Every year the IEEE and the IEEE Control Systems Society (CSS) recognize the outstanding contributions of individuals belonging to our technical community by giving several awards. Each award is handled by a corresponding committee or subcommittee for whose work we are very appreciative.

The 2010 IEEE CSS subcommittee chairs were:

- Steve Morse: George S. Axelby Outstanding Paper Award
- Richard D. Braatz: IEEE Transactions on Control Systems Technology Outstanding Paper Award
- Bonnie H. Ferri: IEEE Control Systems Magazine Outstanding Paper Award
- Siva Banda: IEEE Control Systems Technology Award
- L.K. Mestha: IEEE CSS Transition to Practice Award
- Jan Willems: Antonio Ruberti Young Researcher Prize
- Sandra Hirche: CDC Best Student Paper Award
- Warren Dixon: MSC Best Student Paper Award.

More details about awards, the nomination process, and past winners can be found on the IEEE CSS Website (http://www.ieeecss.org/main/awards/award-programs).

DISTINGUISHED MEMBER AWARDS

CSS also annually confers Distinguished Member Awards to selected members of our community who have made significant technical contributions as well as having provided outstanding long-term service to the CSS. We are pleased to recognize the following Distinguished Member Award in 2010:

- Edwin Chong of Colorado State University was recognized for scientific contributions in the area of control, optimization, and modeling, with applications to computer/communication networks, sensor networks, and wireless systems, and outstanding service to the Society through editorial and conference related activities.

OUTSTANDING CHAPTER AWARD

The Outstanding Chapter Award recognizes a chapter for demonstrating a high level of activity, innovation, or growth. Vice-President of Member Activities Shinji Hara was responsible for this award. The 2010 award went to the Montreal Section CSS Chapter, chaired by Kaveh Moezzi, for recognizing its constant effort in promoting high-quality technical meetings and for dissemination to a large audience.

CONFERENCE BEST STUDENT PAPER AWARDS

The CDC Best Student Paper Award recognizes excellence in a paper presented at the IEEE Conference on Decision and Control (CDC) whose primary author is a student member of the IEEE. There were four student finalists for CDC 2010:

- Finalist: Behrouz Touri
  Advisor: Angelia Nedich
  Paper Title/Authors: “When Infinite Flow Is Sufficient for Ergodicity,” by Behrouz Touri and Angelia Nedich

- Finalist: Masahiro Ono
  Advisor: Brian C. Williams
  Paper Title/Authors: “Decentralized Chance-Constrained Finite-Horizon Optimal Control for Multi-Agent Systems,” by Masahiro Ono and Brian Williams

- Finalist: Pulkit Grover
  Advisor: Anant Sahai
  Paper Title/Authors: “Is Witsenhausen’s counterexample a relevant toy?” by Pulkit Grover and Anant Sahai

- Finalist: Sebastien Blandin
  Advisor: Alexandre M. Bayen

Pulkit Grover was selected as the winner of the 2010 CDC Best Student Paper Award.

The MSC Best Student Paper Award recognizes excellence in a paper presented at the IEEE Multiconference on Systems and Control (MSC) whose primary author is a student member of the IEEE. There were four student finalists for MSC 2010:

- Finalist: Takuya Shoji
  Advisor: Mitsuji Sampei
  Paper Title/Authors: “Throwing Motion Control of the Springed Pendubot Via Unstable Zero Dynamics,” by Takuya Shoji, Shigeki Nakaura, and Mitsuji Sampei.

- Finalist: Yutaka Hori
  Advisor: Shinji Hara
  Paper Title/Authors: “Periodic Oscillations in Cyclic Repressor Networks: Analytic Existence Criteria with Biological Insight,”...
by Yutaka Hori, Shinji Haru, and Tae-Hyoung Kim

» Finalist: Kai Cai
Advisor: Hideaki Ishii
Paper Title/Authors: “Hideaki Ishii, Further Results on Randomized Quantized Averaging: A Surplus-Based Approach,” by Kai Cai

» Finalist: Bernd Schmidt
Advisor: Johann Reger

Kai Cai was selected as the winner of the 2010 MSC Best Student Paper Award.

JOURNAL PUBLICATION AWARDS
The IEEE Control Systems Magazine Outstanding Paper Award is given for an article or column published during the two calendar years prior to the year of the award, based on impact and benefit to CSS members. The 2010 Award was given to Rafał Goebel, Ricardo G. Sanfelice, and Andrew R. Teel for their paper “Hybrid Dynamical Systems,” IEEE Control Systems Magazine, vol. 29, pp. 28–93, April 2009.

The IEEE Transactions on Control Systems Technology Outstanding Paper Award is given for a paper published during the two calendar years prior to the year of the award, based on originality, relevance of the application, clarity of exposition, and demonstrated impact on control systems technology. The 2010 Award was given to Cheng-Lun Chen and George T.-C. Chiu for their paper “Banding Artifact Reduction for a Class of Color Electrophotographic Printers with Underactuated Motor/Gear Configuration,” IEEE Transactions on Control Systems Technology, vol. 16, no. 4, pp. 577–588, July 2008.

The George S. Axelby Outstanding Paper Award is presented for papers published in IEEE Transactions on Automatic Control during the two calendar years prior to the year of the award, and is based on originality, clarity, potential impact on the theoretical foundations of control, and practical significance in applications. The 2010 award was given to Nuno C. Martins and Munther A. Dahleh for their paper “Feedback Control in the Presence of Noisy Channels: ‘Bode-Like’ Fundamental Limitations of Performance,” IEEE Transactions on Automatic Control, vol. 53, no. 7, pp. 1604–1615, July 2008.

TECHNICAL ACHIEVEMENT AWARDS
The IEEE Control Systems Technology Award recognizes outstanding contributions to control systems technology either in design and implementation, or in project management. This award can be conferred on an individual or a team. The recipient of this year’s award is Mrđan Jankovic, who is recognized for “advancing automotive engine technology using novel control and optimization methods.”

The Transition to Practice Award recognizes outstanding collaborative scientific interactions between industry or research laboratories and academic communities that transition basic control and systems theory to practical systems for the benefit of society at large. Individuals and teams are eligible. The winners of the 2010 CSS Transition to Practice Award are Markos Papageorgiou and Ioannis Papamichail, who were recognized “for the development and implementation of ramp metering algorithms, in particular at the Monash Freeway, Melbourne, Australia.” The Transition to Practice Award comes with an invitation to deliver a plenary lecture at the 2011 IEEE Multiconference on Systems and Control, one of the two annual CSS conferences.

INDIVIDUAL PRIZES
The Antonio Ruberti Young Researcher Prize recognizes distinguished cutting-edge contributions by a young researcher to the theory or application of systems and control. The 2010 Prize was given to George J. Pappas “for fundamental contributions to embedded, hybrid, and networked control systems.” He is the Joseph Moore Professor in the Department of Electrical and Systems Engineering at the University of Pennsylvania. He also holds secondary appointments in the Department of Computer and Information Sciences and the Department of Mechanical Engineering and Applied Mechanics and is member and former director of the GRASP lab. He currently serves as the deputy dean in the School of Engineering and Applied Science. His research focuses on control theory and in particular hybrid systems, embedded systems, hierarchical and distributed control systems with applications to unmanned aerial vehicles, flight management systems, distributed robotics, and biomolecular networks. He has numerous publications, is a Fellow of IEEE, and has received the George S. Axelby Award and the National Science Foundation PECASE.

The Hendrik W. Bode Lecture Prize recognizes distinguished contributions to control systems science or engineering. The recipient delivers a plenary lecture at the CDC, evaluating a significant contribution to control systems science or engineering. The 2010 awardee is Manfred Morari, head of the Department of Information Technology and Electrical Engineering at ETH. He was head of the Automatic Control Laboratory from 1994 to 2008. Before that he was the McCol·lum–Corcoran Professor of Chemical Engineering and executive officer for control and dynamical systems at the California Institute of Technology. He received the diploma from ETH Zurich and the Ph.D. from the University of Minnesota, both in chemical engineering. His interests are in hybrid systems and the control of biomedical systems. In recognition of his research
contributions he received the Donald P. Eckman Award, the John R. Ragazzini Award of the Automatic Control Council, the Allan P. Colburn Award, the Professional Progress Award of the AIChE, and the Curtis W. McGraw Research Award of the ASEE. He received the Doctor Honoris Causa from Babes-Bolyai University and the IEEE Control Systems Technical Field Award and was elected to the National Academy of Engineering. He is a Fellow of the IEEE. He has held appointments with Exxon and ICI plc, and serves on the technical advisory boards of several major corporations.

The IEEE Control Systems Award is given for outstanding contributions to control systems engineering, science, or technology. The 2010 recipient Graham C. Goodwin was recognized “for contributions to the theory and practice of digital and adaptive control.” Graham C. Goodwin has made a lasting impact on both the theory and real-world industrial applications of control systems science. He and his colleagues were among the first to produce a rigorous proof of convergence of discrete-time deterministic and stochastic adaptive control algorithms. The paper detailing this breakthrough was named one of the 25 most influential papers of the 20th century on control. In the area of digital control, he was the first to recognize that the Z-transform was inappropriate for high-speed sampling and developed what was named the delta operator. He demonstrated that there were significant numerical advantages to working with increments rather than absolute measurements. This line of research has many ramifications in practical aspects of signal processing and control. An IEEE Fellow, he is currently a laureate professor and director of the Australian Research Council Centre of Excellence for Complex Dynamic Systems and Control at the University of Newcastle, Australia.

2010 IEEE FELLOWS
The grade of IEEE Fellow recognizes unusual distinction in the profession and is conferred only by invitation of the IEEE Board of Directors on a person with an extraordinary record of accomplishments in any of the IEEE fields of interest. The accomplishments honored by the grade of Fellow contribute significantly to the advancement of engineering science and technology. In 2010, the following individuals were elected fellows as evaluated by the Control Systems Society: Alberto Bemporad for contributions to predictive control of modeling constrained linear and hybrid systems; Francesco Bullo for contributions to geometric and cooperative control with applications to mechanical and robotic systems; Raffaello D’Andrea for contributions to control of multivehicle autonomous systems; Guoxiang Gu for contributions to robust identification and control; Ronald Patton for contributions to robust fault diagnosis and fault-tolerant control; Zhihua Qu for contributions to control of nonlinear uncertain systems; Rodolphe Sepulchre for contributions to nonlinear systems; Mark Shayman for contributions to the theory of Riccati equations and discrete-event dynamic systems; Changyun Wen for contributions to adaptive control, switching, and impulsive systems; Xiaohua Xia for contributions to the observation and control of nonlinear systems. The following CSS members were elected IEEE Fellows, with the evaluation society indicated in parentheses: Eitan Altman (COM), Maria Valla (IE), Umit Ozguner (ITS), Hiroyuki Hama (PE), Stefano Chiaverini (RA), and Ian Ferguson (SEN).

Call for Nominations for 2011 CSS Awards

The IEEE Control Systems Society (CSS) seeks nominations for the six awards it sponsors each year, which have a May 15th nomination deadline. Brief descriptions of these awards and calls for nominations are included below. Further information, including instructions for submitting nominations, may be obtained from the IEEE CSS Awards Web page: http://ieeecss.org/main/awards/award-programs. Note that the CSS Awards Web page has links to additional awards including IEEE awards. In addition, CSS offers two student conference best paper awards each year. Information regarding the student conference paper awards is included on the Web sites of the conferences and may also be accessed from the CSS Web site.

Nominations are solicited for the following 2011 CSS awards.

GEORGE S. AXELBY OUTSTANDING PAPER AWARD
Every year, the CSS presents up to three outstanding paper awards to authors of papers published in IEEE Transactions on Automatic Control during the preceding two calendar years. This outstanding paper award is based on originality, potential impact on the theoretical foundations of control, importance and practical significance in applications, and clarity. The award is named after George S. Axelby, founding editor of IEEE Transactions on Automatic Control. Nominations are solicited for the 2011 award from papers published in the IEEE Transactions on Automatic Control (2009–2010, volumes 54 and 55). The award is presented at the annual CSS awards ceremonies held at the IEEE Conference on Decision and Control.