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SELECTED PAPERS BOOK

A number of selected papers presented at ICINCO 2008 will be published by Springer-Verlag in a LNEE Series book. This selection will be done by the Conference Co-chairs and Program Co-chairs, among the papers actually presented at the conference, based on a rigorous review by the ICINCO 2008 program committee members.

FOREWORD

This book contains the proceedings of the 5th International Conference on Informatics in Control, Automation and Robotics (ICINCO 2008) which was organized by the Institute for Systems and Technologies of Information, Control and Communication (INSTICC) in collaboration with the University of Madeira (UMa) and held in Madeira. ICINCO 2008 was technically co-sponsored by the IEEE Systems Man and Cybernetics Society (IEEE-SMC) and the International Federation for Automatic Control (IFAC), and held in cooperation with the Association for the Advancement of Artificial Intelligence (AAAI).

The ICINCO Conference Series has now consolidated as a major forum to debate technical and scientific advances presented by researchers and developers both from academia and industry, working in areas related to Control, Automation and Robotics that benefit from Information Technology.

In the Conference Program we have included oral presentations (full papers and short papers) and posters, organized in three simultaneous tracks: “Intelligent Control Systems and Optimization”, “Robotics and Automation” and “Systems Modeling, Signal Processing and Control”. We have included in the program four plenary keynote lectures, given by internationally recognized researchers, namely - Miguel A. Botto (Instituto Superior Técnico, Portugal), Peter S. Sapaty (Institute of Mathematical Machines and Systems, National Academy of Sciences, Ukraine), Ronald C. Arkin (Georgia Institute of Technology, U.S.A.), and Marco Dorigo (IRIDIA, Université Libre de Bruxelles, Belgium). These keynote speakers participated also on a plenary panel entitled “*The new frontiers of Control, Automation and Robotics*”.

The meeting is complemented with two satellite workshops and two special sessions, focusing on specialized aspects of Informatics in Control, Automation and Robotics; namely, the International Workshop on Artificial Neural Networks and Intelligent Information Processing (ANNIIP), the International Workshop on Intelligent Vehicle Control Systems (IVCS), the Special Session on Service Oriented Architectures for SME robots and Plug-and-Produce, and the Special Session on Multi-Agent Robotic Systems.

ICINCO received 392 paper submissions, not including those of workshops and special sessions, from more than 50 countries, in all continents. To evaluate each submission, a double blind paper review was performed by the Program Committee, whose members are highly qualified researchers in ICINCO topic areas. Finally, only 190 papers are published in these proceedings and presented

at the conference. Of these, 114 papers were selected for oral presentation (33 full papers and 81 short papers) and 76 papers were selected for poster presentation. The full paper acceptance ratio was 8,4%, and the oral acceptance ratio (including full papers and short papers) was 29%. As in previous editions of the Conference, based on the reviewer's evaluations and the presentations, a short list of authors will be invited to submit extended versions of their papers for a book that will be published by Springer with the best papers of ICINCO 2008.

Conferences are also meeting places where collaboration projects can emerge from social contacts amongst the participants. Therefore, in order to promote the development of research and professional networks the Conference includes in its social program a Welcome Drink to all participants in the afternoon of May 11 (Sunday) and a Conference and Workshops Social Event & Banquet in the evening of May 14 (Wednesday).

We would like to express our thanks to all participants. First of all to the authors, whose quality work is the essence of this Conference. Next, to all the members of the Program Committee and the reviewers, who helped us with their expertise and valuable time. We would also like to deeply thank the invited speakers for their excellent contribution in sharing their knowledge and vision. Finally, a word of appreciation for the hard work of the secretariat; organizing a conference of this level is a task that can only be achieved by the collaborative effort of a dedicated and highly capable team.

Commitment to high quality standards is a major aspect of ICINCO that we will strive to maintain and reinforce next year, including the quality of the keynote lectures, of the workshops, of the papers, of the organization and other aspects of the conference. We look forward to seeing more results of R&D work in Informatics, Control, Automation and Robotics at ICINCO 2009, to be held in July in Milan.

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