IEEE Control Systems Society

Awards Manual

Revision History

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- Jan 2014: Updated basis of judging for Ruberti Award, Rick Middleton.
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- Nov 2016: Change all references from MSC to CCTA
- Dec 2017: Added details on the travel expenses covered by the award, based on data in the CSS awards website.
- Jan 2018: Per 2017 CDC BoG meeting, updated name of "CDC/CCTA best student paper finalists" and added CDC Roberto Tempo Award
- Feb 2018: Updated text of Axelby award to reflect past BoG decision to restrict the number of awards to no more than 1. Clarified that up to 3 finalists are to be selected for the CCTA best student paper finalists.
- Mar 2018: Added clarification about publication dates.
- Apr. 2018: Fixed typos and made language uniform across awards.
- Aug. 2019 and Oct 19. Updated description of awards to be consistent with the IEEE TABARC official version of our awards.

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^{* =} Not to appear in version linked to CSS Award Page on the Web. (Entire Manual to be on-line at a non-public URL)

I. INTRODUCTION

The IEEE Control Systems Society (CSS) presents several awards annually for technical achievements in the areas of interest to the Society, as well as awards for service to the Society. An individual need not be a member of the Institute of Electrical and Electronics Engineers (IEEE) and/or the CSS to be eligible to receive *technical achievement* awards of the CSS. Selection of the winner for each of those *technical achievement* awards is made by a CSS committee whose members have not been involved in the nominations for that award. The CSS also supports awards given by the IEEE and the American Automatic Control Council (AACC) and the International Federation of Automatic Control (IFAC) in its areas of interest. Contacts for further information are listed in the detailed descriptions of individual awards that are found below. General information about CSS awards can be obtained from the Chair of the CSS Awards Committee. The CSS Awards program operates within the bylaws of the IEEE.

Additional information about IEEE procedures, e.g. how to propose and get approval of a new CSS Award, can be found in the *IEEE Awards and Recognitions Manual* (available in pdf format at http://www.ieee.org/documents/tab awards and recognition manual.pdf). It is important to remember that any changes to any IEEE CSS Award must be approved by IEEE TAB Awards and Recognition Committee (TABARC).

II. *THE CSS AWARDS COMMITTEE

The CSS Awards Committee is a standing committee defined in the Society's Bylaws (See Appendix A). Its chair is appointed by the CSS Board of Governors (BoG) based on a nomination made by the President-Elect in consultation with the Executive Committee (ExCom). Other members of the Awards Committee include the Chairs of the Selection Committees for the various CSS awards that are based on technical achievements. The Awards Committee Chair is responsible for oversight of the technically based awards, including:

- Making responsible persons aware of schedules for steps in the awards selection and announcement processes.
- Assuring wise appointments to selection committees to achieve balance of interests, continuity, fresh ideas (no person serves too long), and avoiding one person serving on multiple committees.
- Helping Selection Committee Chairs to identify candidates for higher IEEE awards (see list below).
- Being informed about the members of the selection committees for the IEEE Ramo Medal, and the Resnik and Control Systems Awards; and proposing for ExCom approval future representatives who will be proposed to the IEEE Awards Board for service on those committees.
- Identifying candidates for non-IEEE awards.
- Maintaining a list of non-IEEE awards for which outstanding CSS members might be eligible. (Name of award, granting organization, deadline for nomination, means for regular tracking of new awardees.)
- Suggesting to the President people who might chair the next year's selection committees.
- Making sure that plaques and certificates for winners all CSS awards (Service as well as Technical Achievement), except for the CDC Best Student-Paper Award, are prepared and delivered on time for presentation at the CDC. Names of award winners, their citations, etc. are provided to the Awards Committee chair by the President.

Diversity of Committee members in terms of gender, geographical region, and professional sector (academia/industry/other) is strongly encouraged. The Committee membership should strive to reflect the diversity of the IEEE CSS membership eligible to serve on this Committee. This statement applies to both the CSS Awards Committee as well as to each individual award subcommittee.

III. LIST OF CSS AWARDS

Winners of the following awards are selected by committees and/or officers of the CSS. Criteria and procedures for nomination, selection, announcement and presentation of each of these awards are elaborated below. *(A chart summarizing the awards and respective procedures is found in Appendix B.) Lists of previous winners and the corresponding citations and/or prize paper references can be found in the Awards section of the CSS Web pages.

CONTROL SYSTEMS TECHNOLOGY AWARD

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

HENDRIK W. BODE LECTURE PRIZE

To a distinguished contributor to control systems science or engineering. The recipient gives a plenary lecture at the CDC of the year of the award.

DISTINGUISHED MEMBER AWARD

To recognize significant technical contributions and outstanding long-term service to the CSS.

• GEORGE S. AXELBY OUTSTANDING PAPER AWARD

Outstanding paper published in the *Transactions on Automatic Control*.

OUTSTANDING CHAPTER AWARD

To recognize outstanding activities of a CSS Chapter.

• CDC BEST STUDENT-PAPER AWARD

To recognize excellence in a paper presented at the IEEE Conference on Decision & Control, whose primary/first author is a Student Member of the IEEE.

- TRANSACTIONS ON CONTROL SYSTEMS TECHNOLOGY OUTSTANDING PAPER AWARD Outstanding paper published in the *Transactions on Control Systems Technology*.
- CONTROL SYSTEMS MAGAZINE OUTSTANDING PAPER AWARD

Outstanding article or column published in the Control Systems Magazine.

CCTA BEST STUDENT-PAPER AWARD

(Formerly, MSC Best Student Paper Award)

To recognize excellence in a paper presented at the IEEE Conference on Control Technology and Applications, whose primary/first author is a Student Member of the IEEE.

• ANTONIO RUBERTI YOUNG RESEARCHER PRIZE

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

• CONTROL SYSTEMS SOCIETY TRANSITION TO PRACTICE AWARD

To a distinguished contributor to the transition of control and systems theory to practical, industrial, or commercial systems

• IEEE CONTROL SYSTEMS SOCIETY AWARD FOR TECHNICAL EXCELLENCE IN AEROSPACE CONTROL

To a team or individual for an aerospace control engineering activity during the previous 36 months that demonstrates excellence and significant results with demonstrated impact.

• IEEE TRANSACTIONS ON CONTROL OF NETWORK SYSTEMS OUTSTANDING PAPER AWARD To recognize an outstanding paper published in the *IEEE Transactions on Control of Network Systems*.

ROBERTO TEMPO BEST CDC PAPER AWARD

To recognize outstanding papers submitted and presented at the IEEE Conference on Decision and Control

• One-Time awards offered by Conferences or Sections

IV. IEEE AWARDS

Members of the CSS are eligible for many awards that are sponsored by the IEEE. More information about these awards may be obtained directly from the IEEE (www.ieee.org/about/awards). IEEE awards that are of particular relevance to the fields of interest of the CSS are

- Simon Ramo Medal for significant achievements in system engineering and system science.
- Control Systems Award (Technical Field) for significant achievements in control systems engineering, science or technology.
- Judith A. Resnik Award (Technical Field) for outstanding achievements in space engineering.
- W. R. G. Baker Prize Paper Award for an outstanding paper published in any IEEE journal.
- Leon K. Kirchmayer Graduate Teaching Award.
- Donald G. Fink Paper Award for an outstanding review, tutorial or survey paper in an IEEE journal.
- IEEE Fellow Awards for outstanding contributions to the electrical and electronics engineering profession.
- Medal of Honor
- Edison Medal
- Founders Medal
- Education Medal
- Graduate Teaching Award
- Undergraduate Teaching Award

The CSS provides financial support for the two Technical Field Awards listed, as well as representation on the selection committees for those awards and on the selection committee for the Simon Ramo Medal. The roles of the CSS in the nomination and evaluation of IEEE Fellow candidates are described below in Section VII.

V. AACC AWARDS

As a member organization of the American Automatic Control Council (AACC), the CSS supports that organization's awards:

- Richard E. Bellman Control Heritage Award
- John R. Ragazzini Education Award
- Donald P. Eckman Award (for achievements of an engineer under 35 years of age)
- O. Hugo Shuck Best ACC Paper Award
- Control Engineering Practice Award

VI. IFAC AWARDS

The American Automatic Control Council is a Member Organization in the International Federation of Automatic Control (IFAC), which runs international conferences and publishes journals in the field of automatic control. The CSS keeps its members informed about IFAC activities, including its awards:

- IFAC Fellows
- Major Medals (Giorgio Quazza Medal, Nathaniel B. Nichols Medal, Industrial Achievement Award, High Impact Paper Award)
- Automatica Prize Paper Award
- Control Engineering Practice Prize Paper Award
- Journal of Process Control Prize Paper Award

- Engineering Applications of Artificial Intelligence Prize Paper Award
- Mechatronics Journal Prize Paper Award
- Congress Applications Paper Prize
- IFAC Congress Young Author Prize
- Control Engineering Textbook Prize
- Congress Poster Paper Prize
- Outstanding Service Award

NOTE: to establish new awards, IEEE must approve. Please contact Rosanne Loyal, r.loyal@ieee.org

VII. DESCRIPTIONS OF CSS AWARDS

1. Control Systems Technology Award (revised 2000)

Description: To recognize outstanding contributions to control systems technology either in design and implemen-

tation or project management.

Prize: \$2,000, 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 up to 4 conference-rate hotel nights for a 3-day conference, and up to 5 conference-rate hotel nights for a 4-day conference) If the prize is awarded to a group, members of the group will equally split the cash portion of the

prize.

Funding: Funded by the IEEE Control Systems Society.

Eligibility: Either an individual or a team.

Basis for Judging: The technical merit of the outstanding control systems technology contribution in either design and

implementation, or project management. The broader impacts of the contribution towards the benefit of society at large and towards the CSS diversity and inclusiveness goals in terms of geography,

gender, and work sector.

Presentation: At the Awards Ceremony of the CSS.

A nomination letter and up to 4 additional supporting letters (maximum of 5 letters) describing the outstanding contribution to control systems technology should be submitted on the IEEE CSS Awards nomination system, http://awards.paperplaza.net/ by May 15. Material sent by email or via regular mail will NOT be considered.

- * An individual winner or each member of a winning team receives a certificate laminated on a wooden plaque, a paper certificate, and an equal share of the monetary prize.
- * In order to avoid having the same individual or group receive the Control Systems Technology Award and the Transition to Practice Award during the same year, these two Award Subcommittees should identify the winner and a runner-up and communicate this information to the Awards Chair. The Awards Chair working with the Award Subcommittee Chairs will make the final decision.
- * Selection of winners will be carried out before July 15 by the Control Systems Technology Award Committee, whose members are appointed by April 15 by the committee chair (in consultation with the CSS Awards Chair). The CST Award committee chair is appointed by the BOG, based on recommendations from the President-Elect and the ExCom.
- * The Committee Chair reports selection results to the President, who notifies the award recipient, the Chair of the CSS Awards Committee (responsible for preparation of plaques and certificates), the CDC General Chair, and the CSS VP for Finance (responsible for preparation of award checks, and travel reimbursement). Winner(s) are informed that the award will be announced to the public for the first time at the CDC.

2. Hendrik W. Bode Lecture Prize (revised 2000, 2001)

Description: To recognize distinguished contributions to control systems science or engineering.

Prize: \$2,000, photo-engraved Plaque, and travel expenses to the CDC (round trip restricted minimal coach

air fare, conference registration, and up to 4 conference-rate hotel nights for a 3-day conference, and up to 5 conference-rate hotel nights for a 4-day conference) The recipient gives a plenary lecture at

the CDC evaluating a significant contribution to control systems science or engineering.

Funding: Funded by the IEEE Control Systems Society.

Basis for Judging: The technical merit of the distinguished contributions to control systems science or engineering. The

broader impacts of the contribution towards the benefit of society at large and towards the CSS di-

versity and inclusiveness goals in terms of geography, gender, and work sector.

Presentation: At the Awards Ceremony of the CSS.

The recipient of the Bode Lecture Prize is selected by September 15 of the year prior to the award, that is, about 15 months before the time of the CDC where the Prize will be awarded and the Lecture presented. At the CDC, the Bode Lecture for the year is delivered and the prize is presented during the award ceremony. In addition, the winner of next year's Bode Prize is announced for the first time at the CSS Awards Ceremony.

3. Distinguished Member Award

Description: To recognize significant technical contributions or outstanding long-term service to the IEEE Control

Systems Society.

Prize: Galvanic (photo engraved) plaque, conference registration and a CSS pin for each recipient.

Funding: Funded by the IEEE Control Systems Society.

Eligibility: 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.

Basis for Judging: The technical merit of the significant technical contributions and outstanding long-term service. The

broader impacts of the contribution towards the benefit of society at large and towards the CSS di-

versity and inclusiveness goals in terms of geography, gender, and work sector.

Presentation: At the Awards Ceremony of the CSS.

By August 1 the President solicits nominations for Distinguished Member awards from the Executive Committee and others. Any nominee who receives less than two (2) no-votes in a secret ballot of the Executive Committee is designated a Distinguished Member. This process should be completed by September 15.

4. George S. Axelby Outstanding Paper Award

Description: To recognize an outstanding paper published in the IEEE Transactions on Automatic Control.

Prize: A photo-engraved Plaque for each recipient and, for one recipient, travel expenses to the CDC (round

trip restricted minimal coach air fare), conference registration, and up to 4 conference-rate hotel nights for a 3-day conference, and up to 5 conference-rate hotel nights for a 4-day conference).

Funding: Funded by the IEEE Control Systems Society.

Eligibility: Authors of papers published in the IEEE Transactions on Automatic Control during the two calendar

years preceding the year of the award. The paper publication date is determined by the journal volume

date (not the online publication date).

^{*} The President notifies ExCom, the recipients, the Chair of the CSS Awards Committee (responsible for preparation of plaques), and the CDC General Chair. Winner(s) are informed that the award will be announced to the public for the first time at the CDC.

Basis for Judging: Originality, potential impact on the theoretical foundations of control, importance and practical sig-

nificance in applications, and clarity.

Presentation: At most one (1) award presented at the Award Ceremony of the CSS.

A nomination letter and up to 3 additional supporting letters (maximum of 4 letters) describing the excellence of the nominated paper should be submitted on the IEEE CSS Awards nomination system, http://awards.paper-plaza.net/ by May 15. Material sent by email or via regular mail will NOT be considered. A nomination shall include:

1. A letter from the nominator describing the outstanding features of the paper.

- 2. Details for up to three additional supporting individuals who are familiar with the paper who have agreed to provide a reference letter.
- 3. An electronic copy of the paper itself.
- * In addition to general CSS publicity soliciting nominations for its awards, nominations for the Axelby awards will be solicited by the Editor-in-Chief of the T-AC and any committee that the editor might appoint for this purpose.
- * The Axelby Award Committee chair should obtain from the T-AC Editor-in-Chief all available materials regarding the nominated papers that may be helpful in the decision process. Such materials include the Associate Editor's comments to the authors and the comments of the anonymous reviewers. It is important to preserve the confidentiality in the award process as well as the anonymity of the reviewers of the nominated papers.
- * Selection of winners will be carried out before July 15 by the Axelby Award Committee, whose members are appointed by April 15 by the committee chair (in consultation with the CSS Awards Chair). The Axelby Award Committee chair is appointed by the BOG, based on recommendations from the President-Elect and the ExCom.
- * The Axelby Award Committee Chair reports selection results to the President, who notifies the award recipient, the Chair of the CSS Awards Committee (responsible for preparation of plaques and certificates), and the CDC General Chair. Winner(s) are informed that the award will be announced to the public for the first time at the CDC.

5. Outstanding Chapter Award (established in 1992)

Description: To recognize an outstanding Chapter of the IEEE Control Systems Society (CSS).

Prize: \$1,000 payable to the Chapter, a Certificate laminated on a plaque, and travel expenses to the CDC

(round trip restricted minimal coach air fare, conference registration, and up to 4 conference-rate hotel nights for a 3-day conference, and up to 5 conference-rate hotel nights for a 4-day conference)

for a Chapter representative to attend the CSS Awards Ceremony.

Funding: Funded by the IEEE Control Systems Society.

Eligibility: Chapter must be active for at least one (1) year prior to consideration.

Basis for Judging: Level of activity, based on the number and types of activities; Innovations, based on developing

clever ways to promote new activities or services; Revitalizing an existing Chapter or starting a new one. The broader impacts of the contribution towards the benefit of society at large and towards the

CSS diversity and inclusiveness goals in terms of geography, gender, and work sector.

Presentation: At the Awards Ceremony of the CSS.

Nominations, based on the annual reports requested from all chapters, are prepared by the chair of the Chapter Activities Committee, by June 15. The Member Activities Board selects at most one (1) Outstanding Chapter

each year, by July 15. In case of two or more chapters achieving comparable levels of excellence, preference will be given to those chapters that have never been awarded before.

The VP for Membership notifies the President about the winning chapter and the award citation. The President notifies the chairman of the winning Chapter, the Chair of the CSS Awards Committee (responsible for preparation of plaques and certificates), the CDC General Chair, and the CSS VP for Finance (responsible for preparation of award checks, and travel reimbursement). Winner is informed that the award will be announced to the public for the first time at the CDC.

6. Conference on Decision and Control (CDC) Best Student-Paper Award (established in 1992)

Description: To recognize excellence in a conference paper whose primary contributor(s) is a (are) Student Mem-

ber(s) of the IEEE.

Prize: Certificate laminated on a plaque, and travel expenses to the CDC for one recipient (round trip re-

stricted minimal coach air fare, conference registration, and up to 4 conference-rate hotel nights for a 3-day conference, and up to 5 conference-rate hotel nights for a 4-day conference). The remaining finalists receive Outstanding Student-Paper award certificates and free student conference registra-

tions.

Funding: Funded by the IEEE Control Systems Society.

Eligibility: Primary contributor(s) of a paper, who was a (were) Student(s) Members of the IEEE at the time of

original submission.

Basis for Judging: Originality, clarity and potential impact on practical applications or theoretical foundations of control.

Presentation: At the Awards Ceremony of the CSS.

Nomination procedures for the award are announced to authors of accepted papers. The Chair of the Best Student-Paper Committee should provide to the CDC Program Chair the latest information about nomination procedures by May 1.

Nominations must be made by the student's major professor (advisor) through PaperPlaza by September 1 following the procedure as described on the CDC conference website using the official nomination form. A paragraph certifying that the nominee is the main author of the paper, was a student at the time of the nomination and has a IEEE membership for the current year, a brief description of the contribution of the paper and the main reason for nomination for the award, the advisor's telephone and e-mail information, as well as the student IEEE membership number should be included. Nominations are limited to one per advisor.

- * The Chair of the Best Student-Paper Award committee is appointed by the BOG, based on recommendations from the President-Elect and the ExCom. Four finalists are selected by the Chair based on reviews solicited from experts in the fields of the respective papers. The winner of the CDC Best Student-Paper Award is selected by a committee of experts who have a broad knowledge of the control systems field. That committee is appointed by the Chair in consultation with the Chair of the CSS Awards Committee. The remaining finalists receive CDC Outstanding Student-Paper awards.
- * Each nominated paper is reviewed and graded by four people who are knowledgeable in the appropriate field. Using the paper grades, the committee chair ranks the papers, with the four highest being the finalists.
- * By October 15 the Chair of the selection committee tells the President the names, addresses, and paper citations for the four finalists. The President notifies the finalists, the Chair of the CSS Awards Committee (responsible for preparation of certificates), and the CDC General Chair.

- * The selection committee of at least three experienced members of the control community, jointly having broad knowledge of the entire field, individually rank the four finalist papers. Coordinated by the committee chair, the panelists review the cumulative results and decide on the winner. (The panel members should be appointed by the committee chair by September 15.)
- * By November 15 the Chair of the selection committee tells the President the name, address, and paper citation for the winner (who is not informed until the public announcement at the award ceremony). The President notifies the Chair of the CSS Awards Committee, the CDC General Chair, and the CSS VP for Finance (responsible for preparation of travel reimbursement). Certificates for the finalists and the plaque for the winner are prepared locally by the Chair of the selection committee.

7. IEEE Transactions on Control Systems Technology Outstanding Paper Award (est. in 1998)

Description: To recognize an outstanding paper published in the IEEE Transactions on Control Systems Tech-

nology.

Prize: A photo-engraved plaque for each recipient and, for one recipient of each award, travel expenses to

the CDC (round trip restricted minimal coach air fare), conference registration, and up to 4 conference-rate hotel nights for a 3-day conference, and up to 5 conference-rate hotel nights for a 4-day

conference).

Funding: Funded by the IEEE Control Systems Society.

Eligibility: Authors of papers published in the IEEE Transactions on Control Systems Technology during the

two calendar years preceding the year of the award. The paper publication date is determined by

the journal volume date (not the online publication date).

Basis for Judging: Originality, relevance of the application, clarity of exposition, and demonstrated impact on control

systems technology.

Presentation: At most one (1) award presented annually at the Awards Ceremony of the CSS.

A nomination letter and up to 3 additional supporting letters (maximum of 4 letters) describing the excellence of the nominated paper should be submitted on the IEEE CSS Awards nomination system, http://awards.paper-plaza.net/ by May 15. Material sent by email or via regular mail will NOT be considered. A nomination shall include:

- 1. A letter from the nominator describing the outstanding features of the paper.
- 2. Details for up to three additional supporting individuals who are familiar with the paper who have agreed to provide a reference letter.
- 3. An electronic copy of the paper itself.
- * In addition to general CSS publicity soliciting nominations for its awards, nominations for this award will be solicited by the Editor-in-Chief of the T-CST and any committee that the editor might appoint for this purpose.
- * The T-CST Paper Award Committee chair should obtain from the T-CST Editor-in-Chief all available materials regarding the nominated papers that may be helpful in the decision process. Such materials include the Associate Editor's comments to the authors and the comments of the anonymous reviewers. It is important to preserve the confidentiality in the award process as well as the anonymity of the reviewers of the nominated papers.
- * Selection of winners will be carried out before July 15, by the T-CST Paper Award Committee, whose members are appointed by April 15 by the committee chair (in consultation with the CSS Awards Chair). The T-CST Paper Award committee chair is appointed by the BOG, based on recommendations from the President-Elect and the ExCom.

* The Committee Chair reports selection results to the President, who notifies the award recipient(s), the Chair of the CSS Awards Committee (responsible for preparation of plaques and certificates), and the CDC General Chair. Winner(s) are informed that the award will be announced to the public for the first time at the CDC.

8. Control Systems Magazine Outstanding Paper Award (established in 1998)

Description: To recognize an outstanding article or column published in the IEEE Control Systems Magazine.

Prize: A photo-engraved plaque for each recipient and, for one recipient of each award, travel expenses to

the CDC (round trip restricted minimal coach air fare), conference registration, and up to 4 conference-rate hotel nights for a 3-day conference, and up to 5 conference-rate hotel nights for a 4-day

conference).

Funding: Funded by the IEEE Control Systems Society.

Eligibility: Authors of articles or columns published in the society magazine IEEE Control System during the

two calendar years preceding the year of the award. The paper publication date is determined by

the journal volume date (not the online publication date.

Basis for Judging: Impact on and benefit to CSS Members.

Presentation: At most one (1) award presented annually at the Awards Ceremony of the CSS.

A nomination letter and up to 3 additional supporting letters (maximum of 4 letters) describing the excellence of the nominated paper should be submitted on the IEEE CSS Awards nomination system, http://awards.paper-plaza.net/ by May 15. Material sent by email or via regular mail will NOT be considered. A nomination shall include:

- 1. A letter from the nominator describing the outstanding features of the paper.
- 2. Details for up to three additional supporting individuals who are familiar with the paper who have agreed to provide a reference letter.
- 3. An electronic copy of the paper itself
- * In addition to general CSS publicity soliciting nominations for its awards, nominations for this award will be solicited by the Editor-in-Chief of the Control Systems Magazine and any committee that the editor might appoint for this purpose.
- * The CSM Award Committee chair should obtain from the CSM Editor-in-Chief all available materials regarding the nominated papers that may be helpful in the decision process. Such materials include the Associate Editor's comments to the authors and the comments of the anonymous reviewers. It is important to preserve the confidentiality in the award process as well as the anonymity of the reviewers of the nominated papers.
- * Selection of winners will be carried out before July 15 by the CSM Award Committee, whose members are appointed by April 15 by the committee chair (in consultation with the CSS Awards Chair). The CSM Award committee chair is appointed by the BOG, based on recommendations from the President-Elect and the ExCom.
- * The Committee Chair reports selection results to the President, who notifies the award recipient(s), the Chair of the CSS Awards Committee (responsible for preparation of plaques and certificates), and the CDC General Chair. Winner(s) are informed that the award will be announced to the public for the first time at the CDC.

9. <u>IEEE</u> Conference on Control Technology and Applications (CCTA) Best Student-Paper Award (established in 2001; revised name 2017)

Description: To recognize excellence in a CCTA paper whose primary contributor(s) is a (are) student member(s) of the IEEE.

Prize: Certificate laminated on a plaque and travel expenses to the CCTA for one recipient (round trip re-

stricted minimal coach air fare, conference registration, and up to 4 conference-rate hotel nights for a 3-day conference, and up to 5 conference-rate hotel nights for a 4-day conference). The remaining finalists for the award receive Outstanding Student-Paper award certificates and free student conference-rate hotel nights for the award receive Outstanding Student-Paper award certificates and free student conference-rate hotel nights for a 4-day conference-rate hotel nights for a 4-

ence registrations.

Funding: Funded by the IEEE Control Systems Society

Eligibility: Primary contributor(s) of a paper, who was a (were) Student Member(s) of the IEEE at the CCTA

deadline for initial paper submission. The Student(s) is (are) required to present the paper at the

CCTA.

Basis for Judging: Originality, clarity, and potential impact on practical applications of control.

Presentation: At a CCTA session or special event.

(Prior to 2016, the MSC Best Student Paper Award)

- * Nominations must be made by the student's major professor (advisor) through PaperPlaza by the CCTA deadline for paper submission. A paragraph 1) certifying that the nominee is the main author of the paper, 2) certifying that the nominee was a student at the CCTA deadline for initial paper submission, 3) certifying that the nominee has a IEEE membership for the current year, 4) containing a brief description of the contribution of the paper, 5) explaining the main reason for nomination for the award, and 6) providing the advisor's contact information as well as the student IEEE membership number, should be included. Nominations are limited to one per advisor.
- * The Chair of the CCTA Best Student-Paper Award committee (hereafter, the Chair) is appointed by the CSS BOG, based on recommendations from the CSS President-Elect and the CSS ExCom.
- * By 1 month prior to the CCTA deadline for initial paper submission, the Chair should provide to the CCTA General Chair(s) and CCTA Program Chair(s) the latest information about nomination procedures.
- * By the CCTA deadline for paper submission, the Chair chooses an award sub-committee of experts that will read the nominated papers to select the finalists. Up to three finalists are selected by the Chair based on the grades received by the reviewers and discussions from the award sub-committee. The names of the finalists are announced on the Conference web site.
- * By 2 months prior to the CCTA, the Chair tells the CSS President the names, addresses, and paper titles of the finalists. The CSS President notifies the finalists, the Chair of the CSS Awards Committee (responsible for preparation of the certificates and plaque), the CSS VP for Finance (responsible for preparation of travel reimbursement), and the CCTA General Chair.
- * By 2 months prior to the CCTA, an award committee of experts with broad knowledge of the control systems field is appointed by the Chair to select the winner of the CCTA Best Student-Paper Award among the finalists.
- * The award committee selects the winner of the Best Student-Paper Award at the CCTA after having read the papers and having listened to the presentations of the nominated students (the presentations have to be made by the students in person).
- * The winner of the Best Student-Paper Award is announced by the CSS President at the CCTA banquet where each finalist receives a certificate and the winner receives the plaque. The remaining finalists receive CCTA Outstanding Student-Paper awards.

10. Antonio Ruberti Young Researcher Prize (established in 2005) (revised 2015)

Description: To recognize outstanding achievement in research in systems and control by a young researcher and to honor the memory of Dr. Antonio Ruberti.

Prize: \$5,000, photo-engraved Plaque, and travel expenses to the CDC (round trip restricted minimal coach

air fare), conference registration, and up to 4 conference-rate hotel nights for a 3-day conference, and

up to 5 conference-rate hotel nights for a 4-day conference).

Funding: Funded annually by the Antonio Ruberti Foundation through a MOU agreement with society.

Eligibility: The nominee must be 40 years old or younger on January 1st of the year nominated. IEEE or CSS

membership is not required.

Basis for Judging: Based on the research contributions of the nominee. Contributions to either the theory or applications

of systems and control will be considered equally. The determining factor will be the perceived impact of the nominee on the field as evidenced by publications, patents, products, or other tangible items. The broader impacts of the contribution towards the benefit of society at large and towards

the CSS diversity and inclusiveness goals in terms of geography, gender, and work sector.

Presentation: At most one (1) award presented annually at the Awards Ceremony of the CSS.

Nomination Procedure: Nominations of outstanding young researchers in all areas of systems and control are encouraged. A nomination letter and up to 4 additional supporting letters (maximum of 5 letters) describing the outstanding contribution to control systems technology should be submitted on the IEEE CSS Awards nomination system, http://awards.paperplaza.net/ by May 15. Material sent by email or via regular mail will NOT be considered.

* By July 15 the Committee Chair reports the selection result to the President who notifies ExCom, the recipient, the Chair of the CSS Awards Committee (responsible for preparation of plaques), and the CDC General Chair. Winner is informed that the award will be announced to the public for the first time at the CDC.

The award recipient shall make and pay for his/her own travel arrangements to the CDC and shall provide receipts and a request for reimbursement of said expenses to the Ruberti Foundation following the CDC at which he/she receives the award. These should be sent to: Fondazione Antonio Ruberti, Via San Clepodio 36, 00152 Rome, ITALY. The president of the Ruberti Foundation (as at Oct 2014) is Prof Gilberto Corbellini, Sapienza University of Rome, gilberto.corbellini@uniroma1.it

Additional Information:

Antonio Ruberti was one of the first three Professors of Automatic Control in Italy (together with Giorgio Quazza and Antonio Lepschy). In 1964 the first chair of Automatic Control was established at the University of Rome "La Sapienza" and he was hired to occupy that position. He was Faculty Dean and later Rector (for 11 years) of "La Sapienza", Minister of the Scientific Research, Commissioner of the EU for Science and Research and later held several other positions in EU Commission till his sudden and unexpected death in 2000.

11. Control Systems Society Transition to Practice Award (established in 2009)

Description:

This award recognizes outstanding collaborative scientific interactions between industry and/or research laboratories and academic communities that transition basic controls and system theory to practical systems for the benefit of the society at large.

This award will recognize an individual or a team of researchers whose research activity arising from Industry-University collaboration(s) has produced substantive results with demonstrated impact to practice. It will be awarded to the competitor(s) who best demonstrates research with a high-degree of excellence and effective industry-university collaboration with proven record of success in transitioning systems and control theory emanating from their research to practical industrial or commercial systems

Prize:

The winner will receive \$2,000 as cash prize, a certificate laminated on a plaque and travel expenses to the IEEE Multi-conference on Systems and Control (MSC) in year (YYYY+1). The travel expenses reimbursement will be the standard IEEE CSS Package (i.e., round trip restricted (minimal) coach air fare, conference registration, and three hotel nights at the conference rate). If the prize is awarded to a group, members of the group will equally split the cash portion of the prize and only one member of the group will receive travel reimbursement. Each group member will receive a certificate.

Funding:

Contributions from organizations will be requested that together with a CSS contribution will permanently fund this award. CSS has the financial resources to completely fund the permanent cost of this award while maintaining a positive budget. Nonetheless, CSS plans to solicit contributions for the award from Industrial and University Sponsors. CSS does anticipate partially funding the award.

Eligibility:

Faculty and industry partners can be included in the nomination package for consideration by the award committee when their contributions are considered important for the success of transitioning the control research to practice. The word "Industry" is defined broadly to represent all non-academic sectors such as the commercial sector, government research laboratories and military establishments. The word "Practice" is broadly defined to represent "in use" as standard product or service. Researcher(s) cannot receive the award more than once.

The award nominee(s) must be member(s) of IEEE. There are no restrictions on the time period of achievement. The nomination package should demonstrate tangible and visible achievements. While a team can be nominated, only one person will give the lecture and should be identified on the nomination form.

Basis for Judging:

The award is given annually.

Essential Factors to be Considered

• Outstanding contribution(s) and demonstrated impact of the resulting control system technology from the nominated Industry-University Collaborations.

Desirable Factors to be Considered

- Promotion and enhancement of industry employment of control engineering graduate students
- Improved products dependent on the nominated research
- Leveraging of current and new systems and control theory for economic advantage
- Summary of broader benefits to the society at large (current and anticipated future benefits)

Voting procedure

The committee may hold discussion of the nominations at the ACC, by teleconference, or by
email. Following discussions, the winner will be selected by secret ballot wherein the winner
must attain a majority vote. If multiple rounds of voting are required, then the nomination receiving the lowest number of votes on any round will be eliminated in the subsequent round. The
vote may be taken by e-mail.

Presentation:

The award winner(s) names will be announced at the IEEE Multi-conference on Systems and Control (MSC) in year YYYY. The winner will receive the award and present a one hour lecture at the MSC in year (YYYY+1). Only one person will give the lecture.

A nomination letter and up to 4 additional supporting letters (maximum of 5 letters) describing the outstanding contribution to control systems technology should be submitted on the IEEE CSS Awards nomination system, http://awards.paperplaza.net/ by May 15. Material sent by email or via regular mail will NOT be considered.

^{*} The winner receives a certificate laminated on a wooden plaque, a paper certificate, and the monetary prize.

- * In order to avoid having the same individual receive the Control Systems Technology Award and the Transition to Practice Award during the same year, these two Award Subcommittees should identify the winner and a runner-up and communicate this information to the Awards Chair. The Awards Chair working with the Award Subcommittee Chairs will make the final decision.
- * Selection of the winner will be carried out before July 15 by the Control Systems Society Transition to Practice Award Committee, whose members are appointed by April 15 by the committee chair (in consultation with the CSS Awards Chair). The winner is announced at the CCTA the year before the award presentation and lecture. If the CCTA schedule requires an earlier decision the committee will be expected to expedite its processing. The CSSTP Award committee chair is appointed by the BOG, based on recommendations from the President-Elect and the ExCom.
- * The Committee Chair reports selection results to the President, who notifies the award recipient, the Chair of the CSS Awards Committee (responsible for preparation of plaques and certificates), the CCTA General Chair, and the CSS VP for Finance (responsible for preparation of award checks, and travel reimbursement). Winner is informed that the award will be announced to the public for the first time at the CCTA.

12. IEEE CSS Award for Technical Excellence in Aerospace Control (established in 2009) (revised Prize, Eligibility, Presentation and Administration/Selection 2015; revised 2019)

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Description:

The award will be given annually to a person or team of people that performed an aerospace control engineering activity during the previous 36 months that demonstrates excellence and significant results with demonstrated impact. Examples of results evidence are either a paper appearing in an IEEE publication that specifically addresses aerospace controls issues, or a patent application or award that significantly advances the state-of-the-art in aerospace controls. Innovative products that have appeared on the marketplace will also be considered. The award is similar to the outstanding paper awards for the CSS transactions and magazine in the sense that it recognizes an outstanding paper or patented idea as opposed to cumulative contributions over a career.

Prize:

Certificate laminated on a Plaque, plus up to \$500 towards expenses for travel to accept the award. If the prize is awarded to a group, each group member will receive a certificate and one individual will receive travel reimbursement.

Funding:

The award will be funded by an endowment managed by the IEEE Foundation. The annual income from the fund will be used to fund the award in perpetuity. The total amount of the prize (travel plus plaque) shall not exceed the amount paid out by the endowment in a given year.

Eligibility:

CSS membership is required. Any aerospace control engineering activity and results that occurred in the 36 months previous to the award nomination submittal deadline is eligible. The broader impacts of the contribution towards the benefit of society at large and towards the CSS diversity and inclusiveness goals in terms of geography, gender, and work sector.

Basis for Judging:

Contributions (for instance, papers, products, prototypes and /or patents) will be judged on the following criteria:

- Originality of technical innovation,
- Significance/relevance to the aerospace community,
- Clear description of the aerospace application,
- Potential impact on the practice of aerospace engineering,
- The broader impacts of the contribution towards the benefit of society at large and towards the CSS diversity and inclusiveness goals in terms of geography, gender, and work sector.

The award will be given only if a suitable candidate is identified.

Voting procedure

• Selection of winners will be carried out before July 15, by the TEAC award subcommittee, whose members are appointed by April 15 by the committee chair (in consultation with the CSS Awards Chair).

Presentation:

The award will be presented at the Society Awards Ceremony held during the annual IEEE Conference on Decision & Control.

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A nomination letter and up to 4 additional supporting letters (maximum of 5 letters) describing the outstanding contribution to aerospace control should be submitted on the IEEE CSS Awards nomination system, http://awards.paperplaza.net/ by May 15. Material sent by email or via regular mail will NOT be considered.

13. IEEE Transactions on Control of Network Systems Outstanding Paper Award (est. 2015)

Description: To recognize an outstanding paper(s) published in the IEEE Transactions on Control of Network

Systems.

Prize: A photo-engrave plaque for each recipient and, for one recipient, travel expenses to the CDC (round

trip restricted minimal coach air fare), conference registration and up to 4 conference-rate hotel nights

for a 3-day conference, and up to 5 conference-rate hotel nights for a 4-day conference).

Funding: Funded by the IEEE Control Systems Society

Eligibility: Papers published in the IEEE Transactions on Control of Network Systems during the two calendar

years preceding the year of the award. Once a paper receives the IEEE *Transactions on Control of Network Systems* Best Paper Award, it is no longer eligible to be considered for this award in subsequent years. The paper publication date is determined by the journal volume date (not the online

publication date).

Basis for Judging: The basis for judging shall be originality, potential impact on the foundations of network systems,

importance and practical significance in applications, and clarity.

Presentation: At most one (1) award is presented annually at the Awards Ceremony of the CSS.

A nomination letter and up to 3 additional supporting letters (maximum of 4 letters) describing the excellence of the nominated paper should be submitted on the IEEE CSS Awards nomination system, http://awards.paper-plaza.net/ by May 15. Material sent by email or via regular mail will NOT be considered. A nomination shall include:

- 1. A letter from the nominator describing the outstanding features of the paper.
- 2. Details for up to three additional supporting individuals who are familiar with the paper who have agreed to provide a reference letter.
- 3. An electronic copy of the paper itself
- * In addition to general CSS publicity soliciting nominations for its awards, nominations for this award will be solicited by the Editor-in-Chief of the T-CST and any committee that the editor might appoint for this purpose.
- * The T-CST Paper Award Committee chair should obtain from the T-CST Editor-in-Chief all available materials regarding the nominated papers that may be helpful in the decision process. Such materials include the Associate Editor's comments to the authors and the comments of the anonymous reviewers. It is important to preserve the confidentiality in the award process as well as the anonymity of the reviewers of the nominated papers.

- * Selection of winners will be carried out before July 15, by the T-CST Paper Award Committee, whose members are appointed by April 15 by the committee chair (in consultation with the CSS Awards Chair). The T-CST Paper Award committee chair is appointed by the BOG, based on recommendations from the President-Elect and the ExCom.
- * The Committee Chair reports selection results to the President, who notifies the award recipient(s), the Chair of the CSS Awards Committee (responsible for preparation of plaques and certificates), and the CDC General Chair. Winner(s) are informed that the award will be announced to the public for the first time at the CDC.

14. Roberto Tempo Best CDC Paper Award (established in 2017; revised 2019)

Description: To recognize an outstanding paper presented at the annual IEEE Conference on Decision and Control

and to honor the memory of Dr. Roberto Tempo.

Prize: The award consists of a Certificate laminated on a plaque (one for each author) and a cash award in

the amount of \$1,000 to be divided among the authors.

Funding: The cash award is funded by an endowment jointly provided by the IEEE Control Systems

Society and Roberto Tempo's family, and managed by the IEEE Foundation. The plaques are

funded by the IEEE Control Systems Society.

Eligibility: Authors of papers presented at the IEEE Conference on Decision and Control the year before the

presentation of the award.

Basis for Judging: Originality, potential impact on any aspect of control theory, technology, or implementation, and the

clarity of the writing.

Presentation: At most one (1) award is presented annually at the Awards Ceremony of the CSS.

A nomination letter describing the excellence of the nominated paper should be submitted on the IEEE CSS Awards nomination system, http://awards.paperplaza.net/ by May 15 of the year following the presentation of the paper at the conference. Material sent by email or via regular mail will NOT be considered. A nomination shall include:

- A letter from the nominator describing the outstanding features of the paper.
- An electronic copy of the final version of the paper itself
- * The Chair of the Roberto Tempo CDC Best Paper Award reports selection results to the President, who notifies the award recipient(s), the Chair of the CSS Awards Committee (responsible for preparation of plaques and certificates), and the CDC General Chair. Winner(s) are informed that the award will be announced to the public for the first time at the CDC.
- * Nominations will be solicited from all who attend the Conference (CDC). The Conference Program Chair/Program Committee, in particular, will be asked to identify papers that have come to her attention as potentially worthy of the award as the program is being assembled. Nominators will be encouraged to include evidence based on the presentation as well as on the paper itself.
- * Selection of winners will be carried out no later than August 31 of the year following the conference at which the paper was presented by the Roberto Tempo CDC Best Paper committee, whose members are appointed by the committee chair (in consultation with the CSS Awards Chair). The Chair of the Roberto Tempo Best CDC Paper committee is appointed by the BOG, based on recommendations from the President-Elect and the ExCom.

14. <u>15. IEEE Control Systems Letters Outstanding Paper Award (established in 2019)</u>

Description: To recognize an outstanding paper published in the IEEE Control Systems Letters.

Prize: Single annual award (at most 1 paper may be selected) with possibly additional recipients. A photo-

engrave plaque for each recipient and, for one recipient, travel expenses to the CDC (round trip restricted minimal coach air fare), conference registration and up to 4 conference-rate hotel nights for

a 3-day conference, and up to 5 conference-rate hotel nights for a 4-day conference).

Funding: Funded by the IEEE Control Systems Society

Eligibility: Papers published in the IEEE Transactions on Control Systems Letters during the two calendar years

preceding the year of the award. The paper publication date is determined by the journal volume date (not the online publication date). The same paper cannot receive both the Roberto Tempo Best CDC Paper Award and the *IEEE Control Systems Letters* Outstanding Paper Award in the same year.

Basis for Judging: Originality, potential impact on the theoretical foundations of control, importance and practical sig-

nificance in applications, and clarity.

Presentation: At most one (1) award is presented annually at the Awards Ceremony of the CSS.

16.

15. Local Awards

CSS sponsored conferences and CSS chapters may sponsor local awards only if pre-approved by the CSS Executive Committee and the CSS Awards Committee. Such awards may recognize best conference papers or other significant contributions to the conference or chapter. Requests for approval of such individual awards must be submitted by the Conference Program Chair, Conference General Chair or Chapter Officer to the CSS Awards Chair at least nine months in advance of the scheduled presentation of the award. The award must be approved by the CSS Executive Committee and the CSS Awards Committee before any public announcement is made of the award. Financial sponsorship of awards may be solicited from individuals, corporations, or other organizations.

To be approved, the award must satisfy:

- 1) A clear, open, and unbiased procedure for selecting the recipient. All such awards should meet the standards for fairness associated with other CSS awards.
- 2) An acceptable source for the money required to fund the award.
- 3) A monetary award value less than that of any similar awards officially offered by the CSS. The award could be simply a certificate, or a certificate plus a specified monetary amount that the conference or chapter can afford.

A request for approval of a local award should include the following information:

- 1) A description of the award and its purpose.
- 2) The associated prize.
- 3) The source of funding, if any.
- 4) Who is eligible for the award. Specify how the award will be advertised and how nominations will be made
- 5) Who will comprise the selection committee and how will they be appointed. Summarize the review process.
- 6) When the award will be presented.

VIII. IEEE AWARDS

1. Control Systems Award (Technical Field)

Description: To recognize outstanding contributions to control systems engineering, science or technol-

ogy.

Prize: \$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

for a three-day conference and five conference nights for a four-day conference).

Funding: Funded by the IEEE Control Systems Society.

Presentation: At the Awards Ceremony of the CSS *Nomination Deadline*: January 31st of each year

The IEEE Control Systems Award was established by the Board of Directors in 1980, and may be presented annually to an individual on recommendation of the Awards Board through its Technical Field Awards Council.

Criteria considered by the Evaluation Committee shall include: seminal nature of the contribution, singular achievement, practical impact, breadth of contribution, depth of contribution, historical precedence, test of time. The quality of the nomination is also considered.

The nomination for is available at: http://www.ieee.org/ -> About IEEE -> Awards and Fellows -> Technical Field Awards -> IEEE Control Systems Award -> Nomination Form

2. IEEE Fellows

Each year the IEEE designates as FELLOWS many individuals who have made outstanding contributions to the electrical and electronics engineering profession. The IEEE Awards Office should be the source for detailed information about eligibility and nominating procedures (www.ieee.org/about/awards). The CSS has two standing committees, with non-overlapping membership, that participate in the Fellow selection process, under the supervision of the President. The Fellow Nomination Committee seeks out worthy candidates and nominators for those individuals. The Fellow Evaluation Committee evaluates the achievements of those nominees whose forms are forwarded to it by their respective nominators. (Each nomination designates a relevant IEEE Society that should be asked to provide an evaluation of the candidate's achievements.) The chairs of these two committees, who must be IEEE Fellows and CSS members, are appointed by the BoG based on recommendations from the President-Elect and the Executive Committee. The chairs appoint the members of their committees. The Fellow Evaluation Committee, which should have at least six members, should be composed of IEEE Fellows whose joint expertise spans the breadth of technical specialties covered by the CSS.

IX. * INSTRUCTIONS TO SELECTION COMMITTEE CHAIRS

Chairs of Award Selection Committees should consult the CSS Awards Manual for information about procedures for appointment of their committee members, for determining award winners and reporting the committee decision, as well as the time schedule for committee activities. If a current member of an award selection committee is nominated for an award to be decided by that committee, that individual should resign from the committee.

X. * NOTIFICATION TO AWARD WINNERS

The President notifies each recipient of a CSS award, first by e-mail and then by a hard-copy letter. (For the CDC and CCTA Best Student-Paper Award, the President notifies the four finalists, but the winner is first notified publicly at the CSS Award Presentation Ceremony.) These communications should determine if the recipient will be present

at the award presentation ceremony, and request discretion in spreading the news of success until after the time of that ceremony. When relevant, the letter should say that the VP for Finance will be contacting the recipient with information about travel reimbursement and/or the monetary part of the prize. The Finance VP sends to the recipient a Travel Voucher and Instructions for completing the voucher, and requests the Social Security Number from each winner of a monetary prize who is a citizen or resident of the USA.

XI. * NOTIFICATION TO NOMINATORS

After receiving information from the President that the award recipient knows the selection results, the Chair of the selection committee will provide feedback to each of the nominators of candidates for the award. In cases where the nomination could be considered again in the next year, the comments to unsuccessful nominators should be limited to three simple possibilities: a) the nomination will automatically be carried over for reconsideration during the next year; b) consider submitting an improved nomination (more complete, more specific...) next year; or c) may resubmit nomination, but success is not likely for this award in the near future.

XII. * PREPARATION OF AWARDS

Based on information provided by the President, the Chair of the Awards Committee gives instructions to the Society General Activities Desk of the IEEE Technical Activities Department for preparation of plaques and certificates for the awardees (for CSS awards presented at the CDC). That information should include the type of plaque or certificate, complete text, name and title of all signatories, original signatures in blue or black ball point ink, the delivery location and the deadline date to assure that the materials will be available on time for the award presentation ceremony at the CDC. The Galvanic (photo engraved) Plaque is used for the Bode and Control Systems Technology Awards. The Laminated Certificate is used for the other awards. Information about the plaques and certificates that IEEE has available can be found in the IEEE Awards and Recognitions Manual (beginning on p. 216 in the 2009 edition) (available in pdf format at http://www.ieee.org/portal/cms_docs_iportals/iportals/volunteers/tab/TAB Awards and Recognition Manual.pdf).

Certificates for the Student-Paper Award finalists and the plaque for the winner are prepared locally by the Chair of the selection committee, based on samples from previous years. (The decision time for these awards is too late for processing by the IEEE.)

Based on information from the President, and Social Security Numbers (for U.S. awardees) received from the recipients, the VP for Finance orders checks from TAB finance for the monetary components included in some awards. Those checks should be delivered to the Finance VP (or designee) in good time to be available at the awards presentation ceremony at the CDC. If the IEEE Control Systems Award is to be presented at the CSS Awards Ceremony, the Operations Manager of the IEEEE Awards/Fellows Activities Department will contact the CDC General Chair to arrange for delivery of the program booklet, plaque and medal to the CDC. It is recommended that the Finance VP contact that office to arrange to get the prize check and carry it to the CDC.

The VP for Finance provides forms and instructions to those recipients who receive reimbursement of travel, hotel and conference registration costs, including the CS Award winner if that award is presented at the CDC.

XIII. * PRESENTATION OF AWARDS

The CSS Awards Presentation Ceremony is part of the annual CDC. It may be part of the conference banquet activities, or a stand-alone ceremony. The CSS President is responsible for organizing and implementing the Awards Ceremony, in conjunction with the CDC General Chair, and for preparation of the printed program for that event.

(See the sample Awards Ceremony Program in Appendix G.) The CDC Local Arrangements Chair may be called upon to arrange local printing of the Awards Presentation Program. Most CSS awards are presented at that event, as well as the certificates for IEEE Fellows who choose to receive them at that time.

If the Control Systems Award recipient chooses to receive the award at the CDC, that presentation will be part of the Awards Ceremony, and the recipient generally offers brief remarks after receiving the award. In such cases the CSS will reimburse the travel expenses for the Award winner to attend the CDC (round trip restricted (minimal) coach air fare, conference registration, and four conference-rate hotel-nights).

XIV. * PUBLICITY ABOUT AWARDS

The CSS Awards Web Page will include those parts of this manual that are not concerned with operational details, as well as lists of the previous winners of each award, along with their citations. Announcement of those CSS and control-related IEEE awards requiring nominations should appear in the March issues of the Control Systems Magazine and the Systems and Control E-Letter. Winners of all CSS awards will be announced in the Control Systems Magazine, recognized at the annual Awards Ceremony at the Conference on Decision and Control, and recorded in the CSS Awards Book maintained by the Secretary/Administrator of the CSS.

XV. * TIME TABLE FOR APPOINTMENTS, DECISIONS and NOTIFICATIONS

Chairs of the award committees for Axelby, *Transactions on Control Systems Technology*, *Control Systems Magazine*, Control Systems Technology, Transition to Practice, and CDC and CCTA Best Student-Paper Awards are appointed by the Board of Governors at their December meeting of the preceding year. Nominations for those positions are initiated by the President-Elect and recommended to BoG by the Executive Committee. The chair of the CDC Student-Paper Award appoints that selection committee, in consultation with the chair of the CSS Awards Committee, by September 15. The chair of the CCTA Student-Paper Award appoints that selection committee, in consultation with the chair of the CSS Awards Committee, by June 15. The other award committee chairs appoint their committees, in consultation with the chair of the CSS Awards Committee, by April 15. The membership of each of these four award committees will be as follows; Chair, Past Chair and at least 2 additional members (normally 3). The committee Chair will select the members after consultation with the Past Chair. Furthermore, the committee Chair will discuss the planned committee appointments with the Chair of the CSS Awards Committee.

May 15 is the deadline for receipt, by the chairs of the respective committees, of nominations of papers from the three publications for their respective awards. That is also the deadline for receipt by the Control Systems Technology and Transition to Practice chairs of nominations for those awards. For all of these awards, July 15 is the deadline for selecting the winners and reporting the decisions to the President (with special attention given to the Transition to Practice award because of the date the CCTA is held).

CDC Best Student-Paper Award nominations must be received by the chair of that committee by late August. Reviewing, ranking and selection of the four finalists should be completed by October 15, and final decision of the winner by November 15.

Nominations for the Outstanding Chapter Award, based on the annual reports requested from all chapters, are prepared by the chair of the Chapter Activities Committee, by October 15. The Member Activities Board selects at most one (1) Outstanding Chapter each year, by November 1

The processes for selecting Distinguished Members and the Bode Prize winner (for the following year) should begin no later than August 1 and be completed by September 15.

APPENDIX A

IEEE CSS BYLAWS (excerpts related to Awards from ByLaws approved as of December 11th, 2016)

Article V: Standing Committees

Section 2. Awards Committee. This standing committee shall consist of the Awards Committee Chair, the chairs of subcommittees for awards pertaining to the CSS publications, conferences and other technical contributions, and other members, as suitable, appointed by the President-Elect, subject to Board of Governor approval. It shall report to the President, and shall be responsible for selecting and recommending various forms of recognition for noteworthy contributions to the fields of interest to the Society.

Section 5. Fellow Evaluation Committee. This committee shall report to the President, and shall be responsible for evaluating the qualifications of candidates for Fellow as requested by the IEEE.

Section 16. Fellow Nominations Committee. This committee shall report to the Vice President Member Activities, and shall see that the deserving members of the Society are nominated for the membership grade of Fellow of the IEEE.

Section 18. Award Nominations Committee. This committee shall report to the VP-Membership. It shall endeavor to ensure that a sufficient number of deserving members are nominated for all awards and prizes administered by IEEE CSS. Diversity of nominees in terms of gender, geographical region, and professional sector (academia/industry/other) is strongly encouraged. Nominations independent of this committee are possible and desired.

APPENDIX - B CSS AWARDS CHART

	Nominate Candidate	Solicit Nominations	Select Winner(s)	Appoint Sel. C. Chair	Appt Sel. C. Members	Oversight Coordntn
TAC Outstanding Paper (Axelby)	Anyone *	TAC Editor VP Pub	TAC Award C.	BoG (Pres.Elct, ExCom, VP PA)	Chair with ->	Chair Awd C.
TCST Outstanding Paper	Anyone *	TCST Editor VP Pub	TCST Award C.	BoG (Pres.Elct, ExCom, VP PA)	Chair with ->	Chair Awd C.
CSM Outstanding Paper	Anyone *	CSM Editor VP Pub	CSM Award C.	BoG (Pres.Elct, ExCom, VP PA)	Chair with ->	Chair Awd C.
CS Technology Achievement	Anyone *	VP TA	Techy Ach. Award C.	BoG (Pres.Elct, ExCom, VP TA)	Chair with ->	Chair Awd C.
CS Transition to Practice	Anyone *	VP TA	Trans. Pract. Award C.	BoG (Pres.Elct, ExCom, VP TA)	Chair with ->	Chair Awd C.
Outstanding CDC Student-paper	Student's Adviser	CDC Program Chair,Sel C. Chair	Stdnt Paper Award C.	BoG (Pres.Elct, ExCom, VP TA)	Chair with ->	Chair Awd C.
Outstanding MSC Student-paper	Student's Adviser	CCA Program Chair,Sel C. Chair	Stdnt Paper Award C.	BoG (Pres.Elct, ExCom, VP TA)	Chair with ->	Chair Awd C.
Outstanding Chapter			MAB (from Chaptr rpts)			VP Memb
Distinguished Member	ExCom Members	President	ExCom			
Bode Lecture	President		President			
IEEE Fellows	Anyone *	Fellow Nom C.	Ranked by Fell Eval C.	BoG (Pres.Elct, ExCom)	Chair with ->	Chair Awd C.

anyone not on a committee that evaluate the Anyone * = nominations.

APPENDIX C – SAMPLE AWARD LETTERS

[Suggestions 3/5/2001:

- 1. The Control Systems Technology letter should mention the specific contributions for which the award was given.
- 2. When the CST and Bode letters mention that travel expenses will be covered they should direct the recipient to contact the Finance VP (include name and e-mail) for details about the scope and procedure for reimbursement.
- 3. When the IEEE CS Award Winner is invited to accept the award at the CDC, the invitation letter should direct the recipient to contact the Finance VP (include name and e-mail) for details about the scope and procedure for reimbursement.

Dear Jessy,

I am delighted to inform you that the paper

J. W. Grizzle, Gabriel Abba, and Franck Plestan, "Asymptotically Stable Walking for Biped Robots: Analysis via Systems with Impulse Effects,"Vol. 46, No. 1, January 2001, pp. 51-64

has been selected as the winner of the **2002 George S. Axelby Award** as the best paper published in the *IEEE Transactions* on *Automatic Control* during the years 2000 and 2001.

The award consists of a plaque, one for each coauthor, to be presented at the CSS Awards Ceremony on Wednesday, December 11, 2002 from 6:45 to 7:45 PM during the CDC in Las Vegas.

I look forward to congratulating you and your co-authors in person in Las Vegas. (I would be grateful if you would pass on copies of this letter to them.)

In order to build interest and excitement for the Award Ceremony, we request that all recipients of this letter be discreet with the distribution of this good news.

Sincerely,

Leonard Shaw 2002 President

IEEE Control Systems Society

cc: U. Ozguner, P. Antsaklis, A. Haddad

Dear Mark,

I am pleased to inform you that the Executive Committee of the IEEE Control Systems Society has chosen to designate you as a **Distinguished Member** of our Society, with a certificate that will be presented at the Awards Ceremony at the 2002 Conference on Decision and Control. That ceremony will take place on 6:45 PM on Wednesday, December 11, 2002, preceding the Conference Banquet.

The Distinguished Member award "..recognize significant technical contributions and outstanding long-term service to the Control Systems Society." In your case, I think this award brings more honor to the CSS than to you, since your technical contributions and service are so well-known.

I look forward to congratulating you in person in Las Vegas.

Best regards, Len

Leonard Shaw

2002 President

IEEE Control Systems Society (cc Executive Committee)

Dear Drs. Gorinevsky and Stewart:

I am delighted to inform you that you have been selected as the winners of the **2002 Control Systems Technology Award** of the IEEE Control Systems Society for your "innovative application of modern identification and control methods to the papermaking process."

The award consists of a \$2000, a plaque for each co-recipient, and travel expenses for one recipient (round trip minimal coach fare, free CDC registration, and four hotel nights at the conference rate.) The award will be presented at the CSS Awards Ceremony on Wednesday, December 11, 2002 from 6:45 to 7:45 PM during the CDC in Las Vegas.

We hope that both of you will be able to attend the ceremony. I assume that you will want to share the cash award equally, and make your own arrangements to share the benefit of the travel expense reimbursement. The CSS Finance Vice President, Ray DeCarlo (decarlo@ecn.purdue.edu) will send you information about how to complete and file the travel voucher, along with receipts. Please send him your social security numbers, which are necessary in order to obtain the cash award checks.

I look forward to congratulating you in person in Las Vegas In order to build interest and excitement for the Awards Ceremony, we request that all recipients of this letter be discreet with the distribution of this good news.

Sincerely,

Leonard Shaw 2002 President IEEE Control Systems Society

cc: U. Ozguner, P. Antsaklis, S. Joshi, R. DeCarlo

Dear Dr. Sgurev:

I am delighted to inform you that the Bulgaria Chapter of the IEEE Control Systems Society has been selected by the Membership Activities Board to receive the **Outstanding Chapter Award** for 2002.

This award will be formally announced and presented during the annual Awards Ceremony of the Society, which will be held during the 41st IEEE Conference on Decision and Control (CDC), in Las Vegas, Nevada, December 10-13, 2002.

The award consists of a certificate, \$1000 paid to the Chapter, and up to \$1000 to support the travel of a representative from the Chapter to attend the Awards Ceremony at the CDC.

Please contact the CSS Vice President for Financial Activities, Ray DeCarlo (decarlo@purdue.edu), to arrange for the payments. He will need information about how to make out the check for the Chapter, or possibly to arrange a transfer of funds directly to the Chapter's bank. The travel reimbursement will be paid to the Chapter representative after a standard IEEE voucher has been submitted along with receipts.

Please pass on my congratulations to the officers and members of your outstanding chapter.

I look forward to meeting you or your representative in Las Vegas. (Please let us know who will be attending the Award Ceremony to receive the award.)

Sincerely,

Leonard Shaw

Cc: R. DeCarlo, U. Ozguner, T. Djaferis, P. Antsaklis

Dear Lennart,

It is my pleasure to tell you that, with the advice of the Executive Committee of the IEEE Control Systems Society, I would like to designate you as the winner of the **2003 Bode Lecture Prize**. Since acceptance of this award entails your commitment to present the Bode lecture on December 12, 2003 at the Conference on Decision and Control in Maui, Hawaii, I must ask if you are willing to accept this honor. We are confident that you can give a talk that will provide unique insights and challenges for future work in your field and hold the attention CDC attendees who are not experts in that field.

The material benefits of this award are a plaque, a \$2,000 prize and reimbursement of travel expenses (round trip restricted coach air fare, conference registration, and four conference-rate hotel-nights).

Your winning of this award would be announced at the 2002 CDC Awards Ceremony, but the presentation would be made at the 2003 ceremony on the day before your Bode Lecture.

In order to maintain interest in the Awards Ceremonies, we ask that you be discreet about the news of this award until the time of the 2002 Awards Ceremony.

I hope you will be as pleased to accept this honor as we are to offer it to you.

Best Regards, Len

Leonard Shaw 718-260-3802 2002 President 718-260-3906 (Fax) IEEE Control Systems Society lshaw@poly.edu

Polytechnic University 6 MetroTech Center Brooklyn, NY 11201

Dear Professor Morari,

I am delighted to inform you that your student, Pascal Grieder, has been selected as a finalist for the **2003 CDC Best Student-Paper Award** for the paper "Robust Receding Horizon Control-Analysis and Synthesis", by Pascal Grieder, Pablo Parrilo and Manfred Morari, Swiss Federal Inst. of Technology.

The award is given to recognize excellence in a conference paper whose primary contributor is a Student Member of the IEEE. Finalists receive a certificate to be presented at the Annual Awards Ceremony of the Society, which will be held during the 42nd IEEE Conference on Decision and Control (CDC), in Maui, Hawaii, on Thursday, December 11, 2003. I congratulate you and your student on your accomplishment and look forward to meeting you in Maui in December. Under separate cover you both will receive an invitation to the CSS VIP Reception on Tuesday, December 9th. If for any reason you will not be able to attend the upcoming CDC, please let me know.

The winner (to be announced at the IEEE CSS Awards Ceremony) will receive Certificate laminated on a plaque and travel expenses to the CDC (round trip restricted (minimal) coach air fare, conference registration, and three conference-rate hotel-nights). The four finalists will come forward to be recognized during the ceremony, and the winner is announced while all finalists are on stage.

I would be grateful if you would pass on a copy of this letter to your student. Best regards,

Cheryl B. Schrader President IEEE Control Systems Society

copy: F. Lewis, General Chair, 42nd CDC

- L. Bushnell, Secretary-Administrator, CSS
- P. Antsaklis, Chair, Awards Committee
- M. Sznaier, Chair, Best Student-Paper Award Selection Committee

Control Systems Society Awards

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.

CSS 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.

CDC and CCA Best Student-Paper Awards

To recognize excellence in a paper presented at the Conference on Decision and Control or at the Conference on Control Applications, whose primary author is a Student Member of the IEEE.

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.

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.

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.

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.

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.

IEEE Awards

IEEE Fellow Award

For outstanding contributions to the electrical and electronics engineering profession.

Control Systems Technical Field Award

For outstanding contributions to control systems engineering, science or technology.



2004
Annual Awards
Ceremony of the IEEE
Control Systems Society

43rd IEEE Conference on Decision and Control

Thursday, December 16, 2004 6:15 PM - 7:20 PM

Water's Edge Private Atlantis Paradise Island, Bahamas

Awards Ceremony Program

Openina Remarks

J. Douglas Birdwell, CSS President & Panos Antsaklis, Chair Awards Committee

Outstanding Chapter Award

Presented by Richard Middleton, Vice-President Member Activities Ljubo Vlacic, Chair, Queensland Joint Societies CSS/R&A Chapter

CDC Best Student-Paper Award Finalists

Presented by Theodore Djaferis, Vice-President Conference Activities William Dunbar, UC Santa Cruz (Richard Murray) "Receding Horizon Control of Multi-Vehicle Formations: A Distributed Implementation," by W. Dunbar and R. Murray. Yuko Hatano, University of Washington (Mehran Mesbahi) "Agreement over Random Networks," by Y. Hatano and M. Mesbahi.

Stephen Prajna, CalTech (John Doyle and Ali Jadbabaie) "Stochastic Safety Verification Using Barrier Certificates," by S. Prajna, A. Jadbabaie and G. Pappas. Henrik Sandberg, Lund Institute of Technology (Anders Rantzer) "A Bode Sensitivity Integral for Linear Time-Periodic Systems," by H. Sandberg and B. Bernhardsson.

CSM Outstanding Paper Award

Presented by John Baillieul, Vice-President Publication Activities Bonnie S. Heck, Linda M. Wills and George J. Vachtsevanos, "Software Technology for Implementing Reusable, Distributed Control Systems," 23:1, February 2003.

TCST Outstanding Paper Award

Presented by John Baillieul, Vice-President Publication Activities Gregory E. Stewart, Dimitry M. Gorinevsky and Guy A. Dumont, "Feedback Controller Design for a Spatially Distributed System: The Paper Machine Problem,* 11:5, September 2003.

George S. Axelby Outstanding Paper Award

Presented by John Baillieul, Vice-President Publication Activities Bassam Bamieh, Fernando Paganini and Munther A. Dahleh, "Distributed Control of Spatially Invariant Systems," 47:7, July 2002.

Control Systems Technology Award

Presented by Miroslav Krstic, Vice-President Technical Activities Banavar Sridhar, NASA Ames Research Center

For the development of modeling and simulation techniques for multivehicle traffic networks and advanced air traffic management systems through innovative application of control systems concepts.

Hendrik W. Bode Cecture Prize

Presented by J. Douglas Birdwell, CSS President

Tamer Başar, University of Illinois at Urbana-Champaign

For seminal contributions to stochastic control and dynamic game theory, robust nonlinear and adaptive control, and control over wired and wireless networks.

IFFF Fellow Awards for 2004

Presented by J. Douglas Birdwell, CSS President & Arthur Winston, IEEE President

Evaluated by IEEE Control Systems Society:

Er-Wei Bai, for contributions to system identification and parameter estimation.

Gary J. Balas, for contributions to robust control techniques for aerospace vehicles.

Edwin Chong, for contributions to communication networks and discrete event systems. Bart L. R. De Moor, for contributions to algebraic and numerical methods for systems and control.

Arie Feuer, for contributions to adaptive control and signal processing.

Alexander L. Fradkov, for contributions to adaptive and nonlinear systems.

Minyue Fu, for contributions to robust control and signal estimation.

J. William Helton, for contributions to frequency-domain design of robust control systems

Christopher Hollot, for contributions to robust control, reset control, and Internet congestion control.

Masao Ikeda, for contributions to the theory of large scale systems and decentralized control

George W. Irwin, for contributions to the application of modern control design methods.

Mrdjan J. Jankovic, for contributions to nonlinear control theory and automotive technology. Jack N. Little, for leadership in the development of engineering software for technical computing.

Richard M. Murray, for contributions to the theory of nonlinear control and its applications to robotics, flight control, and fluid systems.

Bradley Paden, for contributions to nonlinear control theory and control system design for mechanical

Kevin Passino, for contributions to stability and control of discrete event and intelligent systems.

Giorgio Rizzoni, for leadership in automotive control systems.

Jing Sun, for contributions to systems theory and automotive powertrain control.

Evaluated by other Societies:

Xiao-Rong Li (AES), for contributions to the theory and practice of radar development.

Sanjeev R. Kulkarni (IT), for contributions to machine learning, pattern recognition, and data

Li-Chen Fu (RA), for contributions to robotic control and computer-integrated manufacturing systems. Daniel Koditschek (RA), for contributions to the theory and practice of robotics and intelligent

Friedrich Pfeiffer (RA), for contributions to multibody dynamics and control with application to complex mechanical system

Kazuo Tanie (RA), for contributions to humanoid and human friendly robotics.

IEEE Control Systems Technical Field Award

Presented by Arthur Winston, President IEEE

John Doyle, California Institute of Technology

For fundamental contributions to the analysis and control of uncertain systems.

Remarks

Mark Spong, CSS President-Elect

J. Douglas Birdwell, CSS President