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.

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.

Roberto Tempo Best CDC Paper Award
This award is given in honor of Roberto Tempo, 44th President of CSS. The Tempo Award Committee selects the best paper from the previous year's CDC based on originality, potential impact on any aspect of control theory, technology, or implementation, and for the clarity of writing.

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.

TCNS Outstanding Paper Award
For an outstanding paper published in the *IEEE Transactions on Control of Network Systems* during the two calendar years preceding the year of the award, based on originality, potential impact on the foundations of network systems, importance and practical significance in applications, and clarity.

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 Letters Outstanding Paper Award
For an outstanding paper published in the *IEEE Control Systems Letters* during the two calendar years preceding the year of the award, based on originality, potential impact on the theoretical foundations of control, importance and practical significance in applications, and clarity.

Award for Technical Excellence in Aerospace Control
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.

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.

Transition to Practice Award
To recognize a distinguished contribution for the transition of control and systems theory to practical, industrial, or commercial systems. This award is conferred on an individual. The award is presented at the IEEE Conference on Control Technology and Applications, and the recipient gives a plenary lecture.

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

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

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

2020
Annual Awards Ceremony of the IEEE Control Systems Society

59th IEEE Conference on Decision and Control

Friday, December 18, 2020
15:00 – 16:10 UTC
Jeju Island, Korea

Awards Program

Opening Remarks
Anuradha Annaswamy, *President, CSS*
Tryphon Georgiou, *Chair, Awards Committee*

Outstanding Chapter Award
Presented by Magnus Egerstedt – Vice President, Member Activities
IEEE CSS Thailand Chapter – **David Banjerdpongchai, Chair**

Distinguished Member Award
Presented by Magnus Egerstedt – Vice President, Member Activities
Warren Dixon
Faryar Jabbari
Jonathan How
Kirsten Morris

Roberto Tempo Best CDC Paper Award
Presented by Alessandro Giua – Vice President, Conference Activities
Tommaso Menara, Giacomo Baggio, Danielle S. Bassett, Fabio Pasqualetti, "A Framework to Control Functional Connectivity in the Human Brain", presented at the 2019 IEEE Conference on Decision and Control (CDC), Nice, France, Dec. 11-13, 2019

CSm Outstanding Paper Award
Presented by Andrew Alleyne – Vice President, Publication Activities
Tomonori Sadamoto, Aranya Chakrabortty, Takayuki Ishizaki, Jun-ichi Imura, "Dynamic Modeling, Stability, and Control of Power Systems with Distributed Energy Resources", IEEE Control Systems Magazine, Vol. 39, No. 2, pages 34-65, 2019.

TCNS Outstanding Paper Award
No awards given

TCST Outstanding Paper Award
Presented by Andrew Alleyne – Vice President, Publication Activities
Michele Cucuzzella, Sebastian Trip, Claudio De Persis, Xiaodong Cheng, Antonella Ferrara, Arjan van der Schaft, "A Robust Consensus Algorithm for Current Sharing and Voltage Regulation in DC Microgrids", IEEE Transaction on Control Systems Technology, Vol. 27, No. 4, pages 1583-1595, July 2019.

George S. Axelby Outstanding Paper Award
Presented by Andrew Alleyne – Vice President, Publication Activities
Fulvio Forni, Rodolphe Sepulchre, "Differential Dissipativity Theory for Dominance Analysis," IEEE Transactions on Automatic Control, vol. 64, no. 6, pp. 2340-2351, June 2019.

Control Systems Letters Outstanding Paper Award
Presented by Andrew Alleyne – Vice President, Publication Activities
Giacomo Baggio, Vaibhav Katewa, Fabio Pasqualetti, "Data-driven Minimum-Energy Controls for Linear Systems", Issue: 3, Vol. 3, July 2019, pp: 589-594

Award for Technical Excellence in Aerospace Control
Presented by João Hespanha – Vice President, Technical Activities
Maruthi Akella, for significant contributions to learning and adaptive control for aerospace applications.

Control Systems Technology Award
Presented by João Hespanha – Vice President, Technical Activities
Malcolm Smith, Will Hoult, Panos Brezas, for the development of the McLaren 720S semi-active suspension control system.

Transition to Practice Award (presented at CCTA21)
Presented by João Hespanha – Vice President, Technical Activities
Guy Dumont, in recognition of world-leading research in several areas including adaptive control, process control, and biomedical engineering, and its transfer to practical use in industry and society

CCTA Outstanding Student Paper Award/Best Student Paper Award (presented at CCTA20)
Presented by Anuradha Annaswamy – President, CSS
Outstanding Paper Winners:
Hayato Dan, Tokyo Institute of Technology (Advisor: Professor Takeshi Hatanaka), "Control Barrier Function-Based Persistent Coverage with Performance Guarantee and Application to Object Search Scenario", by Hayato Dan, Junya Yamauchi, Takeshi Hatanaka, and Masayuki Fujita
Salar Fattahi, University of California, Berkeley (Advisors: Professors Javad Lavaei and Somayeh Sojoudi), "Absence of Spurious Local Trajectories in Time-Varying Optimization: A Control-Theoretic Perspective", Salar Fattahi, Cedric Josz, Reza Mohammadi, Javad Lavaei, and Somayeh Sojoudi
Best Paper Winner:
Carl Marcus Greiff, Lund University (Advisor: Professor Anders Robertsson), "MSE-Optimal Measurement Dimension Reduction in Gaussian Filtering", by Carl Marcus Greiff, Anders Robertsson, and Karl Berntorp

Antonio Ruberti Young Researcher Prize
Presented by Anuradha Annaswamy, President, CSS
Ufuk Topcu, The University of Texas at Austin, for fundamental contributions to the verification and synthesis of nonlinear, hybrid and learning-enabled control systems with applications in autonomy.

Hendrik W. Bode Lecture Prize
Presented by Robert Bitmead,, Past-President, CSS
Kristin Y. Pettersen, Norwegian University of Science and Technology, for leadership in fundamental research, development and commercialization of marine robotics.

IEEE Awards

IEEE Fellows for 2020
Presented by Toshi Fukuda, IEEE President

Fellow: for outstanding contributions to the electrical and electronics engineering profession

Evaluated by CSS
Antonella Ferrara, for contributions to sliding mode control theory
Andrea Garulli, for contributions to set membership identification and robust analysis of uncertain systems
Sonja Glavaski, for leadership in energy systems
Christoforos Hadjicostis, for contributions to distributed and discrete event systems
Sandra Hirche, for contributions to human-machine interaction and networked control
Yasamin Mostofi, for contributions to control and communications co-optimization in mobile sensor networks
Kirsten Morris, for contributions to control and estimator design for infinite-dimensional systems
Maria Prandini, for contributions to stochastic, hybrid and distributed control systems theory
Sarah K. Spurgeon, for contributions to variable structure control and estimation
Sirish Shah, for contributions to process and performance monitoring
Jun Zhao, for contributions to switched systems and dissipativity theory

Evaluated by other Societies

Bin Jiang	**Jianbo Lu**
Bradley Lehman	**Claudio Melchiorri**
Yun Li	**Yong Song**
Shihua Li	

IEEE Control Systems Award
Presented by Jose Moura, IEEE Past-President
Anders Lindquist, Shanghai Jiao Tong University and KTH, for contributions to the foundations of statistical signal processing with applications to distributed sensing and performance benchmarking

Live Portion

CDC Outstanding Student Paper Award/Best Student Paper Award
Presented by Alessandro Giua – Vice President, Conference Activities
Julian Berberich, University of Stuttgart (Advisor: Frank Allgöwer), "Robust Constraint Satisfaction in Data-Driven MPC," by Julian Berberich, Johannes Köhler, Matthias A. Muller, and Frank Allgöwer
Adrian Hauswirth, ETH Zurich, Automatic Control Laboratory (Advisor: Andrew R. Teel), "On the Differentiability of Projected Trajectories and the Robust Convergence of Non-Convex Anti-Windup Gradient Flows" by Adrian Hauswirth, Florian Dörfler, and Andrew Teel
Mohammad Khosravi, ETH Zurich, Automatic Control Laboratory (Advisor: Roy Smith), "Convex Nonparametric Formulation for Identification of Gradient Flows," by Mohammad Khosravi and Roy S. Smith
Wei Xiao, Boston University (Advisor: Christos G. Cassandras), "Feasibility-Guided Learning for Constrained Optimal Control Problems," by Wei Xiao, Calin A. Belta, and Christos G. Cassandras

2021 Hendrik W. Bode Lecture Prize
Presented by Anuradha Annaswamy, President, CSS

Closing Remarks
Anuradha Annaswamy, *President, CSS*
Thomas Parisini, *President-Elect, CSS*