

ISIC and MED 2005

Special Pre-Conference Workshop, June 26th 2005

“Encouraging Young Women towards Engineering and Applied Sciences“

The great success of the special pre-conference workshop, organized on June 26th 2005 in the context of the *Joint IEEE International Symposium on Intelligent Control (ISIC'05)* and *Mediterranean Conference on Control and Automation (MED'05)* that took place between June 27 and June 29 in Limassol, Cyprus, send a very encouraging message to both participants and organizers of the event. The main organizers of the workshop were the Electrical and Computer Engineering Dept. of the University of Cyprus (UCY) (which was also the main organizer of the Joint ISCI/MED'05 conferences, along with IEEE and MCA), the Cypriot Ministry of Education and Culture, and the Electrical and Computer Engineering Dept. of the California State University, LA. The main objectives of the workshop were to address the issue of women under-representation and also increase awareness about gender bias issues in the areas of engineering and applied sciences education, by informing, motivating and, thus, encouraging young women to follow a career in Engineering, High Technology, or Applied Sciences. This was a full-day event, with various activities, which brought together around 250 invited female students from various junior-high and high schools of Cyprus, interested parents, teachers, policy makers, government officials, and university faculty from Cyprus and other countries, such as the USA. The total number of participants was around 450 people. The workshop consisted of two basic parts. A team-based robotics competition took place during the first part, which was only open to invited students. The second part, which was open to all interested parties, included a panel discussion as well as exhibits and demonstrations from various fields in Engineering and Applied Sciences.

The robotics competition was a 4-hour event, including orientation and evaluation. Students were provided with appropriate equipment and instructions, and were asked to work in teams for the assembly, decoration, and demonstration of a simple programmable robot. The ultimate goal was to program the robot to move in a court, with targets and obstacles, such that it could collect the maximum number of points within a specific period of time. Winning teams were awarded with various gifts. Moreover, all participating students received a certificate of participation by the IEEE Cyprus Section. The enthusiasm, as well as competencies, demonstrated by the involved students during the competition was especially encouraging; it

was a strong indication that such hands-on experience offering events are important in informing, bringing down stereotypes, and encouraging young women towards technical and technological fields.

The panel discussion that took place during the workshop was also very successful, attracting a large number of participants and addressing several interesting issues, both global and particular to the Cypriot society, economy, and industry. The panel included speakers from Cyprus and abroad: Prof. Elpida Keravnou-Papailiou (Vice Rector of Academic Affairs of UCY), Prof. Eleni Ryaciotaki-Boussalis (CSU-LA, USA), Dr. Michael Demetriou (WPI, USA), Dr. Maria Michael (UCY), Dr. Zena Poulli (Cypriot Ministry of Education and Culture), and Nikos Timotheou (CEO of Cyprus Telecommunication Authority). The Dean of the Engineering School of the University of Cyprus, Prof. Andreas Alexandrou, served as the panel coordinator. The public had the opportunity to hear some of the experiences and views of the speakers, particularly related to future professional opportunities for women in Engineering, Science and Technology in Cyprus and in Europe in general. Some of the issues addressed included women under-representation with focus on typical stereotypes, discriminatory work environments, older and more recent personal experiences of women practicing related occupations, various related statistics from around the world during the last century, current and future prospects in High Technology and Engineering professions in Cyprus and in Europe in general, and measures that the government and the society must take to encourage young people, women in particular, to follow a career in such professions.

In addition, the second part of the workshop included experimental and simulation-based exhibits in various Engineering and Applied Sciences disciplines, such as: Robotics, Bioengineering, Mechanical Engineering, Electric Power, Plant Information Systems, Sensor Networks, Mobile Communications and Telecommunications, Integrated Circuits and Computer-Aided Design, Electrical Signals, Lasers and Ultrasound Systems, Environmental Engineering—Waste Management, Civil Engineering, Computational Methods in Physics, Superconductivity, Control Systems, Electromagnetic Tomography, Animation of Hypersonic Vehicles, Space Telescopes, and Wafer Deposition. Most of the people that visited the exhibits showed a lot of enthusiasm, especially the young women, and have commented that the interactive nature of most of the exhibits was very helpful in understanding various Engineering areas and related occupations.



