CALL FOR WORKSHOP PAPERS

ConCom: Control over Communication Channels

Co-located with IEEE WiOpt 2007, April 16-20 2007, Limassol, Cyprus

http://www.concom.org



The aim of the ConCom workshop is to introduce participants to the multi-disciplinary topic of feedback control over noisy communication channels. Recent technological advances in terms of cost-effective, special-purpose, computing architectures and the high accessibility of network connectivity open up exciting possibilities for computer-based control methodologies that can be applied either centrally or distributively/hierarchically depending on the underlying application and objective. As a result, there is an increased interest in these types of systems and an emerging need to better understand: (i) how feedback control strategies are affected by and can account for noise, capacity constraints and delays that arise due to the nature of the communication channels that are available, and (ii) how perfect or imperfect feedback strategies influence the capacity and fidelity of a given communication channel. The workshop aims to bring together experts from the areas of systems and control, network information theory, communication, and distributed computing. The workshop will be held on **Friday, April 20, 2007**.

Authors are invited to submit original work in the form of extended abstracts. Submitted manuscripts, in PDF or PostScript, should not exceed 8 double-column pages, font size not smaller than 11 points, and can be prepared using the standard IEEE format. Send papers to Chris Hadjicostis (chadjic@control.csl.uiuc.edu) or Sekhar Tatikonda (sekhar.tatikonda@yale.edu). The workshop proceedings will be listed in the IEEEXplore and the IEEE digital library.

ConCom will focus on the following issues:

* Control over Limited Capacity Channels
* Feedback in Communication Channels
* Trade-off between Control Objectives and Communication Constraints
* Distributed Sensing over Noisy Channels
* Distributed Control under Rate and Distortion Constraints
* Consensus Problems for Networks of Agents
* Network Control Systems
* Fault Diagnosis, Tolerance and Reconfiguration in Network Control Systems
* Real-Time Control
* Ad Hoc Network Formation and Mobility

Important Dates:

Paper submission deadline : December 15, 2006
Notification of acceptance : January 31, 2007
Camera-ready papers due : March 1, 2007
Early registration deadline : March 1, 2007

Keynote Speaker:

John Baras (University of Maryland)

Workshop Chairs:

Chris Hadjicostis (University of Illinois)
Sekhar Tatikonda (Yale University)

Technical Program Committee:

Jorge Cortes (UC – Santa Cruz)
Geir Dullerud (University of Illinois)
Nicola Elia (Iowa State University)
Fabio Fagnani (Politecnico di Torino)
Massimo Franceschetti (UC – San Diego)
Emilio Frazzoli (UC – Los Angeles)
Martin Haenggi (Notre Dame)
Joao Hespanha (UC – Santa Barbara)
John Lygeros (ETH – Zurich)
Nuno Martins (University of Maryland)
George Pappas (University of Pennsylvania)
Anant Sahai (UC – Berkeley)
Venkatesh Saligrama (Boston University)
Raja Sengupta (UC – Berkeley)
Bruno Sinopoli (UC – Berkeley)
Paulo Tabuada (UC – Los Angeles)
Serdar Yuksel (Yale University)