Agenda and Reports

IEEE CSS
Board of Governors Meeting

December 12, 2006
Agenda
IEEE CSS Board of Governors Meeting

December 12, 2006, 1:00 PM
Emma ABC
Manchester Grand Hyatt
San Diego, California, USA

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5. Other Business
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6. Adjournment (Baillieul)
Call to Order and Approval of Agenda


Modifications/additions to the agenda were noted, and the agenda was approved by unanimous consent. Next, the minutes of the BoG meeting of December 11, 2005 were approved by unanimous consent.

Action Items

Election of Officers for 2007

J. Baillieul, standing in for M. Spong, presented the Nominating Committee report to the BoG. The Nominating Committee consists of Spong (Chair), Baillieul, Birdwell, Djaferis and Tempo.

Baillieul conducted the election of CSS officers for 2007. There were no new nominations from the floor. The following candidates nominated by the Nominating Committee were approved by the BoG: President-Elect, D. Castanon; Vice President for Conference Activities, R. Middleton; Vice President for Financial Activities, E. Abed; Vice President for Member Activities, M. E. Valcher; Vice President for Publication Activities, Y. Yamamoto; and Vice President for Technical Activities, J. Farrell.

Baillieul next informed the BoG of the candidates for this year’s election: F. Bullo, S. Ge, J. Huang, M. Rotea, J. Sun, M. Sznaier, C. Tomlin and H. Wang [Ed. the following were elected: Bullo, Ge, Rotea, Sun, Sznaier, Tomlin].

Editorial Appointments for the Transactions on Automatic Control (TAC) for 2007

Samad presented the TAC AE nominees, which were previously discussed and endorsed by the Executive Committee. The BoG unanimously approved the following (to start January 1, 2007): A. Ferrara, G. Feng, A. Loria, B. Ninness and J.-F. Zhang.

Editorial Appointments for the Transactions on Control Systems Technology (TCST)

Samad presented the TCST AE nominees, which were also previously endorsed by the Executive Committee. The BoG unanimously approved the following (to start July 2006): C. Bohn, A. Giua, J. Raisch and T. Zhang. Currently, 30% to 40% of the AEs are from industry.

Editorial Appointments for the Conference Editorial Board (CEB)

Samad presented the following CEB AE nominees, which were previously endorsed by the Executive Committee. The BoG unanimously approved the following nominees (to start July 2006): C. Bohn, A. Giua, J. Raisch and T. Zhang. Currently, 30% to 40% of the AEs are from industry.

2007 Budget

Farrell presented charts for the 2005 results, 2006 forecast and 2007 budget. In 2007, the IEEE will start predicting stock market income for the societies’ budgets. The current CSS net worth is $4M. Heck was curious on how the growing surplus will be used. Farrell said that we need a proposal to spend more than $50k on any new initiatives. Tomlin asked if there was any danger that IEEE will call on CSS to help out other societies. Baillieul acknowledged that there was tension between the large and small societies. Djaferis said that CSS is a fiscally responsible society. Our conferences are priced on the cheap side. The leadership is not focused on increasing the pot of money. Four years ago the surplus was $2M. Also, we must remember that this is IEEE money, not CSS money. We are heavily tied to the stock market. Sun questioned the increase in periodical cost. Farrell said that IEEE is using better predictions from Xplore income. The accounting formulas have changed. Ge mentioned that the conferences are accumulating money. Is there any plan to utilize the profit for the society? Baillieul said the surplus goes into the net worth of CSS and there is always a possibility to provide service to the members. Note that the 2007 budget was approved with the new addition of $16k going towards banquet tickets for student attendees at the CDC. The BoG approved the 2007 budget.

General Chair, Multi-Conference on Systems and Control 2009

The BoG unanimously approved A. Fradkov as the General Chair for MSC 2009. The conference may be held in St. Petersburg, Russia in the June/July time frame. Abed mentioned that Fradkov has run a conference in St. Petersburg before. Misra asked if the financial matters were resolved.
Middleton said that there may be problems setting up a bank account in the host country, but we may be able to go through the local CSS Chapter.

**Program Chair, CDC 2009**
The BoG unanimously approved D. Cheng and M. Spong as Co-Program Chairs for the CDC 2009.

**Budget, CDC 2007**
The BoG unanimously approved the budget for the CDC 2007, to be held in New Orleans, Louisiana.

**Student Travel Support**
Currently, we have two sources of funds for the Student Travel Support Program for the CDC: (1) CSS funds limited to IEEE-CSS members, and (2) NSF funds, which traditionally do not have this requirement. The BoG unanimously approved to give higher priority to IEEE-CSS student members when distributing NSF funds for Student Travel Support at the CDC. This will help with the administration of this program. The two sources will be used to fund the maximum number of students.

**Chair, Technical Committee on Control of Energy Processing and Power Systems**
The BoG unanimously approved Sandip Roy as the TC Chair for the Technical Committee on Control of Energy Processing and Power Systems.

**Technical Committee on Behavioral Systems and Control**
The BoG unanimously approved create a new Technical Committee on Behavioral Systems and Control.

**Editor, Electronic Publications**
The BoG unanimously approved to establish the position of Editor of Electronic Publication. This Editor’s responsibility will include maintenance of CSS web pages and the monthly publication of the CSS eLetter. This Editor reports to VP Publications Activities and replaces the current position of eLetter Editor. This position will carry with it support for a part-time assistant. The BoG also approved P. Misra to be the first Editor.

**Activity Reports**

**Report of the President**
Baillieul discussed the completion of the CSS Society Review by the IEEE TAB. He discussed the highlights of CSS current operations: brief status, triumphs, best practices and problems. In addition, he discussed the CSS’s relationship with TAB and IEEE: measures of health, internationalization and financial models and reports.

After presenting the Field of Interest statement for the CSS, Baillieul presented his “Ten Most Important Intellectual Advances of the 20th Century:”

1. Aircraft and rotor craft

2. Relativity theory
3. Quantum mechanics
4. Information theory
5. The physical/chemical basis of life
6. The maximum principle
7. Recursive estimation
8. The abstraction of layering
9. Packet switched communication
10. Universal networks

Baillieul stated that CSS periodicals are leaders in the field, citing high Impact Factors (as of June 2006): (TAC = 1.545), long citation half-life (TAC > 10yrs), large circulation (TAC = 2940). In addition, in 2005 TAC ranked 7th out of all IEEE publications on Xplore with 764,756 hits, TCST ranked 67th (144,171 hits), and CSM ranked 71st (135,033 hits).

Baillieul stated there is a pervasive influence of a hidden technology in airplanes, automobiles, Matlab, etc. His SWOT analysis of the society included strengths being scientific rigor, abstraction and member competence. The weakness is inaccessibility. Our opportunities are to discover new vistas. Our threat is a declining membership. Valcher said there were 7827 members in CSS as of April 2006. Camacho said it is not clear that we are losing members if we look at the active members. Samad said we need another measure of how well the CSS is doing in membership.

Baillieul stated that we have the current initiatives of a new website, with an emphasis on electronic publishing; improved conference management; and new publications. He encouraged the BoG members to think of new initiatives for the society. Complete records of the Society Review are available on-line. Please contact the Secretary-Administrator for details.

**Report of the Vice President, Publication Activities**
Samad gave highlights of the CSS Society Periodical Review. The report consisted of five years of data. He thanked the Editors, Cassandras, Doyle, Bernstein and Misra, for their help with the report. Samad listed the principal “competitor publications” for each of the CSS publications. He also reviewed the impact factor ranking. Middleton reminded the BoG that the impact factor was the average of the number of citations/paper in the last two years as a fraction of the number of papers published. Samad next reviewed “quality metrics” of rejection rates and review times for all publications.

Tomlin brought up a point raised in Baillieul’s report. The IEEE is introducing many errors in manuscripts handled by Manuscript Central. Baillieul said he was torn on whether or not to include this in the society report. IEEE was more concerned with the cover date and mail date for the publications. Tomlin thought that the errors were more important. Baillieul thought the IEEE could do better by trying different competing companies. Tomlin said this was a consistent problem: if you send in a paper in LaTeX, it is edited
and errors are introduced. Cassandras said that all TAC papers are sent to India and retyped. Baillieul said that the IEEE staff was not proficient in LaTeX. Tomlin asked if you could ask for the revised galleys back. Cassandras said a 2nd or 3rd revision would be fine. Baillieul said he would raise this concern at the IEEE TAB meeting. Cassandras asked everyone to send him an information on mistakes they see. Doyle also said that the TCST had a regular paper published as a brief paper, which caused a big problem. Tempo said that there were no complaints for the Technical Notes. Pao asked about doing an author survey. Cassandras said they are working on it. Baillieul said the ideal case would be if you could get the galleys back and handle the feedback.

Samad next gave highlights of the CSS publications. He also discussed the problem with dual submissions, meaning sending the same paper to two publications (conference or journal). IEEE Xplore is treating conference and journal papers the same. We need guidelines. Tomlin compared this to the Biology field, where everything is published in journals (1-page articles) with a six-week turn-around for acceptance. She suggested that we rethink the process. Sun asked if this was unique to the CSS. Samad said it was not. Tomlin said that Computer Science conference papers count towards tenure. Ghosh asked about what happened in the past. Baillieul said that some CDC papers were printed in the Transactions, but the paper reviews were handled differently then, having to go through two separate review boards. Samad said that IEEE does not like seeing the same paper published in more than one place. Doyle said we need to advertise the rules. For TCST, for example, a paper published as a conference paper can appear if it has significant change in the content and there is cross-referencing. Samad said that some other journals require 25% new content.

Samad then presented the new CSS web site beta version. There will be a front end (for users) and back end (for officers and other volunteers) to the web site. Option Matrix (India) is designing the new web site, which should be on-line later this year.

Samad gave an update on the new journal that was discussed at the last BoG meeting. A proposal was sent to the IEEE in January 2006. The IEEE discouraged any new publications and suggested that the new publication be an electronic “part” of an existing one. There are still more issues to discuss.

Report of the Vice President, Conference Activities

Middleton asked if there were any questions from the reports presented to the BoG. Middleton presented charts from the 2006 CDC paper review process. Out of 1833 papers submitted, there were only one or two “A” papers. He predicted that all of the B and B- papers would be accepted, giving an acceptance rate of 60%. As an experiment, the 2006 CDC will have 40% of the papers presented as posters. This allows for more flexibility. Without poster sessions, we would need 24 parallel technical sessions and it would be hard to fit this in any hotel. The poster papers are identical quality to the regular papers. Baillieul thought this was a brave experiment. Heck asked what the consensus was in previous years with regard to poster papers. Middleton said that poster papers were “add ons” before and were a small percentage of the conference. They had a perception as having low quality. For the 2006 CDC, we will spend money on exhibit booths (with power) for each poster paper. Pasik-Duncan said that other societies have built-in poster sessions and they are not considered 2nd class. They can be set up at a special time with refreshments and awards. They are interactive, nice and very positive. Middleton took a straw poll among the BoG on their opinion on poster sessions. The majority was in favor. Wang suggested to give legitimacy to the poster sessions, we should select dynamic authors to these sessions. Middleton said some authors are happy to do this and some are not. Heck said that everyone knows how to give a regular paper. Are there guidelines for poster presentations? Middleton said the guidelines are taken from other conferences. Pasik-Duncan said that SIAM had guidelines for poster presentations. Misra said the success will be based on the show atmosphere. Baillieul said this was an opportunity to explore a variety of presentations. Middleton said the poster presentations will be in the afternoons. Schoenwald liked not having the poster papers at the same time as the regular sessions. Misra said the hotel has enough space to do this. This arrangement may not fit in other hotels. Ghosh asked what the consensus was in previous years with regard to poster papers. Middleton said poster papers were considered 2nd class. They can be set up at a special time with interactive/invited sessions.

Middleton then asked for other organizers of future conferences to speak. Bushnell (Program Chair for 2007 ACC) said all was on track for the first New York city ACC. Ge (General Chair for 2007 MSC) said the web site was on-line for the first MSC – to be held in Singapore. Castanon (General Chair for 2007 CDC, New Orleans) said there would be a meeting for the 2007 CDC tomorrow. Samad (Program Chair for 2008 ACC) mentioned a recent site visit to Seattle. Middleton reported that the 2008 MSC is considering an east coast USA location and that the 2008 CDC is negotiating a hotel contract. Baillieul (co-General Chair, 2009 CDC, China) said he and Hua Wang will be traveling to Guangzhou, Shanghai, Beijing and Hong Kong in July 2006 to look for a location. He will report back to the BoG in December. The cost structure in China is different than in the USA.

Report of the Vice President, Member Activities

Valcher reported that there were new forms on the CSS web site (thanks to Misra) for the Travel Support Program for students and developing countries. The forms can be submitted through PaperPlaza. Awards will be in the form of paid conference registrations only.
Valcher presented the three new Distinguished Lecturers for 2006: Carlos Canudas de Wit, Miroslav Krstic and Pablo Iglesias. Boyd, Bitmead and Campi also had their DL terms extended to the end of 2006.

Valcher reported that the UK-Republic of Ireland Chapter of the CSS was chosen as the 2006 winner of the Outstanding Chapter Award. The award is based on activity from May 2005 to May 2006.

Valcher also reported that the Northwest Russia Chapter will be given a grant of $1k through the LASS program.

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

Yamamoto reported that most Technical Committees are active as compared to two years ago. Ghosh asked if you could join a TC via the new web site. Yamamoto said that the TCs are open to all and encouraged contacting the TC Chairs via email. Samad asked what it meant to be a member of a TC. Yamamoto said TCs have newsletters, workshops, and organize invited sessions. Ghosh said it would be useful to have them as a review interface. Yamamoto was not sure if this was a good idea. There are many other tasks, including generating new topics and ideas.

Pasik-Duncan, Chair of the TC on Control Education, reported there was a new demand on control education. There are strong demands on new courses and lectures in Systems & Control. There are many interactions with other disciplines. She was concerned with reforming control education.

**Report of the Secretary-Administrator**

Bushnell noted that the next BoG meeting would be held on December 12, 2006, at 1:00 p.m. in San Diego, CA at the CDC 2006.

**Adjournment**

Baillieul thanked the members of the Board of Governors and visitors for attending the meeting. The meeting was adjourned at 4:35 p.m.
2007 Appointed BoG Members
Prepared by Theodore Djaferis, President-Elect

Eduardo Camacho
Fahmida Chowdhury
Thomas Parisini
Mario Polycarpou
Jie Huang
Hua O. Wang

Biographies
Eduardo F. Camacho is a Dr. Electrical engineer from the University of Seville where he is now professor of the Department of System Engineering and Automatic Control. He has written the books: “Model Predictive Control in the Process industry” (1995), “Advanced Control of Solar Plants” (1997) and “Model Predictive Control” (1999), (2004 second edition) published by Springer-Verlag and “Control e Instrumentación de Procesos Químicos” published by Ed. Sintesis. He has served on various technical committees of the International Federation of Automatic Control (IFAC). He chaired the IFAC publication Committee (2002-2005) and he is currently chairing the IFAC Policy Committee. He was a member of the Board of Governors of the IEEE/CSS appointed by the president for 2001. He chairs the IEEE/CSS International Affairs Committee since 2002. He has been an active member of the European Control Association (EUCA) which he currently chairs. He has carried out review and editorial work for various conferences and technical journals. At present he is one of the editors of the IFAC journal, Control Engineering Practice, and an associate editor of the European Journal of Control. He was Publication Chair for the IFAC World Congress b’02 and General Chair of the joint 44 IEEE Control and Decision Conference (CDC) and European Control Conference (ECC) held in 2005. He was also one of the experts of the panel that help in producing the FUTMAN (Future of Manufacturing) for the European Commission. He has acted as evaluator of projects at national and European level. He was appointed for four years Manager of the Advanced Production Technology Program of the Spanish National R&D Program. He was one of the Spanish representatives on the Program Committee of the Growth Research program and is now acting as expert for the Program Committee of the NMP research priority of the European Union.

Fahmida N. Chowdhury received the joint B.Sc./M.Sc. degree (with Honors) in electromechanical engineering from Moscow Power Engineering Institute, Moscow, Russia, in 1980, specializing in electrical machines and apparatus. She received the Ph.D. in electrical engineering from Louisiana State University, Baton Rouge, LA, USA in 1988, specializing in controls and systems theory, with a minor in mathematics. She has been a faculty member at the Southern University, Baton Rouge, LA, Michigan Technological University, Houghton, MI, and the University of Louisiana, Lafayette, LA. Currently she is a professor of electrical and computer engineering at UL-Lafayette, where she holds the Chevron/BoRSF (Board of Regents Support Fund) Professorship in Engineering. Her research interests are in estimation and fault detection, mathematical modelling, neural networks, and intelligent systems. Dr. Chowdhury is a Senior Member of the IEEE, and a member of the AIAA. She has served as an Associate Editor for IEEE CSS Conference Editorial Board since 1998, and currently she serves as an Associate Editor for the IEEE Transactions on Neural Networks. She is an elected member of the IEEE Computational Intelligence Society (CIS) Administrative Committee (ADCOM), Chair of the IEEE CIS sub-committee on Technology Transfer, and a member of the AIAA Digital Avionics Technical Committee (DATC). Dr. Chowdhury is a member of the ACC 2006, 2007 and 2008 Program Committees. She was a founding member, Chair, and newsletter editor for IEEE CSS Women-in-Control committee, and also served on various other CSS committees such as Engineers-at-Risk, Control Education, and International Affairs. Since 2005, Dr. Chowdhury has been working at the US National Science Foundation, Arlington, VA, as a Program Director. She has been a visiting professor at the Helsinki University of Technology (2004), Finland, and a Fulbright Scholar (2001).

Thomas Parisini received the `Laurea' degree (Cum Laude and printing honours) in Electronic Engineering in 1988 and the Ph.D. degree in Electronic Engineering and Computer Science in 1993 both from the University of Genoa. He was with Politecnico di Milano as associate professor and in 2001 he was appointed full professor and Danielli Endowed Chair of Automation Engineering at the University of Trieste. Thomas Parisini is the Chair of the IEEE Control Systems Society Conference Editorial Board. He was the Chair of the Technical Committee on Intelligent Control and an appointed member of the Board of Governors of the IEEE Control Systems Society. He is a Distinguished Lecturer of the IEEE Control Systems Society. He is the co-recipient of the 2004 Outstanding Paper Award of the IEEE Trans. on Neural Networks and was a Plenary Lecturer at the 2006 CCA/CACSD/ISIC joint Conference. Thomas Parisini is currently serving as an Associate Editor of Automatica, of the Int. J. of Control, and as Subject Editor of the Int. J. of Robust and Nonlinear Control and served as Associate Editor of the IEEE Trans. on Automatic Control, of the IEEE Trans. on Neural Networks, and as Subject Editor of the Int. J. of Adaptive Control and Signal Processing. He was also the Guest Editor of two
special issues in the IEEE Trans. on Neural Networks. He was involved in the organization and in the technical program committees of several IEEE CSS sponsored conferences including the IEEE Conf. on Decision and Control and the IEEE Conf. on Control Applications. In particular, he was Vice-Program Chair of the 2003 IEEE Conf. on Decision and Control, 2003 and he was recently appointed as Program Chair of the 2008 IEEE Conf. on Decision and Control. His research interests include neural-network approximations for optimal control and filtering problems, fault diagnosis for nonlinear systems, hybrid control systems and control of distributed systems. He is also involved as Project Leader in several projects funded by the European Union, by the Italian Ministry for Research and by some major process control companies (ABB, Danieli, Dufierco, Galileo Avionics among others).

**Marios M. Polycarpou** received the B.A. degree in Computer Science and the B.Sc. degree in Electrical Engineering both from Rice University, Houston, TX, USA in 1987, and the M.S. and Ph.D. degrees in Electrical Engineering from the University of Southern California, Los Angeles, CA, in 1989 and 1992 respectively. In 1992, he joined the University of Cincinnati, Ohio, USA, where he reached the rank of Professor of Electrical and Computer Engineering and Computer Science. In 2001, he was the first faculty to join the newly established Department of Electrical and Computer Engineering at the University of Cyprus, where he is currently a Professor and Dept. Chair. His teaching and research interests are in intelligent systems and control, adaptive and cooperative control systems, computational intelligence, fault diagnosis and distributed agents. Dr. Polycarpou has published more than 160 articles in refereed journals, edited books and refereed conference proceedings, and co-authored (with Jay Farrell) the book *Adaptive Approximation Based Control*, published by Wiley in 2006. He is also the holder of 3 patents. He is currently the Editor-in-Chief of the *IEEE Transactions on Neural Networks*. Dr. Polycarpou was the recipient of the William H. Middendorf Research Excellence Award at the University of Cincinnati (1997) and was nominated by students for the Professor of the Year award (1996). He is an Associate Editor of two international journals and past Associate Editor of the *IEEE Transactions on Neural Networks* (1998-2003) and of the *IEEE Transactions on Automatic Control* (1999-2002). He served as the Chair of the Technical Committee on Intelligent Control, IEEE Control Systems Society (2003-05) and as Vice President, Conferences, of the IEEE Computational Intelligence Society (2002-03). He has been invited as Keynote Plenary Speaker at several international conferences and served as General Chair of the joint 2005 IEEE International Symposium on Intelligent Control and 2005 Mediterranean Conference on Control and Automation. Dr. Polycarpou is a Fellow of the IEEE and his research has been funded by several agencies in the United States, the European Commission and the Research Promotion Foundation of Cyprus.

**Professor Jie Huang** has also compiled a distinguished record of service to the Society and the Profession. He studied Power Engineering at Fuzhou University from 1977 to 1979 and Circuits and Systems at Nanjing University of Science and Technology (NUST) from 1979 to 1982. He got his Master's degree from NUST in 1982 and was a faculty member there from 1982 to 1986. He completed his Ph.D. study in automatic control at The Johns Hopkins University in October 1990 and subsequently held a post-doctoral fellow position there until July 1991. From August 1991 to July 1995, he worked in industry in USA as a research scientist. In September 1995, he joined the Department of Automation and Computer-aided Engineering, The Chinese University of Hong Kong. He is now a professor and also the director of Applied Control and Computing Laboratory there. He has been advisory/visiting professors at several universities. He served as a Science Advisor to the Leisure and Cultural Services Department of Hong Kong Special Administrative Region. His research interests include control theory and applications, robotics and automation, neural networks and scientific computing, and guidance and control of flight vehicles. His research has led to publications of over 150 technical papers in international journals and conferences, and he is the author of the book *Nonlinear Output Regulation: Theory and Applications*, Philadelphia, USA, SIAM, 2004. Dr. Huang is a Fellow of IEEE and a Distinguished Lecturer of IEEE Control Systems Society. He is an Editor-at-Large of Communications in Information and Systems, Subject Edidor of International Journal of Robust and Nonlinear Control, a Guest Editor of IEEE Transactions on Neural Networks, and an Associate Editor of Journal of Control Theory and Applications. He served as an Associate Editor of IEEE Transactions on Automatic Control from 2002 to 2004, and as Associate Editor of the Asian Journal of Control from 1999 to 2001. He has been Guest Editors for International Journal of Robust and Nonlinear Control, and Asian Journal of Control. He has served in organizing committee or program committee of various major international Conferences including the general chair of 2002 International Conference on Control and Automation, Publicity Chair of 2003 IEEE Conference on Decision and Control, and program committee members of 1998, and 2002 IEEE Conference on Decision and Control.

**Hua O. Wang** (M'94-SM'01) received the B.S. degree from the University of Science and Technology of China (USTC) in 1987, the M.S. degree from the University of Kentucky in 1989, and the Ph.D. degree from the University of Maryland at College Park in 1993, all in Electrical Engineering. Dr. Wang's professional experience in systems and control has involved academic, government, and industry, with international collaborations. Since 2002 he has been with Boston University where he is Associate Professor of Aerospace and Mechanical Engineering. Since 2000 he has also been on the faculty with Huazhong University of Science and Technology (China) as Cheung Kong Chair Professor (2000-2005), University Professor (2006-present), and the founding Director of the Center for Nonlinear and Complex Systems. From 2000 to 2002, he served as the Program Manager (IPA) for Systems and Control with the U.S. Army Research Office (ARO) where he directed and managed a multi-million dollar extramural basic research program in systems and control. From 1996 to 2002, he was on the faculty of the Department of Electrical and Computer Engineering at Duke University, where he was the Director of the Laboratory for Intelligent and Nonlinear Control. He was on the technical staff.
with United Technologies Research Center (UTRC) from 1993 to 1996. Dr. Wang has served on the editorial board of the IEEE Transactions on Automatic Control, on the IEEE Control Systems Society Conference Editorial Board, on the program and organizing committees of various IEEE sponsored conferences, and as an organizer and speaker at workshops at the IEEE CDC, ACC and other conferences. He is an appointed member of the Board of Governors of the IEEE Control Systems Society for 2006 and is currently Chair of the Public Information Committee of the Member Activities Board. He is a senior member of IEEE. He serves as an Editor for the Journal of Systems Science and Complexity. He has been active in promoting international collaborations. He is a member of the International Exchange Committee and the Control Theory Committee of the Chinese Automation Society. He was the organizer and Program Chair for the 1st and 2nd International Symposiums on Intelligent and Complex Systems held in China in 2000 and 2001. He will also be serving as a Vice Program Chair of CDC'09 in China. Dr. Wang's research interests include control of nonlinear dynamics, intelligent systems and control, networked control systems, cooperative control, robotics and applications. He has co-authored 1 book and over 175 peer-reviewed papers. He is a recipient of the 1994 O. Hugo Schuck Best Paper Award of the American Automatic Control Council, the 14th IFAC World Congress Best Poster Paper Prize, the 2000 IEEE Transactions on Fuzzy Systems Outstanding Paper Award. He was conferred the title of Cheung Kong Scholar, a prestigious academic honor, by the Chinese Ministry of Education and the Li Ka Shing Foundation of Hong Kong in 1999. His other honors and awards include the 1993 and 2001 American Control Conferences Best Presentation of the Session Awards, the High Impact Performer recognition of UTRC, and the First Class People's Fellowship Award of USTC. He was awarded an NSF-STA Fellow by the US National Science Foundation (NSF) and the Science and Technology Agency (STA) of Japan in 1995 and a JSPS Fellow by the Japan Society for the Promotion of Science (JSPS) in 1996.
Nomination for Nominating Committee Members
Prepared by Theodore Djaferis, President-Elect

Nominating Committee
Chair: Spong, M. (06) Baillieul, J. (07)
Members: Tempo, R. (04), Birdwell, J.D. (03), Baillieul, J. (06), Djaferis, T. (06), Castañón, D. A. (07), Spong, M. (04)

(blue: continuing appointments; red: new appointments; strikeout: leaving committee)

Motion: To approve the following new Nominating Committee members for 2007:

Chair: John Baillieul (07)
Member: Castañón, D. A. (07)

Endorsed by: Executive Committee

CSS BYLAWS
Article I - Elections
Section 1. Nominating Committee. 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 not more than half of whom are elected members of the Board of Governors.

Biographies for New Appointments

John Baillieul holds professorial appointments in three departments at Boston University: he is Professor of Aerospace/ Mechanical Engineering, Professor of Electrical and Computer Engineering and Professor of Manufacturing Engineering. He is currently Chairman of Aerospace/Mechanical Engineering. He has also served as Associate Dean for Academic Programs in the B.U. College of Engineering. After receiving the Ph.D. from Harvard University in 1975, he joined the Mathematics Department of Georgetown University. During the academic year 1983-84 he was the Vinton Hayes Visiting Scientist in Robotics at Harvard University, and in 1991 he was visiting scientist in the Department of Electrical Engineering at MIT. Professor Baillieul has been an active member of the IEEE Control Systems Society for many years. From 1984 through 1985 he was an Associate Editor of the Transactions on Automatic Control, and in 1987 he served as Program Chairman of the IEEE Conference on Decision and Control in Los Angeles. He is past Associate Editor of the IEEE Robotics and Automation Society Newsletter and was a member of the editorial board of the journal Bifurcation and Chaos in Applied Sciences and Engineering. He was Editor-in-Chief of the IEEE Transactions on Automatic Control for six years from 1992 through this past June. Currently, he is on the editorial boards of the Proceedings of the IEEE, the IEEE Transactions on Automatic Control, Communications in Information and Systems, and the journal Robotics and Computer Integrated Manufacturing. He has been named Fellow of the IEEE for his contributions to nonlinear control theory, robotics, and the control of complex mechanical systems. He is a recent recipient of the IEEE Third Millennium Medal for various professional contributions. He is past IEEE Control Systems Society Vice-President for Technical Activities, and currently serves as IEEE CSS Vice-President for Publications. At the level of the corporate IEEE, Professor Baillieul's service has included four years as TAB Transactions Chair (1998 through 2001), member at large of the Publications Services and Products Board (PSPB) (1999 - 2004), Chair of the PSPB Strategic Planning Committee (2001 - 2002), and Chair of the PSPB Finance Committee (PSPB Treasurer, 2004). In 2005 he has chaired the PSPB Ad Hoc Subcommittee on the IEEE Press of the future.

John Baillieul's research deals with robotics, the control of mechanical systems, and mathematical system theory. His PhD dissertation, completed at Harvard University under the direction of R.W. Brockett in 1975, was an early work dealing with connections between optimal control theory and what has recently been called "sub-Riemannian geometry." After publishing a number of papers developing geometric methods for nonlinear optimal control problems, he turned his attention to problems in the control of nonlinear systems modeled by homogeneous polynomial differential equations. Such systems describe, for example, the controlled dynamics of a rigid body. His main controllability theorem applied the concept of finiteness embodied in the Hilbert basis theorem to develop a controllability condition which could be verified by checking the rank of an explicit finite dimensional operator. During the mid 1980's, Baillieul collaborated with M. Levi to develop a control theory for rotating elastic systems. Recently, he has written a number of papers on motion planning and control of kinematically redundant manipulators, and he has become interested in problems associated with anholonomy in planning motions for robots which have elastic joints and other components which store...
energy. Much of his present research is devoted to applying the methods of dynamical systems theory and classical geometric nonlinear control theory to problems of current technological interest. In particular, he is working on applications of mathematical control theory to fluid structure interactions, microelectromechanism dynamics, adaptive optics, and network mediated control of large scale device arrays. Recent developments in this research has led him to work on the interplay between communications and information theory and control.

**David A. Castañón** is Professor of Electrical and Computer Engineering at Boston University. He received his B.S. degree in Electrical Engineering from Tulane University in 1971, and his Ph.D. degree in Applied Mathematics from the Massachusetts Institute of Technology in 1976. From 1976 to 1981, he was a research associate with the Laboratory for Information and Decision Systems at the Massachusetts Institute of Technology in Cambridge, MA. From 1982-1990, he was Senior Scientist and Chief Scientist at Alphatech, Inc. in Burlington, MA. He has been with Boston University since 1990.

Prof. Castañón’s research interests include stochastic control, estimation, optimization and image understanding. He is co-director of Boston University’s Center for Information and Systems Engineering, and Associate Director of a National Science Foundation Engineering Research Center on Subsurface Censing and Imaging Systems.

Prof. Castañón has served as associate editor for the Transactions on Automatic Control; Chairman for Invited Sessions for the 1996 Conference on Decision and Control in Kobe, Japan; Program Chair for the 1998 Conference on Decision and Control in Tampa, FL; member of the IEEE Control Systems Society Board of Governors, 1997-1999 and 2004-present. He served as Vice President for Financial Affairs for the IEEE Control Systems Society, 2003-2004. He is a Senior member of IEEE, and a member of SIAM and INFORMS, and serves as associate editor for the journal Computational Optimization and Applications.
Nomination for Standing Committee Nominees
Prepared by Theodore Djaferis, President-Elect

Standing Committees

Awards: Antsaklis, P. (02)
Chapter Activities: Giua, A. (06)
Conference Administration: Yurkovich, S. (01)
Conference Editorial Board: Parisini, T. (04)
Conference Finance: Chow, J. (02), Chong, E. (07)
Conference Publications: Misra, P. (07)
Electronic Information: Misra, P. (01)
Executive Committee: Baillieul, J. (06), Djaferis, T. (07)
Fellow Evaluation: Cao, X. (05)
Fellow Nominations: Di Benedetto, M. (03), Lindquist, A. (07)
History: Abramovitch, D. (01)
International Affairs: Camacho, E. (02), Allgöwer, F. (07)
Membership & Admissions: Thein, M.-W. (03), Lovera, M. (07)
Public Information: Wang, H. (06)
Standards: Chang, M. - F. (95)
Student Activities: Jabbari, F. (02)
Women in Control: Perdon, A. (02), Zattoni, E. (07)

Motion: To approve the following new Standing Committee Chairs:

Ed Chong, for Chair, Standing Committee on Conference Finance
Pradeep Misra, for Chair, Standing Committee on Conference Publications
Anders Lindquist, for Chair, Standing Committee on Fellow Nominations
Frank Allgöwer, for Chair, Standing Committee on International Affairs
Marco Lovera for Chair, Standing Committee on Membership & Admissions
Elena Zattoni for Chair, Standing Committee on Women in Control

Endorsed by: Executive Committee

Biographies

Edwin K. P. Chong was born in Kuala Lumpur, Malaysia. He received the B.E.(Hons.) degree with First Class Honors from the University of Adelaide, South Australia, in 1987, graduating top of his class in the Department of Electrical and Electronic Engineering; and the M.A. and Ph.D. degrees in 1989 and 1991, respectively, both from Princeton University in the Department of Electrical Engineering, where he held an IBM Graduate Fellowship. His Ph.D. advisor at Princeton was Professor Peter Ramadge. From August 1991 to August 2001, he was on the faculty in the School of Electrical and Computer Engineering at Purdue University, West Lafayette, Indiana, where he was promoted to Professor in 2001. He is currently a Professor in the Department of Electrical and Computer Engineering and a Professor in the Department of Mathematics at Colorado State University, Fort Collins, Colorado.

Professor Chong's research interests are primarily in the areas of control, optimization, and modeling, with applications to computer/communication networks and wireless systems. He received a National Science Foundation Faculty Early Career Development (CAREER) Award in 1995. Professor Chong is a Fellow of IEEE, and has served as the faculty advisor and branch counselor for the Purdue University IEEE student branch. He received the Outstanding IEEE Branch Counselor and Advisor Award in 1993, and the IEEE Section Recognition Award (IEEE Central Indiana Section) in 1994. Professor Chong was the founding chairman of the IEEE Technical Committee on Discrete Event Systems (under the IEEE Control Systems Society). He has served on the IEEE Control Systems Society Conference Editorial Board, and on program/organizing committees for several conferences, including the IEEE Conference on Decision and Control (CDC), American Control Conference (ACC), IEEE International Symposium on Intelligent Control (ISIC), IEEE Symposium on Computers and Communications (ISCC), IEEE Global Telecommunications Conference (GLOBECOM), and IEEE International Conference on Communications (ICC). He was an Associate Editor of the IEEE
Transactions on Automatic Control, 1994-1997. He is currently an editor of the journal Computer Networks. Professor Chong is coauthor of a best-selling book, An Introduction to Optimization, Second Edition, Wiley-Interscience, 2001. For his contributions to research and education in electrical engineering, Professor Chong received the 1998 Frederick Emmons Terman Award from the ASEE, sponsored by HP (see information on the Terman Award and list of awardees). He was named a Purdue University Faculty Scholar in 1999.

Pradeep Misra received his B.Tech. (Hons.) degree in Electrical Engineering from the Indian Institute of Technology, Kharagpur, India, in 1983 and his Ph.D. degree from Concordia University, Montreal, Canada, in 1987. He joined the Wright State University faculty in December 1987 where he is currently an associate professor of electrical engineering. His research interests are in analysis and design of multivariable control theory, applied numerical analysis, and computational techniques in controls, communications, and electromagnetics. He has published several papers in those areas and many of his algorithms have been incorporated in control design software packages. He has served in various capacities in the IEEE Control Society and the American Automatic Control Council. He is the General Chair of the 2006 CDC.

Anders Lindquist received his PhD degree from the Royal Institute of Technology, Stockholm, Sweden, where in 1972 he was appointed a Docent of Optimization and Systems Theory. From 1972 to 1974 he held visiting positions at the University of Florida, Brown University, and State University of New York at Albany. In 1974 he became an Associate Professor, and in 1980 a (full) Professor of Mathematics at the University of Kentucky, where he remained until 1983. He is now a Professor at the Royal Institute of Technology, where in 1982 he was appointed to the Chair of Optimization and Systems Theory. Since then he has also held visiting positions at the University of Padova and Consiglio Nazionale delle Ricerche, Italy, Arizona State University, International Institute of Applied Systems Analysis, Vienna, Russian Academy of Sciences, Moscow, East China Normal University, Shanghai, Technion, Haifa, University of California at Berkeley, and University of Kyoto, Japan.

Presently, Anders Lindquist is the Chairman of the Mathematics Department at the Royal Institute of Technology. He is a Member of the Royal Swedish Academy of Engineering Sciences, a Foreign Member of the Russian Academy of Natural Sciences, a Fellow of the Institute of Electrical and Electronics Engineers (IEEE), and an Honorary Member the Hungarian Operations Research Society. He is an Affiliate Professor at Washington University, St Louis (since 1989), an Advisory Board Member of the Institute for Mathematics of the Life Sciences, Texas Tech University, and a member of the Board of Governors of the Israel Institute of Technology (Technion) in Haifa. For the first half of 2003, he served as the scientific leader at Institut Mittag-Leffler.


Nominated by T. Djaferis

Frank Allgöwer is director of the Institute for Systems Theory and Automatic Control and professor in the Mechanical Engineering Department at the University of Stuttgart in Germany. He studied Engineering Cybernetics and Applied Mathematics at the University of Stuttgart and the University of California at Los Angeles respectively. He received his Ph.D. degree in Chemical Engineering from the University of Stuttgart. Prior to his present appointment he held a professorship in the electrical engineering department at ETH Zurich. He also held visiting positions at Caltech, the NASA Ames Research Center, the DuPont Company and the University of California at Santa Barbara.

His main interests in research and teaching are in the area of systems and control with emphasis on the development of new methods for the analysis and control of nonlinear systems. Of equal importance to the theoretical developments are practical applications and the experimental evaluation of benefits and limitations of the developed methods. Applications range from chemical process control and control of mechatronic systems to AFM control and systems biology.

At present Frank Allgöwer is Editor for the journal Automatica, Associate Editor of the Journal of Process Control and the European Journal of Control and is on the editorial board of several further journals including the Journals of Robust and Nonlinear Control, IEE Proceedings on Control Theory and Applications, Canadian Journal of Chemical Engineering, the journal Chemical Engineering Science and the Springer Lecture Notes in Control and Information Sciences Series. Among others he serves on the scientific council of the German Society for Measurement and Control, is on the Board of Governors of the IEEE Control System Society, is chairman of the IFAC Technical Committee on Nonlinear Systems and member of the IFAC Policy Committee and has been a member of the council of the European Union Control Association. He has been organizer or co-organizer of several international conferences and has published over 150 scientific articles. Frank received several prizes for his work including the Leibniz prize, which is the most prestigious prize in science and engineering awarded by the German National Science Foundation (DFG).

Nominated by M. Elena Valcher
Mark Lovera
Master degree in Electronic Engineering in 1993 and Ph.D. in Control Engineering in 1997, both from the Politecnico di Milano (Milano, Italy). At Carlo Gavazzi Space SpA (Milan, Italy) from May 1998 to June 1999, as senior control engineer specialist, working on spacecraft attitude determination and control systems. Assistant Professor of the Control and System Theory area, at the Department of Electronics and Computer Science of the Politecnico di Milano from August 1999 to December 2003. Presently Associate Professor of Control Theory at the Department of Electronics and Computer Science of the Politecnico di Milano.

He is author and coauthor of 24 journal papers, all appeared in international journals, 2 book chapters and 73 conference papers. He has been "outstanding reviewer" of Automatica in 2001 and 2004. Since January 2005 he is a member of the Conference Editorial Board of the IEEE CSS. Since January 2006 he is an Associate Editor of the IEEE Transactions on Control Systems Technology.

He is a member of the following Technical Committees
- IEEE CSS Technical Committee on Computer-Aided Control Systems Design (Chair of the Action Group on Periodic Systems and Control);
- IFAC Technical Committee on Control Design.

He was a member of
- the National Organising Committee of the 2001 IFAC Workshop on Periodic Systems (Cernobbio, Italy);
- the Organising Committee of the 2006 IEEE CCA/CACSD/ISIC joint conferences (Munich, Germany).

Nominated by M. Elena Valcher

Elena Zattoni
Elena Zattoni has been Faculty Member of Bologna University’s College of Engineering since 2001. She joined her current position as Assistant Professor following two years with the Department of Electronics, Computer Science and Systems where she was an Associate Researcher. Dr. Zattoni previously held positions at the University of Ferrara and the University of Parma as Lecturer of Automatic Control and System Theory. She also held Visiting Scholar positions at the Institut de Recherche en Communications et Cybern´etique de Nantes, ’Ecole Central de Nantes, in 2004 and 2003, and at Brown University, Laboratory for Engineering Man/Machine Systems, in 1999. She earned her Ph.D. in System Engineering from the University of Bologna in 1998, and her Laurea degree cum laude from the University of Bologna in 1995.

Dr. Zattoni has a fairly extensive record of research publications in international journals and conference proceedings in the field of Automatic Control. Her research interests are focused on the geometric and structural approach to system and control theory, with special emphasis on non-causal inversion, signal decoupling, output regulation in jump linear systems, fault detection and isolation. She has been coordinator of several scientific events at the University of Bologna, including the focus days “Geometric Approach to Analysis and Synthesis of Systems with Delays in Optimal Control and Observation Problems”, June 2004, and “New Challenges of the Geometric Approach to Control Theory”, April 2003.

She received the “1995-1998 Award for the Best Laurea Degree Thesis” from the Italian Society for Industrial and Applied Mathematics. She also received the “1998 Brown in Italy Exchange Program Fellowship Award”. She is author of two books for undergraduates collecting teaching material for the course of Automatic Control she has been giving at the University of Bologna since 2001. She currently holds lessons of the course of Geometric Approach for Ph.D. Students in Automation and Operative Research of the University of Bologna.

Dr. Zattoni has been a Member of the IEEE Control Systems Society since 1999, Senior Member since 2003. She has been serving as coordinator of the web site of the Women in Control Standing Committee since 2001. She was also co-organizer of the WiC lunch session “Do International Funding/Exchange Programmes Help with Women Advancements?” at the 25th American Control Conference, Minneapolis, 2006. She is currently member of the International Program Committee of the 3rd IFAC Symposium on System, Structure and Control, Iguassu Falls, Brazil, 2007. She was member of the International Program Committee of the 14th Mediterranean Conference on Control & Automation, Ancona, Italy, 2006. She serves as Book Reviewer for the International Journal of Robust and Nonlinear Control. She serves as reviewer for several international journals, including IEEE Transactions on Automatic Control, Automatica, SIAM Journal on Control and Optimization, Systems & Control Letters, and conferences, including IEEE Conference on Decision and Control, American Control Conference, European Control Conference, IFAC World Congress, and IFAC Symposium on System, Structure and Control. She was also invited to chair/co-chair several regular sessions in the abovementioned conferences.

Nominated by Annamaria Perdon
Motion for Technical Committee Chairs
Prepared by Theodore Djaferis, President-Elect

Technical Committees

- **Aerospace Controls**
- **Automotive Controls**
- **Behavioral Systems and Control**
- **Biosystems and Control**
- **Computer Aided Control System Design**
- **Control Education**
- **Control of Energy Processing and Power Systems**
- **Discrete Event Systems**
- **Distributed Parameter Systems**
- **Hybrid Systems**
- **Industrial Process Control**
- **Intelligent Control**
- **Manufacturing Automation & Robotic Control**
- **Networks and Communication Systems**
- **Nonlinear Systems and Control**
- **Systems ID and Adaptive Control**
- **Variable Structure and Sliding Mode Control**

Members on IEEE - USA Committees

- **Transportation Policy**
- **Research & Development Policy**
- **Energy Policy**
- **Medical Technology Policy**
- **Communication in Information Policy**
- **Professional Activities Committee for Engineers**

Motion: To approve the new Technical Committee Chairs:

- **Rajesh Rajamani**, for Chair of the TC on Automotive Controls
- **Asif Šabanović**, for Chair of the TC on Variable Structure and Sliding Mode Control
- **Roberto Horowitz**, for CSS Representative to the IEEE USA Committee on Transportation Policy

Endorsed by: Executive Committee

Paolo Rapisarda was born in Catania (Italy) on December 14, 1964. He took his Laurea degree with full marks and honors in Computer Science at the University of Udine, Italy. He got his Ph.D. at the Department of Mathematics of the University of Groningen, The Netherlands, working under the supervision of Prof. Dr. Ir. Jan C. Willems and Prof. Dr. H.L. Trentelman. He has been Ricercatore (Lecturer) at the Department of Electrical, Electronic and Computer Engineering of the University of Trieste, Italy; Universitair Docent (Lecturer) at the Faculty of Mathematics of the University of Maastricht, The Netherlands. From September 2006 he is Senior Lecturer at the Information: Signals, Images, Systems (ISIS) Research Group of the School of Electronics and Computer Science of the University of Southampton, United Kingdom.

His research interests lie in Control and System Theory, Identification, and Signal Processing. Specifically, in the algorithmic aspects of identification; in model reduction and approximation; in simulation; in interpolation theory and its application to systems and control problems; in algorithmic aspects of polynomial and behavioral control; and in computer algebra algorithms. He has been giving guest lectures for the graduate course on Mathematical Modeling organized by the Dutch Institute of Systems and Control; one series of lectures at the Dept. Applied Mathematics and Physics, Kyoto University, Japan, in the framework of the COE program of the Japanese Ministry of Education; and one series of lectures at the Dept. Electrical Engineering, Indian Institute of Technology, Bombay, India. He has held seminars at the KU Leuven (Belgium), Vrije Universiteit Amsterdam, RU Groningen, (The Netherlands), Università di Padova (Italy), University of Cambridge (UK), University of Osaka (Japan). He was a member of the International Program Committee of the Mathematical Theory of Networks and Systems (MTNS) conference for 2004 and 2006; of the International Program Committee of the 5th IMACS Symposium on Mathematical Modeling (MathMod) conference for 2005; of the
International Program Committee of the IEEE Conference on Decision and Control (CDC) conference for 2005. He has held invited minisymposia at the MTNS04 and MTNS06 conferences, and has organized several invited sessions at MTNS, CDC and ECC conferences. He is Associate Editor of Systems and Control Letters.

**Rajesh Rajamani** obtained his M.S. and Ph.D. degrees from the University of California at Berkeley in 1991 and 1993 respectively and his B.Tech degree from the Indian Institute of Technology at Madras in 1989. After his Ph.D., Dr. Rajamani worked as a Research Engineer, first at United Technologies Research Center (UTRC) and then at California PATH, University of California, Berkeley. Dr. Rajamani is currently Associate Professor in the Department of Mechanical Engineering at the University of Minnesota. His active research interests include control design and state estimation for nonlinear systems, fault diagnostics, intelligent transportation systems, active noise control and MEMS sensor design.

Dr. Rajamani has authored over eighty refereed publications and received 4 patents. His book “Vehicle Dynamics and Control” has been recently published by Springer Verlag. Dr. Rajamani currently serves as an Associate Editor of IEEE Transactions on Control Systems Technology and as a Technical Editor of IEEE/ASME Transactions on Mechatronics. He has won several awards including the CAREER award from the National Science Foundation, the 2001 Outstanding Paper award from the journal IEEE Transactions on Control Systems Technology, the Distinguished Service Team Award from the University of California, Berkeley and the Outstanding Achievement of the Year award from United Technologies Research Center.

**Asif Šabanović** received B.S. degree in electrical engineering (in 1970), M.Sc. degree in electrical engineering (in 1975) and Dr. of Sci. degree (1975) all from University of Sarajevo, Bosnia and Herzegovina. Currently serving as Full Professor and Head of Mechatronics Program at Sabanci University, Istanbul, Turkey. My past positions include:

- 1984-1985 - Visiting Professor at California Institute of Technology, Pasadena, USA, 1991-1992 - Hitachi Chair Professor at Keio University, Yokohama, Japan
- 1992-1993 - Full Professor at Yamaguchi University, Ube, Japan
- 1993-1995 - Head of CAD/CAM and Robotics Department at Tubitak - Marmara Research Centre, Istanbul
- Visiting Professor at University of Maribor - Maribor-Slovenia (Acad. Year 1986, 1988, 1989),

Published 276 conference and journal papers, 1 book and 2 edited books. Headed more that 35 projects. Current project in Microsystems Assembly Workstation Design (780.00 US$). Fields of interest include Control Systems, Motion Control Systems, Robotics, Mechatronics and Power electronics. Senior Member of IEEE: CSS, IES, PES, IAS

**Roberto Horowitz** received the B.S. degree with highest honors in mechanical engineering from the University of California at Berkeley in 1978 and the Ph.D. degree in 1983. In 1982 he joined the Department of Mechanical Engineering at the University of California at Berkeley. He is currently a Professor in the same department where he teaches and conducts research in the areas of adaptive, learning, nonlinear and optimal control, and dynamic system, with applications to many mechatronics devices including micro-electromechanical systems, disk file systems, photocopying and printing machines, robots and intelligent vehicle and highway systems. Dr. Horowitz is a member of the Computer Mechanics Laboratory (CML), a principal investigator of the Partners for Advance Transportation and Highways (PATH) research program of University of California and CALTRANS, and a faculty member of the Information Storage Industry Consortium (INSIC).

Professor Horowitz has been involved in the formulation, design, testing, and verification of many maneuvers and control laws for PATH’s Automated Highway System (AHS) control architectures. He also headed several research projects on the development of integrated meso/microscale traffic simulation software for testing fault detection and handling in an AHS, and the development of enhanced coordination and link layer control algorithms for improving the AHS capacity. More recently, Professor Horowitz has been involved in the design and evaluation of traffic-responsive and coordinated freeway ramp metering control algorithms for an I-210 test area in Caltrans’ District 7 and the development and validation of freeway traffic models and density and congestion estimators. He currently is principal investigator of several research PATH/Caltrans research projects including the development of tools for freeway operational planning as well as ramp metering design tools, the field test implementation of traffic-responsive ramp metering control algorithms with queue control, and the development of fault detection and handling algorithms for freeway loop detectors.

Dr. Horowitz received an IBM Young Faculty Development Award in 1984, and NSF Presidential Young Investigator Award in 1987, and a Japanese Ministry of Education Foreign Researcher Award in 1997. He is co-author of the paper *Mixture Kalman filter based*
highway congestion mode and vehicle density estimator and its application, which won the 2005 AACC Hugo Shuck Best Application Paper Award.

Dr. Horowitz is a member of the American Society of Mechanical Engineers (ASME) and the IEEE and was the USA Co-Chair of the 2002 IEEE Asian Pacific Magnetic Recording Conference (APMRC), as well as the Publicity Chair and member of the Organizing Committee for the 2003 American Control Conference (ACC). He is currently member of the ASME Dynamic Systems and Control Division Honors Committee and Associate Editor of Microsystem Technologies: Micro- & Nanosystems and Information Storage & Processing Systems, Springer-Verlag.

For further information, see: http://www.me.berkeley.edu/faculty/horowitz.html
Awards Subcommittees
Antonio Ruberti Young Researcher Prize Willems, J. (06)
Control Systems Technology Award Banda, S. (05)
George S. Axelby Outstanding Paper Award Haddad, A. (02) Morse, S. (07)
TCST Outstanding Paper Award Jankovic, M. (05)
CSM Outstanding Paper Award Abramovich, D. (05) Heck, B. (07)
CDC Best Student-Paper Award Sznaier, M. (03)
MSC Best Student-Paper Award Mestha, L.K. (02)

Motion: To approve
Steve Morse, for Chair, Awards Subcommittee for George S. Axelby Outstanding Paper Award
Bonnie Heck, for Chair, Awards Subcommittee for CSM Outstanding Paper Award

Endorsed by: Executive Committee

A. Stephen Morse was born in Mt. Vernon, New York. He received a BSEE degree from Cornell University, MS degree from the University of Arizona, and a Ph.D. degree from Purdue University. From 1967 to 1970 he was associated with the Office of Control Theory and Application (OCTA) at the NASA Electronics Research Center in Cambridge, Mass. Since 1970 he has been with Yale University where he is presently the Dudley Professor of Engineering and a Professor of Computer Science. His main interest is in system theory and he has done research in network synthesis, optimal control, multivariable control, adaptive control, urban transportation, vision-based control, hybrid and nonlinear systems, sensor networks, and coordination and control of large grouping of mobile autonomous agents. He is a Fellow of the IEEE, a Distinguished Lecturer of the IEEE Control System Society, and a co-recipient of the Society's 1993 and 2005 George S. Axelby Outstanding Paper Awards. He has twice received the American Automatic Control Council's Best Paper Award and is a co-recipient of the Automatica Theory/Methodology Prize. He is the 1999 recipient of the IEEE Technical Field Award for Control Systems. He is a member of the National Academy of Engineering and the Connecticut Academy of Science and Engineering.

Bonnie Heck performs research and teaching in the areas of computer engineering and systems and controls. She received the B.S degree in Electrical Engineering from the University of Notre Dame in 1981, the M.S. degree in Mechanical and Aerospace Engineering at Princeton University in 1984, and the Ph.D. degree in Electrical Engineering from Georgia Tech in 1988. She has been on the faculty of Georgia Tech since 1988, where she currently holds the rank of Professor. She has also worked in industry for Honeywell Inc. as a design and test engineer from 1983 until 1985.

Dr. Heck has been very in the IEEE Control Systems Society: member of the Board of Governors 1998 – 2000 and 2006 - 2008, Program Chair for the American Control Conference in 1998, Chair of the Control System Society Technical Committee on Education from January 1999 until December 2001. During that period, she organized several sessions at conferences on the topic of control education. She has held the position of Associate Technical editor for two publications, IEEE Transactions on Education and IEEE Control Systems Magazine. She was a special guest editor for two issues of the IEEE Control Systems Magazine, one on the topic of control education and the other on the topic of software technologies for control systems.

Dr. Heck’s research concentrates on developing software technologies for implementing control systems, on design and implementation of industrial control systems, and on power electronics. She has been a principal investigator or co-principal investigator on 27 externally funded grants and contracts. She has 80 publications in journals and conferences and co-authored a junior-level textbook. Dr. Heck has received numerous awards for teaching and for research, including the National Science Foundation Presidential Young Investigator Award in 1990, Sigma Xi Award for Outstanding Ph.D. Dissertation in May 1989, the Best Presentation in Session Award at the 1988 and 1989 American Control Conferences, the Eta Kappa Nu Outstanding Teacher Award in 1991 (selected by the Georgia Tech Electrical Engineering senior class), Junior Faculty Teaching Excellence Award in 1991 from the Georgia Tech Center for Excellence in Teaching and Learning and the Amoco Foundation, the University of Notre Dame Women's Achievement Award in 1996, and the Control Systems Magazine 2004 Outstanding Paper Award.
Motion for TCST Associate Editor Nominees
Prepared by Frank Doyle, Editor-in-Chief, TCST

IEEE Transactions on Control Systems Technology
Editor-in-Chief

Doyle, F. (04)

Tech Assoc Editors
Bohn, C. (06) Jin, Y. (01) Rivera, D. (04)
Borst, S. (06) Kelkar, A. (02) Rosen, G. (01)
Corradini, M. L. (05) Landers, R. (06) Schoenwald, D. (01)
de Jager, B. (03) Lee, J. (05) Stewart, G. (05)
de Mathelin, M. (04) Lee, C.C. (96) Stefanopoulou, A. (02)
Devasia, S. (03) Lovera, M. (06) Su, C.-Y. (04)
Fialho, I.(05) Mattei, M. (07) Svaricek, F. (96)
Ge, S.-S. (99) Meckl, P. (06) Turner, K. (05)
Ghorbel, F. (98) Moheimani, R. (04) Vemuri, A. (01)
Giua, A. (06) Mosterman, P. (03) Villani, L. (05)
Hiskens, I. (07) Raisch, J. (06) Yen, G. (01)
Hovakimyan, N. (06) Rajamani, R. (04)
Hunt, K. (97)
Isaksson, A. (04)

Motion: to approve the following nominees as Associate Editors for the Transactions on Control Systems Technology (to start January 1, 2007):

Ian Hiskens
Fahmida Chowdhury
Fabrizio Caccavale
Massimiliano Mattei

Endorsed by:

Background for recruitment of new AEs:
- Paper submission is up approximately 20-30%
- Reviewer gaps in key areas (electric drives, UAVs)
- 3-4 AE retirements

Nominee Highlights:

Ian Hiskens
- Professor, Electrical and Computer Engineering, U. Wisconsin
- Expertise in power system analysis, in particular system dynamics, security, and numerical techniques
- Significant editorial experience, incl. ACC and CDC Programming Committees (both 2006), AE for IEEE CAS (2002-2005), various technical and programming committees
- Nominated by AE Reza Moheimani

Fahmida Chowdhury
- Professor, Electrical and Computer Engineering, U. Louisiana
• Expertise in estimation and fault detection, mathematical modelling, neural networks, and intelligent systems
• Significant editorial experience, incl. CSS CEB (since 1998), AE for Transactions on Neural Networks, various technical and programming committees
• Nominated by Linda Bushnell

Fabrizio Caccavale
• Associate Professor, Dept. Environmental Eng and Physics, U. Naples.
• Research interests include manipulator inverse kinematics techniques, cooperative robot manipulation, underwater and space robotics, nonlinear control of mechanical systems and fault diagnosis
• AE for Journal of Robotics and Automation (2001-2006), AE for Robotica (2006-present), and program committee for various international conferences and workshops
• Nominated by AE Luigi Villani

Massimiliano Mattei
• Professor, Systems Theory and Automatic Control, U. Reggio Calabria
• Expertise in robust and H-infinity control theory and applications, flight control, Unmanned Aerial Vehicles, mathematical modeling of complex systems, thermonuclear controlled fusion, fault detection and isolation [fills a key void in UAVs]
• Active reviewer for many journals, conferences, and workshops
• Nominated by AE Luigi Villani

Biographies:

Ian A. Hiskens (S’77-M’80-SM’96-F’06) is a Professor of Electrical and Computer Engineering at the University of Wisconsin-Madison. He received the B.Eng. degree in electrical engineering and B.App.Sc. degree in mathematics from the Capricornia Institute of Advanced Education, Rockhampton, Australia, in 1980 and 1983, respectively, and the Ph.D. degree from the University of Newcastle, Newcastle, Australia, in 1991. He has held prior appointments with the Queensland Electricity Supply Industry, Australia, from 1980 to 1992, the University of Newcastle, from 1992 to 1999, and the University of Illinois at Urbana-Champaign, from 1999 to 2002. He was an Associate Editor of the IEEE Transactions on Circuits and Systems-I from 2002 to 2005, and is currently Treasurer of the IEEE Systems Council. His major research interests lie in the area of power system analysis, in particular system dynamics, security, and numerical techniques. Other research interests include nonlinear and hybrid systems, and control.

Fahmida N. Chowdhury received the joint B.Sc./M.Sc. degree (with Honors) in electromechanical engineering from Moscow Power Engineering Institute, Moscow, Russia, in 1980, specializing in electrical machines and apparatus. She received the Ph.D. in electrical engineering from Louisiana State University, Baton Rouge, LA, USA in 1988, specializing in controls and systems theory, with a minor in mathematics. She has been a faculty member at the Southern University, Baton Rouge, LA, Michigan Technological University, Houghton, MI, and the University of Louisiana, Lafayette, LA. Currently she is a professor of electrical and computer engineering at UL-Lafayette, where she holds the Chevron/BoRSF (Board of Regents Support Fund) Professorship in Engineering. Her research interests are in estimation and fault detection, mathematical modelling, neural networks, and intelligent systems. Dr. Chowdhury is a Senior Member of the IEEE, and a member of the AIAA. She has served as an Associate Editor for IEEE CSS Conference Editorial Board since 1998, and currently she serves as an Associate Editor for the IEEE Transactions on Neural Networks. She is an elected member of the IEEE Computational Intelligence Society (CIS) Administrative Committee (ADCOM), Chair of the IEEE CIS sub-committee on Technology Transfer, and a member of the AIAA Digital Avionics Technical Committee (DATC). Dr. Chowdhury is a member of the ACC 2006, 2007 and 2008 Program Committees. She was a founding member, Chair, and newsletter editor for IEEE CSS Women-in-Control committee, and also served on various other CSS committees such as Engineers-at-Risk, Control Education, and International Affairs. Since 2005, Dr. Chowdhury has been working at the US National Science Foundation, Arlington, VA, as a Program Director. She has been a visiting professor at the Helsinki University of Technology (2004), Finland, and a Fulbright Scholar (2001).

Fabrizio Caccavale (fabrizio.caccavale@unibas.it) was born in Naples, Italy, on November 14, 1965. He received the Laurea degree and the Research Doctorate degree in Electronic Engineering from the University of Naples Federico II in 1993 and 1997, respectively. From 1999 to 2001 he has been Assistant Professor at the Department of Computer and Systems Engineering of the University of Naples. He is currently Associate Professor at the Department of Environmental Engineering and Physics of the University of Basilicata. From April to October 1996 he was a visiting scholar at the Department of Electrical and Computer Engineering of Rice University. His research interests include manipulator inverse kinematics techniques, cooperative robot manipulation, underwater and space robotics, nonlinear control of mechanical systems and fault diagnosis. He has published more than 80 journal and conference papers, he is co-author of the book: “Fondamenti di Sistemi Dinamici” (McGraw-Hill 2003, in Italian) and he is co-editor of the book
“Fault Diagnosis for Mechatronic Systems: Recent Advances” (Springer 2002). He has been in the program committee of several international conferences and workshops. He has been Associate Editor of the Journal of Robotics and Automation. He is Associate Editor of the journal Robotica.

Massimiliano Mattei (M’ 1994) received the Laurea degree in Aeronautical Engineering and the Ph.D. in Electronic Engineering from the University of Naples Federico II in 1993, and 1997 respectively. He is a Full Professor of System Theory and Automatic Control at the University of Reggio Calabria where he is the Head of the Department of Computer Science, Mathematics, Electrical, and Transportation Engineering (DIMET). Dr. Mattei has been a scientific consultant for CIRA (Italian Aerospace Research Center) and for the EURATOM/ENEA/CREATE association. His research interests are in the area of robust and H-infinity control theory and applications, flight control, Unmanned Aerial Vehicles, mathematical modeling of complex systems, thermonuclear controlled fusion, fault detection and isolation. He has been a visiting scientist at the Max Plank Institute for plasma physics (D) and at the JET Laboratories (UK).
Motion: to approve the following budget parameters for 2008.

Endorsed by: CSS Executive Committee

Society membership (Including IEEE CSM)

<table>
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<tr>
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<td>Student/other/retired</td>
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TAC subscription

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TCST subscription

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<tr>
<td>Student/other/retired print &amp; elec.</td>
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CSS Conference package

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</tr>
<tr>
<td>Student/other/retired Electronic</td>
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</table>
Motions for General Chair for CDC 2010
Prepared by Richard Middleton, Vice-President, Conference Activities

Motion: To approve Mark Spong as the General Chair for the CDC 2010.

Endorsed by: Executive Committee

Mark W. Spong is Donald Biggar Willett Professor of Engineering, Professor of Electrical and Computer Engineering, and Research Professor in the Coordinated Science Laboratory at the University of Illinois at Urbana-Champaign. He received the B.A. degree, magna cum laude, in mathematics and physics from Hiram College, Hiram, Ohio in 1975, the M.S. degree in mathematics from New Mexico State University in 1977, and the M.S. and D.Sc. degrees in systems science and mathematics in 1979 and 1981, respectively, from Washington University in St. Louis.

He has been at the University of Illinois at Urbana-Champaign since 1984. From 1981 to 1982 he was with the Department of Electrical Engineering at Lehigh University. From 1982 to 1984 he was with the School of Electrical Engineering at Cornell University. He has held visiting positions at the National Polytechnic Institute of Mexico, the University of Waterloo, Ontario, Canada, the Laboratoire d'Automatique de Grenoble, France, The Lund Institute of Technology, Lund, Sweden, the Katholieke Universiteit, Leuven, Belgium, The Universite d'Tecnologie de Compiegne, France, the National University of Singapore, and the Technical University of Munich, Germany.


Dr. Spong is a Fellow of the IEEE, a Distinguished Member of the IEEE Control Systems Society and a member of Phi Beta Kappa. His recent awards include the Senior Scientist Research Award from the Alexander von Humboldt Foundation, Bonn, Germany, the IEEE Third Millennium Medal, and the O. Hugo Schuck Award and John R. Ragazzini Award from the American Automatic Control Council. In addition, he is President of Mechatronic Systems, Inc., a company he founded in 1996.
Motions for Program Chairs for 2008 CCA, ISIC, CACSD
Prepared by Richard Middleton, VP Conference Activities

Motion: to approve the following Program Chairs for MSC 2008:

Conference on Control Applications:
Gary Balas

International Symposium on Intelligent Control:
Kevin L. Moore

Conference on Computer Aided Control System Design:
Marco Lovera

Endorsed by:
Gary J. Balas, Aerospace Engineering and Mechanics, 110 Union St. SE, University of Minnesota, Minneapolis, MN 55455, of_ce: 612.625.6857, fax: 612.626.1558, email: balas@aem.umn.edu

Current Appointments
2006 - Department Head, Aerospace Engineering and Mechanics, University of Minnesota.
2001 - Professor, Aerospace Engineering and Mechanics, Control Science and Dynamical Systems. University of Minnesota.
1995 - Co-Director, Control Science and Dynamical Systems, University of Minnesota.

Recent Publications
1. T. Keviczky, F. Borrelli, K. Fregene, D. Godbole and G.J. Balas, Decentralized receding horizon control for large scale dynamically decoupled systems, Automatica, accepted for publication, April 2006.

Synergistic Activities
1989- Co-organized and presenter of 14 multi-day industrial short courses on robust multivariable control design methods (over 360 attendees).
1990- Developer and co-author of the .m-Analysis and Synthesis Toolbox, and new Robust Control Toolbox. software products distributed worldwide by The Mathworks for analysis and design of feedback systems in the presence of uncertainty.
1997 Co-organized and presenter, American Control Conference, two-day workshop on Control of Linear Parameter-Varying Systems
1987- Worked with over 20 industries and national laboratories on transitioning the latest advances in control theory to real-world applications.
2006 Local arrangements chair, American Control Conference, Minneapolis, MN

Honors and Awards
2005 IEEE Control System Technology Award
2005 Semi-Plenary Speaker, 16th International Federation of Automatic Control (IFAC) World Congress, Prague, Czech Republic (with Prof. J. Bokor).
2004- Fellow, IEEE
Kevin L. Moore is the G.A. Dobelman Distinguished Chair and Professor of Engineering in the Division of Engineering at the Colorado School of Mines. He received the B.S. and M.S. degrees in electrical engineering from Louisiana State University and the University of Southern California, respectively. He received the Ph.D. in electrical engineering, with an emphasis in control theory, from Texas A&M University in 1989. He has been a senior scientist at Johns Hopkins University's Applied Physics Laboratory during a one-year research leave of absence from academia, where he worked in the area of unattended air vehicles, cooperative control, and autonomous systems (2004-2005); an Associate Professor at Idaho State University (1989-1998); and a Professor of Electrical and Computer Engineering at Utah State University, where he was the Director of the Center for Self-Organizing and Intelligent Systems, directing multi-disciplinary research teams of students and professionals developing a variety of autonomous robots for government and commercial applications (1998-2004). He also worked in industry for three years pre-Ph.D as a member of the technical staff at Hughes Aircraft Company. He is a seminal contributor and active researcher in the area of iterative learning control. His other research interests include autonomous systems and robotics, and applications of control to industrial and mechatronic systems. He is the author of the research monograph Iterative Learning Control for Deterministic Systems and co-author of the book Sensing, Modeling, and Control of Gas Metal Arc Welding. He is a professional engineer, involved in several professional societies and editorial activities, and is interested in engineering education pedagogy, particularly capstone senior design. He is a senior member of IEEE and serves as a member of the IFAC Technical Committee on Computers, Communications, and Telematics, on the IEEE Control System Society Technical Committee on Intelligent Control, and a number of editorial boards.

Professional Service

Editorial Activities
- Associate Editor, Journal of Control Science and Engineering.
- Associate Editor, Intelligent Automation and Soft Computing.
- Past Associate Editor of the Journal of Intelligent and Fuzzy Systems.
- (co-)Guest Editor, International Journal of Control, Special Issue on Iterative Learning Control, 2000.
- Review approximately 15 papers per year

Organization of Invited Sessions at National Meetings
- Five invited sessions on Path Planning, Inherent and Intrinsic Mobility, and Mobility Concepts for Enabling Autonomy at the 1999-2003 SPIE AeroSense Symposium, in the Unmanned Ground Vehicle Conference Track, Orlando, FL.
- Invited session on Higher-Order Iterative Learning Control at the 2002 IFAC World Congress in Barcelona, Spain, July 2002.
- Invited session on Gas Metal Arc Welding Control, held at the 1998 American Control Conference (peer-reviewed session), Baltimore, MD, June 1998.
- Invited session on applications at the 2nd International Conference of Nonlinear Analysts, Athens, Greece, July 1996.

Organization of Workshops and Regional Meetings
- Tutorial workshop (co-organizer) on Robust and Optimal Iterative Learning Control, at the IEEE Int. Conf. on Mechatronics and Automation (ICMA), Luoyang, China, June 2006.
- 2003 International Summer School on Iterative Learning Control, a week-long session of tutorials and research talks sponsored by CSOIS, with 36 attendees, including over twenty international visitors.
• Tutorial workshop (co-organizer) at the 2000 IEEE Conference on Decision and Control on the topic of Iterative Learning Control, held in Sydney, Australia, Dec 2000.
• “Mini-Symposium on Control Systems” held at Utah State University on May 15, 2000. The all-day agenda included 7 highlighted speakers from four universities, including one international guest from the U.K., and demonstrations of USU/CSOIS technology. The symposium attracted approximately 30 attendees.

Iterative Learning Control Workshop and Roundtable, held in conjunction with the IEEE Conference on Decision and Control in Tampa, FL, Dec 1998. This meeting assembled the top 28 researchers in the field, who met for two days to assess the state-of-the-art in this research area
• “Intermountain Control Conference,” held at ISU in Pocatello, Idaho in October 1996 under the auspices of the Measurement and Control Engineering Research Center. Representatives from ten universities and companies attended to discuss their research in control theory and its applications.

Program/Organizing Committee Memberships
• Tutorial Workshops Program Chair and Organizing Committee for the 2003 IEEE International Symposium on Intelligent Control, October 2003.
• Associate Editor for 2005 IEEE Conf. on Decision and Control combined meeting with IFAC European Control Conference
• International Program Committee for 2006 IEEE Int. Conf. on Networks, Sensing, and Control

Other
• Member IEEE Control System Society Technical Committee on Intelligent Control
• Member IFAC Technical Committee on Computers, Communications, and Telematics
• Professional Society Memberships: IEEE (senior member), AUVSI, SIAM, ASEE, ASME
• IEEE Society Memberships: Control Systems; Systems, Man, and Cybernetics; Robotics and Automation
• Honorary Societies: Tau Beta Pi; Eta Kappa Nu; Sigma Xi
• Frequent reviewer and panel member for funding agencies and for government (NSF, DOE) and industry panels
• Frequently invited as an external censor on graduate committees at various international universities.
• PE License: State of Idaho # 7066, active consultant.

Marco Lovera
Master degree in Electronic Engineering in 1993 (thesis on active control of vibrations in helicopters) and Ph.D. in Control Engineering in 1997 (thesis on subspace model identification), both from the Politecnico di Milano (Milan, Italy).
At Carlo Gavazzi Space SpA (Milan, Italy) from May 1998 to June 1999, as senior control engineer specialist, working on spacecraft attitude determination and control systems. Assistant Professor of the Control and System Theory area, at the Department of Electronics and Computer Science of the Politecnico di Milano from August 1999 to December 2003. Presently Associate Professor of Control Theory at the Department of Electronics and Computer Science of the Politecnico di Milano.

His current research interests include system identification for linear and nonlinear systems, analysis and design of periodic control systems, attitude and orbit control of spacecraft and helicopter rotor control problems. He is author and coauthor of 24 journal papers, all appeared in international journals, 2 book chapters and 73 conference papers. He has been "outstanding reviewer" of Automatica in 2001 and 2004. He is a member of IEEE and of the American Helicopter Society (AHS). Since January 2005 he is a member of the Conference Editorial Board of the IEEE CSS. Since January 2006 he is an Associate Editor of the IEEE Transactions on Control Systems Technology.

He is a member of the following Technical Committees
• IEEE CSS Technical Committee on Computer-Aided Control Systems Design (Chair of the Action Group on Periodic Systems and Control);
• IFAC Technical Committee on Control Design.

He was a member of the National Organising Committee of the 2001 IFAC Workshop on Periodic Systems (Cernobbio, Italy);
• the Organising Committee (as Publicity Chair) of the 2006 IEEE CCA/CACSD/ISIC joint conferences (Munich, Germany).
Motions for CSS Membership Requirement for Appointments
Prepared by M. Elena Valcher, VP Member Activities

**Motion:** To introduce the IEEE CSS membership requirement at the time of nomination and during the entire terms for the following positions:

- ExCom members
- Standing Committee Chairs
- Long Range Planning Committee members
- Editors-in-Chief of TAC, CST and CSM
- Editor Tech. Notes and Correspondence TAC
- Editor Systems and Control Eletter
- Awards Subcommittee Chairs
- MAB Subcommittee Chair
- CEB Chair
- TAB Chairs

**Endorsed by:** Executive Committee
Motion: To update the CSS Awards prizes and eligibility conditions as follows.

Endorsed by: Executive Committee

Summary of changes: deletions are in strikeout; additions are in red underlined text.

<table>
<thead>
<tr>
<th>AWARD</th>
<th>PRIZE</th>
<th>ELIGIBILITY CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>George S. Axelby Outstanding Paper Award</td>
<td>Certificate laminated on a plaque (one for each author).</td>
<td>Authors of papers published in the IEEE Transactions on Automatic Control during the two calendar years preceding the year of the award.</td>
</tr>
<tr>
<td>IEEE Transactions on Control Systems Technology Outstanding Paper Award</td>
<td>Certificate laminated on a plaque (one for each author).</td>
<td>Authors of papers published in the IEEE Transactions on Control Systems Technology during the two calendar years preceding the year of the award.</td>
</tr>
<tr>
<td>Control Systems Magazine Outstanding Paper Award</td>
<td>Certificate laminated on a plaque (one for each author).</td>
<td>Authors of articles or columns published in the IEEE Control Systems Magazine during the two calendar years preceding the year of the award.</td>
</tr>
<tr>
<td>Control Systems Technology Award</td>
<td>$2,000, Galvanic (photo engraved) plaque for each recipient, and travel expenses to the CDC for one recipient (round trip restricted (minimal) coach air fare, conference registration and two three conference-rate hotel-nights).</td>
<td>Either an individual or a team.</td>
</tr>
<tr>
<td>Conference on Decision and Control Best Student-Paper Award</td>
<td>Certificate laminated on a plaque and travel expenses to the CDC for one recipient (round trip restricted (minimal) coach air fare, VIP conference registration, and three conference-rate hotel-nights). All four finalists receive certificates and free student registrations.</td>
<td>Primary contributor(s) of a paper, who was a (were) student(s) at the time of original submission.</td>
</tr>
<tr>
<td>Multi-Conference on Systems and Control Best Student-Paper Award</td>
<td>Certificate laminated on a plaque and travel expenses to the MSC for one recipient (round trip restricted (minimal) coach air fare, VIP conference registration, and three conference-rate hotel-nights).</td>
<td>Primary contributor(s) of a paper, who was a (were) student(s) at the time of original submission.</td>
</tr>
<tr>
<td>Award</td>
<td>Description</td>
<td>Eligibility</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>Outstanding Chapter Award</strong></td>
<td>$1,000 payable to the Chapter, a Certificate laminated on a plaque, and up to $1,000 travel support (travel expenses to the CDC (round trip restricted (minimal) coach air fare, VIP conference registration and three conference-rate hotel-nights) for a Chapter representative to attend the CSS Awards Ceremony.</td>
<td>Chapter must be active for at least one (1) year prior to consideration.</td>
</tr>
<tr>
<td><strong>Distinguished Member Award</strong></td>
<td>Galvanic (photo engraved) plaque, VIP conference registration and a CSS pin for each recipient.</td>
<td>Must have been a member of the CSS for at least five (5) years. Must be an IEEE CSS member at the time of nomination. Current members of the CSS Executive Committee are not eligible for this award.</td>
</tr>
<tr>
<td><strong>Hendrik W. Bode Lecture Prize</strong></td>
<td>$2,000, Galvanic (photo engraved) plaque, and travel expenses to the CDC (round trip restricted coach air fare, conference registration, and four three conference-rate hotel-nights). The recipient gives a plenary lecture at the CDC evaluating a significant contribution to control systems science or engineering.</td>
<td></td>
</tr>
<tr>
<td><strong>Antonio Ruberti Young Researcher Prize (Funded by the Ruberti Foundation)</strong></td>
<td>$5000, Galvanic (photo engraved) plaque, and reasonable travel and accommodation expenses for recipient(s) to attend the CDC.</td>
<td>To be eligible the nominee must be 40 years old or younger on January 1st of the year of the award.</td>
</tr>
<tr>
<td><strong>Control Systems Technical Field Award (IEEE sponsored)</strong></td>
<td>$10,000, Bronze Medal, Certificate in IEEE Folder, and travel expenses to the CDC (round trip restricted coach air fare, conference registration, and four conference-rate hotel-nights).</td>
<td></td>
</tr>
</tbody>
</table>
Report of the President

FROM: John Baillieul
DATE: November 27, 2006

1. A quick report on the November IEEE TAB Meeting:

Three times a year, the Society and Council Presidents and the ten IEEE Division Directors, who together comprise the Technical Activities Board (TAB) meet for two days. This is a short report on the meeting of November 17, 18 in New Orleans. This report discusses some fairly serious financial matters, and though it is long, it is probably worth reading.

Several items came before TAB which will probably have a negative financial impact on the CSS. First, as our VP Finance Jay Farrell has noted, infrastructure charges imposed on the CSS and on all societies are increasing faster than the CPI.

2004 actual =$495.9k,
2005 actual=$528.3k,
2006 budget=$738.3k,
2007 budget=$879.4k.

There are many factors that contribute to this inflation, including a major development effort to develop and install a massive business management (software) system (BMS). This is a major one-time expense that is probably unavoidable; the IEEE must have such a system in order to conduct its business (which is partly our business), and the old system could no longer be patched to continue working. There is a darker inflationary pressure, however. The IEEE does not do a good job controlling expenses. It is not because the staff enjoys an opulent lifestyle or is over paid. It is because there are too many organizational units (OU's) that spend money they don't have. If you recall my February President's Message in the Magazine (which I'm sure everyone read), the Board of Directors in comprised of 10 Division Directors (from TAB), 10 Regional Directors (from the Regional Activities Board) plus 10 other directors plus the IEEE President. Virtually all IEEE income is generated by TAB (the societies and councils who have publications, who run conferences, and who generate salable educational material. TAB has only 10 votes on the Board of Directors, and thus there is little that can be done to control spending if projects arise that appeal to other units in the IEEE (Standards, RAB, even the President herself).

This lack of control is the major factor driving the increases in infrastructure costs. This may be a serious problem. I say "may be" because currently society incomes from IEL have been increasing at a rate which is adequate to offset increasing infrastructure charges. Everyone believes, however, that the rate of increase in IEL revenues is about to taper off. When this happens, double digit escalation of infrastructure charges will not be sustainable.

Hal Flescher, TAB Treasurer, has proposed a model to recommend to the Board of Directors that will require the IEEE to tie spending to increases in the returns from IEL such that new spending cannot be approved if it will result in the infrastructure costs rising faster than revenue from electronic products. This proposal was endorsed by TAB, and it is currently in revision.

The SECOND item I need to report is that a significant piece of revenue that has been returned to the CSS over the past decade is at risk. This is revenue from our conference record publications (Proceedings of CDC, CCA, ACC, etc.). A subcommittee of the TAB/PSPB Products and Services Committee has recommended a revision of the income distribution formula from sales of conference proceedings that will cause the CSS to lose about $300K per year in income. Without going into detail, which I do not have at the moment, the proposed new formula will base returns to societies on overall usage (number of XPlore downloads) of papers from the conferences. While our publications in general have good usage numbers (TAC in fact is in the top ten---sometimes top five--of the entire IEEE), our conferences have enjoyed an unjustified advantage vis-a-vis some of the newer IEEE conferences. Specifically, CDC and (I believe) ACC have been part of several very exclusive and high-priced conference packages that have been sold at a premium. (These go under the names POP and POP-Plus.) The proposal is to do away with these packages and place all conferences on a level playing field. While the precise formula is still under discussion, some adjustment from the current formula is undoubtedly going to be adopted.

Both these items will come up again in the February TAB meeting when Ted is President. He is aware of the issues. I close by saying that I was elected VP of Publications Services and Products, and in this role, I shall have a seat on the Board of Directors. I shall thus be in a position to continue discussing both these items, and of course I shall be mindful of CSS interests.
2. Update on the Society/Periodicals Five-Year Review:

On behalf of Vice President for Publications, Tariq Samad, our Society Editors, and the Executive Committee, I have submitted the Control Systems Society's reports for the Five Year Society Review and the Five Year Periodicals Review. These are available for download at

http://iml.bu.edu/~johnb/cs23_jun06_src.pdf (1.6Mb)
http://iml.bu.edu/~johnb/cs23_jun06_prc_V4.pdf (0.63MB).

I believe both the Society Review and Periodicals Review (of June 21) went well, and when the final IEEE reports become available, we shall post them on the CSS website.

3. Update on planning for CDC in China 2009.

With Co-General Chair Lei Guo as well as Diazhan Cheng, Hua Wang, Jie Huang, Lihua Xie, and Zongli Lin, I visited a number of properties which are potential sites for CDC 2009. The hotel and convention center properties that were visited included

1. Dong Fang Hotel, Guangzhou
2. Guangzhou Baiyun International Convention Center, Guangzhou
3. Beijing Continental Grand Hotel, Beijing International Convention Center
4. Crowne Plaza Park View Wuzhou, Beijing
5. Jiuhua Spa and Resort (Outside Beijing)
6. Pudong Shangrila, Shanghai
7. Shanghai International Convention Center and Oriental Riverside Hotel, Shanghai

Each has advantages and disadvantages. Lei Guo and I, together with the Organizing Committee are in the process of determining the target scale of the conference before issuing RFP’s to the properties of interest.
standing committee on awards

CSS Awards (http://www.ieeecss.org/awards/AWARDSindex.html)

FROM: Panos Antsaklis, Chair
DATE: October 10, 2006

Again this year we have an excellent group of award winners-listed below-thanks to the hard work and dedication of the award subcommittee chairs and their members.

AWARDS SUBCOMMITTEES
http://www.ieeecss.org/awards/

George S. Axelby Outstanding Paper Award
Abe Haddad, ahaddad@ece.northwestern.edu

Transactions on Control Systems Technology Outstanding Paper Award
Mrdjan Jankovic, mjankov1@ford.com

Control Systems Magazine Outstanding Paper Award
Daniel Abramovitch, daniel_abramovitch@agilent.com

Control Systems Technology Award
Siva Banda, siva.banda@wpafb.af.mil

Antonio Ruberti Young Researcher Prize
Jan Willems, Jan.Willems@esat.kuleuven.ac.be

CDC Best Student-Paper Award
Mario Sznaier, msznaier@frodo.ee.psu.edu

CCA Best Student-Paper Award
L.K. Mestha, lkimestha@crt.xerox.com

AWARD WINNERS 2006

George S. Axelby Outstanding Paper Award
For outstanding papers published in the IEEE Transactions on Automatic Control during the two calendar years preceding the year of the award, based on originality, clarity, potential impact on the theoretical foundations of control, and practical significance in applications.

Tetsuya Iwasaki, University of Virginia
Shinji Hara, University of Tokyo

And

João P. Hespanha, University of California, Santa Barbara

TCST Outstanding Paper Award
For an outstanding paper published in the IEEE Transactions on Control Systems Technology during the two calendar years preceding the year of the award, based on originality, relevance of the application, clarity of exposition, and demonstrated impact on control systems technology.
Kristin Y. Pettersen, Norwegian University of Science and Technology
Frédéric Mazenc, INRIA
Henk Nijmeijer, Eindhoven University of Technology

CSM Outstanding Paper Award
For an outstanding article or column published in the IEEE Control Systems Magazine during the two calendar years preceding the year of the award, based on impact on and benefit to CSS members.

Karl Åström, Dept. of Automatic Control, Lund Institute of Technology, Sweden
Richard E. Klein, Rainbow Trainers, Inc. & Emeritus Associate Professor, University of Illinois, Urbana-Champaign
Anders Lennartsson, Swedish Defense Research Agency, FOI, Stockholm, Sweden

Control Systems Technology Award
To recognize outstanding contributions to control systems technology either in design and implementation, or in project management. This award may be conferred on an individual or a team.

Lalit K. Mestha, Xerox Corporation
For his outstanding contributions in applying control systems technology to Particle Accelerators and Digital Printing Systems.

Antonio Ruberti Young Researcher Prize
To recognize distinguished cutting-edge contributions by a young researcher to the theory or application of systems and control.

Vincent Blondel, Department of Mathematical Engineering, Faculty of Applied Sciences, Université Catholique de Louvain
For fundamental contributions to control theory, especially stabilization, computational complexity issues, and decidability.

Hendrik W. Bode Lecture Prize
To recognize distinguished contributions to control systems science or engineering. The recipient gives a plenary lecture at the Conference on Decision and Control, evaluating a significant contribution to control systems science or engineering.

Arthur J. Krener, University of California, Davis and Naval Postgraduate School, Monterey
'For fundamental contributions to the foundations of geometric nonlinear control theory'

Outstanding Chapter Award
For an outstanding Chapter of the CSS based on the level of its activities and innovations in promoting new activities and services.

United Kingdom-Republic of Ireland Control Chapter
Chair, James F. Whidborne, Cranfield Univ., Bedfordshire, U.K.

Distinguished Member Award
To recognize significant technical contributions and outstanding long-term service to the CSS by an individual who has been a member of the CSS for at least five years.

Christos Cassandras, Boston University
David A. Castañón, Boston University

CDC Best Student-Paper Award Finalists
To recognize excellence in a paper presented at the Conference on Decision and Control, whose primary author is a Student Member of the IEEE.

• Bayu Jayawardhana, Imperial College London (George Weiss), “Remarks on the State Convergence of Nonlinear Systems Given any Lp Input,” by Bayu Jayawardhana.
• Michael Zavlanos, University of Pennsylvania (George Pappas), “A Dynamical Systems Approach to Weighted Graph Matching,” by Michael Zavlanos and George Pappas.

CCA Best Student-Paper Award

Finalists
CCA: Alexander Kharitonov, Sikandar Samar, Wilfred Kwok, Thomas Conord, Vivek Yadav
ISIC: Atalla Sayda, Nishant Unnikrishnan, Alma Alanis

The award winning papers for the 2006 CCA/CACSD/ISIC are:
• Alexander Kharitonov, Oliver Sawodny
Flatness-Based Disturbance Decoupling for Heat and Mass Transfer Processes with Distributed Control
• Sikandar Samar, Dimitry Gorinevsky, Stephen P. Boyd
Embedded Estimation of Fault Parameters in an Unmanned Aerial Vehicle
• Atalla Sayda, James H. Taylor
An Implementation Plan for Integrated Control and Asset Management of Petroleum Production Facilities

IEEE Fellows for 2006

The grade of Fellow recognizes unusual distinction in the profession and shall be conferred only by invitation of the Board of Directors upon a person with an extraordinary record of accomplishments in any of the IEEE fields of interest. The accomplishments that are being honored should contribute significantly to the advancement of engineering science and technology.

Evaluated by CSS:
Rayadurgam Srikant
for contributions to modeling and control of communication networks.
Shuzhi Sam Ge
for contributions to theory and analysis of stable adaptive neural networks for intelligent control systems.
Richard Vinter
for contributions to optimal control of process systems.
Daizhan Cheng
for contributions to nonlinear control theory and its applications.
Dimitry Gorinevsky
for contributions to distributed and learning control systems.
Jeff Shamma
for contributions to feedback control and systems theory.
Mark Balas
for contributions to the control of large-scale distributed systems.
Marc Bodson
for contributions to the theory of adaptive control to electromechanical and flight control systems.
Carlos de Souza
for contributions to robust control and filtering.
Tongwen Chen
for contributions to sampled-data control and multirate systems.
Mituhiko Araki
for contributions to control theory and its industrial/medical applications.
Wijesuriya P. Dayawansa
for contributions to analysis and applications of nonlinear control systems.
Shinji Hara
for contributions to robust, servo tracking, and sampled-data control theories.
Paul Van Dooren
for contributions to numerical methods in systems and control.
Evaluated by other Societies: (members of CSS)
Charles Holland (C )
for leadership in computational science and engineering.
Marios Polycarpou (CIS)
for contributions to the theory and application of intelligent systems and control.
Marco Dorigo (CIS)
for contributions to ant colony optimization and swarm intelligence.
Carlo Cecati (IE)
for contributions to advanced control of power electronics converters and electrical drives.
Hideki Hashimoto (IE)
for contributions to mechatronics systems.
Ian Hiskens (PE)
for contributions to modeling and analysis of power systems.
Antonio Bicchi (RA)
for contributions to automatic control of mechanisms and robots.
Hugh Durrant-Whyt (RA)
for contributions with application to decentralized data fusion algorithms with application to simultaneous localization and navigation.
Kazuhiro Kosuge (RA)
for contributions to multiple robots coordination and human-robot interface.

IEEE Technical Field Award: Control Systems Award
For meritorious achievement in contributions to theory, design, practice, or techniques, as evidenced by publications or patents in the areas of control systems science, engineering, or technology.

P. R. Kumar (Fellow IEEE), Franklin W. Woeltge Professor of Electrical and Computer Engineering, University of Illinois, Urbana-Champaign
For contributions to adaptive control, manufacturing systems and wireless communications.
2006 Financial Status

The most current estimate is a surplus of $217k, including income and expenses through year end, except for investments returns.

- Historically this estimate is low.
- IEEE (Hal Fletcher) has tried to more accurately predict in 2006.
- Does not account for revised 2005 CDC/ECC surplus (+$86k relative to budget)

Conference Financial Status

<table>
<thead>
<tr>
<th>Conference Title</th>
<th>Revenue</th>
<th>Expense</th>
<th>Net</th>
</tr>
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<tbody>
<tr>
<td><strong>2005 (Reference Only)</strong></td>
<td></td>
<td></td>
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<tr>
<td>2005 American Control Conference - ACC 2005</td>
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<td>$34,254</td>
<td>$5,443</td>
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<td>2005 IEEE 30th International Symposium on</td>
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<td>$99,220</td>
<td>$19,683</td>
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<tr>
<td>2005 IEEE International Conference on Cont</td>
<td>$118,903</td>
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<td><strong>2006 (Reference Only)</strong></td>
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<td>2006 American Control Conference - ACC 26</td>
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<td>2006 IEEE CCAS/ACSD (MBC)</td>
<td>$350,000</td>
<td>$290,000</td>
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<td>$402,109</td>
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<td><strong>2007</strong></td>
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<tr>
<td>Society Share of Conference Budget</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2007 AACC return to IEEE CSS</td>
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<td>$145,000</td>
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<td>$202,163</td>
<td>$606,687</td>
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CSS Net Worth

2007 Overall Budget (Final)

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<th>PRIOR YEAR ACTUALS</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>BUDGET</th>
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<td>0.0</td>
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<tr>
<td>00300 CONTROL SYSTEMS &amp; MAGAZINE</td>
<td>150.9</td>
<td>215.7</td>
<td>223.5</td>
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<tr>
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<tr>
<td>01600 NON PERIODICAL</td>
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<td>2.6</td>
<td>1.6</td>
<td>1.6</td>
<td>1.6</td>
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<td>01700 MEETINGS &amp; CONFERENCE</td>
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<td>667.4</td>
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<td>01800 ADMINISTRATION</td>
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<td>0.0</td>
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<tr>
<td>01900 COMMITTEE &amp; OTHER</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>TOTAL INCOME</td>
<td>168.2</td>
<td>248.4</td>
<td>204.2</td>
<td>252.6</td>
<td>252.6</td>
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</table>

| 00100 MIS/SGC INTEREST INCOME | (21.2) | 212.4 | 41.0 | 0.0 | 0.0 | 0.0 |
| 00200 TRANS ON AUTOMATIC CONTROL | 175.9 | 217.6 | 437.3 | 432.0 | 432.0 | 432.0 |
| 00300 CONTROL SYSTEMS & MAGAZINE | 201.5 | 221.9 | 496.7 | 496.7 | 496.7 | 201.5 |
| 00400 CONTROL SYSTEMS, MFG. | 100.3 | 106.1 | 257.0 | 190.4 | 190.4 | 100.3 |
| 01000 PERIODICAL RELATED - OTHER | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 01600 NON PERIODICAL | 7.9 | 10.0 | 13.6 | 13.6 | 13.6 | 7.9 |
| 01700 MEETINGS & CONFERENCE | 733.6 | 406.8 | 122.3 | 190.5 | 190.5 | 733.6 |
| 01701 CONFERENCE RELATED | 67.2 | 125.8 | 82.3 | 82.3 | 82.3 | 67.2 |
| 01800 ADMINISTRATION | 514.3 | 1638.6 | 1016.2 | 97.4 | 97.4 | 514.3 |
| 01900 COMMITTEE & OTHER | 96.3 | 12.1 | 11.4 | 11.4 | 11.4 | 96.3 |
| TOTAL EXPENSE/SGC | 2188.7 | 3601.3 | 2659.6 | 2371.6 | 2371.6 | 2188.7 |

TOTAL NET | 2161.5 | 4012.9 | 2537.0 | 2371.6 | 2371.6 | 2161.5 |

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2007 Detail for Committees

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<thead>
<tr>
<th>Committee</th>
<th>2006 ACTUAL</th>
<th>2007 ACTUAL</th>
<th>2005 ACTUAL</th>
<th>2007 BUDGET</th>
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<td>Presidents Office</td>
<td>157</td>
<td>139</td>
<td>183</td>
<td>183</td>
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<tr>
<td>Publications Director</td>
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<td>8.1</td>
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<td>15.0</td>
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<td>Meetings &amp; Conference Director</td>
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<td>0.4</td>
<td>4.0</td>
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<td>0.7</td>
<td>3.0</td>
<td>3.0</td>
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<td>Action Committee</td>
<td>(43)</td>
<td>3.1</td>
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<td>0.0</td>
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<td>Membership Committee</td>
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<td>15.1</td>
<td>18.4</td>
<td>15.4</td>
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<td>Executive Committee</td>
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<td>Awards Committee</td>
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<td>13.7</td>
<td>18.0</td>
<td>15.4</td>
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<tr>
<td>Awards M Expense</td>
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<td>3.2</td>
<td>1.5</td>
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<tr>
<td>Other Committee</td>
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<tr>
<td>Web</td>
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<tr>
<td>Legal</td>
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</tr>
<tr>
<td>Finance</td>
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<tr>
<td>Total Expense</td>
<td>70.4</td>
<td>20.0</td>
<td>45.7</td>
<td>45.0</td>
</tr>
</tbody>
</table>

Other Items:

- Support for Conf. Travel from Disadvantage Countries: $25k
- CEB: $26.3k (Recharge: Expense and income net to zero)
- Paperplaza: $16.9k (Recharge: Expense and income net to zero)

2007 Fee & Subscription Rates

- **Member Fees:**
  - Member: $25
  - Student: $13

- **Subscription Rates:**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CSM</td>
<td>Incl.</td>
<td>Incl.</td>
<td>$310</td>
<td></td>
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</tr>
<tr>
<td>TAC</td>
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<td>$8</td>
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<td>$20</td>
<td>$1025</td>
</tr>
<tr>
<td>TCST</td>
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<td>$5</td>
<td>$25</td>
<td>$13</td>
<td>$360</td>
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<tr>
<td>Conf. Dig. Libr.</td>
<td>$10</td>
<td>$5</td>
<td>$25</td>
<td>$13</td>
<td>$360</td>
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</table>

- **Total Subscription Income**

<table>
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<tr>
<th></th>
<th>CSS Fee</th>
<th>Elct. TAC</th>
<th>Elct. TCST</th>
<th>CDL</th>
</tr>
</thead>
<tbody>
<tr>
<td>'05 act./'07 bdgt.</td>
<td>$169.1k/$162.8k</td>
<td>$7.2k/$9.4k</td>
<td>$3.8k/$4.2k</td>
<td>$1.9k/$5.0k</td>
</tr>
</tbody>
</table>

*Does not account for incremental expenses*
### Publication Print Costs

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<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
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<tr>
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<td>TAC</td>
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<td>$35.02</td>
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<tr>
<td>TCST</td>
<td>$21.38</td>
<td>$21.27</td>
<td>$20.61</td>
<td>$22.28</td>
<td>$21.92</td>
</tr>
</tbody>
</table>

- Calculation: \((\text{Printing} + \text{Cust. Serv. Exp.})/(\# \text{ of annual copies printed})\)
  - \# annual copies printed = \# subscribers + \#other
  - Excludes: Creation exp., sales exp., and all income (Xplore, ads, subsc.)

- Conclusions:
  - TAC and TCST combo rate exceeds print cost by about $5
  - CSS member fee exceeds CSM print cost by about $5

### 2008 Fee & Subscription Rates

- **Member Fees:**
  | Member | $25 |
  | Student | $13 |

- **Subscription Rates:**

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
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<td>$0</td>
<td>incl</td>
<td>incl</td>
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<tr>
<td>TAC</td>
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- **Estimated budget income -$18.6k**

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<td>2008 budget impact</td>
<td>-$9.4k</td>
<td>-$4.2k</td>
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Analysis of CSS Fee Impact

- Assumes that the member fee is selected to approx. equal the per cost of CSM, which is free to members

- Analysis uses 2007 CS Budget spreadsheet

- CSM print cost for 2007 is estimated as $18.4 per printed annual copy
The Technical Activities Board currently has 17 Technical Committees. The new TC Chair appointment made this year was: Raolo Rapisarda (University of Southampton) as the TC Chair of the new TC on Behavioral Systems and Control, Sandip Roy (Washington State University) as the chair of the TC on Control of Energy Processing and Power Systems. There is also a newly established subcommittee for Antonio Ruberti - Young Researcher Prize, with chair Jan C. Willems (Katholieke Universiteit Leuven).

I would like to welcome the VP-Elect for Technical Activities, Professor Jay Farrell. He is appointing two new TC chairs effective January 2007: Rajesh Rajamani (Automotive Control, replacing Ilya Kolmanovski) and Asif Sabanovic (Variable Structure and Sliding Mode Control, replacing Vadim Utkin). The new appointee to the member of the IEEE-USA committee on Transportation Policy is Roberto Horowitz (replacing Petros Ioannou).

Summary of TC activities:
1. TC on Aerospace Controls (Chair Jim Buffington) is working on invited sessions in the upcoming ACC 2007, and also on involvement in the Multi-conference on Systems and Control in 2008.

2. TC on Automotive Control (Chair Ilya Kolmanovski) has organized four invites sessions in 2006 IEEE Conference on Control Applications in Munich, Germany. They are also planning a special issue in IEEE Transactions on Control Systems Technology. Several invited sessions are being planned for ACC 2007, and Multi-conference on Systems and Control in 2007, Singapore.

3. TC on Computer Aided Control System Design (Chair Didier Henrion) organized a number of invited sessions in various occasions such as IEEE CACSD 2006, MTNS 2006, etc. They are also supporting various software developments as well as the Multi-conference on Systems and Control in 2008 in US.

4. TC on Control Education (Chair Bozenna Pasik-Duncan) has organized two panel discussion sessions in ACC 2006 and in IFAC Automatic Control Education, and organized a workshop for high school students and teachers. Another workshop will be held in CDC 2006 in San Diego. An article is being prepared for the Control Systems Magazine. Several activities are being planned for ACC 2007.

5. TC on Control of Energy Processing and Power Systems (Chair Sandip Roy) is planning a short workshop on network control issues in electric power systems, to be held at Washington State University in Spring 2007.

6. TC on Discrete Event Systems (Chair Ryan Leduc) is focusing its main activities on their website, and is also collaborating with organizers of the 9th International Workshop on Discrete Event Systems (WODES08 at Chalmers university, Gothenburg Sweden).

7. TC on Distributed Parameter Systems (Chair Michael A. Demetriou) has organized several invited sessions in 2006, e.g., 5 sessions in MTNS 2006, and has already organized 3 sessions in ACC 2007, and 2 in European Control Conference 2007. Several other invited sessions are being planned in other conferences.

8. TC on Industrial Process Control (Chair Richard D. Braatz) are in collaboration with various international conferences in organization, such as CPC 2006, ADCHEM 2006, etc.

9. TC on Intelligent Control (Chair Shuzhi Sam Ge) has organized ISIC 2006, and is now devoting its full force to organize the first Multi-Conference on Systems and Control, 2007.

10. TC on Manufacturing Automation and Robotic Control (Chair Francesco Bullo) has co-organized the 3rd IFAC Workshop on Lagrangian and Hamiltonian Methods for Nonlinear Control (LHMNLC06), and also has organized a tutorial invited session in ACC 2007.

11. TC on Networks and Communications Systems (Chair Sandip Roy) has organized the International Workshop on Future Directions in Networked Sensing, and co-organized an one day workshop on control and communications to be held in April 07. Details are posted on http://www.concom.org/
12. TC on Nonlinear Systems and Control (Chair Andrew Teel) has organized two regional conferences: The 12th Southern California Nonlinear Control Workshop held at the University of California, Santa Barbara in June 2006, and the 13th Southern California Nonlinear Control Workshop held in November at the University of California, Riverside. The second Northeast nonlinear and hybrid control workshop was held at MIT in April 2006.

13. TC on Identification and Adaptive Control (Chair Brett Ninness) is forming its funding committee, web page, and the CSS co-sponsored 14th IFAC Symposium on System Identification, in conjunction with this committee, is successfully concluded.

14. The new TC on Behavioral Systems Theory (Chair Paolo Rapisarda) has organized four invited sessions in MTNS 2006 in Japan, and core members gave mini-courses and other invited talks.

A meeting of TAB will be held at the CDC San Diego.

At the end of my two year tenure, I would like to thank all the TC chairs and liaisons with other societies, councils and committees for their contributions and hard work to the technical activities of the CSS. I wish my best to Professor Jay Farrell in his service as the new VPTA.

Yutaka Yamamoto
VP Technical Activities
Technical Committee on Aerospace Controls

From: "Buffington, James M" chair.tcac@ieee.org, Chair  
Date: October 31, 2006  

SUMMARY  
We have continued focusing our 2006 efforts in the last 6 months on defining and performing activities that are beneficial to the Aerospace Controls community at large. Significant progress in TC Governance, Membership, Communications, Awards & Recognition, and Conferences has been made.

GOVERNANCE  
We have continued development of an approach for TC Governance and Sustainment in the form of a TC Operating Plan. The TC Operating Plan contains all of the TC Governance on Strategic Guidance, Subcommittees, Membership, Tempo, and Officer Policies. The TC Strategic Guidance is the overarching purpose in the form of Vision, Mission, and Objectives statements. We are currently in the process of the yearly update to the TC Objectives. We have officially defined four Subcommittees in the TC Operating Plan covering Membership, Communications, Awards & Recognition, and Conferences. In the TC Operating Plan, we have officially defined Membership Guidelines and an operating Tempo and have continued discussions on the development of Officer Policies.

MEMBERSHIP  
Our Membership Subcommittee has a new chairman and has implemented the Membership Guidelines. We are also pleased to announce that we have gained three new members getting total membership up to 23 members. Currently the membership consists of 3 IEEE Fellows and 11 IEEE Senior Members, and all TC members currently belong to at least one subcommittee. Over the next year, we plan to focus on increasing international representation.

COMMUNICATIONS  
Our Communications Subcommittee continues to maintain and update our website (http://www.csdy.umn.edu/ieeetcac) with current TC activities, recent accomplishments, and future plans. We have initiated discussions on the advantages and disadvantages of obtaining professional web development for our site. We are also pleased to announce the development of a draft plan and outline of an Aerospace Controls Strategic Directions Document. Although in its early planning stages, the intent of the document is to identify and document the current state and possible future directions of Aerospace Controls theory and practice. Discussions continue on the future possibilities of additional communications methods, such as a periodic newsletter and subscription-based distribution lists, to widen our connection within the Aerospace Controls community. We recently advertised our IEEE Fellow Nomination Aerospace Controls Endorsement service in the “eletter” on Systems, Control and Signal Processing.

AWARDS & RECOGNITION  
Our Awards & Recognition Subcommittee has made significant progress in the implementation of an IEEE Fellow Nomination Aerospace Controls Endorsement process. We have completed development of this process, integrated the process into our Tempo, and begun the first implementation with plans to endorse qualified Aerospace Controls candidates in March 2007. We have nominated an Aerospace Controls paper for the 2006 American Control Conference Best Paper award. We have also completed collection of CSS Award nomination information so that deserving Aerospace Controls candidates are considered for appropriate awards in the future.

CONFERENCES  
We have formed a new Conferences Subcommittee to emphasize the importance that the TCAC places on supporting technical conferences relevant to our disciplines. We have begun organizing an Invited Session on FDIR and Reconfigurable Control for Autonomous Aerial Vehicles for the 2007 American Control Conference (ACC). We have also begun planning our involvement in the 2008 Multi-conference on Systems and Control and 2008 ACC through the possible organization of innovative Strategic Panel invited sessions and continued development of relevant technical invited sessions.

LOGISTICS  
We have continued to have monthly telecons for the last six months, and we had a very successful yearly in-person meeting at the 2006 ACC on June 16. The scope and duration of the yearly in-person meeting at the ACC was increased which improved productivity of the meeting.
Technical Committee on Automotive Controls

From: I. Kolmanovsky, Chair, <ikolmano@ford.com>
Date: November 13, 2006

1. Background

The scope of interests of the Technical Committee on Automotive Control (TCAC) covers modeling, simulation, identification, estimation, control, optimization and diagnostics of present and future automotive systems. The Technical Committee has been in existence since 1999. It presently has close to 40 members, with many other researchers in the field benefiting from its activities.

Automotive technology is evolving at a rapid pace and the reliance of modern automotive systems and vehicle customers on electronics is growing to the point of becoming an important product differentiator. With the introduction of more powerful microprocessors and the evolution of vehicle communication networks, opportunities are increasing for applications of advanced control, estimation, prediction, and diagnostic algorithms, as well as emerging control system paradigms.

Benefiting from both academic and industrial participation, the committee coordinates activities aimed at improving understanding of challenges, problems and effective methods of controlling automotive systems. These activities benefit a global community of automotive control practitioners with sometimes significantly different considerations or focus.

The IEEE Technical Committee on Automotive Control regularly and synergistically collaborates with similar organizations of ASME and IFAC, specifically, with ASME Automotive and Transportation Systems Technical Committee and IFAC Technical Committee on Automotive Control.

The website of the Technical Committee on Automotive Control is hosted at http://ghost.engin.umich.edu/tcac/.

2. Organization

The committee presently has three Working Groups which propose, coordinate and organize the activities in their respective technical areas, while drawing on resources from the full Technical Committee:

- Powertrain Controls chaired by Julie Buckland from Ford Motor Company
- Driveline/Transmission Controls chaired by Sharon Liu from General Motors
- Vehicle/Chassis Controls chaired by Professor Rajesh Rajamani from the University of Minnesota

Kevin Fischbach of Ford Motor Company is the Newsletter Editor and Vince Winstead of Minnesota State University is the Website Editor. Professor Rajesh Rajamani of the University of Minnesota has been nominated as a new Chair of the Technical Committee on Automotive Control, starting in January 2007. Pending his approval by CSS Board of Governors, Dr. Ilya Kolmanovsky of Ford Motor Company will step down from the position of a Chair of the Technical Committee, successfully completing his term.

3. Recent Completed Activities (3Q-4Q of 2006)

3a. Invited Sessions on Automotive Control for 2006 IEEE Conference on Control Applications in Munich, Germany

(October, 2006)

Four invited sessions on automotive control were organized by the IEEE Technical Committee on Automotive Control. The session titles were:

- Advances in Vehicle Dynamics Control (FrB06)
- Automotive Control - Powertrain Control (WEB06)
- Automotive Control: Powertrain Modeling and Calibration (ThC05)
- Automotive Control: Next Generation Power Source (ThB05)

All four sessions were accepted by the Conference Program Committee. The session organizers were Urs Christen of Ford Forchungszentrum Aachen, Kevin Fischbach of Visteon Corporation, Lino Guzzela of ETH, C. Robert Koch of University of Alberta, and Akira Ohata of Toyota Motor Corporation.

Four sessions were well attended by the conference attendees. They featured presentations from industry and academia on a wide spectrum of topics important to automotive control, as well as good Q&As.

3b. IEEE Technical Committee Meeting at 2006 IEEE Conference on Decision and Control in San Diego, California

A meeting of the Technical Committee will take place at the 2006 IEEE Conference on Decision and Control in San Diego, California on December 14, 2006 (Thursday) between 12:30 and 2 p.m. at the conference hotel ("Manchester Grand Hyatt San Diego") in the Room "Ford C".
4. On-going Activities

4a. Special Issue on Control Applications in Automotive Engineering for IEEE Transactions on Control Systems Technology

The IEEE Technical Committee on Automotive Control (TCAC) is in the process of completing the Special Issue on Control Applications in Automotive Engineering for the IEEE Transactions on Control Systems Technology. About 50 articles were submitted for possible publication in the Special Issue on many aspects of engine, powertrain and vehicular control.

The first round of reviews and selection of papers for the Special Issue has been completed. The revised papers have been received and are being re-evaluated by the Guest Associate Editors and the reviewers. The Special Issue will appear in the May 2007 issue of IEEE Transactions on Control Systems Technology.


4b. Invited Sessions on Automotive Control for 2007 American Control Conference

The IEEE Technical Committee on Automotive Control (TCAC) organized and submitted four invited sessions on automotive control for 2007 American Control Conference in New York. As in the previous years, this has been a nice collaborative effort with ASME DSCD's Automotive and Transportation Systems Technical Committee.

Kevin Fischbach of Visteon Corporation, Ibrahim Haskara of General Motors, Ardalan Vahidi of Clemson University and Eric Westervelt of the Ohio State University were the invited session organizers. The titles of submitted sessions are listed below:

- Automotive Vehicle Dynamics and Control
- Modeling and Control of Advanced Automotive Propulsion Systems
- Modeling and Control of Internal Combustion Engines
- X-By-Wire Automotive Applications

4c. Invited Sessions on Automotive Control for 2007 IEEE Multi-Conference on Decision and Control in Singapore (October, 2007)

The IEEE Technical Committee on Automotive Control (TCAC) has proposed and announced an effort to organize invited sessions for 2007 Multi-Conference on Systems and Control in Singapore, targeting at least 2 sessions. The organizers are Sharon Liu from General Motors, Thielong Shen of Sophia University and Ilya Kolmanovsky of Ford Motor Company.

Initial response from potential contributors to the invited sessions has not been very strong. This is believed to be in part due to the submission deadline for MSC being very close to the submission deadline for 2007 IFAC Symposium on Advanced in Automotive Control in California which would draw on the same pool of potential contributors. The decision to proceed will be made at the end of November, 2006 based on the apparent interest.

Technical Committee on Behavioral Systems and Control

From: Paolo Rapisarda, Chair, <pr3@ecs.soton.ac.uk>
Date: October 27, 2006

Members of the Committee:
Margreta Kuijper
Paula Rocha-Malonek
Maria Elena Valcher
Eva Zerz
Shiva Shankar
Kiyotsugu Takaba
Harry L. Trentelman
Jan C. Willems
Paolo Rapisarda

The Technical Committee of the IEEE CSS on Behavioral System and Control Theory has been officially approved during the meeting of the Board of Governors of the IEEE CSS of June 13, 2006. This is the first report on its activities, for the second semester of 2006, prepared by the TC Chairman Paolo Rapisarda, working under the supervision of the Core Members of the TC.
Activities in 2006
The following activities initiated by the Core Members of the TC have been taking place in 2006:

Web page
The Web page of the Technical Committee has been prepared, see
http://www.ecs.soton.ac.uk/_pr3/IEEETC.html

Invited sessions at international conferences
Four invited sessions have been organized at the MTNS 2006 conference in Kyoto, Japan:
1. Multidimensional Systems: Algebraic and Behavioral Approaches (Zerz)
2. Functional and algebraic methods in behavioral systems and control theory (Rapisarda)
3. Control, estimation, and identification in a behavioral setting (Rapisarda)
4. Behavioral systems theory (Rapisarda)

Conferences, minicourses, workshops, invited lectures, visits
• Paolo Rapisarda and Jan C. Willems held the mini-course “Recent developments in behavioral systems theory” at the MTNS 2006 conference in Kyoto, Japan.
• Shiva Shankar gave an invited lecture, entitled “Control Theory and Algebraic Geometry”, at the Ramanujam Mathematical Society’s
• Paolo Rapisarda has given talks at the Department of Applied Mathematics and Physics of the University of Kyoto, Japan; and at the Department of Mathematics of the University of Groningen, The Netherlands, both entitled “Vector-exponential time series modeling for J-spectral factorization”.
• H.L. Trentelman has given an invited lecture, entitled ’Model reduction by retention of stationary trajectories’, at the Department of
Applied Mathematics and Physics, University of Kyoto, Japan, on November 7, 2006.
• From August 2005 to February 2006 Margreta Kuijper visited the Department of Applied Mathematics of the University of Twente,
collaborating with Jan Willem Polderman. On 26 January 2006 she gave a seminar entitled “Kernel representations for behaviors over
finite rings”.
• Jan C. Willems has organized, with Malcolm Smith and Bruce Francis, the conference Control of Uncertain Systems:
Modelling, Approximation, and Design, on the occasion of the sixtieth birthday of Keith Glover, Cambridge, UK, April 21 and
22, 2006.
• Jan C. Willems has given invited lectures in Southampton, Cambridge, and Toulouse. The latter two were entitled “Distributed
dissipative systems”. He has given a plenary opening talk at a Conference for Young Researchers at Zielona Gora, Poland,
titled “The behavioral approach to systems and control”. He has also talked at meetings in Melbourne, and in Leuven.

Edited books, special issues of journals
• Jan C. Willems has edited with Bruce Francis the book Control of Uncertain Systems: Modelling, Approximation, and Design,
Festschrift on the occasion of the sixtieth birthday of Keith Glover, Springer Lecture Notes in Control and Information Sciences,
2006.

Books
• I. Markovsky, J.C. Willems, S. Van Huffel, and B.L.M. De Moor, Exact and Approximate Modeling of Linear Systems: A

Book chapters
• J.C. Aleixo, J.W. Polderman and P. Rocha. “A contribution to the study of periodic systems in the behavioral approach”, to appear in
a ISTE/Hermes book of selected papers of the CTS/HYCON Joint Workshop on Nonlinear and Hybrid Control, Paris, France,
10-12 July 2006.
• J. C. Willems, “Thoughts on system identification Control of Uncertain Systems: Modelling, Approximation, and Design”
(Edited by B.A. Francis and J.C. Willems), in Festschrift on the occasion of the sixtieth birthday of Keith Glover, Springer Lecture Notes in
Journal publications

Publications in conference proceedings
• I. Markovsky, J.C. Willems, and B.L.M. De Moor, “Recursive computation of the most powerful unfalsified model”, Proc. 14th IFAC Symposium of System Identification (SYSID 2006), Newcastle, Australia, 2006.

Activities planned for 2007
• Harry L. Trentelman is organizing two invited sessions at the European Control Conference of 2007.
• Paula Rocha (together with Eric Rogers and Krzysztof Galkowski) is organizing the 5th Workshop on Multidimensional Systems NDS 2007, that will take place in Aveiro, Portugal in June 2007.

Technical Committee on Biosystems & Control

From: Chair, M. Khammash (UCSB)
Date: November 28, 2006

Over the past 6 months, the Technical Committee on Biosystems and Control has undertaken two main activities.

1. **Joint special issue on Systems Biology in the IEEE-TAC and IEEE-CAS**
   Our special simultaneous issue on Systems Biology to appear in the IEEE Transactions on Automatic Control and the IEEE Transactions on Circuits and Systems has been approved. The deadline for submission is December 31, 2006. The special issue will appear in both journals in January, 2008. We have contacted a list of reviewers and we are actively publicizing this special issue. The special issue co-editors are:
   • Mustafa Khammash
   • Claire Tomlin
   • M. Vidyasagar

2. **Two invited sessions on Systems Biology at the 2006 CDC**

   Two sessions on Systems Biology at the 2006 CDC have been approved. The sessions were organized by Mustafa Khammash and Claire Tomlin. The sessions and the invited papers appear below.

   1. **Systems Biology: A Control Perspective - Session I**
      **Organizers:** M. Khammash (UCSB) and C. Tomlin (Stanford)
08:00-08:20, Paper WeA01.1
The 4M (Mixed Memory Markov Model) Algorithm for Finding Genes from Prokaryote Genomes (I)
Vidyasagar, Mathukumalli Tata Consultancy Services

08:20-08:40, Paper WeA01.2
On the Structural Monotonicity of Chemical Reaction Networks (I)
Angeli, David Univ. of Firenze
De Leenheer, Patrick Univ. of Florida
Sontag, Eduardo D. Rutgers Univ.

08:40-09:00, Paper WeA01.3
Automatic Parameter Identification Via the Adjoint Method, with Application to Understanding Planar Cell Polarity (I)
Raffard, Robin Stanford Univ.
Amonlirdviman, Keith Stanford Univ.
Axelrod, Jeffrey D. Stanford Univ. School of Medicine
Tomlin, Claire J. Stanford Univ.

09:00-09:20, Paper WeA01.4
Finite State Abstraction of a Stochastic Model of the Lactose Regulation System of Escherichia Coli (I)
Julius, Agung Univ. of Pennsylvania
Halasz, Adam Miklos Univ. of Pennsylvania
Kumar, Vijay Univ. of Pennsylvania
Pappas, George J. Univ. of Pennsylvania

09:20-09:40, Paper WeA01.5
A Reduced Model Solution for the Chemical Master Equation Arising in Stochastic Analyses of Biological Networks. (I)
Munsky, Brian UC-Santa Barbara
Khammash, Mustafa H. Univ. of California at Sta. Barbara

09:40-10:00, Paper WeA01.6
On the Modelling of a Bistable Genetic Switch
Santoso, Lucia Australian National Univ.
Lanzon, Alexander Australian National Univ.

2. Systems Biology: A Control Perspective - Session II
Organizers: M. Khammash (UCSB) and C. Tomlin (Stanford)

08:00-08:20, Paper ThA01.1
Structure and Timescale Analysis in Genetic Regulatory Networks (I)
Chaves, Madalena Univ. of Stuttgart
Sontag, Eduardo D. Rutgers Univ.
Albert, Reka Pennsylvania State Univ.

08:20-08:40, Paper ThA01.2
Signal Detection and Approximate Adaptation Implies an Approximate Internal Model (I)
Andrews, Burton W. The Johns Hopkins Univ.
Iglesias, Pablo A. Johns Hopkins Univ.
Sontag, Eduardo D. Rutgers Univ.

08:40-09:00, Paper ThA01.3
Set Membership (In)Validation of Nonlinear Positive Models for Biological Systems (I)
Falugi, Paola Univ. di Firenze
Giarre, Laura Univ. Palermo

09:00-09:20, Paper ThA01.4
On the Response of Neurons to Sinusoidal Current Stimuli: Phase Respose Curves and Phase-Locking (I)
From: Didier Henrion <henrion@laas.fr>, Chair
Date: November 11, 2006

Here is a summary of the activities of the TC during the second semester of 2006.

Meetings
We organized two meetings of the TC: - a first one in July in Toulouse during the IFAC Symposium on Robust Control Design (ROCOND) jointly with the IFAC Technical Committee on Control Design (chaired by Patrizio Colaneri) and the IFAC Technical Committee on Robust Control (chaired by Carsten Scherer) - a second one in October in Munich during the joint IEEE Conference on Control Applications (CCA), Symposium on Computer-Aided Control System Design (CACSD) and International Symposium on Intelligent Control (ISIC).

Software developments
The control team in Thessaloniki, Greece (including Antonis Vardulakis and Nikos Karampetakis from the AG group on symbolic methods) has recently signed a contract with Wolfram Research and the Greek Government for the production of an add-on package for Descriptor Systems for the package Control System Professional of Mathematica. A graphical user interface for the Polynomial Toolbox for Matlab (produced by PolyX, Ltd) has been created in Matlab by Dimitris Varsamis and Nikos Karampetakis. The Release 5.0 of the SLICOT Library for control theory computations, posted on the Web sites www.slicot.org and www.slicot.de, has been updated by Vasile Sima (AG on numerics). Ivan Markovsky (AG on numerical methods in the behavioral setting) informed us that a new version of the Behavioral Toolbox has been released: http://www.math.rug.nl/~trentelman/jacob/BTB/download.html by Ricardo Zavala Yoe, Harry Trentelman, and Kees Praagman.

Conference activities
Oscar Gonzalez, the General Chair of the IEEE CSS MSC (Multiconference on Systems and Control) which will take place in 2008 in the United States, is seeking a CACSD Programme Chair and a CACSD Invited Session Chair to organize CACSD-related tracks during the conference. Nominations will be approved during the BoG meeting of the CDC 2006. Giuseppe Calafiore and Fabrizio Dabbene (AG on probabilistic and randomized methods in control) are involved in the preparation of a Matlab Randomized Algorithms Control Toolbox. The Toolbox is being developed by A. Tremba, P. Shcherbakov, E. Grazyna, B.T. Polyakov (Russian Academy of Science-RAS) and F. Dabbene, G. Calafiore, R. Tempo (National Research Counsil of Italy-CNR) under a cooperation project between RAS and CNR. A first release is expected for summer 2007.
Symposium on Mathematical Theory of Networks and Systems in Kyoto, Japan, July 2006. The minicourse "Recent developments in behavioral system theory" was given by Paolo Rapisarda and Jan C. Willems at this conference. An International Workshop on Total Least Squares and Errors-in-Variables Modeling was organized by Sabine Van Huffel and Ivan Markovsky. It took place in Leuven, Belgium in August 2006 and brought together 54 participants from 15 different countries working in diverse scientific disciplines: numerical analysis, statistics, optimization, signal processing, systems and control, computer algebra, and computer vision. Papers presented during the workshop as well as contributed papers will appear in special issues of Computational Statistics & Data Analysis and Signal Processing. 


**Journals, books**


Ivan Markovsky is a guest editor, together with Sabine Van Huffel, Richard J. Vaccaro, and Torsten Soderstrom, for a special issue of Signal Processing on "Total Least Squares and Errors-in-Variables Modeling". This special issue collects selected papers presented at the International Workshop 2006 on Total Least Squares and Errors-in-Variables Modeling as well as contributed papers.

**Focus**

A new AG on "Probabilistic and Randomized Methods in Control" was started in 2005 by Fabrizio Dabbene and Giuseppe Calafiore. A webpage collecting information and news about randomized algorithms and stochastic optimization methods for the analysis and control of dynamic systems, with special focus on the computational aspects, is now available. The webpage is hosted by Politecnico di Torino, Torino, Italy. The link is: http://staff.polito.it/fabrizio.dabbene/CACSD/. A full bibliography in BibTeX format is available for free download at the above link. The .bib file collects more than references relevant to the fields of Randomized Algorithms for Control, Stochastic Optimization, Statistical Learning and Robust Control.

**Technical Committee on Control Education**

*From:* Bozenna Pasik-Duncan, Chair, bozenna@math.ku.edu  
*Date:* November 22, 2006

**The Control Education Committee reports the following activities:**

1. “Math, Science and Technology in Control Education” – Evening Round Table Panel Session on Control Education, 6:00 – 8:00 pm, Thursday, June 15, 2006, Grand Ballroom Salon D, Minneapolis Hilton, ACC’06
Panelists: John Baillieul, William Levine, Lucy Pao, Claire Tomlin.
Chair and Moderator: Bozenna Pasik-Duncan

Summary: Over 50 people attended the session. The group represented many countries. The session addressed important education issues of balancing math, science and technology in engineering education. The session has been organized as a part of the ongoing national and international dialogue after some “alarming reports” have been issued. The panelists responded to the question “What scientists and educators should do about cultivating student interest in math, science and engineering, in particular control systems engineering?”. The session generated important exchange of current status of ed
The session was a follow up to the very popular session with over 100 participants at the CDC/ECC’05 in Seville, Spain.
Recommendations for the future: Continue this important dialogue at every major control conference in USA and around the world.

2. “Rethinking Control Education in the Modern World” – IFAC Automatic Control Education’06: Invited Panel Session, June 22, Madrid, Spain

Organised by the IFAC TC on Control Education, and the IEEE – CSS Technical Committee on Education, this Session was aimed at provoking discussion on numerous challenging questions that will influence the ways in which we will teach control topics in the future.

In an effort to make the discipline of control more attractive to students we often introduce this subject as an enabling technology in the context of embedded electronic systems, intelligent robots, mechatronic systems, advanced communication systems, space technology, etc. While this approach works well in promoting the field of control, it however raises numerous questions such as:

a) how much of the advanced computing technology do we need to use in presenting the basic control topics?
b) are we going to fall into the trap of being technology driven and thus, in the long term, start to lose analytical problem solving skills?
c) are we about to change the way we teach control?
d) are all of these approaches going to change the profile of the control discipline?

Do we need to worry about these changes or, maybe, even strongly support them?
Do we need to have a new kind of control textbooks to address new technologies?
More and more people want to access innovative course, on line preferably. Dom we need an on-line control course too?

The invited panelists: Pedro Albertos, Derek Atherton, Sebastian Dormido, Bjarne Foss, Alberto Leva, Bozenna Pasik-Duncan, Christian Schmid responded to the questions listed above.

Their responses generated an important exchange of current situations about the engineering education in different countries in particular countries of the European Union.

3. “Power, Beauty and Excitement of Automatic Control” , the Workshop for High School Students and Teachers, June 20, 2006, Madrid, Spain, IFAC ACE, 2006

Organized jointly with the IFAC Technical Committee on Control Education.

The purpose of the Workshop is to promote the importance of control systems, to show that control systems is a vibrant and intellectually stimulating field and with its interdisciplinary nature can take you everywhere.

Presenters: Pedro Albertos, Sebastian Dormido, Karl Astrom, Bozenna Pasik-Duncan and Ljubo Vlacic.

In preparation:

1. Workshop for 500 Middle and High School Students from the San Diego District will take place on December 13, 2006, at the CDC’06 in San Diego.

Speakers: Claire Tomlin, Mark W. Spong, Richard Murray, Katsuhisa Furuta, Theodore Djaferis, Raffaello D’Andrea, P. R. Kumar, Christos G. Cassandras
Over 1200 students and teachers applied to participate. The response from teachers has been the most enthusiastic and impressive. The Workshop is sponsored by the NSF but because of the surprising and unexpected cost of lunches and the equipment the committee is currently looking for additional support. The University of Kansas agreed generously to provide some support.

2. Developing a ppt presentation with information about relatively new and emerging directions of research and graduate student training in the controls field, in a broad sense. The goal is to motivate graduate students and young faculty members to work in controls-related fields, to show them how many new and exciting potential applications do exist, and the opportunities of collaborative research with other communities like medical, biological, semiconductor/nanotechnology, mathematics, industrial engineering, economics, and so on. The possibilities are endless! Yet, we hear many times that graduate students are losing interest in controls, departments are not hiring in controls, and so on. If we created such a presentation, we could deliver the talk in various departments - any CSS member could do it, with basically the same lecture - all over the world!

3. Preparing the article for the Special Issue on K-12 Education for the Control Systems Magazine.


5. Control Education Committee is planning several control activities at the ACC’07 in New York. Those include the panel session, students poster session, round table discussion with the New York middle and high school teachers.

6. The Committee will meet on December 14, 2006, at the CDC’06 in San Diego.

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**Technical Committee on Control of Energy Processing and Power Systems**

**From:** Sandip Roy, Chair  
**Date:** November 20, 2006

I became chair of the Committee on Control of Energy Processing and Power Systems at the American Control Conference in June 2006. Since June, the committee has been planning a short workshop on network control issues in electric power systems, to be held at Washington State University in Spring 2007. The motivation for the workshop is the wide interest in network-level issues in power and energy systems at Washington State University as well as nearby University of Idaho. Both universities have a focus in power networks, with 5-8 faculty, about 20 graduate students, and more than 100 undergraduate students with an interest in this area. Several nearby companies, most notably the Schweitzer Engineering Laboratories (SEL), are also concerned with network issues in power systems. Our hope is that a workshop with this focus will foster collaboration among the universities and industries, and contribute to undergraduate/graduate education. Here are some specifics regarding the workshop:

- We are in the process of identifying speakers for the workshop. Dr. Bernard Lesieutre from the Lawrence Berkeley National Laboratory will participate (we will be able to provide funding for his visit from other sources). We expect to draw the remaining keynote speakers from the nearby universities and industries. We also are planning to give graduate students the opportunity to briefly present their research.
- Tentatively, the workshop will be held during the last week of April in 2007. We plan for the workshop to be held during a single afternoon and evening (most likely a Saturday), and to host dinner afterwards so that participants can interact. Space for the workshop is readily available at Washington State University.
- We hope that the IEEE CSS can defray expenses for student participants. A detailed proposal will be submitted during the next couple months.
- We will organize the event in collaboration with the IEEE student branch at Washington State University, and hopefully also the University of Idaho student branch and the Palouse Subsection of the IEEE.

Regarding other Technical Committee efforts, I have been remiss in updating the web page for the Technical Committee on Energy Processing and Power Systems. I expect to do so before the Conference on Decision and Control.
I am very grateful for Dr. Ian Hisken’s help in introducing me to the Technical Committee chair’s role.

Technical Committee on Discrete Event Systems

From: Ryan Leduc <leduc@mcmaster.ca>, chair
Date: October 10, 2006

1) Our primary activity has been maintaining the website, and gathering news for our electronic newsletter. Our newsletter goes out monthly and we currently have 203 subscribers.

2) We are currently assisting the organizers of the 9th International Workshop on Discrete Event Systems (WODES’08 at Chalmers university, Gothenburg Sweden) to get the conference cosponsored by CSS. We will also be offering assistance in the planning and execution of the conference.

4) I have taken on a Software engineering M.Eng student who will develop as their masters project an online community based registry for DES related publications. The idea is to create a central, easy to use database of all papers, reports, books, and thesis that are DES related. The registry will allow searches, and will store the bibliographical information necessary to cite the item, as well as information on acquiring a copy. Users can receive weekly e-mails announcing newly added items that fit their search criteria.

The student has now completed the requirements document specifying how the software will behave and is well into the design phase. She should soon be entering the implementation phase, with the expectation of having the website up and operation by early January.

As the design is research area agnostic (you modify a config file to set it for a particular area), it should be possible to reuse the code for other applications.

Technical Committee on Distributed Parameter Systems

From: Michael A. Demetriou mdemetri@WPI.EDU, Chair
Date: November 20, 2006

The main activities of this committee in the last six months were:

1. TC meeting:
A meeting of the TC on Distributed Parameter Systems took place at the 2006 American Control Conference, Minneapolis, MN, June 14-16, 2006.

2. Invited Sessions
--Three invited sessions were proposed for the 2007 American Control Conference (http://www.a2c2.org/conferences/acc2007/)
  a) Control of Distributed Process Systems
  b) Sensor Network Control, Communication, and Distributed Process Estimation I
  c) Sensor Network Control, Communication, and Distributed Process Estimation II
The first one was organized by Michael A. Demetriou and Antonios Armaou, and the last two by Michael A. Demetriou and Islam Hussein.

--Two invited sessions were proposed for European Control Conference (http://www.ecc07.ntua.gr)
  a) Distributed Parameter Systems I
  b) Distributed Parameter Systems II
The invited session chair and organizer for both invited sessions was Michael A. Demetriou

Plan for 2007 activities:
Organize invited sessions for CDC07 and Mediterranean Conference in Control and Automation (http://med07.rasip.fer.hr/)

1. Organize a special issue on current research trends on control of distributed parameter systems.
2. Invite additional members to join the TC on DPS
3. Help with the organization of the 2007 workshop on Control of Distributed Parameter Systems, to be held on July 23-27 at the University of Namur, Belgium.

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**Technical Committee on Industrial Process Control**

**From:** Alberto Bemporad bemporad@unisi.it, Chair  
**Date:** December 8, 2006

- The activities of HYSCOM are still strongly connected with the activities of the European Network of Excellence on Hybrid Systems HYCON “Hybrid Control: Taming Heterogeneity and Complexity of Networked Embedded Systems”, http://www.ist-hycon.org/. The most active European research groups in the field (more than 20 nodes) are actively involved in several research, dissemination, benchmarking activities of HYCON. Also US affiliates (UC Berkeley, University of Pennsylvania) and several industrial partners participate to the activities of the network. The Network still provides a strong support to the activities of the Technical Committee as well. In particular, the European Institute of Hybrid Systems (later renamed as European Embedded Control Institute) was established in Paris in 2006 as a Association Loi 1901. The purpose of the institute is to contribute to the development of scientific research in the area of embedded control systems, emphasizing research integration, training and technology transfer. Promoting multi-disciplinary research on hybrid systems, disseminating methods and tools for hybrid systems, promoting education in the field, and encouraging the transfer of the methodologies to industry are the main goals of the institute (http://www.eeci-institute.eu)

- An “International Curriculum Option of Doctoral Studies in Hybrid Control for Complex, Distributed and Heterogeneous Embedded Systems” (ICO) co-funded by the Italian Ministry of Education, University, and Research and the NoE, was started, under the coordination of the University of Pisa, Italy. ICO is a convention of international interuniversity cooperation between several European and US universities aiming creating a joint curriculum on hybrid systems. PhD candidates are monitored by the ICO board. A PhD Thesis award will be launched in 2007 (http://www.piaggio.ccii.unipi.it/ICO/ICO.htm).

- The Joint CTS-HYCON Workshop on Nonlinear and Hybrid Control was held at the Université Paris Sorbonne on July 10th-12th, 2006 (http://www.cts-hycon-workshop.org).

- The HYCON repository of hybrid systems tools was setup at the University of Dortmund, Germany. Currently the site hosts 11 different tools for analysis, simulation, and control of hybrid dynamical systems. The companion HYCON Demonstrator Site was also setup to provide external users an opportunity for testing tools via the web without licensing issues, mainly for dissemination in industry and in academia.

- The two major conferences on Hybrid Systems were organized in 2006 and saw the participation of several members of HYSCOM. The 9th Workshop on “Hybrid Systems: Computation and Control” was held at the University of California at Santa Barbara, on March 29-31, 2006, http://hscc06.csl.sri.com/. About 90 papers were submitted. The 2nd IFAC conference on the Analysis and Design of Hybrid Systems (ADHS'06), organized in collaboration with IFAC, was held in Alghero (Sardinia, Italy) on June 7-9, 2006.

- The 10th Conference on “Hybrid Systems: Computation and Control” (http://hscc07.dii.unisi.it) is currently organized by A. Bemporad (Univ. Siena), A. Bicchi (Univ. Pisa) and G. Buttazzo (SSSUP, Pisa) and will be held in Pisa, Italy, on April 3-5, 2007. More than 160 papers were submitted, only 44 accepted for oral presentation and 44 for poster presentation, a promise for a high quality event. Workshop proceedings will be published by Springer Verlag, Lecture Notes in Computer Science.

- The HYSCOM web site located at http://www.dii.unisi.it/~hybrid/ieee has maintained and the number of subscriptions has increased.
Technical Committee on Industrial Process Control

From: Richard D. Braatz, Chair, braatz@uiuc.edu
Date: October 7, 2006

The applications areas covered by the TC IPC include microelectronic, materials, pharmaceutical, chemical, and electrochemical processes. Most emerging control applications areas, such as molecular manufacturing, microchemical systems, and systems biology, are included in this TC. Most processes of interest are highly nonlinear and spatially distributed with significant model uncertainties and constraints on actuators, states, and outputs. The main role of this TC is in the organization and programming for meetings, in concert with other organizations such as IFAC.

Membership in the TC IPC is open to any member of the IEEE Control Systems Society, and CSS members interested in organizing sessions, symposia, and meetings are strongly encouraged to email your interest to braatz@uiuc.edu.

(1) Members of Steering Committee

Richard D. Braatz (Chair), Frank Allgöwer, B. Wayne Bequette, Francis J. Doyle III, Michael A. Henson, Morten Hovd, Mayuresh V. Kothare, Yahya Nazer, Babatunde A. Ogunnaike, Srinivas Palanki, Robert S. Parker, Michel Perrier, and Hector D. Puyosa.

(2) Main Organizational Activities

As the members of the TC IPC steering committee (SC) are very active, only the main activities are summarized here. The most important meetings in 2006+ organized or co-organized by members of the TC IPC are:

• **International Symposium on Chemical Process Control** (CPC, [http://www.cpc7.org/](http://www.cpc7.org/), Lake Louise, Alberta, Canada, January 8-13, 2006): Henson was Chair of the meeting with most SC members participating. The goal of the CPC, which is held every five years, is to evaluate progress in the process control field and to identify new intellectual challenges that may have a fundamental impact on future industrial practice.

• **International Symposium on Advanced Control of Chemical Processes** (ADCHEM, [http://www.enq.ufrgs.br/adchem2006/](http://www.enq.ufrgs.br/adchem2006/), Gramado, Brazil, April 2-5, 2006): Doyle was Chair of the International Program Committee whose members included nearly all members of the SC, with Braatz, Kothare, and Parker as Program Area Co-Chairs. The focus of ADCHEM, which is part of a three-year rotation of IFAC meetings that includes the IFAC World Congress and IFAC DYCOPS Symposia, is on advances in methods for the modeling and control for all types of chemical processes.

• **American Control Conference** (ACC, [http://www.a2c2.org/conferences/acc2006/](http://www.a2c2.org/conferences/acc2006/), Minneapolis, MN, June 14-16, 2006): Many members of the SC were involved with the review process. Braatz is the AIChE Director on the American Automatic Control Council.

• **Joint Process Systems Engineering/European Symposium on Computer Aided Process Engineering** (PSE-ESCAPE, [http://events.dechema.de/ESCAPE_16_PSE_2006.html](http://events.dechema.de/ESCAPE_16_PSE_2006.html), Garmisch-Partenkirchen, Germany, July 9-13, 2006): Braatz was on the International Program Committee. The purpose of this meeting is to bring together the international community of researchers and practitioners who are interested in computing-based methods in process engineering.

• **IEEE International Conference on Control Applications** ([http://www.elet.polimi.it/conferences/cca06/](http://www.elet.polimi.it/conferences/cca06/), Munich, Germany, October 4-6, 2006): Allgöwer and Ogunnaike were on the International Program Committee.

• **Control of Particulate Processes VII** ([http://www.engconfintl.org/6avbody.html](http://www.engconfintl.org/6avbody.html), Harrison Hot Springs, British Columbia, Canada, October 29-November 2, 2006): Braatz, Doyle, Perrier, and Ogunnaike were on the International Advisory Board. The goal of this meeting is to review state-of-the-art developments in particulate process measurement, control, and modeling.

• *IFAC Symposium on Dynamics and Control of Process Systems* (DYCOPS 2007, [http://www.dycops2007.org/](http://www.dycops2007.org/), Cancun, Mexico, June 6-8, 2007): Hovd and Ogunnaike are on the International Program Committee. The focus of this meeting is on advances in methods for control and modeling for all types of chemical processes

• *American Control Conference* (ACC, [http://www.a2c2.org/conferences/ace2007/](http://www.a2c2.org/conferences/ace2007/), New York, July 11-13, 2007): Many members of SC will be involved with the review process. Braatz is the Vice Chair for Invited Sessions and the AIChE Director on the American Automatic Control Council. Allgöwer, Braatz, and Henson are on the Program Committee.

Many members of the IPC (Allgöwer, Braatz, Doyle, Henson, Parker, Perrier) are members of IFAC TCs including the Modelling and Control of Biomedical Systems TC, the Biosystems and Bioprocesses TC, and the Non-Linear Control Systems TC which Allgöwer chairs, and the Chemical Process Control TC which Doyle chairs.

(3) TC IPC Web Page

The TC IPC website is a resource for engineers interested in the area of Industrial Process Control, and includes information on symposia and conferences in the area of Industrial Process Control; educational material including course syllabi, class notes, textbook lists, and software; and links to the websites of organizations and journals in the Industrial Process Control area (go to the TC IPC web link at the IEEE CSS website, [http://www.ieeecss.org/TAB/Technical/industrial](http://www.ieeecss.org/TAB/Technical/industrial)). All TC IPC meetings are announced at least 1 month in advance in the “Newsletter” section of the TC IPC web page (these meetings are typically associated with the ACC or CDC meetings). The next meeting of the TC IPC will be during lunch on Thursday, December 14, 2006. We will meet at noon in the lobby of the Manchester Grand Hyatt Hotel in San Diego.

(4) IEEE/IFAC Editorial Activities

Doyle is Editor-in-Chief of *IEEE Transactions on Control Systems Technology*, whose associate editors include Palanki. Doyle has served as the Reviews Editor for the IFAC-affiliated *Journal of Process Control* for several years, whose Associate Editors include Allgöwer, Braatz, Henson, and Perrier. Allgöwer is the Editor for Process and Computer Control of *Automatica*, where Braatz, Henson, and Kothare serve as Associate Editors. Kothare is an associate editor of *IEEE Transactions on Automatic Control* and *Automatica*.

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**IEEE Technical Committee on Intelligent Control**

*From:* Shuzhi Sam Ge, Technical Committee Chair (elegesz@nus.edu.sg)

*Date:* November 1, 2006

The IEEE CSS Technical Committee on Intelligent Control (TCIC) held a meeting at the CCA/ISIC/CACSD at Munich, Germany, October 4 – 6, 2006, in our strong support to the success of the conference with Andras Varga as the General Chair, and Derong Liu as the Program Chair of ISIC.

With ISIC 2006 finishing, the Committee is now in full force for the inaugural IEEE Multi-Conference on Systems and Control, 2007, under which IEEE ISIC 2007 is officially part of it, together with IEEE Conference on Control Applications (CCA) 2007 as another part. Indeed, to make the inaugural conference a grand opening, all the committee members are mobilized to serve and contribute at different capacities.

For the 2008 IEEE MSC, the TCIC has nominated its member, Kevin L. Moore as Program Chair for ISIC 2008 to work with General Chair, Oscar R. Gonzalez, for the smooth operation of IEEE MSC in America. Kevin Moore is still yet to obtain the final approval from the BoG in due course.

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**IEEE Technical Committee on Manufacturing Automation & Robotic Control**

*From:* Francesco Bullo, Chair

*Date:* November 1, 2006

During the period July 1 - Dec 31, 2006, the MARC TC worked on or participated in the following technical activities relevant to the Committee's focus:

2. Co-Organization of 3rd IFAC Workshop on Lagrangian and Hamiltonian Methods for Nonlinear Control (LHMNLC’06), July 19-21, 2006, Nagoya, Japan,

3. Editor for Proceedings volume for 3rd IFAC Workshop on Lagrangian and Hamiltonian Methods for Nonlinear Control (LHMNLC’06), Springer.


IEEE Technical Committee on Networks and Communication Systems

From: Yannis Paschalidis, Chair, yannisp@bu.edu
Date: November 10, 2006

Report on Activities under the CSS TC on Networks and Communications Systems (TC-NCS)

Networks and Communications Systems have and continue to attract a lot of attention from researchers with a control systems background. There are more than 14 sessions in the upcoming CDC with emphasis on networks and communications. Emerging hot spots of activity include sensor networks, and game-theoretic models in communication networks.

In the area of sensor networks, an NSF funded International Workshop on Future Directions in Networked Sensing was organized by TC-NCS Working Group Chair Venkatesh Saligrama at Boston University (http://www.bu.edu/systems/industry/consortium/events.html).

The workshop was funded under Dr. Kishan Baheti's Power, Control and Adaptive Networks program and organized in collaboration with the Boston University (BU) Sensor Network Consortium (led by TC-NCS Chair Paschalidis) and the Department of Electrical and Computer Engineering. The workshop brought together researchers studying informational & mathematical aspects of networked sensing systems. The program was organized along four main themes: Networked Control, Inferencing, Learning and In-Network Processing, Distributed Compression, and Distributed Fusion. The presentations from the workshop can be found at http://iss.bu.edu/srv/NSF_Workshop_May_25-26__2006/nsf_workshop_may_25-26__2006.html.

TC-NCS Working Group Chair Sekhar Tatikonda is the co-organizer of an one day workshop on control and communications to be held in April 07 in conjunction with WiOpt. More information is available http://www.concom.org/.

IEEE Technical Committee on Nonlinear Control

From: Andy Teel teel@ece.ucsb.edu, Chair
Date: November 20, 2006

In 2006, the primary focus of the TC on Nonlinear Systems and Control was again regional workshops that emphasize the development of graduate student researchers and postdocs.

The TC provided nominal financial support for two regional workshops: The 12th Southern California Nonlinear Control Workshop held at the University of California, Santa Barbara in June 2006, (see http://www.ece.ucsb.edu/~hespanha/socal/) and the 13th Southern California Nonlinear Control Workshop held in November at the University of California, Riverside (see http://www.ee.ucr.edu/~pfu/SCNCW/program.htm). Each workshop was one day long and was attended by 50-75 graduate students from UCSB, UCLA, UCSD, Caltech, USC and UC-Riverside. Faculty from these institutions
served as organizers for the workshop and were in attendance to encourage the students and suggest future research directions. Each workshop consisted of approximately thirteen thirty minute talks, each presented by a graduate student or postdoc from the participating institutions. These workshops have been tremendously successful at promoting the development of budding graduate and post-doctoral researchers working in the nonlinear control field in Southern California. These workshops serve as a model for similar workshops we are encouraging throughout the US.

A follow up to the successful inaugural Northeast nonlinear and hybrid control workshop, which was sponsored by this technical committee and held at RPI in April 2005, was held at MIT in April 2006. The program for that workshop can be found at http://www.mit.edu/~parrilo/NECW/Program.html.

In addition, Professor Warren Dixon at the University of Florida has begun the planning for a new Southeastern nonlinear control workshop, to be held for the first time in 2007.

In addition to the workshops mentioned above, our members remain active in activities aimed at keeping the area of nonlinear systems and control visible and strong. For example, led by Zongli Lin, who oversees the area of control design with input saturation, and in cooperation with Dennis Bernstein, the editor-in-chief of CSS's Control Systems Magazine, four prominent researchers in the area have been teaming up to produce an extensive bibliography for the area of control design with saturation for publication in CSM. This is has been a daunting task because of the sheer number of papers that have been published in this area over the last ten years. Considerable thought and time is being dedicated to finding the best way to present this vast amount of information to the research community. We hope to this bibliography appear in CSM in early 2008.

Finally, the CSS TC on Nonlinear Systems and Control will hold its annual meeting at the upcoming CDC in San Diego. The meeting will be a joint meeting with the IFAC TC on Nonlinear Control.
Deputy Chair - Dan Rivera, Arizona State University, USA.

Committee Members:

- Ackcay, Huseyin Anadolu University, Turkey
- Babuska, Robert Delft University, Netherlands
- Bai, Er-Wei University of Iowa, USA
- Barros, Pericles Universidade Campina Granda, Brazil
- Bokor, Jozsef University of Budapest, Hungary
- Chen, Han Fu Chinese Academy of Sciences, PRC
- Chen, Tongwen University of Alberta, Canada
- Chiuso, Allessandro University of Padua, Italy
- Dasgupta, Soura University of Iowa, USA
- De Callafon, Raymond University of California, San Diego, USA
- De Cock, Katrien K.U. Leuven, Belgium
- Dumont, Guy University of British Columbia, Canada
- Garnier, Hugues University Henri Poincare, France
- Giarré, Laura Universita` di Palermo, Italy
- Heath, William University of Manchester, UK
- Krishnamurthy, Vikram University of British Columbia, Canada
- Lacy, Seth Air Force Research Laboratory, USAF, USA
- Larimore, Wallace Adaptics, USA
- Lovera, Marco Politecnico di Milano, Italy
- Novara, Carlo Politecnico di Torino, Italy
- Ohmori, Hiromitsu Keio University, Japan
- Paulla, Kameshwar University of California at Berkeley, USA
- Roll, Jacob Link’oping University, Sweden
- Savaresi, Sergio Politecnico di Milano, Italy
- Sch´on, Tomas Link’oping University, Sweden
- Schumann, Reimar University of Hannover, Germany
- Smith, Roy University of California, Santa Barbara, USA
- Weyer, Erik University of Melbourne, Australia
- Wills, Adrian University of Newcastle, Australia
- Veres, Sandor University of Birmingham, UK
- Zheng, Wei Xing University of Western Sydney, Australia
- Zhu, Yucai Eindhoven University, Netherlands

<table>
<thead>
<tr>
<th>IEEE Technical Committee on Structure and Sliding Mode Control</th>
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<tbody>
<tr>
<td>From: Vadim Utkin <a href="mailto:utkin@ece.osu.edu">utkin@ece.osu.edu</a> Chair</td>
</tr>
<tr>
<td>Date: December 4, 2006</td>
</tr>
</tbody>
</table>

1. The committee was formed in January 2001. Members:

- Xinghuo Yu Australia
- Jian-Xin Xu Singapore
- H. Hashimoto Japan
- K. Furuta Japan
- A. Sabanovic Turkey
- 6. Liu Hsu Brazil
- G. Bartolini Italy
- S. Spurgeon UK
- 9. A. Zinober UK
- 10.U. Ozguner USA
- 11 E. Misawa USA
- 12 K.-K.D.Young Hong-Kong
- 13 L. Fridman Mexico
- 14 H. Sira-Ramirez Venezuela.

2. The 9th Int. Workshop on Variable Structure Systems (VSS’06) has been the last of a series of biannual meetings, started in 1990 at Sarajevo. It was held in Alghero (Italy) at the Hotel Calabona Conference Centre on June 5-7 2006. Co-Chairmen Prof. Elio Usau and Prof. Giorgio Bartolini.

VSS’06 was organized by the Department of Electrical and Electronic Engineering of the University of Cagliari, with the support of the AEIT-Sardinia Chapter, and with the technical co-Sponsorship of IEEE Control System Society, IEEE Industrial Electronic Society, and IFAC-Technical Committee on Control Design.

The 65 regular papers inserted in the workshop proceedings were chosen by the International Program Committee among the 81 submissions, after a peer review process that involved more that 120 reviewers. The review process assessed the good quality of the submitted papers since 53 papers achieved a mean score greater than 5 (C+) in a scale from 1 to 7 (F to A), and no paper was accepted with an average score less that 4.33. 132 authors contributed to the accepted papers.

The regular papers and the plenary lecture inserted in the workshop proceedings are published by IEEE, and are available on the IEEE-Xplore electronic library.

VSS’06 was attended by 57 researchers coming form 23 Countries.

The main technical trend emerging from the workshop is the use of the sliding mode theory to the observation and estimation problem in case of systems with uncertainties, and some new interesting non conventional applications. The so-called higher order sliding modes seems to be a consolidated approach.
The problem of regularization of the sliding mode within the boundary layer, the use of the homogeneous function theory to analyze the properties of switched systems, and the sliding mode approach to observation and estimation can be considered the main theoretical contributions. Furthermore some interesting results about the application of the sliding mode theory to hybrid systems were presented.

The active and interesting discussion after the presentation of most papers, and during the interactive poster session, can be considered an index of the quality of the contributions, and, combined with the presence of several young researchers, it is promising for further developments in the field.

3. Three proposals for the place of the 10th Workshop VSS’08 were considered: Turkey, Ethiopia and China. The venue was selected after voting of our TC.

The results of the vote: the venue of 10th Workshop VSS’08 will be Antalya, Turkey.

4. Special Issues (under preparation)
   - Advances in High Order Sliding Mode Control
   - INTERNATIONAL JOURNAL OF ROBUST AND NONLINEAR CONTROL
   - Advances in Sliding Mode Observation and Estimation
   - INTERNATIONAL JOURNAL OF SYSTEMS SCIENCE

5. Book

6. CDC and ACC sessions
   CDC/ECC 2005
   3 SESSIONS
   SLIDING MODE CONTROL I,II,II
   ACC 2006
   5 Sessions
   Sliding Modes Observer I
   Sliding Modes Observer II
   Sliding Mode Control of Nonlinear Systems
   Higher Order Sliding Mode Control
   Sliding Mode Applications FrA10
   Sliding Mode Control I,II FrB10
   Sliding Mode Observers
   Sliding Mode Control II

IEEE-USA Committee on Communication in Information Policy

From: Weibo Gong, gong@ecs.umass.edu, Representative
Date: October 14, 2006
I have been in the email communications with the IEEE Committee on Critical Infrastructure Protection (CCIP), mainly as an observer for the control systems society. I have not noticed any major activities that are related closely to control society in the last year, and thus do not have significant events to report. The Committee’s web site is http://www.ieeeusa.org/volunteers/committees/CCIP/

IEEE Society on Social Implications of Technology

From: Andrew U. Meyer, Liaison Representative to IEEE Society on Social Implications of Technology
Date: October 31, 2006
Attached is my report as liaison representative to the IEEE Society on Social Implications of Technology (SSIT). As noted in the report, SSIT, encourages sister society relationships. As liaison representative, I shall be glad to convey any request concerning potential collaborative projects of mutual interest to the SSIT Governing Board.

Subject: **ITEMS OF POSSIBLE INTEREST**

**PRESENT SSIT PRESIDENT AND VICE PRESIDENT:**

President: Karl Perusich (Purdue University - perusich@sbcglobal.net)
Vice-President: Janet Rochester (Onancock, VA – j.rochester@ieee.org)

**INTERNATIONAL SYMPOSIUM ON TECHNOLOGY AND SOCIETY (ISTAS):** ISTAS is an annual conference of SSIT.

ISTAS 2006, with the theme “Disaster Preparedness and Recovery” was held on June 9-10, 2006 at Queens College, City University of New York, Flushing, NY (http://policy.rutgers.edu/andrews/projects/ssit/ISTAS_06-cfp.pdf).

ISTAS 2007, with the theme “Risk, Vulnerability, Uncertainty, Technology and Society”, co-sponsored with the Risk Assessment and Policy Association (RAPA), will be held on June 1-2 at the University of Nevada, Las Vegas (http://unlv.edu/faculty/dmh/ISTAS2007).

ISTAS 2008, with the tentative proposed theme “Citizens, Communities and Communications Technologies”, co-sponsored with the Canadian National Research Council, is in the planning stage, to be held on June 26-28, 2008 in Fredericton, New Brunswick, Canada. For details contact susan.odonnell@nrc-cnrc.gc.ca.

ISTAS 2009 is in the early discussion stage.

**OTHER SSIT CO-SPONSORED MEETINGS:**


IEEE International Symposium on Electronics and the Environment was held on May 8-11, 2006, co-sponsored with the IEEE Computer Society and others.

International Conference on Information and Communication Technologies and Development was held on May 25-26, 2006, co-sponsored with the School of Information Management and Systems at UC Berkeley (http://www.sims.berkeley.edu/ictd2006/).

e-Networks in an Increasingly Volatile World – The 11th International Workshop on Telework, was held on August 28-31 at the University of New Brunswick in Fredericton, Canada, co-sponsored with the International Telework Academy (ITA) and the IEEE Society on Systems, Man & Cybernetics. (http://www.unb.ca/conferences/enetworks/).

**SSIT ONLINE VIRTUAL COMMUNITY:** An online community for SSIT members has been established to provide threads on recent articles in IEEE Technology & Society Magazine, society governance issues, current topics of interest and announcements of upcoming events. Current discussion topics include digital identity, moral buffers and crime proofing of products. (http://www.ieeecommunities.org/ssit).

**ADMINISTRATIVE MATTERS:** SSIT membership has increased by 7.3% between August 2005 and August 2006. Nonetheless, the financial status of SSIT is affected by the new IEEE allocation formula. The SSIT dues for IEEE members are $24 ($12 for IEEE student members). The SSIT Governing Board continues to encourage pursuing sister society relationships. SSIT collaborates with other organizations on topics of mutual interest, such as the National Institute for Engineering Ethics (http://www.niee.org).


**CARL BARUS AWARD FOR OUTSTANDING SERVICE IN THE PUBLIC INTEREST:** The Carl Barus Award is presented on occasion to an engineer who has placed him/herself at considerable risk to follow the dictates of conscience in the pursuit of his/her profession. The last Barus Award was given to Dr. Kim Harvin for her work at the Salem Nuclear Power Plant in New Jersey in promoting the safety culture of the organization.

**SSIT WEBSITE:** [http://www.ieeessit.org/](http://www.ieeessit.org/)
Overview:

Our conference activities appear to be running well, and planning for future conferences is under way. Ted Djaferis has initiated a series of discussions on future directions in structures for improving our conference administrative activities. Of particular interest here is to reduce the ‘one off’ nature of some of our conference activities that continually need re-learning as new conference appointments are made each year. A focus group will be looking at several issues related to conference activities, with recommendations to be made in 2007.

CSS Sponsored Conferences

The current schedule of forthcoming CSS sponsored conferences is given below:

<table>
<thead>
<tr>
<th>Conference</th>
<th>Location</th>
<th>Dates</th>
<th>General Chair</th>
<th>Program Chair</th>
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<tbody>
<tr>
<td>ACC 2007</td>
<td>New York (Marriott)</td>
<td>July 11-13</td>
<td>Robert Judd</td>
<td>Linda Bushnell</td>
</tr>
<tr>
<td>MSC 2007</td>
<td>Singapore (Suntec City)</td>
<td>October 1-3</td>
<td>Sam Ge</td>
<td>Jagannathan Sarangapani Chun Yi Su</td>
</tr>
<tr>
<td>CDC 2007</td>
<td>New Orleans (Hilton)</td>
<td>December 12-14</td>
<td>David Castanon</td>
<td>James Spall</td>
</tr>
<tr>
<td>ACC 2008</td>
<td>Seattle (Westin)</td>
<td>June 11-13</td>
<td>Anu Annaswamy</td>
<td>Tariq Samad</td>
</tr>
<tr>
<td>MSC 2008</td>
<td>TBA</td>
<td>TBA</td>
<td>Oscar Gonzalez</td>
<td>Gary Balas (proposed)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Kevin Moore (proposed)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Marco Lovera (proposed)</td>
</tr>
<tr>
<td>CDC 2008</td>
<td>Cancun (Fiesta Americana)</td>
<td>December 9-11</td>
<td>Chaouki Abdallah</td>
<td>Thomas Parisini</td>
</tr>
<tr>
<td>ACC 2009</td>
<td>St Louis (Adams Mark)</td>
<td>June 10-12</td>
<td>Karlene Hoo</td>
<td>TBA</td>
</tr>
<tr>
<td>MSC 2009</td>
<td>St Petersburg (proposed)</td>
<td>TBA</td>
<td>Alexander Fradkov</td>
<td>TBA</td>
</tr>
<tr>
<td>CDC 2009</td>
<td>China (proposed)</td>
<td>TBA</td>
<td>Lei Guo, John Bailleul Daizhan Cheng, Mark Spong</td>
<td></td>
</tr>
<tr>
<td>ACC 2010</td>
<td>TBA</td>
<td>TBA</td>
<td>Linda Bushnell</td>
<td>Richard Bratz (proposed)</td>
</tr>
<tr>
<td>MSC 2010</td>
<td>TBA</td>
<td>TBA</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>CDC 2010</td>
<td>USA</td>
<td>TBA</td>
<td>Mark Spong (proposed)</td>
<td>TBA</td>
</tr>
</tbody>
</table>
CSS Technically Cosponsored Conferences

Technical Co-sponsorship has been approved by the executive committee for the following conferences in 2006, 2007:

<table>
<thead>
<tr>
<th>Conference</th>
<th>Location</th>
<th>Dates</th>
<th>General Chair</th>
<th>Program Chair</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMAR 2006</td>
<td>Miedzyzdroje, Poland</td>
<td>Aug. 28-31, 2006</td>
<td>Krzysztof Kozlowski</td>
<td>Tadeusz Kaczorek</td>
</tr>
<tr>
<td>POSTA06</td>
<td>Grenoble, France</td>
<td>Aug. 30 - Sept. 1 2006</td>
<td>Christian Commault</td>
<td>-</td>
</tr>
<tr>
<td>ANIPLA 2006</td>
<td>Rome, Italy</td>
<td>Nov. 13-15 2006</td>
<td>Luca Ferrarini</td>
<td>Luca Ferrarini</td>
</tr>
<tr>
<td>ICARCV 2006</td>
<td>Singapore</td>
<td>Dec 5-9 2006</td>
<td>Lihua Xie</td>
<td>Chien Chern Cheah</td>
</tr>
<tr>
<td>10th Conference on Hybrid Systems Computation &amp; Control</td>
<td>Pisa., Italy</td>
<td>April 3-5. 2007</td>
<td>Antonio Bicchi</td>
<td>Alberto Bemporad Antonio Bicchi Giorgio Buttazzo</td>
</tr>
<tr>
<td>2nd IEEE Conf. on Industrial Electronics &amp; Applications</td>
<td>Harbin, China</td>
<td>May 23-25 2007</td>
<td>Cai, Wenjian</td>
<td>Wen, Changyun</td>
</tr>
<tr>
<td>ICRA 2007</td>
<td>Guangzhou, China</td>
<td>May 30 – Jun 1, 2007</td>
<td>Jianliang Wang and Jie Huang</td>
<td>Gang Feng, Bugong Xu, Min-Sen Chiu</td>
</tr>
<tr>
<td>Robot Motion Control 2007</td>
<td>Bukowy Dworek, Poland</td>
<td>June 11-13, 2007</td>
<td>K. Kozlowski</td>
<td></td>
</tr>
<tr>
<td>MED 2007</td>
<td>Athens, Greece</td>
<td>Jun 27-29 2007</td>
<td>Kimon Valavanis &amp; Panos Antsaklis</td>
<td>Zdenko Kovacic</td>
</tr>
<tr>
<td>26th Chinese Control Conference</td>
<td>Zhangjiajie, China</td>
<td>July 26-31, 2007</td>
<td>H. F. Chen</td>
<td>D. Z. Cheng, W. H. Gui,</td>
</tr>
<tr>
<td>MMAR 07</td>
<td>Szczecin, Poland</td>
<td>August 27-30, 2007</td>
<td>Zbigniew Emirsajlow</td>
<td>Tadeusz Kaczorek Krzysztof Kozlowski</td>
</tr>
<tr>
<td>WiOPT 07</td>
<td>Limassol, Cyprus</td>
<td>April 16-20, 2007</td>
<td>Leandros Tassiulas</td>
<td>Leonidas Georgiadis Gunnar Karlsson</td>
</tr>
</tbody>
</table>

Further information on individual conferences is attached in the relevant reports.
Innovations:

You may have notice that we have tried several innovations in planning this conference. Starting with pre-conference workshops, we decided to lower the registration fees for the workshops to make it more affordable for our attendees, further, all workshops were offered in a single day so that workshop attendees need only extend their stay by one extra day instead of two in the past.

Taking a cue from the success of semi-plenary lectures from 2005 Joint CDC ECC, we decided to continue with the format and hope that the extra choice of plenary lecture topics will be of benefit to the attendees. Additionally, all plenary lectures, including the Bode Lecture will be offered after the lunch break rather than very early in the morning. To increase interaction between presenters and ‘presentees’, we decided to have a significant portion of presentations in interactive format. Note that there was absolutely no difference in the review process and technical quality of papers accepted for presentation in interactive or oral formats. Further, it was decided that there will not be any oral presentations during the time when interactive presentations were slated.

To make the CDC more inclusive rather than exclusive for our student participants, we negotiated a room block at a significantly reduced rate so that students do not have to walk several blocks to attend the conference. Further, for the first time at a CDC, all student registrations will also include the conference banquet. It is our hope that these changes and innovations will further enhance the CDC experience.

Program Committee

The 45th IEEE Conference on Decision and Control builds on the well established credentials of this highly successful conference series, with last years conference being held jointly with the European Control Conference in Seville. We followed several of the ideas in the formation and role of the program committee.

In chairing the program committee, we have had excellent support from the conference editorial board (chaired by Thomas Parisini) in obtaining reviews and recommendations on all papers. Iven Mareels, as Vice-Chair for invited sessions, worked tirelessly in coordinating reviews and recommendations for invited sessions. Other members of the organising committee played important roles in interactive papers, tutorial sessions, workshops, and invited interactive sessions.

The program committee played an important role in three areas: the review process for invited papers; additional comments and recommendations for submitted papers where there was uncertainty in the CEB recommendations; and, program formation.

All regular and invited paper submissions followed a peer review process seeking detailed comments and recommendations of the submitted papers from international experts. Overall, a total of 4,838 reviews were obtained for the 1,920 regular and invited paper submissions, representing an average of 2.52 reviews per paper. Of these, 1,081 papers were accepted for presentation at the conference giving an acceptance rate of 56%.

The conference continues to have a very strong international presence, as indicated in the pie chart showing the authorships (by IEEE region) of papers in the conference.

To all who have helped in organising the conference, we are deeply indebted, and offer sincere thanks and appreciation.

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1 A separate process was followed for invited interactive and tutorial papers.
The planning for ACC07 is proceeding well. It will be held at Marriott Marquis which is located on Times Square in New York City. The conference had a very large number of submissions, approximately 1750. The plenary topics will be:

* "Stochastic Control in the Context of Mathematical Finance: problems, results and challenges,” Ioannis Karatzas, Department of Mathematics, Columbia University.
* "Feedback and Stability in the Air Transportation System,” R. John Hansman, Director, MIT International Center for Air Transportation, Massachusetts Institute of Technology.
* "Consummating the Union between Communications and Control,” Andrea Goldsmith, Dept. of Electrical Engineering, Stanford University.
* "Control Issues and Research Activities in Building Automation and Control Systems,” Steven T. Bushby, Leader, Mechanical Systems and Controls Group, National Institute of Standards and Technology.

In addition to traditional control topics, the 2007 ACC encouraged submissions in three special areas. Sessions concerning these areas will be held according the following schedule:

* Wednesday, July 11, Control Methods in Finance;
* Thursday, July 12, Control in Transportation Systems; and
* Friday, July 13, Control and Integration in Intelligent Building Systems.

The Program Committee will meet in December to determine the details of the final technical program.

The operating committee of the 2007 inaugural IEEE Multiconference on Systems and Control held a brief meeting at CCA/ISIC/CACSD, Munich, October 2006. As of today, and an immediate follow up of the Munich meeting, the following items are in order:

1. The deadline for submission has been fixed as 20 December 2006 in order to give participants of CCA/ISIC/CACSD 2006 enough time to prepare for IEEE MSC 2007, and do the last round of publicity at CDC 2006.
2. PaperPlaza is open for submission with the efficient and strong support of Thomas Parisini.
3. The second call for paper of IEEE MSC 2007 has been e-mailed out based on the database we have.
4. An OpCOm meeting is scheduled at CDC 2006 for the smooth running of the conference.
5. The deposit to the conference venue has been paid.
6. The Conference account has been approved and opened, but the balance of loan is still yet to receive,

1) The contract has been signed with the hotel: Fiesta Americana Coral Beach. The contract was reviewed by IEEE. A copy of the contract is enclosed. Since then, I have asked permission to move the conference up by 1 day (Tuesday Dec 9 to Thursday Dec 11), and have since been granted by the ExCom. I have informed the hotel and there does not seem to be any major concerns. The hotel requested $10,000 deposit which I put up while awaiting the conference budget request (Edwin & I will
finalize this) to CSS. I am also going back and forth with the convention center to finalize the 5 or so meeting rooms needed for committee meetings for the 3 days of the conference.

2) Thomas Parisini is the program chair and he has been busy assembling his lieutenants:
   a) Vice-Program Chair for Invited Papers will be Marios Polycarpou
   b) Vice-Program Chair for Tutorial Papers will be Franco Blanchini

3) Edwin Chong has agreed to be the Finance chair.

4) I will be finalizing the committee assignments within the next 3 months in consultation with Thomas and Edwin. I have two more people committed: Yorai Wardi (workshops) and Magnus Egerstadt (publicity).

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2008 Multiconference on Systems and Control

From: Oscar R. González, General Chair (gonzalez@ece.odu.edu)
Date: November 2, 2006

The 2008 Multiconference on Systems and Control is being actively organized.

1. In 2008, the MSC will consist of tracks corresponding to the Conference on Control Applications (CCA), International Symposium on Intelligent Control (ISIC), and the International Symposium on Computer-Aided Control Systems Design (CACSD).
2. The nominees for the program chairs are: PC CCA: Gary Balas, PC ISIC: Kevin Moore, and PC CACSD: Marco Lovera. Their brief bios are attached. Kevin was nominated by the TC on Intelligent Control and Marco has been endorsed by the TC on Computer Aided Control System Design.
3. With the help of Rick Middleton, an invitation was sent to all the chairs of the IEEE CSS Technical Committees.
4. Due to this invitation, the Technical Committee on Aerospace Controls has plans to be more actively involved. TC members have expressed interests to plan and submit invited sessions. They also plan to have an Invited Panel Session on Aerospace Controls at which prominent leaders in aerospace discuss current issues and future trends from various perspectives, and this option will take more time as well as resources to implement. My point of contact is Prof. Zhihua Qu.
5. To encourage the active involvement of IEEE CSS Technical Committees an official position such as Vice Chair for Invited Sessions on Aerospace Controls will be offered. If the TC's decide on a creation of an event within the MSC umbrella then a Program Chair position, subject to BOG approval, will be considered.
6. The main goal for the remainder of the year is to settle on two possible hotels for the conference and submit them to BOG for approval.
7. The remaining positions of the Operating Committee will be finalized early in the Spring 2007. A Call for Papers will be ready for distribution by the American Control Conference in New York.

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2009 Multiconference on Systems and Control

From: Alexander Fradkov General Chair (fradkov@mail.ru, alf@control.ipme.ru) General Chair
Date: November 28, 2006

The 2009 Multiconference on Systems and Control is being actively organized.

1. In 2008, the MSC will consist of tracks corresponding to the Conference on Control Applications (CCA) and International Symposium on Intelligent Control (ISIC). Possibilities of adding one more conference are under investigation. One possible option is to organize the track corresponding to the conference “Control of Oscillations and Chaos” or “Physics and Control” (both titles took place in St.Petersburg, Russia in the previous years and were technically supported by IEEE CSS).
2. The General Chair, with the help of Rick Middleton, is looking for Program Chair/Vice-Chair, Publication Chair, Publicity Chair nominees for each Conference. There is a team of organizers having an experience of organizing IEEE co-sponsored conferences in St.Petersburg and most people confirmed their wish to contribute in organization of MSC2009.
3. The conference dates are still to be determined. The Organizers propose them to be in the beginning of July. June-July is the best tourist season for St.Petersburg. However, in July it would be easy to solve problems with the hotels and conference venue.
4. Unfortunately, there is no suitable single hotel with sufficient number of conference rooms in St.Petersburg. We need to reserve rooms in several hotels, conveniently located w.t.r. conference venue.
5. A reasonable proposal for conference venue is the beautiful Anichkov Palace which belonged to the Royal Family during several generations. It has two Concert Halls for 800 and 250 persons and 6-8 good conference rooms for 40-60 persons. Some pictures of the Anichkov Palace can be found on the web: http://album.physcon.ru/anichkov/

6. It looks reasonable to have Conference accounts in St.Petersburg, either with the hosting institution (Institute for Problem of Mechanical Engineering of Russian academy of sciences, or with some travel agency that will be helping us in organization. Current financial and accounting regulations in Russia make no formal problems to send money to and from Russia.

7. Further search and negotiation with the hotel and Palace owners can be carried out as soon as the conference dates are finalized.
Conference highlights: The 2006 IEEE CCA/CACSD/ISIC was held on the campus of the Technical University of Munich, in the immediate vicinity of major cultural sites of the Bavarian capital. The highlights of the conference were the three plenary talks of Jan Maciejowski (CACSD), Brian Anderson (CCA) and Thomas Parisini (ISIC), the three sponsored keynote talks of Pascal Gahinet (Mathworks), Raymond Freymann (BMW Group), and Christian Phillipe (ESA), and the conference banquet organized as a “little Oktoberfest”.

Program issues (Martin Buss, CCA; Christian Schmid, CACSD; Derong Liu, ISIC): We had three independent program committees to review all the submitted papers using the PaperPlaza system. A number of 755 contributions have been received: 489 for CCA, 130 for CACSD and 136 for ISIC. From the 582 contributed papers and 173 invited papers, 594 submissions have been accepted. The accepted papers represented 78% of the total number of submissions and guaranteed a good overall technical quality of conference. From the received 30 invited session proposals 27 have been accepted (9 for CACSD, 6 for ISIC, 12 for CCA). Note that for CACSD, the number of invited papers was higher than the number of contributed ones. After several withdrawals, 575 papers have been included in the final program (97%) and the final versions of 560 papers have been received (94%) and included in the conference proceedings.

The conference technical program for invited and regular sessions was structured in 11 parallel tracks (2 for CACSD with 108 papers, 2 for ISIC with 108 papers, 7 for CCA with 378 papers) on three days Oct. 4-6, 2006. Each conference day started with an 1 hour plenary lecture and ended with a 50 minutes keynote lecture. The three sponsored keynote speakers representing The Mathworks, the BMW Group and the ESA, complemented, with many application related information, the more visionary talks of the plenary speakers.

The total number of no-show papers was 64, which represents 11% of the total papers included in the program. If we exclude the 15 papers included in the program for which no final versions has been submitted (i.e., no registration was paid), then the no-show rate drops to about 8%. The three countries with the largest numbers of no show papers were France (15), Iran (15), and China (14). Although we expected potential no-shows for authors from Iran and China due to potential visa problems and higher costs of participating to the conference (e.g., accommodation and travel), this fact was not used as a criterium to accept/reject papers submitted from these countries. However, the large number of no-shows from France is not usual for a conference in Europe (both Germany and France are members of the Schengen Agreement) and has hardly traceable reasons.

Finance (Ferdinand Svaricek): Before the registration started, the conference has been registered for VAT (16%) in Germany. An intermediary budget has been setup to validate the proposed conference fees. Due to the high number of accepted submissions it was possible to keep the same fees (with 16% VAT included) as proposed in the preliminary budget. To operate the conference, the registration fees have been collected in a separate US Registration Account (RA) opened by Pradeep Misra exclusively for this purpose. The collected fees have been periodically transferred to the 2006 CCA/CACSD/ISIC Concentration Banking Account (CBA) opened by IEEE in US. A local account (LA) has been also opened in Germany at Deutsche Bank for local payments. Furthermore, we participated in the new credit card program recently launched by IEEE. We used the CBA for check payments in USD (e.g., for the production of CDs, periodic tax payments, money transfer to LA) and for some credit card payments (e.g., VIP accommodation). Difficulties to open the LA due to delays in getting some documents from IEEE Central have been already mentioned in a previous report. They have been finally mastered with the strong support and perseverance of the acting CSS President John Baillieul.

The conference is expected to be a financial success with over 20% of surplus. We expect that the promised surplus of about USD 34,000 will be at least doubled. Besides the good registration figures, additional revenues have been generated by selling Xplore CDs to IEEE as well as from overlength page fees, exhibitors fees, workshop shares, and two grants for supporting the Best Student Paper Awards. Interestingly, the expected total revenue in the intermediary budget has been matched within 2% by the achieved total revenue.

Registration (Sandra Hirche): The conference registration was done via PaperPlaza. The registration site has been activated by April 24, 2006 for Advance Registration. The deadline for final submissions has been extended from May 19, 2006 to May 31,
2006 to allow more time for the evaluation of travel support applications. We have applied the pre-registration rule for authors of accepted papers, that is, at least one of the co-authors of each accepted paper must complete a full registration before the final submission of the paper. The On-site/late Registration started by August 1, 2006 and closed by October 4, 2006.

The final registration data are presented in the following table.

<table>
<thead>
<tr>
<th>Registration category</th>
<th>Advance</th>
<th>On-site/late</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member</td>
<td>219</td>
<td>15</td>
<td>234</td>
</tr>
<tr>
<td>Non-member</td>
<td>205</td>
<td>15</td>
<td>220</td>
</tr>
<tr>
<td>Reduced (students, retirees life members)</td>
<td>51</td>
<td>26</td>
<td>77</td>
</tr>
<tr>
<td>CIC VIP</td>
<td>3</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>CSS VIP</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TSP regular</td>
<td>19</td>
<td>0</td>
<td>19</td>
</tr>
<tr>
<td>TSP student</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Exhibitor</td>
<td>0</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Volunteers</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>500</strong></td>
<td><strong>75</strong></td>
<td><strong>575</strong></td>
</tr>
</tbody>
</table>

Additional information on all aspects of registration are available in the comprehensible report of the Registration Chair.

**Publication** (Didier Henrion): The CDs with the Conference Proceedings have been produced by Omnipress, together with three Xplore compliant CDs (one for each conference) requested by the IEEE publication department. To avoid substantial freight costs, the Final Program and Book of Abstracts (FPBA) has been printed in Germany. It was decided to include in the FPBA the conference program only once together with abstracts. The indexing feature has been manually enhanced by adding section codes to all presentations. To keep the amount of printed materials at a reasonable level, it was decided to include the pdf-file for the FPBA on the CDs.

**Publicity** (Lovera, CCA/CACSD; Chun-Yi Su, ISIC): The publicity activities focused on three main aspects: (1) distributing the Call for Papers at several main events (e.g., IFAC 2005, CDC/ECC 2005), (2) advertising in the Control System Magazine and E-Letter, and (3) providing up-to-date information on the conference homepage to authors and conference organizers. The large number of submissions confirmed a successful conference publicity. Note that no uninvited mass emails have been sent to attract potential authors.

**Best Student Paper Awards** (Lalit K. Mestha): The Best Student Paper Award (BSPA) has been granted for CCA (2 first prizes jointly funded by the IEEE Control Systems Society and The Mathworks) and for ISIC (funded by the Automation and Robotics Institute of the University of Texas at Arlington). Due to lack of nominations of high quality papers, the BSPA for CACSD has been not granted this year. The presentation of the BSPA took place at the Conference Banquet on Thursday, October 5. The three winners were: Alexander Kharitonov and Sikandar Samar for CCA, and Atalla Sayda for ISIC. The following finalists received certificates: Wilfred Kwok, Thomas Conord, Vivek Yadav for CCA, and Nishant Unnikrishnan, Alma Alanis for ISIC.

**Exhibits** (Johann Reger): Seven exhibitors in the field of control related software tools, control education equipments, as well as a publishing house participated in the conference exhibition: ExpertControl (Quanser), Bausch-Gall (Dymola), The Mathworks, dSPACE, Hasomed, Scilab, National Instruments, Springer Verlag. The conference exhibition was held in the Audimax foyer, located in the central conference area, nearby to the registration desk, plenary lecture room and coffee breaks space. It was a major attraction for the attendees during the whole conference period.

**Workshops** (Vasile Sima) Three pre-conference workshops have been organized on October 3, 2006. The relatively small number of registered workshop participants (6 for W1, 6 for W2, and 7 for W3) can be probably explained by the fact that October 3 was the German national holiday, thus the number of local participants was quite low.

**Social and local arrangements** (Simon Hecker): Two receptions (welcome and farewell) have been organized in the Audimax foyer of the Technical University of Munich. Due to a reduced number of participants in the Welcome Reception on October 3, we were able to offer a free lunch in the first conference day to all participants. The conference banquet dinner, attended by over
500 participants, has been organized in the famous Bavarian brewery “Löwenbräukeller”. The banquet has been organized as a “little Oktoberfest” and offered live experiencing of the Bavarian traditions (cuisine, beer, music, dance, games). A free city tour has been organized on October 5 for accompanying persons and conference participants.

In all 11 session rooms we used rented equipment (laptops and beamers). To ensure room permanence and to administer the laptops, 18 students have been assigned by rotation. Practically no private laptops have been used by the participants, which ensured smooth transitions between the speakers.

**Travel support:** The applications for CSS travel support for students and participants from developing nations have been handled via PaperPlaza. From a total of 38 received applications 22 have been supported in the form of conference registration fees: 19 full and 3 student registrations amounting to a donation of almost $10000 from CSS.

**Final comments and thanks:** The conference preparations and organization have been performed according to a rigorous time line previously agreed upon with all committee chairs. All scheduled activities, excepting one, were on time, according to the agreed deadlines. The only real difficulty we faced was in opening a local bank account in Germany on the name of IEEE. The delay has been mainly caused by the lack of cooperation of IEEE Central in providing ALL the necessary documents to open the local bank account. We warmly thank John Baillieu, CSS President, and Ted Djaferis, CSS President Elect, for their constant help in mediating the delicate discussions with IEEE Central and exerting a supplementary pressure.

This finally allowed to get the required documents to open an account for local payments. Unfortunately, due to the large delay, we were not able to use this local account also for registration purposes (as initially intended).

We had a very positive experience using PaperPlaza for paper submission and evaluation, as well as for registration purposes. I am expressing my special thanks to Thomas Parisini and Pradeep Misra for their high responsiveness in handling our various requests related to using PaperPlaza.

Finally, I am using this opportunity to thank all members of the Conference Organizing Committee for their high commitment and for the strong team performance, which finally resulted in a well organized event, with several unique features. I am very proud being able to say that the final results exceeded by far all my original expectations.
### Conference Editorial Board (CEB)

**From:** Thomas Parisini, Chair  
**Date:** October 16, 2006

**Activity over the last reporting period:**

- Regarding CDC’06, a meeting has been held in Boston in May 2006 with the participation of the General Chair (P. Misra) and the Program Chair (R. Middleton). The purpose of the meeting was to organize the meeting of the Program Committee by drafting the structure of the program, identifying in advance the possible critical issues, etc. The advance program has been put together during the Program Committee meeting held during ACC’06 in Minneapolis and has been finalized by email communications between the CEB office and the Program Chair. The preparation of the program went smoothly. The CDC’06 final program preparation has been handled by Prof. Pradeep Misra with the cooperation of the CDC’06 conference publications committee and the CEB office when needed.

- Regarding ACC’07, 1732 submissions have been received. The CEB office checked the submissions for consistency and assigned the papers to the Society Review Chairs and the appropriate Vice-Program Chairs. As for ACC’06, PaperPlaza’s flexibility has enabled the eight member societies of the AACC to start handling their individual review processes in a common editorial environment. The Program Committee meeting is scheduled to be held in December 2006 during CDC’06. Following the positive previous experience, it is planned to have a program preparation meeting with the General Chair and the Program Chair in New York on November 26-27, 2006.

- The CEB office has been involved also in the submission-to-notification process of the Joint 2006 IEEE CCA/CACSD/ISIC Conference.

**Issues over the last reporting period:** There is nothing significant to report. Any PaperPlaza-related problems have been minor and quickly resolved by the PaperPlaza development team.

### Conference Publications Board

**From:** Douglas Lawrence, Chair  
**Date:** December 7, 2006

**Publication Agreement**

Pradeep Misra has negotiated an agreement with Omnipress for production of the CD-ROM proceedings and final program/book of abstracts for the American Control Conference, the Conference on Decision and Control, and the Multi-Conference on Systems and Control through 2008. The quoted price (excluding shipping costs) ranges between $5.5k - $8k for ACC and CDC and between $3.1k - $4.3k for MSC, based on quantity and page count.

**CCA/CACSD/ISIC ‘06**

Publication Chair Didier Henrion reports that publication-related matters went smoothly over the entire conference preparation period. Omnipress was selected to produce 450 copies of the CD-ROM proceedings and a local printer in Germany was hired to print the book of abstracts. During May 2006, conference organizers assisted authors with problems experienced during the final submission process, which includes paper formatting compliance, copyright transfer, and registration fee payment. In June 2006, PDF files were manually checked and authors were contacted as necessary to correct problems. In mid-August 2006, the first CD-ROM master was produced by Omnipress, but had a file name incompatibility problem on Unix and Mac platforms which was corrected on the second attempt by the end of the month. In September 2006, 700 copies of the CD-ROM (250 more than originally expected) were delivered to the General Chair.

**CDC’06**

Publication Chair Lacra Pavel reports that the final choice for the publisher of the CD-ROM proceedings and final program/book of abstracts was Omnipress, with thousands of dollars saved after a third round of bidding. Further negotiations on some extra features like color pictures was handled by Pradeep Misra, greatly improving the look of the final program. PaperPlaza greatly facilitated the final papers’ editing, compliance checking, and re-upload request for non-compliant papers, and overall a smooth experience was reported. Close interaction and invaluable help was received from Pradeep Misra (General Chair) and Rick Middleton (Program Chair) on the compilation of the Final Program/Book of Abstracts.

### Conference Publications Committee

The committee is scheduled to meet at CDC’06 on Wednesday, December 13, 2006.
As usual, the Publication Activities report consists mainly of reports provided by the editors-in-chief of the CSS publications, the *IEEE Transactions on Automatic Control* (TAC), the *IEEE Transactions on Control Systems Technology* (TCST), and *IEEE Control Systems Magazine* (CSM). A status report on the CSS e-letter is also included in this issue.

There was one additional notable CSS publication activity over the reporting period: a new, redesigned Website for the Society has now been developed (and we anticipate that it will have gone live before the BoG meeting). I briefly discuss the new Website below and also provide a brief update on the CSS publications review that was held in June.

Comments from BoG on our publication activities are welcome. They should now be directed to Yutaka Yamamoto who will be replacing me as the Vice President for Publication Activities beginning January 2007.

**CSM Website redesign**

The IEEE-CSS Website ([www.ieeecss.org](http://www.ieeecss.org)) was launched several years ago, largely through the efforts of the current chair of the CSS Electronic Information Committee, Pradeep Misra. Since then, the site has grown considerably as have the requirements for online access on the part of our membership and others, to the point that the demands for enhancement and maintenance of the site have been straining the capabilities of our volunteer organization.

To alleviate this problem, the CSS Executive Committee decided to initiate a professional redesign of the CSS Website. We have been working with Option Matrix InfoTech Pvt. Ltd. to design and implement the new site. The first implementation stage is now complete and we expect to have the site online by the time of the BoG meeting. In addition to numerous features and content updates, the new site has substantially improved usability and navigation. We will be continuing to work with Option Matrix for future enhancements and maintenance of the site.

Regardless of its usability and usefulness, keeping information current is also a challenge. The new site includes a “back-end” for this purpose. With brief training, this back-end can be used by authorized volunteers to directly modify the site’s content. Our intention is to allow vice presidents authorization for modifications related to their responsibility (the back-end permits limited authorizations).

To further facilitate improving our Web presence, we have hired a part-time assistant to help with including and modifying content on ieeecss.org and to serve as a liaison with Option Matrix for site updates.

A screen capture (of the e-letter page, under Publications) of the new website is shown below.
CSS publications review
A review of CSS Publications was held on 22 June as part of the 5-year CSS review by the IEEE Technical Activities Board. The publication review covered editorial policies and procedures, quality and diversity metrics, and competitive analyses (among other aspects). We had prepared a detailed report on our publications in advance of this review; this report is available at http://www.ee.washington.edu/people/faculty/bushnell/css/bog_info.htm.

The report was discussed during the 22 June meeting and a marked-up copy delivered to us subsequently. The comments consisted almost entirely of requests for clarification and additional information on issues such as submission and review policies, industry and international representation on editorial boards, tenures and term limits, publication metrics (submission volumes, review cycles, acceptance rates), and mechanisms for obtaining feedback from readers. We have submitted a response to the committee with clarifications and additional information as requested.

Tariq Samad
Vice President, Publication Activities
The second TEB meeting for 2006 will be held on December 13 in San Diego. The TEB will consider papers submitted since its last meeting in December 2005, as well as other unresolved papers.

**Submission Volume**

The table below provides submission data over the past seven years. Note that submissions continue to **substantially increase over the past four years** and we broke a new record in 2005.

<table>
<thead>
<tr>
<th>Month</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>9</td>
<td>10</td>
<td>19</td>
<td>34</td>
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<td>16</td>
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<td>February</td>
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<td>28</td>
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<td>30</td>
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<tr>
<td>March</td>
<td>22</td>
<td>28</td>
<td>23</td>
<td>25</td>
<td>36</td>
<td>38</td>
<td>42</td>
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</tr>
<tr>
<td>April</td>
<td>21</td>
<td>19</td>
<td>16</td>
<td>24</td>
<td>32</td>
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<td>33</td>
<td>35</td>
</tr>
<tr>
<td>May</td>
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<td>29</td>
<td>19</td>
<td>16</td>
<td>22</td>
<td>42</td>
<td>20</td>
</tr>
<tr>
<td>June</td>
<td>27</td>
<td>21</td>
<td>25</td>
<td>21</td>
<td>25</td>
<td>53</td>
<td>62</td>
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<td>July</td>
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<td>14</td>
<td>24</td>
<td>14</td>
<td>57</td>
<td>37</td>
<td>43</td>
<td>39</td>
</tr>
<tr>
<td>August</td>
<td>12</td>
<td>31</td>
<td>19</td>
<td>28</td>
<td>33</td>
<td>28</td>
<td>30</td>
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<td>23</td>
<td>27</td>
<td>31</td>
<td>25</td>
<td>41</td>
<td>38</td>
</tr>
<tr>
<td>October</td>
<td>21</td>
<td>17</td>
<td>24</td>
<td>34</td>
<td>32</td>
<td>43</td>
<td>40</td>
<td>38</td>
</tr>
<tr>
<td>November</td>
<td>25</td>
<td>19</td>
<td>20</td>
<td>32</td>
<td>26</td>
<td>43</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>December</td>
<td>28</td>
<td>24</td>
<td>24</td>
<td>20</td>
<td>38</td>
<td>36</td>
<td>43</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>259</strong></td>
<td><strong>257</strong></td>
<td><strong>274</strong></td>
<td><strong>308</strong></td>
<td><strong>372</strong></td>
<td><strong>410</strong></td>
<td><strong>482</strong></td>
<td><strong>377</strong></td>
</tr>
</tbody>
</table>

*Through October 25, 2006

**Page Budget**

As the previous table shows, there has been a dramatic increase in submissions over the past few years. We have managed to sustain a low backlog with page budgets of **2000 pages** in 2001, **2200 pages** in 2002, **2400 pages** in 2003 and 2004, **2200 pages** in 2005 and **2000 pages** in 2006. The page budget will have to be increased once again for 2007 to **2400 pages**.

**Publication Statistics**

From 4/26/06 to 10/24/06, **50 papers** were accepted for publication.

**Acceptance and Rejection Statistics**

The following table provides data based on the interval from 4/26/06 through 10/24/06 in terms of the five categories describing how paper submissions we handle are classified:

1. **Conditional Accept**: Papers conditionally accepted (2P)
2. **Conditional Accept TNs**: Papers conditionally accepted as TNs (2N)
3. **Resubmit**: Papers not found publishable in their current form (3)
4. **Resubmit TNs**: Papers to be resubmitted only as TNs (3N)
5. **Reject**: Rejected papers (4, I4, or I4TN)
Conditional Accept | Conditional Accept TNs | Resubmit | Resubmit TNs | Reject
--- | --- | --- | --- | ---
45 | 19 | 37 | 34 | 99

Accept-Reject Statistics

The Reject category is further broken down into:

1. Reject following review (I4) – 36
2. Reject without review (I4, obviously inappropriate) – 20
3. Reject and suggest TN submission (I4TN) – 43

Reject Statistics

For comparison purposes, the corresponding statistics during the previous nine reporting periods were:
Conditional Accept 18% 19% 15% 14% 13% 18% 19% 16% 20%
Conditional Accept TNs 18% 13% 9% 12% 12% 7% 10% 6% 5%
Resubmit 20% 17% 17% 16% 17% 18% 17% 14% 21%
Resubmit TNs 17% 21% 16% 19% 21% 18% 20% 17% 15%
Reject 27% 30% 43% 39% 37% 39% 34% 47% 39%

• Backlog
The backlog was 7-8 months last June, but has now increased to about 10 months.

• Electronic Submission and Web-Based Reviewing System
Since March 1999, we have been accepting electronic submissions. Currently, virtually all papers are submitted this way. As of a year ago, a major upgrade in our web-based editorial system was carried out, adding several new editorial and reviewing functionalities.

• Special Issues
A special issue was published in June 2006:
“Symbolic Methods for Complex Control Systems” (Guest Editors: Magnus Egerstedt, Emilio Frazzoli and George Pappas).

A new special issue on Systems Biology has been approved (Guest Editors: Mustafa Khammash, M. Vidyasagar and Claire Tomlin). This will be a joint special issue with the IEEE Transactions on Circuits and Systems, Part-I.

• Reviewing Time
Starting with papers submitted in 1999, we are keeping track of the reviewing time (time between submission date and date where a publication decision is made). The average reviewing time for full papers has been consistently approximately 6 months. For papers submitted in the entire 2005 the reviewing time histogram is shown below. The average reviewing time remains at approximately 6 months.
Technical Notes and Correspondence

To: Christos G. Cassandras, Editor-in-Chief, Tariq Samad, Vice President for Publications, CSS BOG, TEB
From: Roberto Tempo, Editor, Technical Notes and Correspondence
Date: November 2, 2006
Subject: Semi-annual Report for IEEE-TAC Technical Notes

- Highlights

* The number of papers submitted in the last 12 months is 614 (compared to 637 papers in the previous 12 months).
* The rejection rate in terms of final decisions is 68% (compared to 61% in the recent past).
* The number of overdue papers is 71 (compared to 76 for the previous six months period).
* The corresponding author of 24% of the submitted papers is from China.

- Submission History in the Period 1998 - 2006

<table>
<thead>
<tr>
<th>Month of Submission</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
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<td>57</td>
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<td>42</td>
<td>39</td>
<td>50</td>
<td>54</td>
</tr>
<tr>
<td>February</td>
<td>43</td>
<td>47</td>
<td>54</td>
<td>46</td>
<td>29</td>
<td>40</td>
<td>50</td>
<td>40</td>
<td>35</td>
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<tr>
<td>March</td>
<td>60</td>
<td>53</td>
<td>49</td>
<td>52</td>
<td>37</td>
<td>63</td>
<td>64</td>
<td>68</td>
<td>66</td>
</tr>
<tr>
<td>April</td>
<td>48</td>
<td>47</td>
<td>39</td>
<td>44</td>
<td>60</td>
<td>63</td>
<td>66</td>
<td>61</td>
<td>61</td>
</tr>
<tr>
<td>May</td>
<td>36</td>
<td>38</td>
<td>43</td>
<td>43</td>
<td>38</td>
<td>38</td>
<td>57</td>
<td>48</td>
<td>65</td>
</tr>
<tr>
<td>June</td>
<td>44</td>
<td>48</td>
<td>45</td>
<td>39</td>
<td>48</td>
<td>55</td>
<td>60</td>
<td>48</td>
<td>55</td>
</tr>
<tr>
<td>July</td>
<td>34</td>
<td>24</td>
<td>51</td>
<td>46</td>
<td>46</td>
<td>57</td>
<td>46</td>
<td>66</td>
<td>45</td>
</tr>
<tr>
<td>August</td>
<td>29</td>
<td>44</td>
<td>53</td>
<td>31</td>
<td>29</td>
<td>52</td>
<td>49</td>
<td>50</td>
<td>49</td>
</tr>
<tr>
<td>September</td>
<td>49</td>
<td>53</td>
<td>30</td>
<td>35</td>
<td>44</td>
<td>51</td>
<td>66</td>
<td>46</td>
<td>28</td>
</tr>
<tr>
<td>October</td>
<td>44</td>
<td>51</td>
<td>45</td>
<td>46</td>
<td>52</td>
<td>56</td>
<td>61</td>
<td>60</td>
<td>58</td>
</tr>
<tr>
<td>November</td>
<td>35</td>
<td>40</td>
<td>55</td>
<td>50</td>
<td>53</td>
<td>37</td>
<td>58</td>
<td>59</td>
<td>*</td>
</tr>
<tr>
<td>December</td>
<td>37</td>
<td>30</td>
<td>25</td>
<td>37</td>
<td>53</td>
<td>55</td>
<td>42</td>
<td>39</td>
<td>*</td>
</tr>
<tr>
<td>Total</td>
<td>506</td>
<td>504</td>
<td>531</td>
<td>526</td>
<td>528</td>
<td>609</td>
<td>658</td>
<td>635</td>
<td>*</td>
</tr>
</tbody>
</table>

Table 1. History of Submission Volume *Not available at this time.

- Submission Distribution Among Categories

The next table gives, for the May, 2006 – October, 2006 period, the distribution of submissions according to category: new submissions, resubmissions of previous TNs that received a “3” rating, resubmissions of previous TPs that received a “3N” rating.

<table>
<thead>
<tr>
<th>Month of Submission</th>
<th>New</th>
<th>Resubmits of TNs</th>
<th>Resubmits of TPs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>May</td>
<td>44</td>
<td>21</td>
<td>0</td>
<td>65</td>
</tr>
<tr>
<td>June</td>
<td>43</td>
<td>11</td>
<td>1</td>
<td>55</td>
</tr>
<tr>
<td>July</td>
<td>34</td>
<td>11</td>
<td>0</td>
<td>45</td>
</tr>
<tr>
<td>August</td>
<td>38</td>
<td>11</td>
<td>0</td>
<td>49</td>
</tr>
<tr>
<td>September</td>
<td>23</td>
<td>4</td>
<td>1</td>
<td>28</td>
</tr>
<tr>
<td>October</td>
<td>46</td>
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<tr>
<td>Total</td>
<td>228</td>
<td>70</td>
<td>2</td>
<td>300</td>
</tr>
</tbody>
</table>

Table 2. Submission Volume by Category
**Decision Statistics**
Two tables are provided. Table 3 shows, for each month in the May, 2006 – October, 2006 period, the number of decisions for each type regarding original submissions (decisions on revised or resubmitted versions are not tallied here nor are 1N/2N/3N decisions on manuscripts originally submitted as regular papers).

<table>
<thead>
<tr>
<th>Month of Decision</th>
<th>Publish (1)</th>
<th>Revise (2)</th>
<th>Resubmit (3)</th>
<th>Reject (4)</th>
<th>Total</th>
</tr>
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<tr>
<td>May</td>
<td>1</td>
<td>6</td>
<td>32</td>
<td>37</td>
<td>76</td>
</tr>
<tr>
<td>June</td>
<td>0</td>
<td>2</td>
<td>11</td>
<td>21</td>
<td>34</td>
</tr>
<tr>
<td>July</td>
<td>0</td>
<td>2</td>
<td>8</td>
<td>23</td>
<td>33</td>
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<td>August</td>
<td>0</td>
<td>10</td>
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<tr>
<td>September</td>
<td>1</td>
<td>8</td>
<td>7</td>
<td>24</td>
<td>40</td>
</tr>
<tr>
<td>October</td>
<td>0</td>
<td>3</td>
<td>13</td>
<td>16</td>
<td>32</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2</strong></td>
<td><strong>31</strong></td>
<td><strong>81</strong></td>
<td><strong>136</strong></td>
<td><strong>250</strong></td>
</tr>
</tbody>
</table>

Table 3. First Decisions for New TN Submissions

In Table 4, the following numbers are reported for the same period: (1) the total number of “publish” decisions and the total number of “reject” decisions (be they on an original submission or on a revised version); and (2) the “rejection ratio”: number of “reject” over the sum of number of “publish” and number of “reject” (this seems a reasonable definition of the rejection ratio, since papers are eventually published or rejected). According to this definition, the rejection ratio for the period May, 2006 – October, 2006 period is about 68%.

<table>
<thead>
<tr>
<th>Month of Decision</th>
<th>Publish</th>
<th>Reject</th>
<th>Total</th>
<th>Rejection Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>May</td>
<td>17</td>
<td>44</td>
<td>61</td>
<td>72%</td>
</tr>
<tr>
<td>June</td>
<td>13</td>
<td>25</td>
<td>38</td>
<td>66%</td>
</tr>
<tr>
<td>July</td>
<td>8</td>
<td>34</td>
<td>42</td>
<td>81%</td>
</tr>
<tr>
<td>August</td>
<td>13</td>
<td>16</td>
<td>29</td>
<td>55%</td>
</tr>
<tr>
<td>September</td>
<td>12</td>
<td>26</td>
<td>38</td>
<td>68%</td>
</tr>
<tr>
<td>October</td>
<td>15</td>
<td>20</td>
<td>35</td>
<td>57%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>78</strong></td>
<td><strong>165</strong></td>
<td><strong>243</strong></td>
<td><strong>68%</strong></td>
</tr>
</tbody>
</table>

Table 4. Final Decisions and Rejection Ratio

- **Backlog**
Over the past two years, there has been almost no backlog for Technical Notes. All accepted Technical Notes for which the final material has been received are regularly shipped to IEEE Publications and go immediately into production to be included in the issue that comes out two months later.

- **Reviewing Time**
Table 5 below gives the “Reviewing Time” (time between submission date and date at which a decision is made) paper distribution for decisions made, on the original submission as TNs, during the May, 2006 – October, 2006 time period.

<table>
<thead>
<tr>
<th>Month of Decision</th>
<th>&lt;1</th>
<th>1 to 2</th>
<th>2 to 3</th>
<th>3 to 4</th>
<th>4 to 5</th>
<th>5 to 6</th>
<th>6 to 7</th>
<th>7 to 8</th>
<th>&gt;8</th>
<th>Total</th>
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<tr>
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<td>8</td>
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<td>10</td>
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<tr>
<td>July</td>
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<td>10</td>
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<td>4</td>
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<tr>
<td>August</td>
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<td>5</td>
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<td>4</td>
<td>3</td>
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<td>7</td>
<td>36</td>
</tr>
<tr>
<td>September</td>
<td>9</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>5</td>
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</tr>
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<td>2</td>
<td>5</td>
<td>1</td>
<td>8</td>
<td>32</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>35</strong></td>
<td><strong>20</strong></td>
<td><strong>26</strong></td>
<td><strong>43</strong></td>
<td><strong>28</strong></td>
<td><strong>25</strong></td>
<td><strong>20</strong></td>
<td><strong>14</strong></td>
<td><strong>37</strong></td>
<td><strong>248</strong></td>
</tr>
</tbody>
</table>

Table 5. Number of Months to Publication Decision
IEEE Transactions on Control Systems Technology

To: CSS Board of Governors
From: Frank Doyle, Editor-in-Chief
Date: October 30, 2006

Submissions
Data for the number of submissions is given below. The electronic submission process was implemented in July 2000 and has become the dominant mode of submission.

<table>
<thead>
<tr>
<th>Year</th>
<th># submitted</th>
<th>% electronic</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006*</td>
<td>501</td>
<td>100%</td>
</tr>
<tr>
<td>2005</td>
<td>398</td>
<td>100%</td>
</tr>
<tr>
<td>2004</td>
<td>360</td>
<td>99.5%</td>
</tr>
<tr>
<td>2003</td>
<td>332</td>
<td>90%</td>
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<td>2002</td>
<td>283</td>
<td>72%</td>
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<td>2001</td>
<td>275</td>
<td>56%</td>
</tr>
<tr>
<td>2000</td>
<td>233</td>
<td>18%</td>
</tr>
<tr>
<td>1999</td>
<td>196</td>
<td>n/a</td>
</tr>
</tbody>
</table>

* the number for 2006 is up to October 30, 2006.

Decision Statistics
Decision statistics are given below (updated as of October 30, 2006).

<table>
<thead>
<tr>
<th>Year</th>
<th>Dec. 1</th>
<th>Dec. 2</th>
<th>Dec. 3</th>
<th>Dec. 4</th>
<th>Dec. 5</th>
<th>Pending</th>
<th>Withdrawn</th>
<th>% accept</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006*</td>
<td>37</td>
<td>67</td>
<td>102</td>
<td>64</td>
<td>43</td>
<td>186</td>
<td>2</td>
<td>33%</td>
</tr>
<tr>
<td>2005</td>
<td>84</td>
<td>46</td>
<td>108</td>
<td>94</td>
<td>41</td>
<td>18</td>
<td>7</td>
<td>33%</td>
</tr>
<tr>
<td>2004</td>
<td>90</td>
<td>28</td>
<td>98</td>
<td>102</td>
<td>34</td>
<td>5</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>2003</td>
<td>85</td>
<td>10</td>
<td>106</td>
<td>79</td>
<td>23</td>
<td>0</td>
<td>5</td>
<td>29%</td>
</tr>
<tr>
<td>2002</td>
<td>95</td>
<td>12</td>
<td>76</td>
<td>64</td>
<td>21</td>
<td>0</td>
<td>1</td>
<td>38%</td>
</tr>
<tr>
<td>2001</td>
<td>89</td>
<td>1</td>
<td>96</td>
<td>51</td>
<td>25</td>
<td>0</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>2000</td>
<td>91</td>
<td>2</td>
<td>79</td>
<td>70</td>
<td>10</td>
<td>0</td>
<td>6</td>
<td>40%</td>
</tr>
<tr>
<td>1999</td>
<td>63</td>
<td>0</td>
<td>54</td>
<td>9</td>
<td>-</td>
<td>0</td>
<td>-</td>
<td>32%</td>
</tr>
</tbody>
</table>

Dec. 1 refers to accepted papers. Dec. 2 refers to conditionally accepted papers (ultimately, dec. 2 papers become either accepted or rejected papers). Dec. 3 refers to papers rejected with encouragement to resubmit (many of these papers are resubmitted and are eventually accepted). Dec. 4 refers to rejected papers. Dec. 5 refers to papers returned to the authors as unsuitable for the journal. The percentage of acceptance is defined as the number of papers accepted (dec. 1 and 2) over the total number of papers for which a decision has been reached (dec. 1 to 5).

Page Budget
The number of pages printed per year is given below. Note that the journal was published 4 times per year from 1993 to 1995, and 6 times per year since 1996.

|------|-------|------|------|------|------|------|------|------|------|------|------|------|

* the data for 2006 is the approved page budget.

Time to Publication
Data for the average time from submission to publication is given below. The number of weeks applies to papers that were published in the given year.

<table>
<thead>
<tr>
<th>Year</th>
<th># weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>75</td>
</tr>
<tr>
<td>2005</td>
<td>87</td>
</tr>
<tr>
<td>2004</td>
<td>96</td>
</tr>
<tr>
<td>2003</td>
<td>85</td>
</tr>
<tr>
<td>2002</td>
<td>89</td>
</tr>
<tr>
<td>2001</td>
<td>100</td>
</tr>
<tr>
<td>2000</td>
<td>126</td>
</tr>
<tr>
<td>1999</td>
<td>119</td>
</tr>
<tr>
<td>1998</td>
<td>100</td>
</tr>
</tbody>
</table>
**Time to Reach First Decision**

Histogram representation of data for time from submission to reach first decision, plotted for 2005 and 2006 papers.

---

**Editorial Board**

The board currently counts 55 associate editors, with 30 associate editors affiliated with academia, and 16 (or 29% of the total) working in industry or in government labs. A major objective is to maintain or increase the industrial participation on the board. Suggestions for associate editors from industry are always appreciated.

**Special Issues**

There are three special issues in various states of preparation (all are past the initial review), and several will likely appear in 2007 – the topics are (i) Micro/Nanotechnology, (ii) Automotive Control, and (iii) Multi-vehicle system control.

**2005 Papers in Old Database**

We have been using Manuscript Central for approximately one year now, and there are only a very few residual papers remaining in the old system as detailed below.
2005 Papers in Database

- 77 papers on 2/1/06
- 60 papers on 3/1/06
- 43 papers on 4/1/06
- 33 papers on 4/20/06
- 15 papers on 10/30/06

Series 1
To: CSS Board of Governors
From: Dennis Bernstein, Editor-in-Chief
Date: October 9, 2006

Report Coverage

This report summarizes activities relating to the IEEE CSM from June 2006 to October 2006.

Redesign

The Magazine was redesigned in 2005, and February 2006 was the first redesigned issue. I continue to make minor modifications to the design, but the design is largely fixed and will not change substantially for the foreseeable future.

I am making a concerted effort to use photographs for the cover rather than IEEE stock art.

Backlog

CSM has no backlog in the conventional sense since most papers remain under continual revision until the publication deadline. We currently have 9 special issues in various stages of development, so that at least 1.5 years of feature articles are in the pipeline. Several substantive invited papers are also under development (more on this initiative below). Departmental items are developed separately for each issue with less lead time.

Completed Issues

Since the last report, 4 issues have appeared:

1. June 06: Contributed papers
2. August 06: Process Control special issue (Guest Editor Wayne Bequette)
3. October 06: Motorcycle special issue
4. December 06: Process control part 2 (Guest editor Wayne Bequette)

Scheduled Issues under Development (some publication dates are tentative)

1. February 07: Classical control revisited
2. April 07: Contributed
3. June 07: Classical Control Revisited part 2
4. August 07: Control on Networks (Chaouki Abdallah and Herbert Tanner, guest editors)
5. October 07: Applications of System Identification (Spilios Fassois and Daniel Rivera, guest editors)
6. December 07: Inertially stabilized platform technology (Mike Masten, guest editor)

Special Issues under Development

1. Friction modeling and control (guest editor, Warren Dixon)
2. Kalman Filtering, 50th anniversary (guest editors Tyrone Vincent, Jay Farrell, Alex Leonessa, Kent Lundberg). Several special issues are planned for 2009 and 2010. Abstracts have been received and plans are being developed.

Website

The IEEE CSM website allows free downloading of all magazine columns as well as tables of contents, which lists all feature articles.

Files are processed and communicated to Pradeep Misra, who uploads them.
The website includes the IEEE CSM author’s guide, which provides detailed style guidelines, as well as a LATEX template.

**Editorial Board**

No new members are being nominated for the BOG meeting in December 2006.

**Plans, Proposals, Challenges, and Action Items**

1. I plan to initiate a special issue on control education in K-12. Bozenna Pasik-Duncan is serving as advisor.
2. I have begun an initiative to increase substantive tutorial articles on modeling issues. Six papers have been invited. One is accepted, one is under review, and 4 are expected within the next 12 months.
3. I am in need of contributions to the lighter side column. Dan Simon contributed 2 crosswords, which helped greatly. If you know anyone with special skills that might be relevant, pls let me know.
The CSS eletter is in healthy shape and well received. Here is some data

Current subscription: 19,530
Average new monthly subscribers: 60
Average monthly bounce backs: 2,000
Average eletter size: 130KB
Average number of articles: 60

The popularity of eletter is evidenced by the fact that several other societies have their own electronic letters, yet they advertise their conferences and workshops via eletter due to its wider dissemination.

eletter continues to be text only since the format is convenient and does not require any special software to open it. We routinely get feedback from the community urging us to keep the eletter going as a number of people use it for staying current with most conference deadlines. Occasionally people express their gratitude for having received a position through the advertisement in eletter.

A recent communication from a university lawyer who was assisting a faculty member with US immigration indicates that the newsletter is being accepted as a effective communication tool for non-academic purposes as well.
REPORT TO THE
IEEE CONTROL SYSTEMS SOCIETY BOARD OF GOVERNORS (BoG)
FROM THE VICE PRESIDENT, MEMBER ACTIVITIES
M. ELENA VALCHER
December 2006

Student Travel Support and Conference Travel Support for Developing Countries at the CDC 2006 (San Diego)

For the CDC 2006 we have taken advantage of the major procedure changes introduced in January for the CCA/ISIC/CACSD 2006 conference in Munich: 1) Student Travel Support (STS) applications and Developing Countries Travel Support (DCTS) applications were submitted through PaperPlaza (and handled by Faryar Jabbari (Student Activities Chair) and I, respectively). 2) The deadline for application was set to August 15. Decision letters were sent out on September 1, and this allowed to immediately register for free successful applicants, without dealing with refund procedures.

There were 41 applications for the Student Travel Support. All applicants were eligible, since they were IEEE CSS members (this eligibility constraint was approved at the last BoG meeting in December 2005). 6 applicants received the full registration fee (410 $), while the other 35 the student registration fee (205 $), according to their requests.

By making use of NSF funds, Faryar Jabbari has been able to provide further support to students working in the US (with priority given to IEEE CSS students, has approved at the June ’06 BoG). Also, he has taken care of obtaining rooms at reduced rate for students attending the CDC. Details have been provided in his report (below).

17 persons applied for the Conference Travel Support Program for Developing Countries. All the applicants were supported. Giving the relatively large amount of funds we could count on, we were able to offer each of these persons the Full Conference Registration (410$) plus three nights (specifically Tuesday to Thursday night) at the Conference hotel (at the conference rate, 177$ + taxes per night). This way we forecast to spend approximately 17.000$.

The nations represented in the awards were:

• Poland (1)
• Russia (2)
• Lebanon (1)
• Colombia (1)
• Uruguay (1)
• China (3)
• India (2)
• Brazil (3)
• Mexico (1)
• Morocco (1)
• Ucraina (1)

Initiatives for increasing Student Membership

Every year the IEEE CSS devotes about 5.000 $ (in addition to the 20.000 $ used for Student Travel support at the three main CSS sponsored conferences) to support initiatives which may increase student membership. At the last CDC-ECC’05 in Seville (Spain), the former VPMA, Rick Middleton took an interesting initiative. He offered free IEEE membership to several students and, to those students who were already IEEE members but not CSS members, he offered the free CSS membership.

This year I have planned to split the funds between two initiatives: (1) increasing the number of IEEE CSS members, by offering free IEEE CSS registration, as Rick did; (2) giving a sort of “award” to those students who are already IEEE CSS members, by offering them the free workshop fee for one of the workshops that will take place in San Diego.

On early November, just after the ExCom meeting I sent out a letter to all student who had already registered to the CDC’06 by promoting the two initiatives. The first initiative will be concretely developed in occasion of the Students and Newcomers reception, at the CDC. As far as the second initiative is concerned, I have started collecting requests. The deadline for application has been set to November 17 and the decision is due for November 20.

I find the chance to provide some statistics, which enlighten the good status of our society, particularly as far as Student Members are concerned. These data have appeared in the September ’06 IEEE Membership Development Progress Report.
### IEEE CSS Membership requirement for certain Roster positions

At the last ExCom meeting in Boston (November 4, 2006) I proposed to introduce the IEEE CSS membership requirement – at the time of nomination and during the whole term - for being appointed for certain Roster positions. The initiative was stimulated by a conversation with Roberto Tempo, former CSS VPCA. The rationale behind this initiative is that it seems (at least) appropriate that IEEE CSS representatives are IEEE CSS members. This requirement is explicitly mentioned for the Board of Governors members in the CSS Bylaws. However, it seems that some other positions in the Roster should reasonably come with this requirement. At the ExCom meeting we approved the introduction of the membership requirement for the following positions:

- ExCom members
- Board of Governors members
- Nominating Committee members
- Standing Committee Chairs
- Long Range Planning Committee members
- Editors-in-Chief of TAC, CST and CSM
- Editor Technical Notes and Correspondence TAC
- Editor Systems and Control Eletter
- Awards Subcommittee Chairs
- MAB Subcommittee Chair
- CEB Chair
- TAB Chairs

A motion will be presented at the December BoG’s meeting, to obtain formal approval of this requirement.

---

<table>
<thead>
<tr>
<th>Type of members</th>
<th>CSS</th>
<th>IEEE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All members</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8,305</td>
<td>(8,320 September 05)</td>
<td>333,121</td>
</tr>
<tr>
<td>- 0.2%</td>
<td></td>
<td>- 3.3%</td>
</tr>
<tr>
<td><strong>Student members</strong></td>
<td>1,107</td>
<td>34,136</td>
</tr>
<tr>
<td>(992 September 05)</td>
<td></td>
<td>(37,137 September 05)</td>
</tr>
<tr>
<td>+ 11.6 %</td>
<td></td>
<td>- 8.1%</td>
</tr>
<tr>
<td><strong>Higher grade members</strong></td>
<td>7,177</td>
<td>275,968</td>
</tr>
<tr>
<td>(7,315 September 05)</td>
<td></td>
<td>(282,316 September 05)</td>
</tr>
<tr>
<td>- 1.9%</td>
<td></td>
<td>- 2.2%</td>
</tr>
</tbody>
</table>
Standing Committee on Chapter Activities

From: Alessandro Giua, Chair  
Date: November 12, 2006

Activity reports
In April-May 2006 I contacted the chapter chairs to ask for a report of the activity in 2005.  
Out of 64 active Chapter CSS listed in the List of Chapters:  
- 15 Chapter Chairs replied and submitted a report;  
- 6 Chapter Chairs replied but did not submit a report, referring me to the L31 form;  
- 43 Chapter Chairs did not reply.

Outstanding Chapter Award Recommendation
June 13: Based on my recommendation, during the MAB meeting the UK-RI Control Systems Chapter has been selected by the IEEE CSS Membership Activities Board as the Outstanding Chapter of our society for 2005. The chapter chair James Whidborne was informed on October 6.

Requests from Chapters
- May 26: Alexander L. Fradkov Chair of the Russia Northwest Section Joint Chapter, asked financial support to organize a one day International workshop on "Adaptive and Intelligent systems in control and signal processing" on September 18, 2006. The MAB supported this initiative with a grant of 1,000 $.
- May 31: Amir G. Aghdam, chair of the CSS chapter of the IEEE Montreal Section asked the permission to create the position of communication director for his chapter in order to organize DLP events more actively. The position was given to a student member in the Montreal Section that was handled the email list of the CSS members of the Montreal Section in order to inform the members about the upcoming events. The email list will be kept confidential. The request was accepted.
- August 4: Lihua Xie, chair of the IEEE Singapore Control Systems Chapter asked for financial support to organize the Second Postgraduate Workshop on Systems and Control to be held in Singapore on 27 September 2006. The MAB supported this initiative with a grant of 1,000 $.

Other requests
- July 26: Nathalie Gosset, a volunteer for the EMB Society (Engineering in Medicine and Biology Society) suggested the possibility of creating several Control Systems/EMBS Joint Chapters. I agreed on this and she asked Vicki Waldman, who is supervisor of Section and Chapter Support at the Petition Office, the list of CS names in 10 sections that may potentially interested. She was planning to contact these people and suggest the possibility of founding a joint chapter.

Standing Committee on History

From: Danny Abramovitch <danny@labs.agilent.com>, Chair  
Date: November 12, 2006

A special history session has been planned for the 2007 ACC. It will focus on the CSS’ Information Dissemination Committee, that controlled what went into the IEEE Transaction on Automatic Control and had a dramatic effect on the CSS that is still being felt today. The details of the session have not been clarified, yet.

Standing Committee on Student Activities

From: Faryar Jabbari, Chair  
Date: November 12, 2006

The Student Activities Committee was involved in four (4) specific activities during the last three months:
1. Student Travel Support Program of IEEE CSS for CCA/ISIC/CACSD'06:

Twenty two (22) students received free registration for CCA/ISIC/CACSD'06, for an expected total of $4950 (from a budget of $5,000). Exact numbers (e.g., accounting for no-shows) will be known after the conference financial reports are finalized. The program was implemented in coordination with the Conference (through the General Chair and the Registration Chair) as well as the Travel Support Program for the Developing Nations (organized and supervised by the VP for Members Activities). Due to occasional overlap between the two programs, the coordination led to a more efficient use of funds for both programs.

2. Student Travel Support Program of IEEE CSS for CDC'06:

Forty one (41) students have been selected to receive free registration, for an anticipated total of $9,635 (out of a budget of $10,000). Other details are the same as the CCA/ISIC/CACSD'06 Travel Support Program (final tally will be available after the conference, coordination with the Travel Support Program for Developing Nations, etc.).

3. NSF Proposal for Travel Support for Students studying in the U.S.:

The Committee provided support (information flow, help in writing the proposal, etc.) for a proposal to NSF (by the President of IEEE CSS) for an additional $10,000 to support travel for students studying in the US (restriction imposed by NSF). This program will provide funding for lodging and transportation expenses of roughly 30 students. Since the funding will be on 'reimbursement' basis, most details will become finalized after the conference.

4. Reduced rate rooms for ALL students attending CDC

Working with the conference General Chair, a total of 100 rooms with reduced rates are made available for students attending the conference (with or without a paper), in the main conference hotel. Helping students find roommates, organizing the list and communication among the conference hotel, conference leadership and students are among the activities of the Committee for this program. So far, over 50 rooms have been assigned. Given the deadline of early November for final assignments, a total of 65-80 rooms is predicted.

---

**Standing Committee on Women in Control**

**From:** Annamaria Perdon, Chair  
**Date:** November 12, 2006

1) The WiC luncheon meeting at the ACC’06 in Minneapolis has been a success: more then 30 women attended the Special session "Advancement for Women is still Slower than for Men", organized by Bozenna Pasik Duncan and myself. All the material presented is posted on the web page.

2) As an occasion to meet "women in control" from different countries and possibly make them join the Society, I organized a WiC lunch during the 14th Mediterranean Conference on Control and Automation, held in Ancona, Italy, on June 28-30, 2006. 14 women participated and joined the group.

3) We cooperate to the effort of the Society in the Senior Member Initiative. Our goal is to have the largest possible number of Senior Members in the WiC. This year we nominated several female Senior Members.

4) The searchable data base on the "expertise areas" of the WiC members is at the moment “stagnant”. It contains now information on 57 people. I’ll try to have more information from the colleagues in San Diego.

In conclusion we may say that now the participation of women in all aspects of CSS activities is increasing and I would like to outline the efforts of the WiC standing committee in making this possible. I hope that as the technical fields and the workforce become more and more gender-integrated, special groups such as the WiC will become less and less essential. However, there is still much to do and our commitment is in encouraging the women to join the Society, be active and get involved.
**Standing Subcommittee on Distinguished Lecturer**

**From:** Ian Petersen, Chair  
**Date:** November 12, 2006

Normally lecturers are appointed for a period of three years with one third of the list updated every year. Also, in some cases the term of lecturers is extended for an extra year if that lecturer seems to be in significant demand. The current list of lecturers is as follows:

<table>
<thead>
<tr>
<th>Until December 2006</th>
<th>Until December 2007</th>
<th>Until December 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karl Åström (Sweden)</td>
<td>Jie Huang (China)</td>
<td>Carlos Canudas de Wit (France)</td>
</tr>
<tr>
<td>Hebertt Sira-Ramirez (Mexico)</td>
<td>Bassam Bamieh (US)</td>
<td>Miroslav Krstic (US)</td>
</tr>
<tr>
<td>Bob Bitmead (US)</td>
<td>Iven Mareels (Australia)</td>
<td>Pablo Iglesias (US)</td>
</tr>
<tr>
<td>Marco Campi (Italy)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kevin Passino (US)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Andrew Alleyne (US)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tohru Katayama (Japan)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thomas Parisini (Italy)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anders Rantzer (Sweden)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Karen Rudie (Canada)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carlos de Souza (Brasil)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

During 2006 there were six sets of distinguished lectures.

- Professor Marco Campi gave a distinguished lecture to the UKRI Control Systems Chapter in the UK in April.
- Professor Andrew Alleyne gave a distinguished lecture to the Rock River Valley Section's IEEE Computer and Control System Chapter in Rockford, Illinois in September.
- Professor Kevin Passino gave distinguished lectures (without requiring financial assistance from the CSS) at Univ. Roma, La Sapienza, Italy in June in at Villanova Univ., Villanova i la Geltrú, Spain, in July.
- Professor Karl Astrom gave a distinguished lecture to the IEEE Russia (North-West) Joint CI/CS/RA Chapter in St. Petersburg, Russia, in October.
- Dr. Hebertt Sira Ramirez gave a distinguished lecture to the Joint Chapter (CSS, RAS IES, IAS, PELS) IEEE Argentina, in October.
- Professor Jie Huang will give a distinguished lecture to the Dallas/Fort Worth IEEE Sections in December.
- Also, Professor Carlos De Souza will give a distinguished lecture to the Singapore Chapter in May 2007.

From the above, it can be seen that eleven lecturers are due to retire at the end of this year. However, I have already approved for Professor Carlos De Souza to give a lecture in May 2007. Thus, I would recommend that his term be extended for one more year. Also, I would recommend that all of those lecturers whose term is due to expire and who have given a lecture this year, also have their terms extended for one more year. This would mean that the lecturers Åström, Sira-Ramirez, Campi, Passino, and Alleyne would also have their terms extended for one more year.

I am in the process of collecting suggestions for new lecturers to be appointed until December 2009.