

From: Richard D. Braatz, Chair, braatz@uiuc.edu

Subject: Summary of activities of the Technical Committee (TC) on Industrial Process Control (IPC)

The applications areas covered by the TC IPC include microelectronic, materials, pharmaceutical, chemical, and electrochemical processes. Many emerging control applications areas such as molecular manufacturing, microchemical systems, and systems biology are addressed in this TC. Most processes of interest are highly nonlinear and spatially distributed with significant model uncertainties and constraints on actuators, states, and outputs. The main focus is on organization and programming for meetings in concert with other organizations such as AACC and IFAC.

Membership is open to any member of the IEEE Control Systems Society, and *CSS members interested in organizing sessions, symposia, and meetings are strongly encouraged to email your interest to braatz@uiuc.edu.*

(1) Members of Steering Committee (SC)

Richard D. Braatz (Chair), Frank Allgöwer, B. Wayne Bequette, Francis J. Doyle III, Martha A. Gallivan, Martin Guay, Juergen Hahn, Michael A. Henson, Morten Hovd, Mayuresh V. Kothare, Jay H. Lee, Zoltan K. Nagy, Yahya Nazer, Babatunde A. Ogunnaike, Srinivas Palanki, Robert S. Parker, Michel Perrier, Hector D. Puyosa

(2) Main Organizational Activities

Some of the recent past and upcoming meetings organized or co-organized by members of the TC IPC are:

- *IFAC Symposium on Dynamics and Control of Process Systems* (DYCOPS 2007, www.dycops2007.org/, Cancun, Mexico, June 6-8, 2007): Guay, Hovd, Lee, & Ogunnaike were on the International Program Committee.
- *American Control Conference* (ACC, www.a2c2.org/conferences/acc2007/, NY, July 11-13, 2007): Many SC members were involved with the review process. Braatz was Vice Chair for Invited Sessions & a Director of the American Automatic Control Council. Allgöwer, Braatz, Gallivan, & Henson were on the Program Committee.
- *7th IFAC Symposium on Nonlinear Control Systems* (NOLCOS, www.nolcos2007.org.za/, Pretoria, South Africa, August 22-24, 2007): Allgöwer was Co-Chair of the International Program Committee.
- *Foundations of Systems Biology in Engineering* (FOSBE, Stuttgart, Germany, September 9-12, 2007, www.ist.uni-stuttgart.de/fosbe/fosbe_committee.htm): Allgöwer & Doyle were on the Organizing Team. Henson & Ogunnaike were on the International Program Committee.
- *American Control Conference* (ACC, www.a2c2.org/conferences/acc2008/, Seattle, June 11-13, 2008): Kothare is a Society Review Chair and Braatz is on the Program Committee. Many SC members organized sessions.
- *IFAC World Congress* (IFAC, www.ifac2008.org/, Seoul, Korea, July 6-11, 2008): Allgöwer & Doyle are on the International Program Committee with Allgöwer serving as a Technical Editor & Doyle as a Technical Associate Editor. Doyle & Hahn are co-organizers of the Chemical Process Control track.
- *IFAC Symposium on Advanced Control of Chemical Processes* (ADCHEM, Istanbul, Turkey, July 12-15, 2009): Many SC members are on the International Program Committee.
- *American Control Conference* (ACC, Baltimore, June 16-18, 2010): Braatz is Program Chair, Allgöwer is Vice Chair for Invited Sessions, and several SC members will serve on the Program and Organizing Committees.

Many members of the IPC (Allgöwer, Bequette, Braatz, Doyle, Henson, Hovd, Lee, Parker, Perrier) are members of IFAC TCs including the Mining, Minerals & Metals Processing TC, the Modelling & Control of Biomedical Systems TC, the Biosystems & Bioprocesses TC which Perrier serves as Vice-Chair, the Non-Linear Control Systems TC which Allgöwer chairs, and the Chemical Process Control TC which Doyle will serve as Chair in 2008.

(3) TC IPC Web Page

The TC IPC website (brahms.scs.uiuc.edu/ipc/) includes information on meetings, educational material, & journals. The next TC IPC meeting will be held during the 2007 IEEE Conference on Decision and Control in New Orleans.

(4) Summary of Editorial Activities

- Doyle is Editor-in-Chief of *IEEE Transactions on Control Systems Technology* where Palanki is Associate Editor.
- Braatz is Editor-at-Large of *Optimal Control Applications and Methods* where Lee is the Editor for a Special Issue on Batch Optimal Control that should be completed in 2008.
- Allgöwer is the Editor for Process and Computer Control of *Automatica* where Braatz, Guay, Henson, & Kothare are Associate Editors.
- Doyle is Reviews Editor for the *Journal of Process Control* where Allgöwer, Braatz, Henson, & Perrier are Associate Editors.
- Braatz was Editor of the 2007 Special Issue on Chemical Process Control for the *International Journal of Robust and Nonlinear Control*, to which Allgöwer & Doyle contributed papers.
- Braatz & Kothare are Associate Editors of *IEEE Transactions on Automatic Control*.