

# The Power, Beauty and Excitement of a Field that Spans Science, Technology, Engineering and Mathematics

This workshop is held in conjunction with the 2009 American Control Conference  
Open to all participants of ACC 2009



3:00 -7:30 pm, Tuesday, June 9, 2009  
Ballroom E, Hyatt Regency, St. Louis, MO



**Sponsored by:** IEEE CSS and AACC Technical Committees on Control Education, NSF, and University of Kansas  
**Organizers:** [Bozenna Pasik-Duncan](#), University of Kansas and [Shirley Dyke](#), Washington University  
**Assisted by:** [Dominique Duncan](#), Yale University

## PROGRAM

- 3:00**     **Welcome**  
[Bozenna Pasik-Duncan](#), Chair and Co-Organizer  
[Shirley Dyke](#), Co-Organizer
- 3:05**     *Giving Bipedal Robots a Sense of Balance*  
[Jessy Grizzle](#) (University of Michigan)
- 3:40**     *What Can Optimal Control Tell Us About Cancer Treatments?*  
[Urszula Ledzewicz](#) (Southern Illinois University)
- 4:00**     *Epileptic Seizures: Quakes of the Brain?*  
[Ivan Osorio](#) (University of Kansas Medical Center)
- 4:35**     *Introducing K-12 Students to the Math and Communication of Engineering*  
[C.J. DeGroot](#), STEM Fellow, Washington University
- 4:50**     *Earthquake Engineering in the High School Classroom*  
[Jeffrey Mitchell](#), STEM Fellow, Washington University
- 5:05**     *Using LEGO® Robots to Promote STEM Careers In Middle-School*  
[Jose Lopez](#) and [Kevin Derendorf](#), STEM Fellows, Washington University
- 5:20**     *The Brain System as a Platform for Integrating Science, Technology, Engineering and Mathematics (STEM)*  
[Dominique Duncan](#), Yale University
- 5:30**     *Careers in Mechatronics and Controls*  
[Mark Spong](#) (University of Texas at Dallas)
- 6:05**     **Dinner**
- 6:35**     *Can Control Engineering Play an Important Role in STEM Education?*  
*What Can We Do Better to Attract More American Students to STEM Education?*  
**Panel Discussion**  
**Moderators:** [Shirley Dyke](#) and [Bozenna Pasik-Duncan](#)  
Panelists include: Fahmida Chowdhury, NSF Director, Graduate-K12 Fellows from Washington and Kansas Universities, graduate students, speakers, and teachers.
- 7:30**     **Adjourn**