

===== WiC Newsletter =====

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1. Editor's Notes

Dear Fellow Women in Control,

This newsletter summarizes recent contributions contributed by all of you. As described in the previous newsletter, "The goal of this newsletter is to integrate more female individuals into the profession of control theory/applications development and to keep everyone posted on events. Please feel free to contribute information that you think might be useful for our community. This can include interesting articles, information from the web, job openings in your schools or companies, new books or journals, software releases, conferences, workshop or seminar announcements, invited session proposals, a call for papers, etc. Also, if you have any items that you would like to see discussed or things that you would like to see added or changed in the newsletter, then please feel free to share them with me, even if you do not have time to submit something for the newsletter." Please send any contributions to me via e-mails. My contact details are:

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2. Report on the Women in Control Meeting at ACC 2008

Contributed by Linda Bushnell:

The IEEE CSS Women in Control Standing Committee met on Wednesday, June 11th at the Westin Hotel in Seattle, WA during the American Control Conference. About 35 people attended this meeting, which was organized by Chair Elena Zattoni and ACC Local Arrangements Chair Kristi Morgansen. We would like to give our big thanks to both Elena and Kristi for organizing this.

Elena could not be present at the meeting, so Linda Bushnell took over, giving welcoming remarks and asking for new members to sign up for the newsletter. We had five new members sign up for the committee/newsletter.

Linda introduced IEEE CSS President David Castanon, who joined the meeting to welcome the group to the conference and to let them know not to hesitate to contact anyone in the CSS Board for more information on how to get involved.

Next, Fahmida Chowdhury, who at one time was Chair of the WiC committee and Editor of the WiC Newsletter, attended the luncheon for a short time. She could not stay long because she had to attend another ACC meeting at the same time.

Noteworthy for the meeting was that Anu Annaswamy was the first women General Chair of the ACC this year. Congratulations Anu (and it was her birthday on Wednesday!). Many other women also contributed to organizing the 2008 ACC (congratulations and thank you to all):

Kristi Morgansen, Local Arrangements Chair Jing Sun, Vice-Chair, Invited Sessions Anna Stefanapoulou, Vice-Chair, Industry & Applications Naira Hovakimyan, Publications Chair May-Win Thein, Publicity Chair Carolyn Beck, Registrations Chair Karlene Hoo, Workshop Chair Wendy Foslien, Exhibits Chair Dawn Tilbury, Vice-Chair, Student Affairs

The purpose of the meeting was to meet other women at the conference, to network and to explore potential research collaborations.

Since there were many students and newcomers to the meeting, it would be good to mention how to initially become more involved in the CSS and AACC conferences. Becoming a reviewer for conference papers is a great way to start. To do this, you can contact the future Program Chairs of the conferences and offer to review papers. After becoming good at this, you may want to join a Program Committee or offer to chair/co-chair a session at the conference. Writing and presenting papers and also organizing special/invited sessions is also a great opportunity.

3. Invitation to the CDC 2008 Semiannual Meeting of the Women in Control Committee

The CDC 2008 Semiannual Meeting of the Women in Control Committee will be held on Tuesday, December 9, 12.30 p.m. - 2.00 p.m. All women attending the conference are cordially invited.

The more detailed information will be announced near to the conference.

4. 4. Congratulations to Elena and May-Win – Articles to read

Two articles in IEEE Control System Magazine reported the interviews with Elena and May-Win

Article 1. IEEE Control System Magazine, Vol. 28, Issue 5, pp32-38

Abstract

In this issue of IEEE Control Systems Magazine (CSM), we speak with Elena Zattoni, assistant professor in the School of Engineering at the University of Bologna, Italy. Elena has worked on a wide range of linear and nonlinear problems for applications that include automotive and railway systems. She is currently the standing chair for the IEEE Control Systems Society Standing Committee on Women in Control. We also speak with Eyad Abed, who is a professor in the Department of Electrical and Computer Engineering at the University of Maryland, College Park. Abed is serving a two-year term as vice president for financial activities of the IEEE Control Systems Society (CSS). He has also been director of the Institute for Systems Research at the University of Maryland since 2002.

The full article can be found at:

<http://ieeexplore.ieee.org/iel5/37/4627374/04627391.pdf?tp=&isnumber=4627374&arnumber=4627391>

Article 2. IEEE Control System Magazine, Vol. 28, Issue 2, pp21-26

Abstract

Presents interviews with Spyros G. Tzafestas, current president of the European Control Association (EUCA), and May-Win Thein, who is the publicity chair for the 2008 American Control Conference (ACC), to be held in Seattle in June.

The full article can be found at:

<http://ieeexplore.ieee.org/iel5/37/4472219/04472375.pdf?tp=&isnumber=4472219&arnumber=4472375>

5. Report on Recent Activities of Control Education Committee, by Bozena Pasik-Duncan, Chair

The 2008 American Control Conference (ACC) in Seattle hosted again the Workshop on “The Power, Beauty and Excitement of the Cross-Boundary Nature of Automatic Control” for high school teachers organized jointly by the AACC Control Education Committee and the IEEE Control Systems Society (CSS) Technical Committee on Control Education. This popular workshop for high school teachers and students celebrated its 8th anniversary.

The purpose of this Workshop is to inspire interest from youth towards studies in Automatic Control and to assist high school teachers in promoting the field of Automatic Control that spans science, technology, engineering and mathematics (STEM) among their students. The Workshop was composed of several short but effective presentations on various problems from the real world that have been solved by using control engineering methods, techniques and technologies. The attractiveness and excitement of choosing a career in systems and control engineering was also addressed. Live interaction between the presenters and the audience was an important feature of the Workshop.

The workshop was chaired jointly by Bozena Pasik-Duncan from the University of Kansas and by Ginger Warfield, the local coordinator from the University of Washington.

Anuradha Annaswamy, General Chair of the 2008 ACC, and David Castanon, President of CSS, welcomed the participants. The following outstanding presentations were given:

"Control of Unstable Flow Characteristics" by Anuradha Annaswamy, MIT.

"Some Uses for Computer - Aided Control System Design Software in Control Education" by William S. Levine, University of Maryland

"The Power of Feedback" by Theodore Djaferis, University of Massachusetts, Amherst

"Risk Engineering- Past Successes and Future Challenges" by John Baillieul, Boston University

"Control in Mechatronics and Robotics" by Mark Spong, University of Illinois at Urbana-Champaign (presently at the University of Texas at Dallas).

The teachers were invited to join the opening reception at the conference, and they truly enjoyed talking with participants of the conference and of course they loved terrific food. They came back for the final long stimulating and inspiring discussion on how to attract more students to the engineering field. The workshop was remarkable and memorable. Big thanks go to the organizers of the ACC, to the presenters and to all participants.

Since we celebrate the 8th anniversary of these educational workshops it is important to mention that the first workshop for high school teachers representing almost all states took place at the 2000 ACC in Chicago and was sponsored jointly by NSF and ACC. For detailed information about that workshop visit the site:

http://www.math.ku.edu/ksacg/nsf_hswkshop.html

Control Education Activities have received high recognition from other societies and organizations such as IFAC and IEEE. Bozena Pasik-Duncan initiated an important partnership with the IFAC Control Education Committee and was co-organizer of the Workshop for Teachers and Students in conjunction with the 17th IFAC World Congress in Seoul, South Korea on July 6th, 2008. Similar workshop took place in Prague, Czech Republic in conjunction with the 16th IFAC World Congress.

Today we received the message: "This is an excellent service to the community. As a representative of the Educational Activities Board of the IEEE from the Technical Activities Board, I have been asked to find out what lessons learned you might have for the broader IEEE. We are interested in how such programs might be run by other societies/entities within the IEEE in a successful way," Larry Hall, Chair of the IEEE Ad Hoc Committee on Education wrote. We can be proud of serving as experienced mentors and advisors to others.

Our control education activities have been inspirational.

It is interesting to see very positive responses of high school teachers and students to our workshops. The following is a small sample of responses to the December 2007 Workshop.

Question: *What expectations did you have for this workshop that were met?*

Learning how engineering integrates with other things.

Learning things that I never thought about learning.

I met new people.

The professors were very vivid and explained the presentations in details.

Very informative, interesting, and social.
I expected it to be very resourceful and it was. Also, it was interesting.
Good presentations.
I learned about seizures.
They broke down every topic to an understandable level.
It was fun and gave me good insight into my project.
The presenters prepared themselves very well.
Learned more about technology, math, and feedback.
It was informative about a lot of different things.
The workshop was informative and not hard to understand.
It captured my attention.
Understanding the concept of feedback.
Everything about it was good.
I wanted to learn more about technology and feedback, and I can definitely say that my expectations were met.
It increased my interest in engineering.
Good lunch, nice speakers, well prepared power point presentations.
To be well informed in the field of engineering.
To learn about new technology and mathematics that we use everyday or in other people's lives.
Learning more about technology and how math could be helpful.
Presentations were well given and were understandable.
It was very informative.
To learn different things about science that I didn't already know.
I would learn something about engineering that I didn't know.
It covered a wide spectrum of what opportunities engineering can offer.
Additional Comments:
The workshop was real cool. I learned a lot of things.
I really liked this workshop because I learned new things and met new people.
Very interesting.
I thought it was very helpful and interesting.
Awesome!

Besides organizing the workshops for pre-college students and teachers the Committee has recently initiated a discussion with an international group of established scholars and educators.

The issue that we consider is the following:

Whether we realize it or not, whether we support it or not, students are learning and interacting with each other in very different ways today than they did when many of us were in college. Their entire view of the world including the way in which they communicate with others and obtain information has been fundamentally changed by the internet. As faculty, we need to learn how to embrace this dramatic change and develop novel instructional approaches that harness it in order to continue to serve our mission of producing students who are well-prepared for the lifelong learning that they will need in their individual careers. I could continue on and on about this new phenomenon. We have addressed the following questions:

What qualifications do control educators need now to meet current students' expectations and to prepare them well for their careers?

Should these qualifications be the same as they were many years ago or do you think they should be different?

Should the control and control related courses be taught in the same way as they were taught many years ago or should they be taught differently? If differently, what would make our teaching different?

Do we introduce new courses, such as interdisciplinary courses? Do we open the door to our graduate programs for non-engineering students or do we still prefer to have engineering students?

The group met at the 2008 ACC to discuss in the form of the evening panel session the issues raised in questions listed above. The meeting was truly international with representation from several countries.

The report from this very important discussion is in progress and will be available soon.

6. Call for Papers—2010 American Control Conference Contributed by May-Win Thein

The 2010 American Control Conference (ACC) will be held Wednesday through Friday, June 30 – July 2, 2010 at the Baltimore Marriott Waterfront in Baltimore, Maryland.

The ACC is the annual conference of the American Automatic Control Council (AACC). The 2010 ACC, held in cooperation with IFAC, will present a technical program consisting of new developments in theory and practice in the area of automatic control. The technical program will consist of papers in regular technical sessions, invited sessions, special sessions, and pre-conference tutorial/workshop sessions. Special themes for the 2010 ACC include: Control in Medicine, Control of Robotic Systems, and Control of Green Energy Systems.

KEY DATES

Deadline for all submissions and proposals: **Sept 15, 2009**

Notification of Acceptance/Rejection: **Jan 31, 2010**

Final manuscript submission deadline: **Mar 15, 2010**

Information about 2010 ACC can be found at the web site:

<http://www.a2c2.org/conferences/acc2010/>

General Chair: Glenn Masada

Program Chair: Richard Braatz

7. Positions

Contributed by Naira Hovakimyan

Postdoctoral position available in Mechanical Science and Engineering of University of Illinois at Urbana-Champaign. The ideal candidate must possess excellent knowledge of robust control, mathematics and be familiar with flight control applications. Please direct the inquiries to Naira Hovakimyan, nhovakim@illinois.edu