Report of the IEEE CSS TC on CACSD

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Here is a summary of the activities of the TC during the second semester of 2011.

\*\*\* Meeting \*\*\*

The TC-CACSD will have a formal meeting on Wednesday during the 2011 Joint IEEE Conference on Decision and Control and European Control Conference, held in Orlando on Wednesday, December 14.

\*\*\* New webpage of TC-CACSD

The webpage for TC-CACSD, published online in August 2010 at the address http://staff.polito.it/fabrizio.dabbene/TC-CACSD/, has undergone continuous updates.

Prof. Ylle Kotta, chair of the Action Group on Polynomial Methods for Control System Design, has developed a new template for the her Actio Group, based on the html technology made available by the blogspot.com host. This allows a more flexible managing and handling of the page, and the Action Group Members can benefit from such services as RSS feeds to notify them with new information posted on the Action Group website and tagging to help categorizing and searching for specific information.

Also, a new Software section has been added to the webpage. Aim of the page is to list in a concise way the available software tools for control system design. For each software, a brief description is reported, together with pointers to the related software webpages.

\*\*\* 2011 CACSD Symposium \*\*\*

The 2011 IEEE Multi-Conference on Systems and Control,held in Denver, Colorado, on September 28 - 30, 2011. MSC 2011, included

for the first time a Joint Symposium on Computer-Aided Control System Design (CACSD) and Systems with Uncertainty (SU). The Program Chair of the Joint CACSD-SU has been Graziano Chesi.

For the upcoming MSC conferences, the TC-CACSD and TC-SU chairs have prepared the following motions for the CSS Executive Committee:

- "To held the Joint CACSD-SU Symposium ever three years,

during MSC, starting from MSC 2013 in India"

- "To go back to the simpler name: CACSD Symposium, instead

of Joint CACSD-SU Symposium"

\*\*\* Workshops and Invited Sections

- The chair of the Action Group on "Distributed Optimization and Control" informed me that his research group in Turin worked on a National project funded by the Italian Ministry of Education and Research, titled "Parallel and distributed methods for large-scale convex optimization problems and their applications."

Under this umbrella, the research unit published several research papers, and also organized a workshop titled "Algorithms and Dynamics over Networks," July 14-15, Politecnico di Torino

- The TC Chair Fabrizio Dabbene together with the chair of the AG on Probabilistic and Randomized Methods in Control Constantino lagoa have organized a Workshop on Probabilistic Methods for Robust Optimization, for the 2011 Multiconference on Systems and Control in Denver.

\*\*\* Publication activities \*\*\*

- Diego Regruto from Politecnico di Torino organized an invited session on the topic "LMI relaxation techniques for system identification" as part of the 2011 IEEE-CDC/ECC in Orlando, Florida. This activity has been organized in collaboration with the Technical Committee on System Identification and Adaptive Control (TC-SIAC) chaired by Daniel E. Rivera.

- The TC-CACSD and the TC-SIAC, together with Diego Regruto, have prepared a proposal for a Special Issue on "Relaxation methods in identification and estimation problems" for the IEEE Transactions on Automatic Control.