and support from La Trobe University's Vice Chancellor and President, Prof. Michael Osborne, Dean of

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the Faculty of Law and Management, Prof. Raymond Harbridge, Dean of the Faculty of Science and Technology, Prof. David Finlay, and Head of the School of Business, Prof. Malcolm Rimmer. KES International also gratefully acknowledges the support provided by Emeritus Prof. Greg O'Brien.

A tremendous amount of time and effort goes into the organization of a conference of the size of KES 2005. The KES community owes a considerable debt of gratitude to the General Chair Prof. Rajiv Khosla and the organizing team at La Trobe University for their huge efforts this year in bringing the conference to a successful conclusion. As the conference increases in size each year the organizational effort needed increases and we would like to thank Prof. Khosla and his colleagues for coping efficiently with the largest KES conference to date.

We would like to thank the Invited Session Chairs, under the leadership and guidance of Prof. Lakhmi Jain and Prof. Rajiv Khosla for producing high-quality sessions on leading-edge topics. We would like to thank the KES 2005 International Program Committee for undertaking the considerable task of reviewing all of the papers submitted for the conference. We express our gratitude to the high-profile keynote speakers for providing talks on leading-edge topics to inform and enthuse our delegates. A conference cannot run without authors to write papers. We thank the authors, presenters and delegates to KES 2005 without whom the conference could not have taken place. Finally we thank the administrators, caterers, hoteliers, and the people of Melbourne for welcoming us and providing for the conference.

We hope you found KES 2005 a worthwhile, informative and enjoyable experience.

July 2005

Bob Howlett
Rajiv Khosla
Lakhmi Jain

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