

## Minutes of the Control Systems Society Board of Governors Meeting

9 December 2002, Las Vegas, NV, U.S.A.

### Call to Order and Approval of Agenda

L. Shaw called the meeting of the Control Systems Society (CSS) Board of Governors (BoG) to order at 12:04 P.M. on 9 December 2002, then asked the attendees to introduce themselves. The following members of the BoG were in attendance: J. Baillieul, S. Banda, M. Bodson, L. Bushnell, C. Cassandras, R. DeCarlo, T. Djaferis, T. Georgiou, S. Hara, M. Ikeda, H. Khalil, M. Krstic, F. Lamnabhi-Lagarrigue, I. Mareels, R. Middleton, P. Misra, H. Nijmeijer, T. Parisini, K. Rudie, W.J. Rugh, T. Samad, C. Schrader, L. Shaw, R. Tempo, A. Varga, B. Wittenmark, and J. Zhu. Visitors included E. Camacho, Y. Yamamoto, A. Tits, M.E. Valcher, A. Michel, D. Castañon, A. Bicchi, T. Fukuda, J.D. Birdwell, Ü. Özgüner, P. Albertos, D.P. Atherton, P. Van den Hof, G.M. Dimirovski, M. Shor, and W. Lin.

Modifications/additions to the agenda were noted, and the agenda was approved by unanimous consent. Next, the minutes of the BoG meeting of 7 May 2002 were approved by unanimous consent.

### Introduction

Before starting the meeting, Ümit Özgüner, General Chair of CDC'02, welcomed everyone to the Venetian Hotel and to the conference. He gave a brief update on the statistics of the conference. Toshio Fukuda, IEEE Division X Director, joined us at our BoG meeting. Fukuda congratulated the CSS on the recent standings in publication impact factors and encouraged the Society to become more involved with the TAB. In the middle of the meeting, Shaw and Hidenori Kimura signed an updated agreement between SICE and CSS.

### Action Items

#### *Appointments for 2003*

Schrader presented the nominees for 2003 via a color-coded roster. Bios for all of the candidates were given to the BoG before or at the meeting. The candidates left the room during these procedures. The BoG approved all of the following appointments unanimously, unless noted otherwise.

#### *Editorial Appointments for the Transactions on Automatic Control*

Schrader presented three Associate Editor nominees, Luigi Glielmo, Ulf Jonsson, and R. Srikant, three Associate Editor at Large nominees, Albert Benveniste, Romeo Ortega, and James Spall, and a Book Review Editor nominee, Anthony Michel, for the *TAC*.

#### *Editorial Appointments for the Transactions on Control Systems Technology*

Schrader presented two Associate Editor nominees, Mehmet Alpay and Santosh Devasia, for the *TCST*.

#### *Editorial Appointments for Control Systems Magazine*

Schrader presented the Editor-in-Chief nominee, Dennis Bernstein (to be effective mid-2003), and the AE nominees, Andrew Alleyne, Karen Rudie, Raja Sengupta, Dawn Tilbury, and Panagiotis Tsiotras, for *Control Systems Magazine*. Among the issues discussed regarding the EiC nominee was the employment of the nominee's spouse as editorial assistant. It was understood that the VP, Publications Activities, not the EiC, would approve all time sheets of the editorial assistant. The EiC nominee was approved with two oppositions (P. Misra, R. Middleton) and two abstentions (R. DeCarlo, T. Djaferis).

#### *Approval of Standing Committees*

Schrader presented the following Standing Committee Chair nominees: Fellow Nominations, Maria D.A. Di Benedetto; and Membership & Admissions, May-Win Thein.

#### *Approval of Technical Committee Chairs*

Schrader presented the following Technical Committee Chair nominees: Aerospace Controls, Steven P. Weibel; Robust Control, Geir E. Dullerud; Industrial Process Control, Richard Braatz; and Control of Power Systems, Ian Hiskens.

#### *Appointments for CEB*

Schrader presented the nominee for Vice-Chair of the CEB, Thomas Parisini.

#### *Appointment for Liaison Representatives*

Schrader presented the nominee for Liaison for SICE (Instrumentation and Control—Japan), Yutaka Yamamoto. The nominee for Committee Chair, Transportation Policy, IEEE-USA, was Petros Ioannou.

#### *Appointment for Awards Committees*

Schrader presented the nominee for CDC Best Student Paper Awards Committee Chair, Mario Szaiaer.

### *CDC 2006 General Chair*

Tempo presented the nominee for CDC 2006 General Chair, Pradeep Misra.

### *Three-Day Format for CDC*

Tempo made a motion to return to the three-day format for the CDC starting in 2006. He noted that the four-day CDC experiment is over and needs to be evaluated. The pros for moving back to a three-day CDC include less cost, less technical saturation, and less fragmentation. The cons include a higher paper rejection rate or more parallel sessions and the use of larger hotels or conference centers. Highlights of the discussion included the following: increasing the number of parallel sessions would decrease the number of hotels we could use; exploring the convention center option would open up mid-sized cities in the U.S.; poster sessions could be an option, as could 15-minute presentations; concern over the financial impact on attendees; the possibility of a weekend conference; selecting nicer locations. The motion was approved with one opposition (R. Middleton) and two abstentions (C. Cassandras, T. Parisini).

### *CSS Bylaws Change*

Schrader made a motion to change the CSS Bylaws to have the Fellows Nomination Committee and Fellows Evaluation Committee report to the CSS President, not the Vice President, Membership Activities. The motion was approved unanimously.

## **Activity Reports**

### *Report of the President*

Shaw noted that the *Transactions* had the 7<sup>th</sup>-highest number of hits on the IEEE Xplore system during the month of September 2002. The digital versions of pre-1988 publications that CSS funded to enhance the DVD archive will be added to the IEEE Xplore database in January 2003 so that those who subscribe to our journals, or have institutional access through an IEEE IEL subscription, will have online access to those older journals. The CSS has been the fortunate beneficiary of an effort by skilled volunteers who are developing the next generation of a computer system called PaperPlaza to handle the submission and review of conference papers, as well as the preparation of the conference programs. The cooperative agreements with the European Union Control Association (EUCA) and the Society of Instrument and Control Engineers (SICE) (in Japan) have been revised to promote even closer ties for enriching the conferences organized by each entity.

### *Report of the Vice President, Financial Activities*

Shaw discussed planning for the 2004 budget, which needs to be ready in April or May. He asked BoG members to prepare for an e-mail vote on the budget. He encouraged the selection of the electronic option for journals. A suggestion was made to make journal material available online at the end of the year for downloading by electronic-option subscribing members. DeCarlo mentioned that it was easier to use the university access to the Xplore system rather than purchasing the individual electronic option. Shaw noted that the CSS receives approximately 66% of its income from the journals, 7% from dues and 20% from conferences. Schrader suggested that the options could be packaged better. Shaw noted that we are required to print hard copies of the journals and conference proceedings because libraries want to buy them. There was much concern over what members are getting for their dues.

Shaw gave a summary of the budget status. For September 2002 year to date, the net total income for the CSS is negative \$160.1K. The DVD sales are low. He then discussed the 2002 TAB budget vs. the forecast. Working capital losses on investments come out of Society funds (and market gains on those funds are credited to societies). Thirty-eight percent of the infrastructure charge is distributed according to the size of each society's reserve (35 societies). Shaw mentioned that the presidents of some IEEE societies paid for an external study, by the consulting firm BDO Seidman, to look at operations of corporate IEEE administration. After eight weeks of interviews and analysis, the study was presented to the TAB. A summary of the results included: governance—boards are too big, terms too short; lack of strategic plan; weak cost accounting; budget cycle too long; consolidate—flatten organization, reduce staff; use life-cycle costs when evaluating initiatives; simplify business rules, publication options; review policy for working money investment. Birdwell said this was a gross mismanagement of investments. Shaw said that things will improve. DeCarlo said it is difficult to make changes. Fukuda said the Seidman report will be made public soon.

### *Report of the Vice President, Technical Activities*

Baillieul announced that there would be a special Technical Committee on Control Education session on Wednesday involving outreach to high school teachers and students. The TC on Manufacturing Automation and Robotic Control will be holding a workshop on Saturday.

### *Report of the Vice President, Conference Activities*

Tempo announced that there were 16 events in 2003. He thanked all of the conference committee chairs for their work. He announced that there will be a PaperPlaza informational meeting on Wednesday afternoon. He thanked Huibert Kwakernaak and Pradeep Misra for their work on the

PaperPlaza system. Tempo invited the General Chairs or Program Chairs who were present to say a few words. G.M. Dimirovski, the Program Chair for the CCA'03 (Istanbul, Turkey) gave a summary of the plans for the conference and gave out talismans to all attendees. S. Hara, General Chair for CCA'04 (Taipei, Taiwan), said the organizing committee is set and the Web site will be posted soon. E. Camacho, General Chair for CDC-ECC'05 (Seville, Spain), said he is dealing with the copyright issues.

*Report of the Vice President, Publication Activities*

Baillieul reported for Isidori, who was absent. He mentioned that *Control Systems Magazine* was recently ranked number one in terms of citation impact factor for "automation and control" periodicals, a category that includes 47 publications, including *CSM* and the *CSS Transactions*. The BoG discussed the wide fluctuation and variability in this ranking. Bodson asked for an explanation of the citation index. Baillieul explained that the impact factor is the total number of citations over a two-year period divided by the number of articles. Samad stated that *CSM's* citation impact factor has risen steadily for the last few years and was over 1.6 in the latest survey. Baillieul next mentioned an issue with the Office of Foreign Asset Control (OFAC) in Washington, D.C., which involved restricting peer-reviewed feedback to AEs and EICs from certain countries (e.g., Iraq, Iran, Cuba, and North Korea). He noted that it was outrageous that this was applied to an international organization like the IEEE. The IEEE resolved the issue. Baillieul also mentioned that most societies in the IEEE use Manuscript Central. The CSS has its own system. There was concern that electronic versions of our papers may disappear in the future due to unaccessible files. Baillieul said this was a huge issue. IEEE is currently talking with the Library of Congress.

*Report of the Vice President, Member Activities*

Djaferis announced that the Senior Membership Initiative successfully nominated 96 members before 1 November and that 52 nominees had passed in the November panel review. The CSS was the second-highest society in nominations in 2002. Djaferis also discussed the Disadvantaged Countries Travel Program. In 2002, we budgeted \$25K, but will only use about \$14K. Several issues with the implementation of the program were discussed, as well as whether it should be continued. Camacho said it was a good program and that the technicalities of implementation should be fixed. Dimirovski said the program is significant, although there will always be visa issues. Djaferis said we are spending about \$15K to support 10 conference attendees and raised the question as to whether this is the best way to spend this money. Misra said we should explore ways to reach more people. For example, we could give free membership to 100-150 people. Rudie said that the money is well spent. Attending a conference is an essential activity for being a scholar. Banda said there is no right answer. The hope is that we can continue spending money for the developing countries and sending CD-ROMS

to the chapters. Schrader asked about distributing the DVDs to the chapters. Djaferis seconded Rudie's comment that the social contact at conferences is essential.

**Other Business**

In November, Shaw sent an e-mail to the BoG members asking two questions: (1) Can you think of some dramatic successful applications of control theory that might be helpful in describing our field to the general public, attracting students to our field, etc.? and (2) in a similar vein, What are some instructive failures that have occurred due to poor control system design? At this point in the meeting, Shaw invited the BoG members to present their responses. Banda had many examples. The first was a stealth aircraft, which would not be possible without control design. Mareels said this example would not be good for the general public because it is defense-oriented. Banda's second example was a stair-climbing wheelchair that balances on its rear wheels. Krstic said the control system for the Segway machine is described on amazon.com and suggested that the *CSM* interview the designer of the Segway. Other examples included antilock brakes for automobiles, satellite control, chemical process control, and control of communication systems (telephone, cell phone, and Internet). Khalil mentioned CD-ROM drives. He also said that we should produce a video that we could use to recruit students on how control technology helps people achieve precision every day. Wittenmark described "Controls Alphabet," which is a Web site he developed and uses in his lectures at the beginning of courses. DeCarlo, a collector of children's books, said we should use ideas from books such as *How Things Work* for reaching the general public through the Internet. For example, the toilet is a fascinating device. Middleton said that Bob Skelton has a fascinating story about a structure in space that was changed to fix a problem rather than fixing the controller. Zhu was concerned about how we could introduce control theory to students. He has a collection of video clips on early failures of rockets that he shows to his classes. He suggested that the CSS develop a CD on the history of controls failures. Ikeda's example was vibration suppression in nanotechnology, which needs new control theory to suppress quantization error. Albertos mentioned that Samad and Antsaklis had put together a Web site a while ago along these lines. The consensus was that we need to do something soon. We need to put up links to controls applications on our main Web site.

**Adjournment**

Shaw thanked the members of the Board of Governors and visitors for attending the meeting. He gave out certificates of appreciation to outgoing BoG members. The meeting was adjourned at 5:30 P.M.