# Title: Minutes of the IEEE Control Systems Society Board of Governors Meeting

Below are the minutes from the IEEE Control Systems Society's Board of Governors (BoG) meeting on December 11, 2010, in Orlando, Florida.

# CALL TO ORDER AND APPROVAL OF AGENDA

Richard Middleton called the meeting of the Control Systems Society (CSS) Board of Governors (BoG) to order at 1:00 pm on June 28, 2011, and asked the attendees to introduce themselves. The following members of the BoG were in attendance: Frank Allgöwer, Anuradha Annaswamy, Panos Antsaklis, Alessandro Astolfi, Gary Balas, Dennis Bernstein, Francesco Bullo, Carlos Canudas de Wit, Christos Cassandras, Edwin Chong, Francis Doyle, Masayuki Fujita, Sam Ge, Oscar Gonzalez, Sandra Hirche, Ilya Kolmanovsky, Bruce Krogh, Naomi Ehrich Leonard, Richard Middleton, Pradeep Misra, Kirsten Morris, Dragan Nesic, Lucy Pao, Thomas Parisini, Ioannis (Yannis) Paschalidis, Mario Sznaier, Roberto Tempo, Maria Elena Valcher, Mathukumalli Vidyasagar. Additionally, the following visitors attended the meeting: Richard D. Braatz, Edwin Chong, David Castañón, Warren Dixon, Yoshito Ohta, Yutaka Yamamoto, Joan Pratt, and Lisa Purvis.

Quorum was established and the agenda was approved with unanimous consent. Following approval of the agenda, R. Middleton proceeded to ask if anyone would like to remove items from the Consent Agenda (see Appendix A). R. Middleton requested that the appointment of the CSS Liaison to the IEEE Nanotechnology Council be removed from the consent agenda and discussed separately, since the previous nominee had decided to step down. After this item was removed, the reminder of the Consent Agenda was approved unanimously.

Next, the minutes of the BoG meeting of June 28, 2011 held in San Francisco, California were approved unanimously.

# **ACTION ITEMS**

#### **Appointments**

Christos Cassandras reminded BoG that, in addition to the six new BoG members elected by the CSS membership for three-year terms, he as incoming CSS President is responsible for selecting six "appointed" members for one year terms. He informed BoG that he was appointing Antonella Ferrara, Stéphane Lafortune, John Lygeros, Ioannis (Yannis) Paschalidis, Li Qiu, and Toshiharu Sugie as BoG members for 2012. Since these are appointed positions, BoG approval was not required. The BoG supported the appointments and welcomed the slate of newly appointed BoG members.

Next Christos Cassandras presented the slate of CSS Executive Committee Officers for 2012:

- Christos Cassandras, President
- Yutaka Yamamoto, President-Elect
- Richard Middleton, Past President
- Edwin Chong, Vice President, Financial Activities (VPFA), continuing
- Shuzhi Sam Ge, Vice President, Membership Activities (VPMA), continuing
- Masayuki Fujita, Vice President, Conference Activities (VPCA), continuing
- Frank Doyle, Vice President, Publication Activities (VPPA), continuing
- Francesco Bullo, Vice President, Technical Activities (VPTA), continuing
- Warren Dixon, Executive Director.

Cassandras reminded BoG that the 2012 CSS Executive Committee positions were approved at ACC 2011. Following this presentation, Cassandras introduced a motion seeking approval of the chair and members of the 2012 CSS nominating committee.

Motion to approve the new Chair and new and continuing Nominating Committee members for 2012

**Endorsed by: Executive Committee** 

**Nominating Committee Financial impact: none** 

Chair: Middleton, R. (12)

Members: Antsaklis, P. (08), Basar, T. (10), Cassandras, C. (11), Castañón, D. (07), Samad, T. (08), Krstic, M. (12), Tempo, R. (09), Yamamoto, Y. (12)

Cassandras reminded BoG of Article I of the CSS bylaws stating that the Nominating Committee for each year shall be appointed during the preceding year by the President-Elect, with the approval of the Board of Governors. That committee shall consist of a Past

President as Chair and four or more members of the Society with not more than half being elected members of the Board of Governors. After introducing the motion, the nominees that were present (C. Cassandras, D. Castañón, R. Middleton, R. Tempo, and Y. Yamamoto) left the room and the motion was discussed by BoG (chaired by P. Misra in the absence of R. Middleton). G. Balas noted that some of the nominees have been in the committee for a while and asked whether there are term limits. He suggested that an expanded slate be considered. P. Misra indicated that at the moment there are no term limits in place, although they are being considered and that bringing in more nominees at this stage is not feasible, given the tight deadlines under which the Nominating Committee operates. B. Krogh noted that BoG should give an up or down vote to the motion on the table, unless it is amended. M. Vidyasagar remarked that this motion seeks approval of a specific slate, rather than of the nomination process, P. Misra suggested that if BoG was not happy with the motion, it could vote to table the motion. At this point, G. Balas moved that the motion be tabled. The motion to table was seconded by P. Misra. A vote was taken and the tabling was approved with 11 votes in favor and 10 against. After this vote, the nominees re-entered the room and R. Middleton led a discussion on what steps to take next. He noted that, according to the present bylaws, the slate of candidates for the Nominating Committee is put forth by the CSS President Elect. The BoG can approve or reject this slate, but it does not have the authority to nominate candidates. B. Krogh noted that, under present bylaws, if BoG rejects a slate (entirely or partially), then it has to wait until the President Elect presents a new slate. C. Cassandras reminded BoG that the issue of the composition of the Nominating Committee came up at the June BoG meeting. In his opinion, the call for nominations that he issued electronically to BoG in November, leading to the incorporation of M. Krstic in the slate, is a compromise that addressed the immediate concerns expressed at that time, while more thought is given to the issue of how to give BoG more input in the nominations process and the corresponding modification of the society's bylaws. G. Balas responded that, in his opinion, BoG expected the Executive Committee to move more quickly on this issue and that he does not see enough change. He would have preferred to have seen more new members in the committee and broader representation. R. Middleton indicated that he agreed with the need to have younger people in the committee, but at the same time noted that serving on this committee will place constraints on the ability of these people to serve the society in other elected positions in the future. T. Parisini stated that, in his opinion, ExCom reaction to BoG's input from the June meeting was slow, but acknowledged the existence of technical issues, including the need to modify the society's bylaws. He suggested drafting a roadmap and a timeline to implement BoG's recommendation. B. Krogh noted the need to come up with a decision on how to proceed with the 2012 Nominating Committee. R. Middleton remarked that the Nominating Committee operates under very tight constraints, since it is required to finish its work by April 1. Thus, it is crucial that a Nominating Committee be approved as soon as possible so that they can have a kick-off meeting, ideally during the CDC. P. Misra suggested that the President Elect should propose a different slate and meet electronically, if need be. C. Cassandras replied that only 3 BoG members replied to his call for nominations and only a total of 6 names were forwarded, out of which he selected M. Krstic. He also indicated that, in his opinion, it is very important that committee members have a face-to-face kick-off meeting. At this point, M. Vidyasagar noted that, if BoG wants an alternative slate, it would have to vote to untable the motion and then vote down the proposed committee. He moved that the motion to approve the nominating committee be untabled. The motion to untable was seconded by F. Doyle. In the ensuing discussion, B. Krogh indicated that he is against untabling the motion until BoG decides what steps will follow. After this discussion, a vote was taken and the motion to untable was approved with 20 votes in favor, 3 votes against, and 1 abstention. Following the vote, discussion on how to proceed with the original motion was resumed. B. Krogh indicated that he was in favor of the original motion given the lack of alternatives. P. Misra suggested that BoG explore alternatives. C. Cassandras noted that since there is currently no upper bound on the number of members in the Nominating Committee, and in principle all BoG nominees could be included. In his view, the main problem at this stage is the lack of clarity on how BoG would like to reform the process. Thus, in his opinion, BoG should move forward with the present slate for 2012 while working on changes to the nomination process. G. Balas noted that, while he was disappointed with the Executive Committee not reacting faster to the BoG recommendations made in June, under present bylaws it is the President's Elect prerogative to put together the slate of candidates for the Nominating Committee. He also noted that voting down the present slate just to make a point does not seem appropriate. P. Misra and F. Doyle noted that ExCom had made a good faith effort to be responsive and had incorporated some of the feedback received into the present slate. F. Doyle further added that he was troubled by the fact that only 3 BoG members had actually forwarded names to C. Cassandras. At this point, K. Morris moved to call the question; the motion was seconded by M. Vidyasagar and approved unanimously. The nominees left the room, a vote was taken and the motion to approve the proposed Nominating Committee was approved with 19 votes in favor and 2 against.

Next, R. Tempo and A. Astolfi left the room and R. Middleton presented the following motion.

Motion to approve Alessandro Astolfi and Roberto Tempo as Senior Editors for the IEEE Transactions on Automatic Control Endorsed by: Executive Committee Financial impact: none

As background to the motion, R. Middleton noted that Y. Yamamoto is stepping down as TAC Senior Editor, effective January 1, 2012, due to his appointment as CSS President Elect, and that J. Grizzle's term will end in mid 2012. R. Tempo and A. Astolfi were nominated as replacements by the TAC Editor-in-Chief P. Antsaklis, and the nominations have been endorsed by the Executive Committee. R. Middleton also noted that R. Tempo has indicated that he may serve only for one year, due to his role in the 2013 CDC.

After a brief discussion, the motion was unanimously approved. VPTA F. Bullo presented the following motion.

# Motion to appoint Xiaobo Tan as Liaison to the IEEE Nanotechnology Council

**Endorsed by: Executive Committee** 

**Financial impact: none** 

F. Bullo reminded BoG that the CSS is entitled to have two liaisons to the IEEE Nanotechnology Council (R. Kosut and M. Salapaka in 2011). M. Salapaka has indicated his desire to step down, so a replacement is needed. F. Bullo presented a brief biographical sketch of the candidate Xiaobo Tan. A brief discussion followed, where BoG members asked about whether the CSS funds liaisons to attend related events. F. Bullo replied that, at the moment, only very limited support is available, roughly comparable to the support given to BoG members to attend its meetings. He acknowledged that this limited support has been identified by some liaisons as an issue that limits their effectiveness. After this discussion, a vote was taken and the nomination passed unanimously.

#### Conference Activities Motions

The CSS Vice President for Conference Activities Masayuki Fujita presented the following motions.

#### Motion to approve Francis J. Doyle III as MSC 2013 Coordinating Program Chair

**Endorsed by: Executive Committee** 

Financial impact: None

VPCA M. Fujita reminded BoG that the creation of the position of MSC 2013 Coordinating Program Chair was approved at the June 2011 meeting, but no specific candidates were discussed at that time. He then presented a brief biographical sketch of F. Doyle, highlighting relevant experience, including serving as CSS VP for Publication Activities, Editor-in-Chief of IEEE TCST, and as Associate Editor of several journals. After this presentation, a vote was taken and the motion passed unanimously.

# Motion to approve the additional cost issue entailed by the CSS-PaperCept MOU:

From 2013, PaperCept fixed charges for CSS sponsored or financially co-sponsored conferences will be met by the CSS, and usage (per-paper) charges will be met by the conference.

**Endorsed by: Executive Committee** 

**Financial impact:** 

-Fixed hosting cost: \$20Kp.a.

-Usage cost: (approx.) \$22K for CDC, \$6K for MSC

M. Fujita noted that at the June 2011 meeting, BoG had approved entering an agreement with Papercept for hosting CSS conferences in the period 2012 to 2016. At that meeting, BoG had directed ExCom to come up with a proposal for distributing the cost between CSS and the conferences, leading to the present motion. M. Fujita noted that, under this proposal, conferences will no longer be responsible for the fixed hosting costs, but, will have to cover the usage costs. R. Middleton added that the present proposal also covers the hosting costs for the ACC since CSS originated papers represent a very substantial portion of the total papers. He also added that a benefit of this proposal is that conferences will no longer have to worry about splitting fixed costs with the society. Middleton also noted that since the present proposal will have an impact on conference budgets, it will be applied starting in 2013, to give conferences time to adjust these. After a brief discussion, a vote was taken and the motion passed unanimously.

# Motion to approve the CDC 2013 budget Endorsed by: Executive Committee Financial impact: (surplus) Euro 110K

R. Tempo (CDC'13 General Co-Chair) gave a brief presentation on Florence, highlighting the features of the chosen venue. Following this presentation, W. Dixon (CDC'13 Finance Chair) presented the proposed budget, noting that, even with a conservative estimate of 1300 registration, it meets IEEE's goal of having a 20% surplus. W. Dixon indicated that the budget has been vetted by P. Misra (VP-FA). R. Tempo commented that the proposed registration fee 520 EU (715 USD) is higher than when the conference is held in the US, and that this is due to the cost of renting the venue and the need to have a company involved to handle the details of securing the venue and enough hotel rooms to accommodate the attendees. The additional cost entailed is about \$160K (USD), out of which \$100K is the cost of renting the Convention Center and the remaining \$60K are the company's fees. F. Allgöwer asked for a clarification of the role of this company. R. Tempo replied that the company is in charge of negotiating with the Convention Center and hotels and of handling the registration. Due to Italian financial regulations, CSS cannot handle the registration itself, such as done for US-held conferences. Tempo also noted that, while this company will help in securing good room rates, attendees do not have an obligation to book through the company. G. Balas asked what are the liabilities incurred by the society. P. Misra replied that in the case of conferences held in Europe, the society is liable for the cost of renting the Convention Center and for minimum guarantees on food and beverage. G. Balas then asked about using the same model (assistance from a commercial company) for US-held events. P. Misra replied that such a model would probably lead to an increase of 50% in the registration fee. R. Middleton noted that the registration fee is normal (or even on the low side) for conferences held in Europe, bringing up for comparison the 500 GBP

registration fee for the 2010 UKACC. After this discussion, a vote was taken and the motion passed unanimously, with 2 abstentions (T. Parisini and R. Tempo).

Motion to approve Andrew Teel as CDC 2014 Program Chair

**Endorsed by: Executive Committee** 

Financial impact: none

M. Fujita presented a brief biographical sketch of the candidate, highlighting relevant experience that includes serving as Area Editor (Nonlinear Systems & Control) for Automatica, Area Editor (Hybrid Systems) for the 8th IFAC NOLCOS, and in the Program Committee of the 2008 and 2011 CDC. After this presentation, a vote was taken and the motion passed unanimously.

#### Motion to approve the venue and the dates of the MSC 2015

- Sydney Convention and Exhibition Center
- September 15-18, 2015

**Endorsed by: Executive Committee** 

Financial impact: none

M. Fujita reminded BoG that, at the June 2011 meeting, it had approved I. Petersen as the General Chair of the 2015 MSC and Sydney, Australia, as the location. At that time, two venues were being considered: the UNSW campus and the Sydney Convention Center. Next, M. Fujita gave a brief presentation (prepared by I. Petersen) describing Sydney and the proposed venue. Fujita highlighted the features of Sydney, including easy connectivity to most of the world, in many cases with non-stop flights. The proposed date (September) avoids the tourist season, while still having reasonably good weather (close to the beginning of spring in the austral hemisphere). Holding the MSC at the convention center, while more expensive, will open up more lodging and food options. A vote was taken and the motion passed unanimously.

# Motion to approve the General Co-Chairs and Venue of the MSC 2016

- Ricardo Sánchez-Peña and Mario Sznaier as MSC 2016 General Co-Chairs
- Buenos Aires, Argentina, as MSC 2016 venue

**Endorsed by: Executive Committee** 

**Financial impact: none** 

M. Sznaier left the room and M. Fujita gave a brief presentation highlighting the relevant experience of the proposed General Co-Chairs (R. Sánchez-Peña: AE for Latin American Applied Research journal and Journal of Control Science & Engineering, AE for CDC 2008, IPC for IFAC ROCOND 2009; M. Sznaier: AE for Automatica, Program Chair of IFAC ROCOND 2009, Program Vice-Chair of CDC 2008, IPC of ACC 1998-2001, IPC of CDC 1994, 1997, 1998, 2006, 2007, 2010, 2011). Fujita also highlighted the features of the location, Buenos Aires, in particular good connectivity to most of the world, and the venue, Puerto Madero Hilton, with enough capacity to accommodate the sessions in a single floor. Tentative dates are late September or early October, 2016 and the estimated registration fee is around \$560 for CSS members. After this presentation, G. Balas asked whether there were other candidates for the 2016 conference. M. Fujita replied that there was no open call for proposal for MSC 2016. The present proposal was one of those originally received in response to the call for proposals for MSC 2015. Since ExCom felt that two of these proposals (Sydney and Buenos Aires) were very good, it decided to endorse both, Sydney for 2015 and Buenos Aires for 2016. Fujita noted that this will be the first time that the CSS holds one of its conferences in South America. A vote was taken and the motion passed unanimously.

# Motion to approve the schedule of CACSD within MSC and rename the "Joint CACSD-SU Symposium" just "CACSD Symposium".

**Endorsed by: Executive Committee** 

Financial impact: none

M. Fujita noted that the Symposium on Computational Aspects of Control Systems Design (CACSD), held within the MSC has never followed a regular schedule. CACSD was held in 1979, 1981, 1982, 1983, 1985, 1986, 1989, 1991, 1992, 1994, 1996, 1997, 1999, 2000, 2002, 2004, 2006, 2008, 2010, and 2011. He also noted that the 2011 CACSD had low submissions numbers (55). Based on past experience, the Technical Committees responsible for the CACSD (TC on CACSD and TC on Systems with Uncertainty) have concluded that there is not a large enough audience to hold a CACSD every year, in particular when there are other events such as the IFAC World Congress or the IFAC ROCOND that compete for the same papers. Based on this observation, the Technical Committees propose to run the CACSD Symposium every three years, during MSC, starting from MSC 2013 in India (2013, 2016, 2019, 2021, ...). This will benefit the conference by establishing a regular schedule and avoiding competition with similar events. The TCs also proposed to abandon the name "Joint CACSD-SU Symposium," which was tried in 2011, and to revert back to the simpler "CACSD Symposium."

A brief discussion followed. C. Canudas de Wit expressed concern about having relatively small events within MSC. R. Middleton noted that CACSD has always been part of MSC and the present proposal only seeks to have a more regular predictable pattern. He also noted that the General Chairs of the 2014 and 2015 have been advised of this proposal and do not have major concerns. R. Tempo

added that the number of good papers in the field is limited and thus it makes sense to avoid overlapping ROCOND or the IFAC World Congress. He noted that the CSS and IFAC Technical Committees involved in CACSD and ROCOND considered the possibility of having a single CSS-IFAC co-sponsored event every year, but that the logistics proved to be too complicated. T. Parisini noted the need to separate the issue of CACSD scheduling from the larger issue of whether the MSC, as it stands, is serving the community and whether, over the years it has lost its initial technology-oriented focus. M. Fujita reminded BoG of the TAB meeting that would be held the following Tuesday to discuss the future of the MSC. After this discussion, a vote was taken and the proposal passed with 2 votes against.

#### Financial Activities Motions

VPFA Pradeep Misra presented the following budget-related motions.

Motion to approve the following society membership, subscription and operational budget parameters for 2013:

Category/Item	Soc-Fee	AC-P	AC-CD	CST-P	CST-CD	CSM	Xplore
Member	20.00	60.00	40.00	40.00	25.00	0.00	0.00
Student	10.00	30.00	20.00	20.00	13.00	0.00	0.00
Non-member	N/A	120.00	80.00	80.00	50.00	47.00	40
Non-member Student	N/A	60.00	40.00	40.00	25.00	24.00	20

Page budgets for CSS Journals for 2013

IEEE Transactions on Automatic Control3240IEEE Transactions on Control Systems Technology1700

IEEE Control Systems Magazine 752 (without advertisements), total 816

Other budget items for committee and initiatives during 2013: \$426.1 K

**Endorsed by: Executive Committee Financial impact: continuing and variable** 

After a brief explanation by P. Misra on these numbers and the rationale for the CSS journals page budgets, a vote was taken and the motion approved unanimously.

# Membership Activities Motion

VPMA Shuzhi Sam Ge presented the following motion.

Motion to approve to increase the support from \$5K to \$10K for student to attend conference workshops at CDC and MSC in 2012. In addition, the VPMA is to review the aims of the program and the effectiveness in achieving these aims and report to BoG.

**Endorsed by: Executive Committee** 

Financial impact: \$10K

S. Ge noted that the number of applications to this program has been increasing very rapidly, with over 100 applications received for the 2011 CDC. The budget increase will allow for accommodating more of these requests. A brief discussion followed, where O. Gonzalez asked about the status of a related initiative for free CSS electronic membership for students. S. Ge replied that this initiative is still being discussed at the Executive Committee level, which is waiting to see the impact of membership changes being proposed at the IEEE level. A vote was taken and the motion passed unanimously.

#### Other Motions

CSS President Richard Middleton presented the following motions.

# Motion that That CSS petition IEEE for a change of constitution as follows:

Replacement of the text of Article III Section 1 by:

The interests of this society are in the theory, design, optimization, and applications of dynamic systems and control. The field integrates elements of sensing, communication, decision and actuation components, as relevant for the analysis, design and operation of dynamic systems and control. The systems considered

include: technological, physical, biological, economic, organizational and other entities, and combinations thereof. The society focuses on the theoretical and technological underpinnings of the discipline.

#### Financial impact: none

R. Middleton reminded BoG that the old CSS Field of Interest (FOI) statement did not comply with the new IEEE guidelines and thus the society was required to shorten it to 75 words or less. A preliminary FOI statement was approved by BoG at the June meeting. Thus, the next step is to change the CSS constitution to reflect this new statement. R. Middleton noted that, under Article X of the Constitution, the main steps in amending the society constitution are:

- o BoG petitions IEEE for change
- o IEEE checks the validity (according to IEEE rules) of the proposed change
- The proposed change is returned to BoG for vote (2/3 majority required)
- o If passed by BoG, proposed change to constitution is publicised to the membership (e.g., in CSM)
- o 30 day period for membership to object
- o If >10% of membership object:
  - Then: Amendment is put to the membership for vote
  - Else: Amendment is passed

After the June meeting, the provisional FOI was submitted to IEEE's Technical Activities Board who approved it with minor modifications. The next step in the process is to formally petition IEEE for a change in the CSS constitution. After a brief discussion, a vote was taken and the motion passed unanimously.

Motion that all contracts for any IEEE CSS activity with a value of \$10,000 or greater must be approved by the CSS president or relevant vice president.

**Endorsed by: Executive Committee** 

# Financial impact: none

R. Middleton indicated that the motivation for this motion is to reduce the financial risk to the society in conference and other operations by making sure that contracts are scrutinized to avoid clauses that are not in our best interest. A brief discussion followed and the motion was passed unanimously.

Motion to modify the IEEE CSS Transition to Practice and Control System Technology Award descriptions as follows:

- Control Systems Society Transition to Practice Award:
  - To a distinguished contributor to the transition of control and systems theory to practical, industrial, or commercial systems.
- Control Systems Technology Award:

To a team or individual for an outstanding control systems technology contribution in either design and implementation, or project management.

**Endorsed by: Executive Committee** 

# Financial impact: none

R. Middleton noted that there has been some concern that the Transition to Practice (T2P) and Control Systems Technology Award are not sufficiently distinct. Discussions within ExCom and the relevant awards chairs suggested a change where the T2P is an award to an individual while the CST is as an award for a project/technology (either to an individual or a team, but for a specific project/technology. A discussion followed, concentrating on the specific wording in these descriptions, leading to the final wording quoted above. A vote was taken and the motion passed with 15 votes in favour and 3 against for the description of the T2P award and unanimously for the description of the CST award.

P. Misra left the room and R. Middleton presented the following motion seeking approval of a contract between CSS and Papercept for handling submissions to TAC and CSM.

Motion that CSS enters into a five year agreement, as outlined below, for continuing provision of publication software services (PaperPlaza) and related web hosting services with PaperCept Ltd. for the IEEE Transactions on Automatic Control and for provision of services for the IEEE Control Systems Magazine, for the period 2012 to 2016.

**Endorsed by: Executive Committee** 

# Financial impact: \$15,200 p.a. continuing (TAC), plus less than \$10,000 p.a. additional (CSM)

R. Middleton noted that this motion leaves the current arrangements for TAC unchanged. The arrangement with PaperPlaza is being expanded to cover handling of CSM submissions (which is needed for efficient functioning of the journal, currently there is no comprehensive electronic systems to handle submissions). Prior to endorsing this agreement, ExCom has performed due diligence and concluded that PaperPlaza offers the best functionality/price combination. R. Middleton also noted that, due of a conflict of interest, P. Misra has not been involved in any Task Force or ExCom or BoG discussions, except as representing PaperCept. A vote was taken and the motion passed unanimously.

Motion for the CSS to fund part time administrative support to the VP-Financial Activities at a total cost not to exceed \$10,000 p.a.

Endorsed by: Executive Committee Financial impact: \$10,000 p.a.

R. Middleton indicated that the duties of VPFA have expanded and the associated administrative work associated has increased substantially. This increase has arisen in part due to increases in the number and range of financial support programs the society is now running. To support our volunteers in this role, we propose part time support for an administrative assistant to help in processing of travel reimbursement receipts and expense reports, auditing and managing financial data, reports, spreadsheets, and budgets and in assisting the VPFA in the preparation of financial information and presentations. The estimated workload is an average of 8 hours/week, (casual – to allow for peak loads). The motion was unanimously approved.

Motion to continue the outreach fund for 2013 with a budget of \$125,000

Endorsed by: Executive Committee Financial impact: \$150,000.

R. Middleton noted that this motion reduces the current budget for the outreach fund from \$175,000 to \$125,000 for the year 2013. The reason for seeking this reduction is that, in recent times, the outreach fund has not been fully subscribed, and IEEE Finances have been 'pushing back' based on the size of the fund. G. Balas, chair of the Task Force on Outreach agreed that the program has not been fully subscribed, with only about \$75K spent. He suggested an amendment increasing the 2013 budget to \$150,000 with the proviso that, if unspent, these funds do not roll over. The amendment was seconded by C. Cassandras and passed by a vote of 16 in favor and 6 against. A vote was then taken and the following amended motion:

Motion to continue the outreach fund for 2013 with a budget of \$150,000

passed unanimously.

Motion that the CSS Technical Committee on Aerospace Controls be asked to actively solicit funds for the endowment of the "IEEE CSS Award for Technical Excellence in Aerospace Control". The aim should be to achieve approximately \$50K in donations to permit permanent endowment of the award. The TC is asked to achieve at least half this level of funding by the end of 2014

**Endorsed by: Executive Committee** 

Financial impact: none

R. Middleton reminded BoG that this award was established in 2009 (approved by BoG Dec 2008), but has not yet been activated. The sponsoring Technical Committee (TC on Aerospace Control) has now a commitment of \$5K towards the award. (Approx. \$50K is needed to permanently endow this award). The CSS is currently in the process of finalizing an agreement with the IEEE Foundation to allow IEEE to receive and accumulate such funds. The present motion seeks to clarify a reasonable time frame for fund raising and a minimum acceptable sum for endowment or partial endowment. R. Middleton indicated that in order for the award to be activated, enough funds should be collected to allow it to run for a reasonable amount of time (on the order of 10 years). D. Bernstein raised some concerns about the society endowing narrowly targeted awards but noted that this award highlights the society involvement with industrial applications other than process control. After a brief discussion, a vote was taken and the motion passed unanimously.

# Motions Approved by Email

Executive Director M. Sznaier reminded BoG of the following motions that were discussed and approved between the June and December BoG meetings. These motions are included in the minutes and formally recorded in the CSS archives.

Motion to approve continuing Technical Committee Chairs for 2011. This motion was endorsed by the CSS Executive Committee and on January 26, 2011 BoG began a 3 day abbreviated discussion on this motion that was followed by a BoG vote with a February 2, 2011 deadline. The motion passed.

Motion to nominate Christos Cassandras as American Automatic Control Council Director (for IEEE CSS) 2011 and Tariq Samad as alternate Director 2011. This motion was endorsed by the CSS Executive Committee and on February 21, 2011 BoG began a 4 day abbreviated discussion on this motion which was followed by a BoG vote with a March 8, 2011 deadline. The motion passed.

Motion to appoint 3 new Technical Committee Chairs.

- Martin Guay as the Technical Committee Chair for Industrial Process Control
- Randy Beard as the Technical Committee Chair for Aerospace Controls
- Mircea Lazar as the Technical Committee Chair for Hybrid Systems

This motion was endorsed by the CSS Executive Committee and on March 11, 2011 BoG began a 4 day abbreviated discussion on this motion which was followed by a BoG vote with a March 25, 2011 deadline. The motion passed.

**Motion to approve new and continuing CSM Associate Editors.** This motion was endorsed by the CSS Executive Committee and on July 30, 2011 BoG began a discussion on this motion which was followed by a BoG vote with an August 12, 2011 deadline. The motion passed.

# Discussion Items

#### **BoG** involvement in the Officers Nomination Process

R. Middleton led a discussion on the role of BoG in the nomination process for officers, in particular, related to Nominating and Executive Committee positions. Several options were discussed, including having BoG members sending nominations to the President-Elect for members of the Nominating Committee, having a prescribed BoG representation in the Nominating Committee, BoG directly electing the Nominating Committee, and BoG directly electing Executive Committee officers either from nominations or from a slate put forth by the Nominating Committee, with multiple candidates for the President-Elect and VP positions. Several BoG members indicated that they favored the option of having a prescribed BoG representation (a given percentage) in the Nominating Committee. R. Middleton noted that implementing this option may be complicated by the fact that sometimes people hold concurrently multiple appointments such as elected members of BoG and members of the Executive Committee. C. Cassandras indicated that he also favors the option of having a prescribed BoG representation within the Nominating Committee. He further suggested the idea of implementing term limits. B. Krogh suggested a similar model where the President-Elect puts up for a vote a slate where at least a given number of candidates have been suggested by BoG. R. Braatz commented that his AIChE experience suggests that, when direct votes are held for officer positions, losing candidates seldom get involved again with the society governance.

F. Doyle noted that the tasks carried out by the different VPs are rather specialized—each requiring a different set of skills. In his opinion, a popularity vote based on name recognition may not produce the candidates best suited to each task. R. Middleton added that this is why the Nominating Committee presently consists mostly of past society presidents. Otherwise there is a risk of having people that are not familiar with the job trying to decide who is suitable to carry it out. As an example, Middleton noted that most of the committee members involved in the IEEE Field award are field medalist themselves, although the committee has also some younger members. M. E. Valcher dissented, indicating that, in her opinion, performance as a BoG member can serve as a good indicator of whether a candidate is a good match for a given VP position. She agreed that nominations should not be based purely on the curriculum vitae. After this discussion, it was decided to form a small committee to address the issue of how to give BoG a more active role in deciding the composition of the Nominating Committee. The issue of electing Executive Committee officers will be discussed after consensus on the Nominating Committee is reached. It was decided that the committee will be chaired by R. Middleton. The rest of the members are T. Djaferis, M. E. Valcher, and D. Castañón. They will look into this issue and come back to BoG with one or two proposals.

# Proposal for a second edition of the "Impact of Control Technology" report

R. Middleton initiated a discussion of a proposal by A. Anaswamy and T. Samad to produce a second edition of the "Impact of Control Technology" report. Middleton noted that the original report, posted in the IEEE CSS web page, has very strong statistics in terms of both the number of pageviews and the average time spent on this page. Indeed, these numbers are by far the highest of any material posted in the CSS page. A. Anaswamy and T. Samad have proposed to follow up the initial report with a second edition, consisting of about 50 two-page flyers on "Success Stories" and 50 flyers on "Grand Challenges for Control Research. The budget for this proposal is about \$65K, with roughly \$50K to be used for high quality graphics design and the remaining \$15K to cover web hosting and copy editing costs. M. E. Valcher raised several questions, including whether the quoted cost for the high quality graphics is too high, what metrics are being used to assess the impact of the report outside the control community, and whether the second edition will feature new contributions or consists mostly of expanded versions of the contributions in the original report. A. Anaswamy replied that, at the moment, the only metrics available are from the CSS own web page, hosted by Conference Catalysts. Regarding the content of the second edition, Anaswamy indicated that the idea is to have new contributions. In fact, about 25 people have already contacted her and T. Samad with suggestions. Inputs from the CSS Technical Committees will also be sought. R. Middleton noted that, in his opinion, the reports are an excellent way to communicate to other people what the control community does. G. Balas commented that the time seems to be right, given that there are two people willing to coordinate the effort now. F. Bullo indicated that, to maximize impact, the entire high quality pdf version of the report should be available on-line for downloading. If a hard copy version of the report is produced, then the publisher should be willing to allow this. A straw poll was taken and a majority of BoG was in favor of supporting this activity. Following this poll, R. Middleton indicated that the Executive Committee

will discuss this proposal and come back to BoG. Given the relatively short time, it is likely that final BoG approval will be sought via an electronic vote.

#### Removal of over length page charges.

R. Middleton reminded BoG of the current CSS overlength policy for its conferences: "Any page over 6 pages will be charged \$200/page up to a maximum of two extra pages." R. Middleton indicated that, in his opinion, the move to electronic proceedings has made this policy obsolete and unjustified. He proposed to consider a motion to remove such page charges, starting in 2013, noting that such motion will effectively remove the six-page limit of conference papers. A discussion followed, where the issue of six versus eight page papers was debated. M.Vidyasagar indicated that, in his opinion, allowing for up to eight pages, without penalty will make the authors life easier and lead to papers that are easier to read, since proofs can incorporate more details. D. Nesic noted that authors need to be aware of the IEEE policy that requires that journal versions of conference papers need to have "substantial" value added, and this may be hard to accomplish if the conference paper already has eight pages. T. Parisini asked whether it is better to keep the present policy, since page charges can account for up to 30% of a conference surplus. R. Middleton answered that, in his opinion, using page charges to create a conference surplus is disreputable and places authors who do not have access to funds to cover these charges at a disadvantage. A. Anaswamy suggested a model where initial submissions are allowed up to eight pages to make the reviewer's task easier but final submissions are capped at six pages. The consensus of the BoG was that such a model leaves too much uncertainty on how the final version of the paper will differ from the reviewed and accepted manuscript, and that a model where the number of pages in the initial and final submissions is the same is preferable. K. Morris and P. Misra indicated that they favored a hard limit of six pages, since in their opinion it will lead to more succinct and easier to read papers. A straw poll was conducted that showed that BoG had a clear preference for a hard six-page limit for both initial and final submissions. It was agreed that this issue will be revisited at future Executive Committee and BoG meetings. P. Misra noted that a similar discussion is taking place within AACC.

# Activity Reports

# **Report of the President**

Due to time constraints, R. Middleton did not present a formal report at the meeting. Highlights of his report to BoG that were included in the meeting agenda are:

- Update on the SMC Journal Name Change: Having previously had a request to change names to 'IEEE Transactions on Systems Science and Engineering' rejected, the IEEE Transactions on Systems, Man, and Cybernetics Part A has been renamed to *IEEE Transactions on Systems, Man, and Cybernetics: Systems*. This is slightly different to an earlier variant of this that R. Middleton did not oppose, but it shares with this the key feature that SMC is explicitly in the title, which helps clarifying what the journal is about.
- Update on the Society Review. The review was conducted on November 17, 2011 in New Brunswick, which was attended by C. Cassandras and R. Middleton. The review panel noted some places where the CSS needs to provide a little further information. In addition, they suggested a more formal approach to setting and monitoring strategic goals. The CSS should receive detailed comments from the committee by early January 2012 and should respond by the end of January.
- Further update on IEEE Policy on Election of Officers: There was a motion at this year's TAB clarifying that the "1.5 rule" (there must be at least 50% more nominees than positions in an election) is mandatory for elections by the membership of the society. This same rule is encouraged in the case of elections by the BoG. If we were to follow this recommendation, this would mean that the society nominating committee and executive committee positions would need to follow this rule. Regardless of this, our By-Laws (Section 1, Article 3) need to be changed to reflect this requirement in relation to elected members of the Board of Governors. Our recent practice is consistent with the rule (that is, we have had 9 nominations for 6 positions to be elected).

# **Report of the Past President**

Roberto Tempo, Past President, briefly updated BoG on the status of the *Systems and Control* section (SY, under CS) of ArXiv (http://arxiv.org/corr/home), initiated during summer 2010 and moderated by M. Lovera, R. Tempo, and Y. Wang. In the period August 2010-October 2011, the section received 487 submissions. Based on the available statistics, it seems that the number of downloads from industry from the SY and OC (Optimization and Control) sections is 20% to 30% higher than the ArXiv average. Tempo concluded his report by emphasizing that, while CSS publications remain leading sources of information and the value that editorial boards add in terms of peer review is exceptionally high, the internet offers radically new ways of disseminating knowledge and he encouraged CSS members to explore the opportunities provided by ArXiv repositories in the SY and OC sections.

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

Due to time constraints, VPCA M. Fujita did not present a formal report at the meeting. Highlights of his report to BoG included in the meeting agenda are a report of the status of various conferences. Preparations for future conferences are well underway, with several key positions and budgets recently approved by BoG. The CEB is currently completing the review process for the ACC12. The new rating system, approved by the ExCom, has been used for the ACC12 review round. Although the feedback from reviewers and

AEs is somewhat limited, the general impression is that the new rating system is a step forward in identifying the pool of good papers, the pool of papers that have to be rejected and the, possibly small, pool of borderline papers requiring special attention. ACC12 has opted to use the *CrossCheck* system for the detection of plagiarism and this tool has indicated that the average similarity score of the ACC12 submissions is smaller than that of the CDC-ECC11 submissions, with only a few papers with a similarity score above 60%. This "numerical" improvement is difficult to assess: possibly the authors made aware of the existence of the tool. Nevertheless, a few cases of self-plagiarism and overlapping submissions have been detected. M. Fujita's report also noted that the current contract for conference publications contract expires at the end of 2012 and thus the CSS will soon solicit bids from different vendors.

#### Report of the Vice President, Publication Activities

Due to time constraints, VPPA F. Doyle did not present a formal report at the meeting. Highlights of his report to BoG included in the meeting agenda are:

- All publications were reviewed in June as part of the 5 year review of the Society. A detailed report was prepared with robust statistics for all journals. There were no major concerns raised by the committee. Minor concerns that were noted (and common to nearly all IEEE publications) included long times from submission to printing, too many "administrative rejects" (that is, manuscripts returned to authors without review), and better vehicles for author feedback.
- TCST continues to see a rise in submissions, with a projection of approximately 700 for 2011, which is comparable to 2010. A revised procedure is being implemented for so-called "administrative rejects".
- TAC has also seen a rise in submissions over the last several years (for full papers and technical notes combined). Projections for 2011 are for approximately 1500 submissions (Full Papers and Technical Notes, combined).
- The transition plan for the new EiC for CSM (Richard Braatz) is in good shape. The remaining 2011 issue was already prepared by Dennis Bernstein, and Richard has taken charge of producing the first several 2012 issues.

#### Report of the Vice President, Membership Activities

VPMA S. Ge presented a brief report highlighting recent trends in membership. Overall, CSS membership has increased by about 4% during this past year, for a total (as of November 2011) of 8900 members. In this period, higher grade membership has increased by about 9%, student membership by 2%, and the number of female members by 10%. Membership has grown in all regions, with some such as China, South East Asia, Africa, and Latin America experiencing growth above 10%.

# Report of the Vice President, Technical Activities

VPTA F. Bullo invited Y. Paschalidis, Chair of the Technical Committee on Networks and Communication Systems, to present a short overview of the activities being carried out by the TC. Y. Paschalidis noted that the committee focus is expanding to include new areas beyond traditional communication networks, such as biomolecular networks. He noted that in this CDC there were 15 sessions in topics related to the focus of the TC, including several invited sessions. Paschalidis also noted the recent special issue of the IEEE Trans. on Automatic Control (October 2011) devoted to Wireless Sensor and Actuator Networks. After Paschalidis' presentation, R. Middleton added that the revised society's Field of Interest statement recognizes the growing importance of networks.

#### **Report of the Executive Director**

Executive Director M. Sznaier reminded BoG that the next BoG meeting will be held on Tuesday, June 26, 2012, Montreal, Canada, at the 2012 ACC.

#### *ADJOURNMENT*

R. Middleton thanked the members of the Board of Governors and visitors for attending the meeting. The meeting was adjourned at 6:15 pm.

# APPENDIX A: CONSENT AGENDA

# 2012 Appointment Motions Prepared by Christos Cassandras, President-Elect

• Motion to approve new and continuing Standing Committee Chairs for 2012

**Endorsed by:** Executive Committee

# **Standing Committees**

Awards
Chapter Activities
Conference Operations
Conference Editorial Board
Conference Publications
Distinguished Lecturers
Electronic Information

Djaferis, T. (09)
Giua, A. (06)
Yurkovich, S. (08)
Astolfi, A. (09)
Beard, R. (12)
Petersen, I. (04)
Egerstedt, M. (09)

Executive Committee Cassandras, C. (12) (ExOfficio)

Fellow Evaluation Van den Hof, P. (11) Tempo, R. (12) **Fellow Nominations** Polis, M. (10) History International Affairs Allgöwer, F. (07) Long Range Planning Yamamoto, Y. (12) Membership & Public Information Hong, Y. (12) Standards Samad, T. (10) Hirche, S. (09) Student Activities Women in Control Glavaski, S. (11)

• Motion to approve Lovera, M. (11), Tempo, R. (11), Wang, Y. (11) as continuing arXiv Moderators for 2012

**Endorsed by:** Executive Committee

- Motion to approve Balas, G. (11) as the continuing Outreach Task Force Chair for 2012 Endorsed by: Executive Committee
- Motion to approve new and continuing Long Range Planning Committee Chair and Members for 2012 Endorsed by: Executive Committee

Chair: Yamamoto, Y. (12)

Members: Bullo, F. (11), Doyle, F. (11), Fujita, M. (11), Ge, S. (10), Middleton, R. (10), Misra, P. (10), Samad, T. (09), Sznaier, M. (11), Tempo, R. (09), Cassandras, C. (11)

• Motion to approve the new and continuing Technical Committee Chairs for 2012 Endorsed by: Executive Committee

#### **Technical Committees**

Aerospace Controls Beard, R. (11) **Automotive Controls** Di Cairano, S. (12) Behavioral Systems and Control Theory Rapisarda, P. (06) Computational Aspects of Control System Design **Dabbene**, **F.** (10) **Control Education** Pasik-Duncan, B. (02) Discrete Event Systems Jia, Q-S. Distributed Parameter Systems Demetriou, M. (03) **Hybrid Systems** Lazar, M. (11)

**Industrial Process Control** Guay, M. (11) Intelligent Control Sarangapani, J. (12) Manufacturing Automation & Robotic Control Cortes, J. (09) **Networks and Communication Systems** Ozdaglar, A. (12) Nonlinear Systems and Control Nesic, D. (09) Power Generation Schuster, E. (10) **Smart Grids** Amin, M. (10) Khammash, M. (05) Systems Biology Systems ID and Adaptive Control **Rivera, D. (07)** Systems with Uncertainty Chesi, G. (09) Variable Structure and Sliding Mode Control Spurgeon, S. (09)

# • Motion to approve the new and continuing Awards Subcommittee Chairs for 2012 Endorsed by: Executive Committee

#### **Awards Subcommittees**

Antonio Ruberti Young Researcher Prize Kumar, P. (11) Control Systems Technology Award Houpt, P. (11) Transition to Practice Award Mestha, L. K. (10) George S. Axelby Outstanding Paper Award Baillieul, J. (12) TCST Outstanding Paper Award Krogh, B. (12) CSM Outstanding Paper Award Annaswamy, A. (12) CDC Best Student-Paper Award Hirche, S. (10) MSC Best Student-Paper Award Chesi, G. (12)

# • Motion to approve the continuing Members on IEEE – USA Committees for 2012 Endorsed by: Executive Committee

#### **Members on IEEE-USA Committees**

Transportation and Aerospace Policy
Research & Development Policy
Energy Policy
Medical Technology Policy
Communication Policy

Shladover, S. (09)
Bielefeld, J. (95)
Thomas, R. (95)
Ghosh, B. (10)
Gong, W. B. (02)

Career & Workforce Policy Committee Vacant

# • Motion to approve the new and continuing IEEE – Liaison representatives for 2012 Endorsed by: Executive Committee

# Liaison Représentatives

AACC Director Cassandras, C. (12)
AACC Alternate Director Doyle, F. (12)

EUCA Canudas de Wit, C. (12)

IEEE Nanotechnology Council (2)

Kosut, R. (02), Salapaka, M. (09)

IEEE Systems Council (2)

Baras, J. (09), Samad, T. (11)

IEEE Press

Doyle, F. (11)

IEEE Society on Social Implications of Technology
IEEE Transactions on Image Processing
Doyle, F. (11)
Doyle, F. (11)

IEEE Xplore-Enabled Learning Library Initiative

Hoo, K. (05)

IEEE TAB Ad-Hoc Committee on Outreach Activities

Pasik-Duncan F

IEEE TAB Ad-Hoc Committee on Outreach Activities
Pasik-Duncan, B. (05)
Pasik-Duncan, B. (06)

IEEE/ACM Trans. Computational Biology

& Bioinformatics Steering Committee **Doyle, F. (11)** IEEE/ACM Trans. Computational Biology & Bioinformatics AE Ghosh, B. (05) SIAM/SIAG Batten, B. (11) SICE (Inst & Control - Japan) Imura, J. (10) **INFORMS** Paschalidis, I. (08) IEEE TAB Magazine Committee **Braatz**, R. (12) Egerstedt, M. (09) **IEEE TAB Newsletters Committee IEEE TAB Transactions Committee** Antsaklis, P. J. (10)

• Motion to approve continuing Senior Editors and continuing Associate Editors for the IEEE Transactions on Automatic Control (2012 TAC Tech Assoc Editors were approved at ACC) Endorsed by: Executive Committee

# **IEEE Transactions on Automatic Control**

Editor-in-Chief Antsaklis, P. J. (10)

Senior Editors Chong, E. (09) Colaneri, P. (10) Grizzle, J. (09) Krstic, M. (09) Spall, J. (09)

#### **Technical Associate Editors**

Arzelier, D. (09) Hagiwara, T. (12) Prandini, M. (09) Astolfi, A. (11) Hong, Y. (10) Prieur, C. (12) Beard, R. (12) James, M. (10) Reveliotis, S. (09) Blanchini, F. (12) Lee, L. H. (12) Schenato, L. (11) Braslavsky, J. (10) Loria, A. (07) Shi, P. (08) Chang, H. S. (11) Malisoff, M. (11) Shim, H. (12) Chen, X. (09) Marchand, H. (10) Szepesvari, C. (09) Chiuso, A. (10) Marconi, L. (10) Tabuada, P. (11) Trentelman, H. (11) Corradini, M. L. (12) Mascolo, S. (08) **Cortes, J. (10)** Mirkin, L. (11) Wang, Z. (08) Daafouz, J. (11) Moog, C. (12) Weyer, E. (10) Morris, K. (08) **Dabbene**, F. (09) Zaccarian, L. (12) Dullerud, G. (11) Nair, G. (12) Zhang, H. (10) Ferrara, A. (07) Ozdglar, A. (12) Zhou, T. (08) Frazzoli, E. (12) Paganini, F. (11)

• Motion to approve continuing Associate Editors for the IEEE Transactions on Control Systems Technology (2012 TCST Editors were approved at ACC)

Pepe, P. (11)

**Endorsed by:** Executive Committee

#### **IEEE Transactions on Control Systems Technology**

Editor-in-Chief Parisini, T. (09)

**Technical Associate Editors** 

Hadjicostis, C. (12)

 Alessandri, A. (09)
 Bestaoui-Sebbane, Y (08)
 Chen, Y. (10)

 Alleyne, A. (11)
 Bohn, C. (06)
 Cherubini, G. (11)

 Basile, F. (09)
 Butts, K. (12)
 Chowdhury, F. (07)

 Behal, A. (12)
 Caccavale, F. (07)
 Christen, U. (08)

**Cuzzola, F. (08)** De Nicolao, G. (12) **De Persis, C. (10)** Del Re, L. (11) Dessaint, L. (08) El-Farra, N. H. (10) **Fujita, M. (10)** Gao, H. (12) Gao, Z. (09) Giri, F. (12) Giua, A. (06) Guay, M. (10) Hadjicostis, C. (08) Horch, A. (12) Hovakimyan, N. (06) Jiang, B. (10)

Kazantzis, N. (08) Kerrigan, E. (12) Korba, P. (12) Lagoa, C. (09) Lew, J. (10) Liu, D. (10 Loria, A. (09) Lovera, M. (06) Lu, J. (10) Mattei, M. (07) Meckl, P. (06) Mesbahi, M. (08) Natale, C. (09) Petersen, I. (12) Pettersen, K. (10) Prandini, M. (09

Raisch, J. (06) Roepke, K (08) Savaresi, S. (09) Serrani, A. (10) Tarbouriech, S. (10) Varigonda, S. (09) Vasca, F. (08) Wang, Q. (11) Wu, N.(09) Xie, L. (09) Young, R. (08) Yu, J. (12) **Zefran, M. (10)** Zhang, T. (06) Zhang, X. (12) Zolotas, A. (12)

• Motion to approve continuing Editor-in-Chief and new and continuing Associate & Corresponding Editors for the Control Systems Magazine (2012 Associate & Corresponding Editors were approved at ACC) (Three additional 2012 Associate Editors to be approved now)

**Endorsed by:** Executive Committee

# Editor-in-Chief: Braatz, R. (12)

Co-Associate Editor for Book Reviews (2) Corr. Editor (Europe & Africa) Corr. Editor (Asia & Australia) Corr. Editor (Conference Activities) Associate Editor (History) Associate Editor (Education) Polis, M. P. (07), Lin, Z. (08) Lovera, M. (09) Al Mamun, A. (09)

Watkins, J. (08) Findeisen, R. (12) Leang, K. (12

#### **Technical Associate Editors**

Cortes, J. (12)
Davison, D. (10)
Del Re, L. (09)
Ferrari, S. (08)
Fierro, R. (08)
How, J. (09)
Johnson, K. (08)
Kantor, J. (12)
Pettersen, K. (12)
Qin, J. S. (12)
Rajamani, R. (12)
Salapaka, M. V. (12)

Wen, C. (09)