Introduction

The 2nd International Conference on Informatics in Control, Automation and Robotics (ICINCO 2005) was held in Barcelona, on September 14–17, 2005, organized by INSTICC in cooperation with the Universitat Politécnica de Catalunya. This conference brings together researchers and practitioners, who deal with interdisciplinary issues connecting Informatics to Control, Automation and Robotics. Informatics applications are pervasive in many of these areas and it seems necessary to emphasize and explore potential synergies.

In the program of this conference were 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". Furthermore, ICINCO 2005 included 3 satellite workshops and 6 plenary keynote lectures, given by internationally recognized researchers.

ICINCO 2005 received 386 paper submissions, not including submissions for the workshops, from more than 50 different countries, in all continents. To evaluate each submission, a double blind paper review was performed by the program committee. The review process has involved a team of 224 academic researchers who are experts in at least one of the conference topic areas. Finally, only 229 papers were accepted for publication in the proceedings and presentation at the conference; of these, 166 papers were selected for oral presentation (67 full papers and 99 short papers) and 63 papers were accepted for poster presentation. The global acceptance ratio was less than 60% and the full paper acceptance ratio was 17%.

The authors of the 26 most innovative papers were invited to submit substantially revised and updated versions with additional original computational modeling for possible publication in this special issue of Integrated Computer-Aided Engineering. Authors of nineteen papers participated and submitted extended manuscripts. Each extended manuscript was then reviewed by 3–5 reviewers. The papers included in this special issue are those that passed the journal's rigorous review process.

Joaquim Filipe
Guest Editor