

Minutes of the Control Systems Society Board of Governors Meeting
December 16, 2018
Miami Beach, USA

Call to Order and Approval of Agenda

President F. Bullo called the meeting of the Control Systems Society (CSS) Board of Governors (BoG) to order at 1:00 PM on December 16, 2018. He welcomed the attendees, and summarized the meeting rules and procedures. The following members of the BoG were in attendance:

Andrew Alleyne	Faryar Jabbari
Anuradha Annaswamy	Karl Johannson
Alessandro Astolfi	Miroslav Krstic
Ragu Balakrishnan	Françoise Lamnabhi-Lagarrigue
Carolyn Beck	Zongli Lin
Robert Bitmead	Lorenzo Marconi
Francesco Bullo	Meeko Oishi
Dong-Il Cho	Hitay Özbay
Jorge Cortes	Thomas Parisini
Maria Di Benedetto	Yannis Paschalidis
Warren Dixon	Bozenna Pasik-Duncan
Magnus Egerstedt	Andrea Serrani
Jay Farrell	Jing Sun
Antonella Ferrara	Maria Elena Valcher
Li-Chen Fu	Lihua Xie
João Hespanha	Luca Zaccarian
Jonathan How	

Additionally, the following visitors attended the meeting:

Panos Antsaklis	Michael Demetriou	Yoshito Ohta
Linda Bushnell	Dennice Gayme	Jeff Peters
Richard Braatz	Bayu Jayawadhana	
Christos Cassandras	Rick Middleton	
Fabrizio Dabbene	Pradeep Misra	

Quorum was established, and the meeting agenda approved with unanimous consent. Next, the minutes of the BoG meeting of June 2018, held in Milwaukee, USA, were approved unanimously. Bullo 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

Most of the 2019 CSS roster was included in the Consent Agenda. One appointment was made too late to be included in the Consent Agenda, and R. Bitmead, the incoming 2019 President, sought formal approval from the BoG through the following motion:

- **Motion: To approve the appointment of Thomas Parisini as Chair of the Roberto Tempo Award Subcommittee to decide the best paper at the IEEE Conference on Decision and Control.**

Endorsed by: Executive Committee

Financial Impact: None

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

Bitmead next presented his six appointees to the BoG as an informational item. They are:

- Veronica Adetola (United Technologies Research Center, USA)
 - Debasish Chatterjee (Indian Institute of Technology Bombay, India)
 - Dong-Il Cho (Seoul National University, Korea)
 - João Gomes da Silva (Universidade Federal do Rio Grande do Sul, Brazil)
 - Yi Huang (Key Laboratory of Systems and Control, Chinese Academy of Sciences Beijing, China)
 - Okyay Kaynak (Bogazici University, Turkey and University of Science & Technology, China)
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F. Jabbari, VP for Conference Activities, presented the following motions, concerning CSS conferences:

- **Motion: To appoint Tsu Chin (T-C) Tsao as Program Chair for CCTA 2021.**

Endorsed by: Executive Committee

Financial Impact: None

Biography: **Tsu Chin (T-C) Tsao**'s research interests include modeling and control of dynamic systems with applications in mechanical systems, manufacturing processes, automotive systems, and energy systems, digital control; repetitive and learning control, adaptive and optimal control, and mechatronics. His honors and awards include best paper awards in ASME J. of Dynamic Systems, Measurements and control as well as ACC (O Hugo Shuck). He was the Senior Xerox Faculty Research award while at University of Illinois, prior to joining UCLA in 1999, and received the IFAC Mechatronics System Award from IFAC in 2016.

Notable service to the Mechatronics Community:

- Senior member, IEEE, Fellow ASME.
- Associate Editor, ASME Journal of Dynamic Systems, Measurement, and Control, 1994-1997.
- Technical Editor, IEEE/ASME Transactions of Mechatronics, 2008-2011.
- Senior Editor, IFAC Journal of Mechatronics, 2016-date.
- Member, Vice Chair (2015-17), Chair (2017-), IFAC TC 4.2 Mechatronics Systems Technical Committee.
- Program Chair, ASME Dynamic Systems and Control Division, 2002 IMECE, New Orleans, LA, Nov. 2002.
- Program Chair, 2010 ASME Dynamic Systems and Control Conference, Cambridge, Massachusetts.
- Program Chair, 2012 International Conference on Motion and Vibration Control (MOVIC), Fort Lauderdale, Florida.
- Program Chair for IFAC Symposium on Mechatronic Systems to be held in Vienna September 2019.

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

F. Dabbene recused himself.

Jabbari next presented the following motion:

- ***Motion: To appoint Fabrizio Dabbene and Alessandro Beghi as co-General Chairs for CCTA 2022.***

Endorsed by: Executive Committee

Financial Impact: None

Biographies: Alessandro Beghi is currently a Professor of Control Systems Engineering in the Department of Information Engineering at the University of Padua, Italy. His research interests include the application of modelling and control, filtering and identification, model reduction, fault detection and isolation techniques to various application fields, including control of fusion devices, guidance algorithms for virtual vehicles, control of HVAC&R systems, Adaptive Optics systems, and semiconductor manufacturing processes. He is the author of more than 180 publications in journals, books, and conference proceedings. He is the co-inventor of 6 International Patents on the use of advanced control techniques.

Dr. Beghi is a Senior Member of IEEE. His research has been recognized with a number of academic and industrial awards, including several best paper awards in various conferences. He has served on the Conference Editorial Board of the IEEE Control Systems Society. He has served in the organizing/program committee of several International Conferences (among which, MTNS1998 as Publication Co-Chair; IEEE CDC 2005; IEEE CASE 2007 as Track Chair, 2008 as Track Chair; IEEE MSC 2010, 2012, 2015; ACC 2011; IEEE SMC 2013, 2015, 2016; IEEE AIM 2017 as Program Co-Chair; IEEE CCTA 2018 as Publicity Chair). He has chaired the Conference on

Control Technology and Applications (previously Multi-Conference on Systems and Control) Best Student Paper Award Committee (2015-2018). He has co-chaired the Technical Committee on Power Generation, IEEE Control Systems Society (2010-2014), as responsible of the thrust on Efficient Energy Utilization.

Fabrizio Dabbene is a Senior Researcher at the institute IEIIT of the National Research Council of Italy (CNR), where he is coordinator of the Systems, Modeling & Control Group and elected member of the Scientific Council. He has held visiting and research positions at The University of Iowa, at Penn State University and at the Russian Academy of Sciences, Institute of Control Science, Moscow.

His research interests include probabilistic and randomized methods for systems and control, robust control and identification of complex systems, convex optimization and modeling of environmental systems. On these topics, he has published more than 100 research papers, which include more than 40 articles published in international journals. He is co-author of the book Randomized Algorithms for Analysis and Control of Uncertain Systems, Springer-Verlag, published in two editions, and editor of the book Probabilistic and Randomized Methods for Design under Uncertainty, also published by Springer. He is a recipient of the Outstanding Paper Award from EurAgeng in 2010.

Dr. Dabbene is a Senior Member of the IEEE. He served as an Associate Editor for the IEEE Transactions on Automatic Control (2008-2012), and for the Elsevier journal Automatica (2008-2014), and he is currently Senior Editor for the IEEE Control Systems Letters. He was Chair of the IFAC Technical Committee on Robust Control (2011-2017), Chair of the IEEE Technical Committee on CACSD (2010-2013), member of IEEE-CSS Conference Editorial Board (2002-2008), Program Chair for the CACSD Symposium of the 2010 IEEE Multiconference on Systems and Control and IPC member of various IEEE conferences. He served as elected member of the IEEE-CSS Board of Governors for the years 2014-2016, and as IEEE-CSS Vice-President for Publication Activities for the years 2015-2016.

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

Dabbene rejoined the meeting. E. Valcher and A. Serrani recused themselves.

Jabbari next presented the following motion:

- ***Motion: To appoint Elena Valcher and Andrea Serrani as co-General Chairs for CDC 2022.***

Endorsed by: Executive Committee

Financial Impact: None

Biographies: Maria Elena Valcher received the Master Degree (cum laude) in Electronic Engineering (1991) and the Ph.D. Degree in Systems Engineering (1995) both from the University of Padova (Italy). Since January 2005 she is Full Professor of Control Theory

at the University of Padova. She is author/co-author of 84 papers appeared on international journals, 98 conference papers and 17 book chapters. Her research interests include multidimensional systems theory, polynomial matrix theory, behavior theory, Boolean control networks, multi-agent systems and consensus problems, switched systems and positive systems.

She was in the Editorial Boards of the IEEE Transactions on Automatic Control (2000-2003), Systems and Control Letters (2004-2010), Automatica (2006-2013), SIAM J. on Control and Optimization (2012-2014), and she is currently in the Editorial Boards of Multidimensional Systems and Signal Processing (2004-today), the European Journal of Control (2013-today) and IEEE Access (2014-now). Since January 2017 she is the Editor in Chief of the IEEE Control Systems Letters.

She held various positions within the IEEE Control Systems Society: Appointed BoG Member (2003); Elected BoG Member (2004-2006; 2010-2012); Vice President Member Activities (2006-2007); Vice President Conference Activities (2008-2010); President-Elect (2014); President (2015). She was involved in the organization of several conferences, in particular she was registration Chair of the 2004 IEEE CDC, Publicity Chair of the 2007 MSC, Registration Chair of the 2011 IFAC World Conference and Program Chair of the 2012 IEEE CDC. She was a member of the 2013, 2014 and 2015 IEEE Control Systems Award committee, a member of the 2016 IEEE Fellow Committee, and of the 2016 IEEE TAB Ad Hoc Committee on Women and Under-Represented Groups. She was a Distinguished Lecturer of the IEEE CSS (2011-2014). She received the 2011 IEEE CSS Distinguished Member Award and she is an IEEE Fellow since 2012. She is currently a member of the IEEE TAB Committee On Diversity and Inclusion (2017-2018) and she has been appointed as Vice Chair of the IEEE PSPB (2019-2021). She was in the 2014-2017 Awards Committees for two IFAC Journals: Automatica and NAHS. She is a member of the IFAC Technical Board (2017-2020) and the Italian representative in the EUCA Board (2017-now).

Andrea Serrani received the Laurea (B.Eng.) degree in Electrical Engineering, summa cum laude, from the University of Ancona, Italy, in 1993, and the Ph.D. degree in Artificial Intelligence Systems from the same institution in 1997. From 1994 to 1999, he was a Fulbright Fellow at Washington University in St. Louis, MO, where he obtained the M.S. and D.Sc. degrees in Systems Science and Mathematics in 1996 and 2000, respectively. Since 2002, he has been with the Department of ECE at The Ohio State University, where he is currently a Professor, Assoc. Chair and Chair of Graduate Studies. He has held visiting positions at the University of Bologna and at the University of Padua, Italy, and multiple summer faculty positions at the AFRL, including four AF-SFFP Fellowships.

The research activity of Prof. Serrani lies at the intersection of methodological aspects of nonlinear, adaptive and geometric control with applications in aerospace and marine systems, fluidic systems, robotics and automotive engineering. Since 2004, he has been a longstanding collaborator of AFRL on the development of innovative control solutions for emerging aerospace technologies, including reconfigurable flight control systems design for air-breathing hypersonic vehicles, control-oriented modeling and control for flapping-wing micro-air vehicles, and control of scramjet engines. More recently, he has

been working on novel control solutions for turbocharged diesel engines and advanced powertrains. His work has been supported by AFRL, NSF, NASA and Ford Research Center, among others.

Prof. Serrani has authored or co-authored more than 150 articles in journals, proceedings of international conferences and book chapters, and is the co-author of the book *Robust Autonomous Guidance: An Internal Model Approach* published by Springer-Verlag. Prof. Serrani serves as the Editor-in-Chief for the IEEE TCST, and as an AE for the IEEE CSS and IFAC Editorial Boards. He is a past AE for IEEE TCST, Automatica and Int. J. of Robust and Nonlinear Control. He has served as Editor-at-Large for several CDCs and ACCs. He is the Program Chair of ACC 2019, and has served as Publications Chair for the 53rd and 52nd IEEE CDC, and for the 2009 ACC. He is a member of IEEE, IFAC and AIAA.

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

Valcher and Serrani rejoined the meeting. L. Xie recused himself.

Jabbari next presented the following motion:

- **Motion: To appoint Lihua Xie as General Chair for CDC 2023.**

Endorsed by: Executive Committee

Financial Impact: None

Biography: Lihua Xie received the B.E. and M.E. degrees in electrical engineering from Nanjing University of Science and Technology in 1983 and 1986, respectively, and the Ph.D. degree in electrical engineering from the University of Newcastle, Australia, in 1992. Since 1992, he has been with the School of Electrical and Electronic Engineering, Nanyang Technological University (NTU), Singapore, where he has been a Full Professor since 2004. He is the founding Director, Delta-NTU Corporate Laboratory for Cyber-Physical Systems, which received \$45M funding from National Research Foundation of Singapore, Delta Electronics and NTU, and has over 100 researchers including 20 professors, 40 research staff and 20 PhD students. He served as the Head of Division of Control and Instrumentation from July 2011 to June 2014 and the Director, Center for E-City from July 2011 to June 2013.

Lihua Xie's research interests include robust control, networked control, multi-agent systems, compressive sensing, and unmanned systems. He has published 8 books, over 300 journal papers and 5 patents, and has been listed as a highly cited researcher since 2014. He is an Editor-in-Chief of Unmanned Systems and an Associate Editor of IEEE Transactions on Network Control Systems and Sciences China – Information Sciences. He has served as an editor of IET Book Series in Control and an Associate Editor of a number of journals including IEEE Transactions on Automatic Control, Automatica, IEEE Transactions on Control Systems Technology, and IEEE Transactions on Circuits and Systems-II. He was an appointed member of Board of Governors of IEEE CSS

(2011) and is currently an elected member of the Board (2016-2018). He has been a Vice-President, Control Theory and Application Committee, the Chinese Automation Association, since 2012 and was a CSS Distinguished Lecturer (2011-2014). He is a Fellow of IEEE, Fellow of IFAC, and Fellow of Chinese Automation Association.

Lihua Xie served as the General Chair of the IEEE International Conference on Control and Automation (ICCA 2019, ICCA 2017, ICCA 2009, ICCA 2002) and the 9th International Conference on Control, Automation, Robotics and Vision (ICARCV'06), the General Co-Chair of the 9th World Congress on Intelligent Control and Automation (WCICA 2012), Vice Program Chair of the 55th IEEE Conference on Decision and Control (CDC 2015), Finance Co-Chair of CDC 2009, and the Program Chair of ICCA'03 and ICARCV'04. He was in the IFAC Manfred Thoma Medal Award Committee (2015-2016) and CDC Best Student Paper Award Committee (CDC 2013, CDC 2014).

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

Xie rejoined the meeting.

Jabbari next presented the following motion on the location for CDC 2021, and invited the General Chair M. Egerstedt (whose appointment has already been approved by the BoG) to present the motion:

- ***Motion: To select the city of Austin, Texas, as the host for CDC 2021.***

Endorsed by: Executive Committee

Financial Impact: None

Background: Austin, Texas is a college town with vibrant culture, technology, and startup scenes, and it is known as both the “live music capital” and the “food truck capital” of the US. As such, and it would provide a hip and interesting location for the 2021 CDC. Austin moreover has a number of hotels that are large enough to accommodate CDC and plenty of lower-priced hotel options close to the potential conference hotels (within five minutes’ walk).

A brief discussion ensued. A question was raised about whether a large enough venue was available to host CDC (in the past, this has been an impediment with Austin). Egerstedt stated this was no longer an issue. Another potential concern was how welcome our international guests would be at Austin. It was recommended that CSS consider a policy to handle scenarios when conditions change to make a host city unsuitable as a venue for CSS conferences.

The motion was endorsed unanimously.

L.-C. Fu, VP for Member Activities, next presented the following motion:

- ***Motion: For 2019, pay the 2020 annual CSS Student Membership fee for every IEEE Student Member identifying as such when they register for CCTA or CDC.***

Endorsed by: Executive Committee

Financial Impact: The current student membership fee for CSS is \$13. There are currently 787 current student members of CSS, and considerably fewer of them registering for CDC and CCTA. So, the maximal payment cost would be \$10,231, which realistically might be much less. This could be funded from 50%-rule initiative monies.

Background: This is an initiative designed to improve the attraction and retention of students in CSS by removing the CSS membership cost when students renew their membership for the following year. Since it is targeted to CCTA and CDC registrants, these students have already indicated an overlap with CSS subject areas.

This motion was discussed briefly. Questions about implementation were raised. Fu responded that CSS had initial conversation with IEEE that suggested that the implementation could be handled gracefully. There were also questions about how to measure the efficacy of this initiative in its goal to improve CSS membership numbers.

The motion was approved with one abstention.

Fu next presented the following motion:

- ***Motion: To have IEEE Life Members' reduced registration fee for CDC and CCTA also include the banquet.***

Endorsed by: Executive Committee

Financial Impact: Up to \$5K/year

Background: Currently, the reduced IEEE Life Member reduced registration fee does not include a banquet ticket. This does not properly recognize the contributions of our Life Members and the motion will remedy this shortcoming.

The motion was discussed briefly. It was pointed out the financial impact might indeed be smaller than the stated \$5K, and therefore this gesture came at a modest cost. There was a comment that this motion does not recognize “need”, i.e., the ability for the IEEE Life Member to pay for the banquet.

The motion was approved unanimously.

President F. Bullo next presented the following motion.

- ***Motion:*** Establish a "CSS Reimbursement Awards for Child Care & Disability Assistance" initiative at CDC and CCTA for the triennium 2019-2021.

Endorsed by: Executive Committee

Financial Impact: Up to \$20K/year (\$15K at CDC and \$5K at CCTA).

Background: The purpose is to establish a pilot program to provide limited financial support to parents and participants with disabilities while attending CSS-sponsored conferences CDC/CCTA. Currently, a number of societies (SIAM, APS, AMS, and other IEEE societies, like NPSS) have similar programs in place.

Program is designed to ensure that neither CSS nor conference assumes any liability. A two-round review process before conference gives a chance to prospective applicants to be able to know ahead of time. If requests exceed available funding, preference will be given to applicants in the early stages of their careers, presenting at the meeting, or who are IEEE CSS members.

Funding for the triennium 2019-2021 is provided by CSS. BoG would have to approve the request to future CDC/CCTA General Chairs to continue this initiative.

The initiative is being considered by IEEE's legal review team (Sherry Russ Sills, CMP Director, Event Operations, IEEE Meetings, Conferences, & Events (MCE)), and response is being awaited.

Existing programs:

1. SIAM: <https://www.siam.org/Conferences/Lodging-Support/Child-Care-Support>
2. APS: <https://www.apsdfd2018.org/childcare-grants/>
3. AMS:
http://jointmathematicsmeetings.org/meetings/national/jmm2019/2217_childcare
4. IEEE NPSS (nuclear & plasma science society):
<http://www.nsrec.com/child-care-reimbursement.html>
5. APS Fluids:
<https://www.apsdfd2018.org/assistance-for-participants-with-disabilities/>

Bullo next presented a draft of the guidelines. There was some discussion about tracking the success of this program.

The motion was received very well, and was passed unanimously.

Bullo next presented the following motion.

- ***Motion:*** Recommend that conference General Chairs establish OpCom position of Diversity & Inclusion Chair at future CSS financially sponsored conferences.

Endorsed by: Executive Committee

Financial Impact: Limited costs to upcoming conferences to enlarge OpCom.

Background: Tasks for new positions include:

1. Managing the “Child and Disability Care Reimbursement Program”, e.g., advertising the program and processing the funding requests.
2. Identifying/providing babysitting/lactation rooms, and facilitate on-site family coordination via a social network.
3. Helping coordinate the hosting of the WIC and/or YP events, if asked,
4. Helping with inclusiveness suggestions for plenary/tutorial sessions/special sessions, if asked, and
5. Organizing the “Meet the Faculty Candidate” poster session.

NeurIPS, Montreal, has D&I chair: <https://nips.cc/public/DiversityInclusion> and provides (almost directly) child care. It is worth clarifying and emphasizing that no IEEE, CSS ExCom/BoG or CDC/CCTA Opcom volunteer or staff, is authorized to make any recommendations about which local child-care/support companies.

This motion is a natural follower of the previous motion, with the assignment of a specific individual tasked with managing the “Child and Disability Care Reimbursement Program”. There were some suggestions on the lists of tasks for the person in this position – for example, could local outreach be part of this position’s responsibilities? There were some objections raised about the difficulty in recruiting the right person (this will be the responsibility of the conference General Chairs) if the position description were to be too vague or too ambitious.

The motion was passed unanimously.

A. Annaswamy, VP for Technical Activities, next presented the following motion:

- ***Motion: To create a new TC “Robust and Complex Systems with TC Chair Constantino Lagoa.***

Endorsed by: Executive Committee

Financial Impact: None

Background: This new TCs is intended to replace two existing TCs “CACSD (Computational Aspects of Control systems Design)” and “SU” (Systems with Uncertainty), which will be retired. In effect, the new TC represents a merger of the TCs CACSD and SU.

New committee scope: This TC will provide a venue for the discussion of computational aspects of the analysis and design of systems, with particular emphasis on the fact that practitioners are now often faced with very large data sets (Big Data) that might be

fragmented and/or subject to significant noise. To use such Big Data effectively for the analysis and design of systems, we need dedicated mathematical/computational tools. The aim is not only to focus on traditional approaches used in control analysis/design but also discuss how tools from other areas such as computer science or artificial intelligence can be used to solve such complex problems. Especial emphasis will be put in how to design resilient systems which are able to cope with model uncertainty, perturbations, attacks and changes in the environment they operate in.

Why this title?

1. This TC aims at addressing not only the design of robust controllers but also other problems involving robustness against uncertainty. Examples of these are (but not limited to) estimation in the presence of noise and uncertainty, system identification again in the presence of noise and fault detection in the presence of noise and uncertainty.
2. Complex systems: This TC aims in part at addressing computational issues in the analysis and design of systems. This inherits the spirit of TC CACSD, but in the renewed TC the focus is more laid on addressing computational complexity and the development of algorithms that can handle large scale and complex systems.

TC-CACSD and TC-SU have a large overlap both in terms of active members and in terms of past activities. Our last estimate is that, of the active members of each TC, at least 60% are members of both TCs. Moreover, in many of the last IEEE Multi-conference on Systems and Control, there has been a track that has been organized jointly by both committees. In terms of activities by the members, a large percentage of the active members of the TC-CACSD has been involved in developing computational approaches aimed at making systems resilient with respect to uncertainty which, obviously, overlaps with the scope of TC-SU. Given the overlap in membership and, consequently, the large overlap in the scope of the work developed by the members of the TCs, the two TC chairs proposed merging both TCs. This will allow for

1. A more comprehensive venue for discussing several aspects related to computational aspects of control with a strong emphasis on resilient systems
2. Redefine the scope to better fit new challenges that control systems face, namely large data sets subject to significant uncertainty, as is the cases in many problems that arise in Cyberphysical systems, IoT and Smart Cities.
3. Related to the above, better target the scope to attract younger researchers and have a more dynamic community.

The motion was discussed at some length. It was pointed out the title “Robust and complex systems” mixed the inherent nature of the systems studied (“complexity”) with the properties designed for (“robustness”), which can be an awkward union of adjectives. It was also pointed out the broadness of the title was raised as a potential negative by other TC chairs, and that some concerns remained. These concerns notwithstanding, the motion was passed with two abstentions and one negative vote with the amendment (accepted by consensus) that it be made clear that the new TC will come into existence in 2019. The amended motion is stated below.

- **Motion: To create a new TC “Robust and Complex Systems with 2019 TC Chair Constantino Lagoa.**
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Bullo next presented a number of motions concerning the revision of CSS Constitution and Bylaws. This motion represents the culmination of an effort that began at the BoG meeting in June 2018.

Background:

- Article X, Section 2, of the CSS Constitution requires a 30-day notice to the BoG regarding all motions that amend the Constitution and/or Bylaws.
- On June 26, 2018, at the meeting in Milwaukee, USA, a motion to amend the Constitution and Bylaws was presented to the BoG for information.
- On July 6, 2018, the formal motion was sent to the BoG via email by President Bullo, when he formally opened the 30-day discussion period. The motion is as follows:

- **Motion: To amend the IEEE CSS Constitution and Bylaws as follows:**
 - Change #1: Constitution: Change the composition of BoG to have a majority of elected members by removing membership from 6 editors in chief (see extended rationale below). This entails modifying Article V, Section 1 of the Constitution to read:

Section 1. The Society shall be managed by an Administrative Committee known as the Board of Governors consisting of 18 members of the Society elected by the members of the Society, 9 Executive Officers as defined in Section 3, ~~the Editor-in-Chief of each society publication, the Editor of Electronic Publications~~, and 6 other members of the Society appointed by President-Elect.

- Change #2: Constitution: Remove duplicated paragraph (this appears to be a typo; the duplicated paragraph is at the document's end and is duplicated with Article V, Section 1).
- Change #3: Constitution: Add the Director of Operation to the list of individuals eligible for presidency (this change has the benefit of increasing the size of the pool and making the position more appealing. Directors of Operations are appointed to the role just like VPs).
- Change #4: Bylaws: Revise sentence on inclusiveness (consistent with new paragraph adopted by IEEE TAB).

- Change #5: Bylaws: Remove automatic BoG approval after 30-day notice for ExCom slate. (Therefore, the ExCom slate would be brought to the BoG meeting for approval, as is actually current practice.)
- Change #6: Bylaws: Clarify that the BoG approval is required for several appointments (for which right now there is confusion). (President Elect continues to have the right to appoint 6 individuals to a 1-year BoG term without BoG approval.)
- Change #7: Constitution: Clarification of procedure to modify Bylaws and Constitution.

Rationale for motion: Most changes are self-explanatory. The rationale for Change #1 is given below.

Currently, BoG membership consists of:

- 18 elected members (6 members elected every year to a 3-year term)
- 9 ExCom ex-officio (yearly elected to Vice Presidencies or appointed as the Director of Operations by BoG, typical term is 2 to 3 years, typical requirement is having been elected to BoG previously)
- 6 appointed members (by President-Elect, for a 1-year term)
- 5 EiCs + 1 Editor of Electronic Publications are ex-officio (EiC term limits are one term of 3-5 years plus a possible second term of 3 years, for a total of up to 8 years).

Thus, there are 18 elected members vs 21 ex-officio/appointed members.

A proposal (endorsed by 2017 CSS LRPC committee and the 2018 CSS ExCom Committee) was to remove BoG membership from the 5 EiCs and the Editor for Electronic Publications. If approved, this constitution change would lead to "18 elected" versus "15 (= 9 ExCom ex-officio + 6) appointed." The proposal was motivated by the following:

1. It best practice for BoG to have more elected members than ex-officio/appointed. Balance has been tilting in the wrong direction as we have added 3 new editors positions lately (TCNS, L.-CSS, Electronic publications).
2. The proposed change clarifies the role of the BoG in overseeing the management of the CSS journals.
3. EiCs are represented by VP Publication Activities, just like Conference General Chairs are represented by VP Conference Activities. EiCs would be invited to BoG meetings.
4. EiCs are currently the only voting members of BoG with tenure potentially as long as 8 years.

- On July 24, 2018, BoG member Paschalidis proposed an amendment to Change #1 (concerning Section 1 of the Constitution), adding the text in bold below.

Section 1. The Society shall be managed by an Administrative Committee known as the Board of Governors consisting of 18 members of the Society elected by the members of the Society, 9 Executive Officers as defined in Section 3, the ~~Editor-in-Chief of each society publication, the Editor of Electronic Publications,~~ and 6 other members of the Society appointed by President-Elect. Of those 6 society members appointed by the President-Elect, 2 shall be selected from the pool of individuals consisting of: current and former Editors-in-Chief of each society publication, current and former Editors of Electronic Publications, and appointed General Chairs of conferences financially sponsored by the Society which either took place up until the year of the appointment or are scheduled to take place in the future.

This motion was discussed via email, but no formal vote was called. Instead, a motion to postpone the discussion and vote to today's BoG meeting was agreed upon.

The ExCom has discussed the amendment, and recommends:

Against the motion to amendment for two main reasons:

- Purpose of 6 appointments is to bring diversity and new volunteers (note the lack of diversity in the pool)
- Principle: BoG is overseeing publications and conferences; VP Pubs and VP Conferences are representatives. Hence, BoG is ultimately supervising EiCs and Conference organizers, so they should not be in the body.

The BoG considered Paschalidis's amendment to the original Change #1 of the amendment motion. There was spirited discussion for and against the amendment. Some of the points made were:

- The Paschalidis amendment is an additional constraint on the six President-appointed BoG members, and significantly restricts the President's ability to include a diverse set of representatives on the BoG, albeit for a one-year period.
- Some of the rationale employed to justify the removal of the EiCs as voting members from the BoG may be applied to argue for the removal for (some of) the ExCom members.
- The EiCs potentially have the longest tenure on the BoG, but that does bring with it the advantages of continuity.
- Conferences and journals are among the very most important activities of the society, and thus the EiCs and General Chairs have a particular stake in the transactions of the BoG.

A vote was taken on the Paschalidis amendment. The amendment was defeated by a vote of 6 in favor, and 20 against.

Bullo then requested the BoG to consider two additional amendments to the CSS Constitution:

- **Motion: Establish a CSS Standing Committee on Young Professionals.**

This requires the addition of a standing committee, requiring the addition of Section 21 to Article V of the CSS Bylaws.

Proposed new language:

Section 21. Standing Committee on Young Professionals This committee shall report to the Vice President for Member Activities, and shall be responsible for promoting the involvement of CSS members that are in the early stages of their professional career in Society activities, for organizing events and programs to aid CSS members in early career development, for disseminating information on CSS activities to young professionals within the society, and for acting as liaisons between CSS leadership and the global IEEE young professionals organization

Endorsed by: Executive Committee

Financial Impact: to \$10K for travel and catering expenses (e.g., at CDC/CCTA)

Background: This motion is motivated by the BoG discussion during the June meeting at the ACC.

Yearly Activities for the committee:

1. Annual presentation of YP activities to the CSS BoG
2. Participation of at least one committee member in the annual IEEE Young Professionals global meeting
3. Participation of at least one committee member in IEEE Young Professionals Technical Society Representatives face-to-face meeting (at most once per year)
4. Participation of at least one committee member in regular teleconferences with other YP committee members
5. Organization of a YP-focused meetup or event to coincide with each of two CSS-sponsored technical conferences, e.g., ACC and CDC

The motion was received well. There was a clarification made that young professionals also includes students. The motion was approved unanimously by the BoG.

Bullo next presented another amendment to Section 18 of Article V of the CSS Bylaws:

- **Motion: Revise the scope of the CSS Standing Committee on Award Nominations**

Current language: *Award Nominations Committee. This committee shall report to the VP-Membership. It shall see that a sufficient number of deserving members are nominated for the awards and prizes administered by IEEE and other relevant organizations. Nominations independent of this committee are possible and desired.*

Proposed language: *Award Nominations Committee. This committee shall report to the VP-Membership. It shall endeavor to ensure that a sufficient number of deserving members are nominated for all awards and prizes administered by IEEE CSS. Diversity of nominees in terms of gender, geographical region, and professional sector (academia/industry/other) is strongly encouraged. Nominations independent of this committee are possible and desired.*

Endorsed by: Executive Committee

Financial Impact: None

Background: This motion is intended to encourage diversity of nominees for all IEEE CSS awards.

The motion was received very well. It was discussed that the number of CSS awards is already significant, which justifies the focus of the committee in the revised wording. The motion was passed unanimously.

Before voting on the main amendment, Elena Valcher sought clarification regarding whether, given Change #3, the Director of Operations would also be subject to the requirement of having been an elected member of BoG prior to become President. This was confirmed to be the case, as with other VPs.

Next, Jonathan How proposed a motion to vote on the original amendment motion separating Change #1 from Changes 2 through 7, along with the two most recently passed amendments. This motion passed with 18 votes in favor, 5 opposed, and 3 abstentions. Thus, the following motion was considered.

- **Motion: To amend the IEEE CSS Constitution and Bylaws as follows:**
 - Change #2: Constitution: Remove duplicated paragraph (this appears to be a typo; the duplicated paragraph is at the document's end and is duplicated with Article V, Section 1).

- Change #3: Constitution: Add the Director of Operation to the list of individuals eligible for presidency (this change has the benefit of increasing the size of the pool and making the position more appealing. Directors of Operations are appointed to the role just like VPs).
- Change #4: Bylaws: Revise sentence on inclusiveness (consistent with new paragraph adopted by IEEE TAB).
- Change #5: Bylaws: Remove automatic BoG approval after 30-day notice for ExCom slate. (Therefore, the ExCom slate would be brought to the BoG meeting for approval, as is actually current practice.)
- Change #6: Bylaws: Clarify that the BoG approval is required for several appointments (for which right now there is confusion). (President Elect continues to have the right to appoint 6 individuals to a 1-year BoG term without BoG approval.)
- Change #7: Constitution: Clarification of procedure to modify Bylaws and Constitution.
- Change #8: Bylaws: Establish a CSS Standing Committee on Young Professionals.
- Change #9: Bylaws: Revise the scope of the CSS Standing Committee on Award Nominations.

This motion was passed unanimously.

Some additional discussion ensued. Jorge Cortes called the question, which was supported unanimously. The last remaining change (change #1) was then considered:

- **Motion: To amend the IEEE CSS Constitution and Bylaws as follows:**

- Change #1: Constitution: Change the composition of BoG to have a majority of elected members by removing membership from 6 editors in chief (see extended rationale below). This entails modifying Article V, Section 1 of the Constitution to read:

Section 1. The Society shall be managed by an Administrative Committee known as the Board of Governors consisting of 18 members of the Society elected by the members of the Society, 9 Executive Officers as defined in Section 3, the Editor-in-Chief of each society publication, the Editor of Electronic Publications, and 6 other members of the Society appointed by President-Elect.

This motion was passed with 22 votes in favor and 3 opposed.

Activity reports were presented by M. Egerstedt (VP for Financial Activities), L.-C. Fu (VP for Member Activities), E. Valcher (EiC of L-CSS), and A. Annaswamy (VP for Technical Activities).

Egerstedt reported that the CSS finance continue to be in good health. The actual financial numbers at the present time appear to be tracking the budgeted numbers very well, and there are no surprises. CSS expects to finish in the black this year as well.

Fu presented a summary of the activities of his office. CSS membership numbers continue to decline. Some of the motions passed today directly address increasing and broadening participation in CSS. Fu also presented a summary of the following activities: Distinguished Lecturer Program, Chapter Activities, Outreach Task Force, Student Activities, Fellow Nomination and Evaluation, Social Media, and Women in Control/Engineering.

Valcher reported on the status of the Control Systems Letters journal. She described the current structure of the editorial board, submission and acceptance/rejection numbers, and proportion of papers submitted jointly with CDC. The journal has also been recently indexed by Scopus. BoG congratulated EiC Valcher on an excellent launch of a new journal that provides a critical service for members wanting to attend CSS conferences.

Annaswamy presented a one-page summary of the activities and accomplishments of each of the CSS Technical Committees. The TCs appear to be very active, and the scope of their activities demonstrates the wide-ranging impact of CSS.

F. Bullo returned to the floor, and 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.

Bullo then called for an Executive Session, and requested non-members of the BoG to leave. The reason was that he wanted to share information that IEEE has requested to be shared only with the BoG. The topic concerns “IEEE Accelerated Open Access Initiative”.

An organization names cOAlition S has been spearheading a push to move all technical publications to be “Gold Open Access” (GOA), where the only model for publication is for the authors to pay an Article Processing Fee (APC) at the time of publication, with the article being made available freely and without barriers. Their means of persuasion is to award research funding only to those researchers who will publish exclusively in GOA venues. This model is completely disruptive to current practice, especially with IEEE journals where fee for access (say through subscriptions to IEEE Xplore or to print journals) is a significant component.

While the funding from cOALition S will have little short-term effect, IEEE would like to plan for the contingency that the publishing model of all-GOA takes hold. IEEE has analyzed the case for each society and has specifically recommended that CSS consider creating a new Gold Open Access journal. Normally, the creation of a new IEEE journal is subject to a long process. However, given the need for swift action, IEEE is implementing an “accelerated process” in this case. An initial response by the societies is requested by January 9, 2019, so that IEEE TAB can consider next steps for approval in its February 2019 meeting. Bullo also presented some specifics about the costs required by the creation of a new journal. Essentially, CSS would break even with 40 papers published yearly.

There was significant discussion within the BoG about the costs (in terms of money, volunteer time, brand dilution and quality dilution) versus the benefits of a new CSS GOA journal. There could be significant costs in not participating (indeed not leading) this new direction. Bullo noted that there was no all-GOA control journal of significance. It was noted that, while participating in the initiative represented a relatively small economic investment, it came with potentially a large investment in human (editorial board, reviewers) resources.

After considerable discussion, Bozenna Pasik-Duncan proposed the following motion, which was seconded.

- **Motion: To create a Gold Open Access Journal as part of the IEEE Accelerated Open Access Initiative, and provide an affirmative response to IEEE by January 9.**

Thomas Parisini proposed an amendment to move a little more slowly, and postpone the response to June. After some ensuing discussion, Parisini decided to withdraw the amendment. A second motion was then proposed:

- **Motion: Add a condition to the original motion that the implementation of the initiative must uphold the high standards of CSS in all its operations including the composition of the editorial board and the integrity of the review process.**

This motion passed with 1 abstention. The amended motion is below.

- **Motion: To create a Gold Open Access Journal as part of the IEEE Accelerated Open Access Initiative, and provide an affirmative response to IEEE by January 9. The implementation of the CSS GOA journal must uphold the high standards of CSS in all its operations including the composition of the editorial board and the integrity of the review process.**

This motion passed with a vote of 19 in favor and 2 opposed.

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

The meeting was adjourned at 6:15pm.