

The 7th IFAC Symposium on ADVANCES IN CONTROL EDUCATION (ACE06)

Madrid, 21-23 June 2006

Homepage: <http://www.dia.uned.es/ace2006/>

The seventh IFAC Symposium on Advances in Control Education (ACE06) was held in Madrid, Spain organized by Universidad Nacional de Educación a Distancia (UNED) and Universidad Politécnica de Madrid in cooperation with “Comité Español de Automática (CEA)”.

The Symposium on Advances in Control Education, sponsored by the Technical Committee on Control Education of IFAC (EDCOM) is held every three years. This is in fact the seventh event in this series, the last having been held in Oulu (Finland) in 2003 and chaired by Prof. Leiviskä.

From the beginning the ACE Symposium has been a meeting point where new ideas on control curricula development, new control related software, new laboratory experiments, new paradigms of virtual and remote experimentation as well as continuing education and training are presented. The objectives of the present ACE06 Symposium has been again to provide an international forum for the discussion of recent developments and advances in control education and ensure that the knowledge and experience in new methods and approaches is shared throughout the control community.

The Symposium started the previous day with a High School Students & Teachers workshop on “The Power, Beauty and Excitement of the Cross-Boundaries Nature of Control”. The aim of this workshop was to inspire interest from undergraduates towards studies in Automatic Control and to assist teachers in promoting the discipline of Automatic Control among their students. The workshop was attended by a total of 62 participants who receive first class information from world leading specialists in control education.

ACE06 was supported by a large International Program Committee with about 40 members from 19 countries. 162 submissions were received and only 111 high quality papers were selected for presentation at the Symposium.

The core of the Symposium was the one hundred eighth papers which have been presented by their authors in twenty one oral sessions. These contributions cover all technical areas of control education, and provide an accurate picture of the state of the field at the present time. These sessions covered the following topics: laboratory experiments, software in control education, remote labs, effective teaching of control theory, implications of control, process control (all with 2 sessions), PID control, robotic systems, continuing control education, control engineering curricula, web-based control education, virtual labs, Internet as a training aid, university–industry cooperation and an invited session about “AutoTech project”. The number of non shown papers has been only three. This represents only a two percent of the Symposium program, which shows an improvement over previous Symposia.

The technical program of the Symposium included three plenary lectures given by prominent professors very well known in our field. The first one, entitled “Challenges in Control Education” presented by Prof. K. J. Åström, from Lund University outlines interesting challenges for control education in the future. Meeting these challenges requires a substantial effort from the control community. The second lecture “Using LEGO in Control Education” presented by Prof. P. J. Gawthrop, from Glasgow University describes experiences at Glasgow University in using LEGO Mindstorms for control education. The third lecture “Project Based Control Education” given by Prof. M. W. Spong, from University of Illinois provides a project-based approach to control education that aims to motivate the need for rigorous theory through practical applications.

There have also been a fruitful panel discussion on “Rethinking Control Education in the Modern World”. This panel discussion provoked stimulating discussion on numerous challenging questions that will influence the ways in which we will teach control in the future. The panel discussion had more than 90 attendants.

To conclude, it can be said that the IFAC ACE’06 Symposium has had a very high level of attendance, with a very active participation in most technical activities and the general feeling we have got from attendees’ comments has been very positive.

Of course, the success of the ACE’06 technical program is the result of many people’s effort. On behalf of the IPC, I would like to thank all the authors, IPC members, reviewers, and participants for their contributions, and also the session chairs and co-chairs for conducting the technical sessions and providing valuable feedback on their development. We are also grateful to the Symposium Secretariat, the National Organizing Committee chaired by Prof. Fernando Morilla, and the many volunteers who have contributed to its organization.

Sebastián Dormido Bencomo