

## Technical Committee on Control Education

This column focuses on the activities of the IEEE Control Systems Society (CSS) technical committees (TCs). In addition to providing information about the activities of a selected TC, the column is a call for participation and contributions by researchers with related interests. For information about joining a CSS TC, please contact either the chair of that TC or the CSS VP-Technical Activities. A list of TCs and contact information can be found on the Technical Activities portion of the CSS Web site: <http://www.ieeecss.org/>.

The main objectives of the CSS TCs are to provide educational opportunities, inform CSS members of advances in control subspecialties, and provide opportunities for technical discussion. The mission of the IEEE CSS Technical

Activities Board (TAB) is to provide technical resources and opportunities for collaboration in the areas of control systems within each TC, across TCs, and beyond our Society, which is achieved mainly through the collected efforts of the 19 CSS technical activities, the contributions from enthusiastic members, and voluntary services of liaison officers, representatives, and members of related committees of our interests. Please contact me at [bullo@engineering.ucsb.edu](mailto:bullo@engineering.ucsb.edu) if you have any thoughts, ideas, or comments for making our TCs more vibrant and exciting and for serving you and the community better.

*Francesco Bullo*

The IEEE Control Systems Society (CSS) Technical Committee (TC) on Control Education has a broad mandate, focusing on modern curricula in control science and technology, continuing education programs, control laboratories and equipment, and industry-education interfaces. Outreach events are often organized during the American Control Conference and the IEEE Conference on Decision and Control, in collaboration with IFAC and the American Automatic Control Council Technical Committees on Education.

### WORKSHOP ON "IDEAS AND TECHNOLOGY OF CONTROL SYSTEMS" FOR MIDDLE AND HIGH SCHOOL STUDENTS AND TEACHERS

To promote an increased awareness among students and teachers of the importance and cross-disciplinary nature of control and systems technology, a

workshop was held at the 49th IEEE Conference on Decision and Control (CDC 2010) in Atlanta, Georgia, on Tuesday, December 14. Over 400 students escorted by over 30 teachers and parents from the Atlanta School District attended the workshop. Bozenna Pasik-Duncan, chair of the Education Committees and Bonnie Ferri from the Georgia Institute of Technology were the organizers. They were assisted by Leyla Conrad and Kristin Anderson from the Georgia Institute of Technology and Katrina Legursky and Tyrone Duncan from the University of Kansas.

There were 12 speakers representing academia, industry, and graduate schools, namely, Mark Spong (University of Dallas and general chair of CDC 2010), Christos Cassandras (Boston University), Richard Murray (California Institute of Technology), Ayanna Howard (Georgia Institute of Technology), Meghan Kerry (National Instruments), Bonnie Ferri (Georgia Institute of Technology), Anuradha Annaswamy (Massachusetts Institute of Technology), Datta Godbole (Honey-

well Labs), Angela Schollig (graduate student, ETH Zurich), Katrina Legursky (graduate student, University of Kansas), Leor Grebler, and Amirpasha Javid (Quanser). Opening remarks were given by Roberto Tempo, IEEE CSS president, and Mark Spong, general chair of CDC 2010.

Inspirational and fascinating presentations followed. Students and teachers enjoyed listening to the following: "Careers in Control and Robotics," "Joys and Perils of Automation," "Synthetic Biology and Biomolecular Programming," "Robotic Science Explorers for Understanding Climate Change," "Control the Unstable: A Case Study in Fluid Flows," "Energy Management in Homes and Commercial Buildings," "Flying Robots on Stage," "A Venture into the World of Autonomous Sailing," "Food Processing Controls," and "Wiimotes and Rocket Ships." There were also two presentations about control practice, "Demonstrations

*(continued on page 53)*

come from various areas including electrical, mechanical, and biomedical engineering and, hence, I usually emphasize the theoretical nonlinear systems fundamentals with very little reference to control theory. During the lectures I explain the main results and the intuition behind them with a few illustrative examples and ask the students to further read the material in the textbook. I rarely present all the proofs in the lectures as most students in my class are more likely to use these results off the shelf than to do research on nonlinear systems. I try to give students feedback on how well they are doing in the subject through regular assessment and seminars. For instance, in my nonlinear systems postgraduate subject I usu-


ally ask students to present a seminar on a selected topic, and all students are asked to provide written feedback on the seminar; after this I have an interview with the students to evaluate how well it went and to provide tips for improvement; at that time, we also go through the student feedback forms and discuss those in detail.

**Q. Outside of work, what are your interests and hobbies?**

*Dragan:* Currently, I am trying to keep fit through regular exercise. I bike to work every day and go to the gym three to four times a week. I used to play basketball regularly but last year I had an injury and am not sure if I will ever go back. I also enjoy walking, and on the weekends I try to drive

outside Melbourne and hike in the surrounding natural parks or some of the beaches. Music has been my passion for years, and I play the guitar when I find time. I like all sorts of music from rock to jazz and classical. I enjoy live gigs, and I am lucky to live in Melbourne as the city has a varied and active music scene. I also like reading and use every opportunity to read a good book, especially when waiting at the airport or traveling. Food and good wine is also something I enjoy very much, and I love cooking, and Indian curry is my specialty.

**Q. Thank you for speaking with CSM!**

*Dragan:* You're welcome. Thank you for approaching me. 

**» TECHNICAL COMMITTEE ACTIVITIES**

*(continued from page 25)*

using LEGO NXT" and "Interactive Demos of Control Systems."

The organizers of the CDC treated all participants with a spectacular lunch. The workshop was very successful and memorable; in the words of an attending student "I don't know how to find the words for how wonderful my trip was. I learned so much and am forever grateful."

The workshop would not have been possible without the kind help and collaboration from the numerous volunteers from AACC and CSS, the organizers of the CDC 2010, and the generous support from the Georgia Institute of Technology and the University of Kansas.

**CONTACT INFORMATION**

CSS members interested in contributing to the activities of the TC are encouraged to contact Committee Chair Bozena Pasik-Duncan at bozena@math.ku.edu or keep abreast of activities through the TC Web site: <http://www.ieeecss.org/main/technical-committees/control-education>.



**We want to hear from you!**

Do you like what you're reading?  
Let us know—send an e-mail to the Editor-in-Chief.  
Letters may be published in future issues and edited for style.