

**Minutes of the Control Systems Society Board of Governors Meeting
December 10, 2019
Nice, France**

Call to Order and Approval of Agenda

President R. Bitmead called the meeting of the Control Systems Society (CSS) Board of Governors (BoG) to order at 1:00 PM on December 10, 2019. He welcomed the attendees, and summarized the meeting rules and procedures. The following members of the BoG were in attendance:

Anuradha Annaswamy	João Hespanha
Ragu Balakrishnan	Yi Huang
Robert Bitmead	Faryar Jabbari
Francesco Bullo	Françoise Lamnabhi-Lagarrigue
Debasish Chatterjee	Zongli Lin
Dan Cho	Hitay Özbay
Jorge Cortes	George Pappas
Maria Di Benedetto	Thomas Parisini
Warren Dixon	Bozenna Pasik-Duncan
Magnus Egerstedt	Jacqueline Scherpen
Dennice Gayme	Jing Sun
João Manoel Gomes da Silva Jr.	Luca Zaccarian

Additionally, the following visitors attended the meeting:

Frank Allgöwer	Elisa Franco
Linda Bushnell	Alessandro Giua
Christos Cassandras	Hideaki Ishii
Chung Choo Chung	Miroslav Krstic
Fabrizio Dabbene	Yannis Paschalidis
Amro Farid	Maria Prandini
Antonella Ferrara	Maria Elena Valcher
Allison Fleisher	

Quorum was established, and the meeting agenda approved with unanimous consent. Next, the minutes of the BoG meeting of July 2019, held in Philadelphia, USA, were approved unanimously. Bitmead proceeded to ask if anyone would like to remove items from the Consent Agenda (see Appendix A). No items were removed from the Consent Agenda, and it was approved unanimously.

Action Items

A. Annaswamy, the incoming 2020 President, presented her six appointees to the BoG as an informational item. They are:

- Sara Dadras (Utah State University, USA)
- Radhakant Padhi (Indian Institute of Science, India)
- Manuel Duarte (University of Chile, Chile)
- Karanji Kalsi (Pacific Northwest National Laboratory, USA)
- Hong Chen (Jilin University, China)
- Yildiray Yildiz (Bilkent University, Turkey)

F. Jabbari, VP for Conference Activities, presented the following motions, concerning CSS conferences:

- **Motion: To approve August 9, 2021 to August 11, 2021 as dates for CCTA 2021.**

Endorsed by: Executive Committee

Financial Impact: None

Background: The venue for CCTA 2021 is San Diego (approved by BoG in 2019 ACC). CCTA conferences are usually held on the last week of August. The move to early August for CCTA 2021 will allow for family vacations, with excellent hotel rates (\$199) and no apparent conflict with other major conferences. The chosen dates are Monday through Wednesday, with workshops on Sunday.

There was no discussion, and the motion was approved unanimously.

Jabbari next presented the following motion:

- **Motion: To approve the preliminary budget for CCTA 2021.**

Endorsed by: Executive Committee

Financial Impact: Projected Surplus of \$43,836 (20% of Total Outlays – not including loan)

Background: This motion has the same background as the previous one. Jabbari added the information that the General Chair is Reza Moheimani (approved by BoG in 2018 ACC) and the Program Chair is T-C Tsao (approved by BoG in 2018 CDC). The projected number of registrants is 350 and the registration fee (advance rate) for members is \$660.

INCOME			
Total Registration			219,850
workshop income			10,500
extra papers/pages			10,800
Exhibit			4,800
Grant/Patron support			5,000
social event/reimburse			8,550
Total			259,500
EXPENSE			
Registration			5,000
Promotion			3,500
Misc.			6,700
Tutorial Expenses			3,600

proceedings			6,500
Local Arrangement/Conven.			20,000
Food/beverages			133,165
Program	PaperPlaza/TCEB		13,000
Credit card fees			5000
Speakers Travel			6,000
Audit			1,600
Op-com, gifts, planning			11,600
Total			215,663
surplus			43,836
% surplus			20.1

FEES

Member, Advance: \$660; Member, On-site: \$800

Nonmember, Advance: \$920; Nonmember, On-site: \$990

Students/life members: 50% of above

There was no discussion, and the motion was approved unanimously.

Jabbari next presented the following motion:

- ***Motion: To approve Trieste, Italy as venue for CCTA 2022***

Endorsed by: Executive Committee

Financial Impact: None

Background: The General Co-Chairs are Fabrizio Dabbene and Alessandro Beghi (approved by BoG in 2018 CDC) and the Program Chair is Oliver Sawodny (approved by BoG in 2019 ACC). The northeastern area of Italy is a center of industrial excellence. Trieste is easily reachable (connected to Munchen airport, 2-hour train to Venice). The city will be the 2020 European Capital of Science and has a warm climate in August.

There was no discussion, and the motion was approved unanimously.

Jabbari next presented the following motion:

- ***Motion: To approve August 23, 2022 to August 25, 2022 as dates for CCTA 2022.***

Endorsed by: Executive Committee

Financial Impact: None

Background: This motion has the same background as the previous one. CCTA conferences are usually held on the last week of August, and the proposed dates are consistent with this. Possible conflicting conferences in 2022 include ACC, SYSID (1st week of July), ECC (last week of July), NOLCOS (Newcastle, August 29-31), MTNS (Bayreuth – Germany, September 5-9), SICE (3rd week of Sep), CCDC (1st week of June), and Asian Control Conf (2nd week of June). There is no IFAC World Congress or ROCOND in 2022. The chosen dates are Tuesday-Thursday, with workshops on Monday.

There was no discussion, and the motion was approved unanimously.

Jabbari next presented the following motion:

- ***Motion:* To appoint Kira Barton as Program Chair for CCTA 2023.**

Endorsed by: Executive Committee

Financial Impact: None

Biography: **Kira Barton** is an Associate Professor and Miller Faculty Scholar in the Department of Mechanical Engineering at the University of Michigan. She received her B.Sc. from the University of Colorado at Boulder in 2001, and her M.S. and Ph.D. from the University of Illinois at Urbana-Champaign in 2006 and 2010, respectively, all in mechanical engineering. In Fall 2011, she joined the Mechanical Engineering Department at the University of Michigan at Ann Arbor. Dr. Barton conducts research in modeling, sensing, and control for applications in advanced manufacturing and robotics, with a specialization in Iterative Learning Control and micro-additive manufacturing. She is the recipient of an NSF CAREER Award in 2014, 2015 SME Outstanding Young Manufacturing Engineer Award, the 2015 University of Illinois, Department of Mechanical Science and Engineering Outstanding Young Alumni Award, the 2016 University of Michigan, Department of Mechanical Engineering Department Achievement Award, and the 2017 ASME Dynamic Systems and Control Young Investigator Award." Her experience with journal editorial positions include Associate Editor IEEE TCST and IFAC Mechatronics; Guest Editor, Asian J. of Control; and Special Issue Associate Editor, Mechatronics and Additive Manufacturing. Her experience with conference responsibilities include Program committee, ACC12, ACC14, ACC16; Publicity Chair, ACC21; Student Affairs Chair, ACC20; Conf. Co-chair, Manufacturing Science and Engineering Conference, 2014.

There was no discussion, and the motion was approved unanimously.

Jabbari next presented the following motion:

- ***Motion:* To approve Technology Conferences Editorial Board (TCEB) as the name for the newly established editorial board for CCTA.**

Endorsed by: Executive Committee

Financial Impact: None

Background: The newly appointed Chair of the CCTA Editorial Board, Stefano Di Cairano, was tasked to recommend a name. The suggestion was for the name to be different from CEB but intuitive.

There was no discussion, and the motion was approved unanimously.

Jabbari next presented the following motion:

- ***Motion:* To approve Singapore as venue and December 13, 2023 to December 15, 2023 as dates for CDC 2023.**

Endorsed by: Executive Committee

Financial Impact: None

Background: The General Chair is Lihua Xie (approved by BoG in 2018 CDC) and the Program Co-Chairs are K.H. Johansson and G. Hu (approved by BoG in 2019 ACC). The contract with the hotel is under negotiation. The dates are Wednesday to Friday, with workshops on Tuesday.

There was no discussion, and the motion was approved unanimously.

Jabbari next presented the following motion:

- **Motion: To approve the preliminary budget for CDC 2023.**

Endorsed by: Executive Committee

Financial Impact: Projected Surplus of \$223,632 (20% of Total Outlays – not including loan)

Background: This motion has the same background as the previous one. The venue, Singapore, and dates, December 13-15, 2023 were both part of the previous motion. The projected number of registrants is 1600 and the registration fee (advance rate) for members is \$660.

INCOME			
Total Registration			925,720
workshop income			20,000
extra papers/pages			60,000
Exhibit			40,000
Grant			256,960
social event/reimburse			23,580
Total			1,326,260
EXPENSE			
Registration			14,118
Promotion			10,920
Exhibit area			
PCO			98,545
proceedings			35,000
Local Arrangement/Conven.			162,699
Food/beverages			608,926
Program	PaperPlaza/CEB		69,000
Credit card fees			48,119
Admin support			5,130
Audit			8,134
Op-com, gifts, planning			47,037
Total			1,102,628
surplus			223,632
% surplus			20.3

Member, Advance: \$660 (lunches included); Member, On-site: \$810 (lunches included)
Nonmember, Advance: \$850 (lunches included); Nonmember, On-site: \$1,010 (lunches included)
Students/life members: 50% of above; 3-day lunch ticket/pass for students: \$20

BoG asked for clarification regarding the inclusion of lunches for full registrants. This has to do with the incentives to promote economic activity provided by the government of Singapore. Given the expected number of registrants, the inclusion of lunches is an activity that qualifies for such incentives. However, Jabbari pointed out that this will not cover student registrants. With the proposed budget, students will have the option to purchase a 3-day lunch ticket/pass for \$20. Jabbari pointed out that addressing the unevenness between regular and student registrants was the subject of the next motion in the agenda.

The motion was approved unanimously.

M. Egerstedt, VP for Member Activities, next presented the following motion:

- ***Motion: To provide a grant to CDC 2023 of up to \$15K to provide lunches for student registrants (\$20 per registrant).***

Endorsed by: Executive Committee

Financial Impact: Up to 15K

Background: Regular registrants of CDC 2023 will get free lunches at CDC thanks to the incentives for generating economic activity of the Singaporean government. However, student registrants will not have their lunches covered. This motion seeks to solve the unevenness. This is part of a general vision that CSS should provide value to its members more broadly and this kind of mechanism will be made available to future CDC organizers.

A brief discussion ensued. G. Pappas raised the question of why not seeking industry sponsorship to cover student lunches (similarly to what is done now, where students attend a special industry session organized by some company and get a free lunch in return), but at a larger scale. Egerstedt emphasized the importance of creating the same conference experience for students as for regular participants by enabling the possibility of them deciding what best suits their interests. Dedicated industry sessions could still provide support for additional items, like dessert or dinners. Another question sought clarification as to whether the support covered all registered students or only student members. Egerstedt clarified that all student registrants will be covered. President Bitmead reminded BoG about the current CSS initiative that pays the 2020 annual CSS student membership fee for every IEEE student member identifying as such when they register for CCTA or CDC.

The motion was approved unanimously.

T. Parisini, VP for Publication Activities, next presented two motions concerning the transition of IEEE Trans. on Control Systems Technology to PaperPlaza:

Background: The review process of the IEEE Trans. on Control Systems Technology (TCST) is currently managed using Scholar-One Manuscript Central. TCST is the only CSS journal which does not use PaperPlaza, which is undesirable. It would be extremely useful to have all CSS journals managed through a single review management system, and this motion provides support for the additional effort in editorial assistance that the transition to PaperPlaza entails. During the transition, the two reviewing systems will be in place.

- **Motion: To increment the current FTE 75% of the TCST Editorial Assistant at Ohio State University to FTE 100% for year 2020.**

Endorsed by: Executive Committee

Financial Impact: \$13,271

BoG expressed support for the motion. Parisini explained that the editorial services agreement with Ohio State finishes at the end of 2020, and this is the reason why the motion only covers this period. The commitment will have to be revisited next year. A clarification was asked about the historical reasons behind the use of Manuscript Central. Parisini explained that, when the electronic review management system for TCST was put in place, PaperPlaza for journals did not exist yet. The recent addition of Senior Editors has made the use of Manuscript Central especially cumbersome. The transition resolves this historical reminiscence. The target date to close the use of Manuscript Central is April 1st, 2020.

The motion was approved unanimously.

- **Motion: To set up the IEEE Trans. on Control Systems Technology on PaperPlaza and host the journal during 2020-2021.**

Endorsed by: Executive Committee

Financial Impact: \$25,500

BoG expressed similar strong support for the motion. Parisini clarified that the financial impact is divided as \$1,500 for setup costs, and \$12,000 for annual support and maintenance costs. F. Jabbari expressed some concern about the long-term viability of the staffing support at PaperPlaza, and M. E. Valcher clarified that, beyond the current CEO, there exists a technical team that can guarantee its future viability. A question about how the costs of using Manuscript Central versus PaperPlaza could not be answered due to lack of availability at the time of the numbers for Manuscript Central.

The motion was approved unanimously.

President Bitmead next presented the following motion:

- **Motion: To create a new subcommittee of the CSS Standing Committee on Awards to be called the Bode Award Committee and to be charged with the selection of the awardee for the Hendrik W. Bode Lecture Prize for that year. The three members of this committee will be the President, the President Elect or Past President whichever is currently serving, and the Chair of the Awards Standing Committee. To take effect the first year of the inaugural 2-year presidency.**

Endorsed by: Executive Committee

Financial Impact: None

Background: At present, the annual Bode Prize is decided solely by the President. This has been identified as unusual by IEEE Technical Activities & Volunteer Engagement. Some concern had been raised about the President, under the new two-year term rules, selecting two successive awardees. This committee would obviate

these issues and involve more consultation, which currently occurs less formally. With the advent of two-year Presidents, the cycle of membership would be four years for the President – one as President Elect, two as President and one as Past President. Two separate voices would be added to the committee. The Executive Committee felt that this was a good balance between institutional memory and dilution of reliance on one person. They also were of the opinion that this additional duty for the Awards Chair would bring expertise and overview from all other aspects of the Awards Program, while providing input from that person to one of CSS's most prestigious awards. Currently the Awards Chair is not directly involved in any award selection process.

A lively discussion ensued. D. Gayme emphasized the importance of keeping diversity in mind, both in the award criteria and in the committee composition. Bitmead brought up the changes introduced last year in the CSS bylaws specifically intended to encourage diversity of nominees in terms of gender, geographical region, and professional sector (academia/industry/other) for all IEEE CSS awards. M. E. Valcher also provided context for these changes and linked the increasing role played by diversity criteria in award selection as the output of the work by the IEEE TAB Committee on Diversity and Inclusion. A. Annaswamy also pointed out the extremely useful data on the diversity of the CSS membership contained in the report to BoG by the VP, Member Activities. Finally, W. Dixon welcomed the inclusion in the committee of the Awards Chair as somebody that will bring his/her broad understanding and general perspective on CSS awards.

The motion was approved with one abstention.

Activity reports were presented by, in this order, A. Annaswamy (President-Elect), F. Bullo (Past-President), J. Sun (VP, Financial Activities), M. Egerstedt (VP, Member Activities), J. Hespanha (VP, Technical Activities), T. Parisini (VP, Publication Activities), and R. Bitmead (President). Annaswamy, Bullo, and Parisini covered in some detail the material contained in the agenda and reports documents.

Sun reported that CSS finances continue to be in good health. She presented income and expense forecasts as of November 2019 (which means that numbers for CDC'19 are still not included). IEEE has recently implemented changes in the overhead charged to societies, and will now apply it across the income base (previously, overhead fell primarily on publications activities). With the new model, and assuming that the revenue of CSS publications stays at similar levels, our society comes out ahead. In fact, as of November 2019, the expected net income is close to \$1M. Given this surplus, M. Egerstedt and G. Pappas reiterated the importance of creating more initiatives aimed at increasing the value of CSS membership. Sun also presented the 2020 FirstPass budget and the 2020 initiatives under the 3% spending rule.

Egerstedt presented data on the diversity of the CSS membership. At the request of the IEEE TAB Committee on Diversity and Inclusion, chaired by Andrea Goldsmith, CSS has collected data over the last 2 years on governance, awards, publications, and conferences (specific numbers are contained in the agenda and reports documents). Egerstedt provided baseline numbers of CSS membership for gender (male, 91%; female, 9%) and geographical region (US, 41%; R7: Canada, 4%; R8: Europe, Africa, Middle East, 26%; R9: Latin America, 6%; R10: Asia and Pacific, 23%). Data on diversity according to professional sector (academic, industry, government) was not available yet because of limited functionality of the IEEE membership portal. L. Zaccarian asked about the importance of the government category in the professional sector. To address this point, Egerstedt highlighted the role of government research labs and funding agencies in driving science policy. Egerstedt provided a number of take-away messages from the data: overall CSS is doing reasonably well with respect to the baseline and, as a society, we are cognizant of the importance of increasing and broadening participation; we need more industrial representation in the various categories to better embody the practical implications of our activity; award nominations come predominantly from the US, and this translates into a

majority of awards being given to US-affiliated members. CSS membership numbers have gone up 1.2% compared to last year's as of September 2019.

A lively discussion ensued, with various BoG members expressing concern about the low percentage of female membership at CSS. Egerstedt offered several observations to provide context: across IEEE, the percentage of female membership is 7%; CSS draws members predominantly from older, less diverse generations. The expectation is that drawing members from younger, more diverse generations will naturally lead to better outcomes in terms of female membership. D. Gayme reinforced this point by noting that the percentage of female undergrads in EE is now 14% and stressed the importance of engaging younger people and providing increased value to our membership. T. Parisini pointed out that increasing the number of industry-affiliated plenary speakers at CSS conferences was easy to do and simply requires asking General and Program Chairs to have the diversity of professional affiliation criteria in mind. He also asked for a more comprehensive data collection effort, extending the time span to the last 5 years, eventually leading to formulating a set of action items that could incorporate input from previous similar experiences. B. Pasik-Duncan echoed the prompt for taking advantage of previous experiences, and she noted various activities of the Woman in Control Committee, such as the concerted effort to promote elevation of female members to the grade of IEEE Senior Member.

Finally, Egerstedt presented a summary of activities aimed at improving membership numbers and/or experiences, including CSm columns, differential registration for CSS members at our conferences, website support for CSS Chapters, welcome message to new and renewing members, and the organization of the celebrated CDC Soccer Cup (with accompanying scarf designs for supporters that were a huge success later during the conference).

Hespanha complemented the information contained in his report to BoG provided in the agenda and reports documents by highlighting the yearly activities of two ("Intelligent Control" and "Robust and Complex Systems") Technical Committees (TCs) as a sample. He highlighted the increasing emphasis on student involvement in TCs and how this activity ties in with the Young Professionals Committee. Dissemination activities such updating TC websites and CSm columns are well on track. Hespanha also briefly discussed ongoing plans for the creation of a new TC on "Security, Privacy and Resilience" and a number of initiatives aimed at further encouraging students to engage in TCs, and visualizing and adding value of TC membership. Regarding student involvement, A. Ferrara stressed the importance of articulating to young members the key role that good reviewing plays in the activity of CSS conferences and publications.

Bitmead reported on the wide range of activities covered in his presidential report. He started by describing the interactions with IEEE, particularly the administrative support provided by Allison Fleisher, our Technical Program Associate at IEEE headquarters (which has significantly strengthened the day-to-day activity of CSS operations) and the assistance provided by IEEE Meetings, Conventions & Events with the organization and/or hotel contracting of the meetings of the Executive Committee. Bitmead also reported on the process that eventually led to the decision to hold the CCTA conference last August given the civil unrest in Hong Kong at the time. IEEE provided solid guidance, notably attendee safety and transportation and access, and on how and when decisions should be made. Bitmead highlighted the key role played by the General Chair Jie Chen and the Finance Chair Daniel Ho, the two most active local organizers, whose organizational and communications skills were of tremendous help (in fact, both received plaques in recognition of their service to CSS at the Awards Ceremony). Regarding the recent changes to the CSS Constitution and Bylaws related to the two-year presidency, the Control Systems magazine is expected to publish them in the April 2020 issue. Thirty days after publication, and in the absence of significant member objection, the changes will become effective.

The plans for the establishment of the CSS Fund under the auspices of the IEEE Foundation approved last year by BoG have been restarted. After the proposal lingered at IEEE for some time, CSS has now a clear picture as to how to proceed regarding fund establishment and approval. The current timeframe will seek approval from the Foundation Board at their February 2020 meeting. Bitmead asked for input from BoG to identify what class of activities might be most impacting for application of the money. G. Pappas suggested the organization of a series of envisioning workshops focused on the long-term role of systems and control. Such workshops could give rise to written reports that influence science policy makers and younger generations. B. Pasik-Duncan brought up the idea of establishing scholarships for graduate students. M. Egerstedt pointed out that in fact this initiative is already contained in the proposal for the establishment of the CSS Fund.

Bitmead also informed BoG that, starting with ACC 2021, it will be possible to jointly submit papers to ACC and the IEEE Control Systems Letters (similarly to the current arrangement for CDC papers). This would primarily affect those papers submitted to ACC via IEEE identification, which are handled by the CSS Conference Editorial Board. The American Automatic Control Council views this as beneficial to all of the constituent societies' memberships. J. Scherpen asked if there are any plans to allow for the possibility of submission of extended abstracts (instead of papers) as another form of participation in CSS conferences, and Bitmead responded that such possibility had not been considered so far, but may be part of future changes affecting conferences, including accommodating the push towards open access.

Bitmead also discussed recent changes to clarify responsibilities and identify the management structure capable of establishing and maintaining the CSS website, which now has Ahmad Taha, Chair of the Standing Committee on Electronic Information, as the main point of contact for interaction with Conference Catalysts (CC). Some BoG members expressed displeasure as to the level of responsiveness and attention to detail of CC regarding website changes, and Bitmead emphasized that the situation has improved significantly with the reformulated structured, and urged everybody to contact A. Taha with update requests. Bitmead also described the current progress of the CSS plan outlined at the BoG meeting of July 2019 regarding the IEEE Open Journal of Control Systems which, among other things, requires the transition of TCST to PaperPlaza to smooth the operational details, before further progress can be made in the appointment of an Editor in Chief. Bitmead concluded his report by informing BoG that CSS has rejoined the IEEE Internet of Things Initiative, the discussion items at the IEEE Technical Activities Board Meetings (mainly focused on the Accelerated Open Access Initiative and the Fellow handling process at the society/council level and at the IEEE Fellow Committee), the changes in IEEE overheads (mentioned above by J. Sun, VP, Financial Activities), and presidential travel to conferences in the second half of 2019.

Bitmead thanked everyone for their assistance and service during his year as President. He then presented certificates of appreciation to the outgoing members of the BoG and ExCom, and the outgoing EiC of TCNS, Yannis Paschalidis.

Bitmead asked if there was any additional new business or old business, and hearing no response adjourned the meeting.

The meeting was adjourned at 4:40pm.
