CSS Publications Activities

Vice-President

ANDREW ALLEYNE  *University of Illinois at Urbana-Champaign*
http://ieeecss.org/publications

Journal Editors

IEEE Transactions on Automatic Control
ALESSANDRO ASTOLFI  *Imperial College London and University of Rome “Tor Vergata”*
http://ieeecss.org/publication/transactions-automatic-control

IEEE Transactions on Control Systems Technology
ANDREA SERRANI  *Ohio State University*
http://ieeecss.org/publication/transactions-control-systems-technology

IEEE Transactions on Control of Network Systems
JEFF SHAMMA  *University of Illinois at Urbana-Champaign*
ANNA SCAGLIONE  Deputy Editor-in-Chief  *Arizona State University*
http://ieeecss.org/publication/transactions-control-network-systems

IEEE Control Systems Letters
MARIA ELENA VALCHER  *University of Padua*
http://ieeecss.org/publication/control-systems-letters

IEEE Control Systems Magazine
RODOLPHE SEPULCHRE  *University of Cambridge*
http://ieeecss.org/publication/ieee-control-systems-magazine

Electronics Editor
E-letter on Systems, Control and Signal Processing
AHMAD TAHA  *University of Texas at San Antonio*
http://ieeecss.org/publication/e-letter

*Submission and editorial instructions can be found on each publication’s homepage*
For subscription to the monthly E-Letter, please send an empty email to
eletter-css-join@lists.it.utsa.edu
REGULAR PAPERS

Event-Triggered Learning for Linear Quadratic Control ........................................... H. Schlüter, F. Solowjow, and S. Trimpe 4485
Invariance Properties of Controlled Stochastic Nonlinear Systems Under Information Constraints ................................................................. C. Kawan and S. Yüksel 4514
Finite Rate Distributed Weight-Balancing and Average Consensus Over Digraphs ................................................................. C.-S. Lee, N. Michelusi, and G. Scutari 4530
Necessary and Sufficient Conditions for Asymptotic Decoupling of Stable Modes in LTV Systems ................................................................. Z. Hu, Z. Chen, and H.-T. Zhang 4546
Sensor Switching Control Under Attacks Detectable by Finite Sample Dynamic Watermarking Tests ................................................................. P. Hespanhol, M. Porter, R. Vasudevan, and A. Aswani 4560
Zero-Determinant Strategies in Repeated Multiplayer Social Dilemmas With Discounted Payoffs ................................................................. A. Govaert and M. Cao 4575
Persuasion-Based Robust Sensor Design Against Attackers With Unknown Control Objectives ................................................................. M. O. Sayın and T. Başar 4589
Asynchronous Optimization Over Graphs: Linear Convergence Under Error Bound Conditions ................................................................. L. Cannelli, F. Facchinei, G. Scutari, and V. Kungurtsev 4604
Discrete-Time Differential Dynamic Programming on Lie Groups: Derivation, Convergence Analysis, and Numerical Results ................................................................. G. I. Boutselis and E. Theodorou 4636
Differential Temporal Difference Learning ................................................................. A. M. Devraj, I. Kontoyiannis, and S. P. Meyn 4652
Output Feedback Control of Coupled Linear Parabolic ODE–PDE–ODE Systems ................................................................. J. Deutscher and N. Gehring 4668
Decoupling With Stability of Linear Systems by Static-State Feedback ................................................................. V. Kučera 4684
On Zeno Behavior in Event-Triggered Finite-Time Consensus of Multiagent Systems ................................................................. H. Yu and T. Chen 4700
Robust Controller Design for Stochastic Nonlinear Systems via Convex Optimization ................................................................. H. Tsukamoto and S.-J. Chung 4731
Robust Filtering for 2-D Discrete-Time Switched Systems ................................................................. W. Ren and J. Xiong 4747

TECHNICAL NOTES

Online Optimization With Predictions and Switching Costs: Fast Algorithms and the Fundamental Limit ................................................................. Y. Li, G. Qu, and N. Li 4761
On Compensating Actuator Delays in Consensus Control Under Undirected Graphs ................................................................. R. Huang and Z. Ding 4769
Structural Robustness to Noise in Consensus Networks: Impact of Degrees and Distances, Fundamental Limits, and Extremal Graphs ................................................................. Y. Yazıcıoğlu, W. Abbas, and M. Shabbir 4777

(Contents Continued on Back Cover)
Convergence and Accuracy Analysis for a Distributed Static State Estimator Based on Gaussian Belief Propagation

Existence of Team-Optimal Strategies in Teams With Countable Observation Spaces

Stabilization of Highly Nonlinear Stochastic Coupled Systems via Periodically Intermittent Control

Improved Independent and Uniform Multivariable Gain and Phase Margins in $\mathcal{H}_\infty$/LTR Control

A Bernstein Polynomial Approach to Estimating Reachable Set of Periodic Piecewise Polynomial Systems

Induced-Equations-Based Stability Analysis and Stabilization of Markovian Jump Boolean Networks

Boundary Observer Design for Stochastic Phase Transition Models of Nonequilibrium Traffic Flow

On the Structural Target Controllability of Undirected Networks

A Distributed Indirect Adaptive Approach to Cooperative Tracking in Networks of Uncertain Single-Input Single-Output Systems

Efficient Robust Parameter Identification in Generalized Kalman Smoothing Models

$\mathcal{H}_\infty$ Functional Filtering for Linear Systems With Unknown Inputs

Second-Order Online Nonconvex Optimization

Event-Triggered Distributed MPC With Variable Prediction Horizon

Adaptive Fixed-Lag Smoothing Algorithms Based on the Variational Bayesian Method

Integral Quadratic Constraints for Asynchronous Sample-and-Hold Links

Continuous-Time Penalty Methods for Nash Equilibrium Seeking of a Nonsmooth Generalized Noncooperative Game

Denominator Assignment, Invariants, and Canonical Forms Under Dynamic Feedback Compensation in Linear Multivariable Nonsquare Systems

Hybrid Estimation Strategy-Based Anti-disturbance Control for Nonlinear Systems

A Matrosov Theorem for Hybrid Systems With Memory

Krasovskii and Shifted Passivity-Based Control

Bound Observer-Based Consensus Algorithm for Robust Finite-Time Tracking Control of Multiple Nonholonomic Chained-Form Systems

Optimal Transport Between Gaussian Stationary Processes

Leader–Follower Flocking for Discrete-Time Cucker–Smale Models With Lossy Links and General Weight Functions

Convergence of a Distributed Least Squares

A Hybrid Control Approach to $H_\infty$ Problem of Nonlinear Descriptor Systems With Actuator Saturation

Distributed Observers for LTI Systems With Finite Convergence Time: A Parameter-Estimation-Based Approach

On Necessary and Sufficient Conditions for Exponential Consensus in Dynamic Networks via Uniform Complete Observability Theory

State Estimation of Kermack–McKendrick PDE Model With Latent Period and Observation Delay

Synthesis of Supervisors Robust Against Sensor Deception Attacks

On the Observability and Observer Design on the Special Orthogonal Group Based on Partial Inertial Sensing

Discrete Bilinear Biquadratic Regulator

Intermittent Feedback Control With Maximum Average Off-Time

A Reputation Mechanism for Dynamical Interactions in Multiagent Systems Under Quality of Service Requirements

Learning in Restless Multiarmed Bandits via Adaptive Arm Sequencing Rules

Local Decomposition of Multiarmed Bandits

Comment on “LaSalle-Type Theorem and Its Applications to Infinite Horizon Optimal Control of Discrete-Time Nonlinear Stochastic Systems”
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hierarchical Power Flow Control in Smart Grids: Enhancing Rotor Angle and Frequency Stability with Demand-Side Flexibility</td>
<td>C. Duan, P. Chakraborty, T. Nishikawa, and A. E. Motter</td>
<td>1046</td>
</tr>
<tr>
<td>Self-Triggered Distributed K-Order Coverage Control</td>
<td>D. Tabatabai, M. Ajina, and C. Nowzari</td>
<td>1059</td>
</tr>
<tr>
<td>Model-Free Optimal Control of Linear Multiagent Systems via Decomposition and Hierarchical Approximation</td>
<td>G. Jing, H. Bai, J. George, and A. Chakraborty</td>
<td>1069</td>
</tr>
<tr>
<td>Tight Upper Bound for the Scrambling Constant of Uniformly Jointly Connected Directed Graphs With Application to Consensus of Multiagent Systems</td>
<td>C. Huang, G. Feng, H. Zhang, and H. Yan</td>
<td>1082</td>
</tr>
<tr>
<td>Control of Uncertain Multiagent Systems With Spatiotemporal Constraints</td>
<td>E. Arabi and T. Yucelen</td>
<td>1107</td>
</tr>
<tr>
<td>Shifting Opinions in a Social Network Through Leader Selection</td>
<td>Y. Yi, T. Castiglia, and S. Patterson</td>
<td>1116</td>
</tr>
<tr>
<td>Scalability in Nonlinear Network Systems Affected by Delays and Disturbances</td>
<td>S. Xie, G. Russo, and R. H. Middleton</td>
<td>1128</td>
</tr>
<tr>
<td>Consensus-Based Stochastic Control for Model-Free Cell Balancing</td>
<td>I. Bistritz and N. Bambos</td>
<td>1139</td>
</tr>
<tr>
<td>On Successive Lag Synchronization of a Dynamical Network With Delayed Couplings</td>
<td>K. Li, J. Zhao, H. Zhang, and X. Li</td>
<td>1151</td>
</tr>
<tr>
<td>Signaling Equilibria for Dynamic LQG Games With Asymmetric Information</td>
<td>D. Vasal and A. Anastasopoulos</td>
<td>1177</td>
</tr>
<tr>
<td>Structural Controllability of Directed Signed Networks</td>
<td>Y. Guan, A. Li, and L. Wang</td>
<td>1189</td>
</tr>
<tr>
<td>Asynchronous Stochastic Gradient Descent Over Decentralized Datasets</td>
<td>Y. Du and K. You</td>
<td>1212</td>
</tr>
</tbody>
</table>
Evaluating Resilience of Electricity Distribution Networks via a Modification of Generalized Benders Decomposition Method ........................................... D. Sheer, S. Amin, and I. A. Hiskens 1225
Responsiveness Analysis of Classic and Observer-Based Leader–Follower Systems ........................................... C. Shang, D. Liu, Q. Yang, and H. Fang 1239
Detection of Influential Nodes in Network Dynamical Systems From Time Series ........................................... P. De Lellis and M. Portiri 1249
Stability and Robustness Analysis of Commensurate Fractional-Order Networks ........................................... M. Siami 1261
Distributed Value Function Approximation for Collaborative Multiagent Reinforcement Learning ........................................... M. S. Stanković, M. Beko, and S. S. Stanković 1270
Bearing-Based Distributed Formation Control of Multiple Vertical Take-Off and Landing UAVs ........................................... Y. Huang and Z. Meng 1281
Secure State Estimation of Multiagent Systems With Homologous Attacks Using Average Consensus ........................................... Y. Shi, C. Liu, and Y. Wang 1293
Noninvasive Approximation of Linear Dynamic System Networks Using Polytrees ........................................... F. Sepehr and D. Materassi 1314
Rationality, Imitation, and Rational Imitation in Spatial Public Goods Games ........................................... A. Govaert, P. Ramazi, and M. Cao 1324
Forced Variational Integrators for the Formation Control of Multiagent Systems ........................................... L. J. Colombo and H. G. de Marina 1336
Asynchronous Distributed Optimization via Dual Decomposition and Block Coordinate Subgradient Methods ........................................... Y. Lin, J. Shames, and D. Nešić 1348
Nonconservative Distributed Control Over Real-Time Network Links ........................................... B. Tavassoši 1360
Event-Triggered Synchronization of Multiagent Systems With Partial Input Saturation ........................................... X. Tan, M. Cao, J. Cao, W. Xu, and Y. Luo 1406
Network Optimization via Smooth Exact Penalty Functions Enabled by Distributed Gradient Computation ........................................... P. Srivastava and J. Cortés 1430
Distributed Averaging Problems Over Directed Signed Networks ........................................... M. Du, D. Meng, and Z.-G. Wu 1442
Totally Asynchronous Large-Scale Quadratic Programming: Regularization, Convergence Rates, and Parameter Selection ........................................... M. Ubl and M. T. Hale 1465
Towards Optimality Preserving Aggregation for Scheduling Distributed Energy Resources ........................................... R. R. Appino, V. Hagenmeyer, and T. Faulwasser 1477
Decentralized Approximate Newton Methods for Convex Optimization on Networked Systems ........................................... H. Wei, Z. Qu, X. Wu, H. Wang, and J. Lu 1489
Plug-and-Play Distributed Safety Verification for Linear Control Systems With Bounded Uncertainties ........................................... A. Carron, K. P. Wabersich, and M. N. Zeilinger 1501
Finite-Time Task-Space Coordinated Tracking of Networked Robotic Manipulators With Uncertain Dynamics and Disturbances ........................................... Z. Feng, G. Hu, Y. Sun, and J. B. W. Soon 1513
Model-Predictive Control for Discrete-Time Queueing Networks With Varying Topology ........................................... R I. Schoeffauer and G. Wunder 1528
Optimal Partitioning of Multithermal Zone Buildings for Decentralized Control ........................................... E. Atam and E. C. Kerrigan 1540
Smoothing Property of Load Variation Promotes Finding Global Solutions of Time-Varying Optimal Power Flow ........................................... J. Mulvaney-Kemp, S. Fattahi, and J. Lavaei 1552
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncertainty Estimation in Extremum Seeking Control of Unknown Static Maps</td>
<td>M. Guay</td>
<td>1115</td>
</tr>
<tr>
<td>Exploiting Differential Flatness for Robust Learning-Based Tracking Control Using Gaussian Processes</td>
<td>M. Greeff and A. P. Schoellig</td>
<td>1121</td>
</tr>
<tr>
<td>Absorption in Time-Varying Markov Chains: Graph-Based Conditions</td>
<td>Y. Yazıcıoğlu</td>
<td>1127</td>
</tr>
<tr>
<td>Asymptotic Convergence Rate of Alternating Minimization for Rank One Matrix Completion</td>
<td>R. Liu and A. Olshevsky</td>
<td>1139</td>
</tr>
<tr>
<td>Estimation and Control of Fluid Flows Using Sparsity-Promoting Dynamic Mode Decomposition</td>
<td>A. Tsolovikos, E. Bakolas, S. Suryanarayanan, and D. Goldstein</td>
<td>1145</td>
</tr>
<tr>
<td>Assessment of Bisimulation Non-Interference in Discrete Event Systems Modelled With Bounded Petri Nets</td>
<td>F. Basile and G. De Tommasi</td>
<td>1151</td>
</tr>
<tr>
<td>New Results on the Disturbance Decoupling of Boolean Control Networks</td>
<td>S. Wang and H. Li</td>
<td>1157</td>
</tr>
<tr>
<td>Gradient Methods With Dynamic Inexact Oracles</td>
<td>S. Han</td>
<td>1163</td>
</tr>
<tr>
<td>Local Sampled-Data Controller Design for T-S Fuzzy Systems With Saturated Actuators</td>
<td>A. N. D. Lopes, K. Guelton, L. Arcese, and V. J. S. Leite</td>
<td>1169</td>
</tr>
<tr>
<td>Corrigendum for “Actuator Placement for Symmetric Structural Controllability With Heterogeneous Costs”</td>
<td>O. Romero and S. Pequito</td>
<td>1175</td>
</tr>
<tr>
<td>Dynamic Active Average Consensus</td>
<td>Y.-F. Chung and S. S. Kia</td>
<td>1177</td>
</tr>
<tr>
<td>A Deep Filtering Approach for Control of Partially Observed Systems</td>
<td>Q. Zhang, G. Yin, and L. Y. Wang</td>
<td>1189</td>
</tr>
<tr>
<td>Control Node Selection Algorithm for Nonlinear Dynamic Networks</td>
<td>A. Haber, S. A. Nugroho, P. Torres, and A. F. Taha</td>
<td>1195</td>
</tr>
<tr>
<td>Multi-Agent Optimal Consensus With Unknown Control Directions</td>
<td>Y. Tang</td>
<td>1201</td>
</tr>
<tr>
<td>Data-Based Receding Horizon Control of Linear Network Systems</td>
<td>A. Allibhoy and J. Cortés</td>
<td>1207</td>
</tr>
</tbody>
</table>

(Contents Continued on Page ii)
Maximum Hands-Off Control With Time-Space Sparsity .......................................................... T. Ikeda and M. Nagahara 1213
Data-Driven Human Modeling: Quantifying Personal Tendency Toward Laziness .......................................................... K. Hara, M. Inoue, and J. M. Maestre 1219
Pinning Control of Higher Order Nonlinear Network Systems .......................................................... D. Liuzza and P. De Lellis 1225
A Distributed Control Strategy for Parallel DC-DC Converters .......................................................... M. S. Sadabad 1231
Stability Analysis of the Observer Error of an In-Domain Actuated Vibrating String .......................................... T. Malzer, H. Rams, B. Kolar, and M. Schöberl 1237
A Robust Adaptive Estimation Algorithm for Hamiltonian Multi-Agent Networks .......................................................... H. Giv, A. Khalili, A. Rastegarnia, and S. Sanei 1243
Delay Independent Stability Control for Commensurate Multiple Time-Delay Systems .......................................................... L. Belhamel, A. Buscarino, L. Fortuna, and M. G. Xibilia 1249
Desired Characteristic Equation Based PID Controller Tuning for Lag-Dominating Processes With Real-Time Realization on Level Control System .......................................................... U. M. Nath, C. Dey, and R. K. Mudi 1255
On the Use of Difference of Log-Sum-Exp Neural Networks to Solve Data-Driven Model Predictive Control Tracking Problems .......................................................... S. Brüggemann and C. Possieri 1267
Covert Channels in Cyber-Physical Systems .......................................................... A. Abdelwahab, W. Lucia, and A. Youssef 1273
Receding Horizon Control-Based Motion Planning With Partially Infesable LTL Constraints .......................................................... M. Cai, H. Peng, Z. Li, H. Gao, and Z. Kan 1279
Passivity-Based Lag-Compensators With Input Saturation for Mechanical Port-Hamiltonian Systems Without Velocity Measurements .......................................................... K. Hamada, P. Borja, J. M. A. Scherpen, K. Fujimoto, and I. Maruta 1285
Construction of Periodic Counterexamples to the Discrete-Time Kalman Conjecture .......................................................... P. Seller and J. Carrasco 1291
Symbolic Observer-Based Controller for Uncertain Nonlinear Systems .......................................................... W. A. Apaza-Pérez, A. Girard, C. Combastel, and A. Zolghadri 1297
QRnet: Optimal Regulator Design With LQR-Augmented Neural Networks .......................................................... T. Nakamura-Zimmerer, Q. Gong, and W. Kang 1303
On the Frontier Between Kalman Conjecture and Markus-Yamabe Conjecture .......................................................... E. Reichenspörl, D. Odenthal, and D. Wollherr 1309
An Efficient Event-Based State Estimator for Linear Discrete-Time System With Multiplicative Measurement Noise .......................................................... S. Challagundla, S. Chitraganti, and P. K. Wai 1315
On the Crowdsourcing of Behaviors for Autonomous Agents .......................................................... G. Russo 1321
Influence of Opinion Dynamics to Inhibit Epidemic Spreading Over Multiplex Network .......................................................... S. Bhowmick and S. Panja 1327
Lie Algebraic Criteria for Stability of Switched Systems of Differential Algebraic Equations (DAEs) .......................................................... P. Raj and D. Pal 1333
Convergence Analysis of a Continuous-Time Distributed Gradient Descent Algorithm .......................................................... M. Zhang, X. Liu, and J. Liu 1339
Collision-Free Formation Tracking of Multi-Agent Systems Under Communication Constraints .......................................................... S. A. Ajwad, E. Moulay, M. Defoort, T. Méndez, and P. Coirault 1345
Online Learning of Parameterized Uncertain Dynamical Environments With Finite-Sample Guarantees .......................................................... D. Li, D. Fooladivanda, and S. Martínez 1351
Saddle-Point Convergence of Constrained Primal-Dual Duals .......................................................... A. A. Adegbege and M. Y. Kim 1357
A Convex Parameterization of Robust Recurrent Neural Networks .......................................................... M. Revay, R. Wang, and I. R. Manchester 1363
Verification of Approximate Opacity via Barrier Certificates .......................................................... S. Liu and M. Zamani 1369
Optimization Approaches for Nonlinear State Space Models .......................................................... M. Schüssler and O. Nelles 1375
Complexity Certification of Proximal-Point Methods for Numerically Stable Quadratic Programming .......................................................... D. Armström, A. Bemporad, and D. Axelhii 1381
Simultaneous and Sequential Control Design for Discrete-Time Switched Linear Systems Using Semi-Definite Programming .......................................................... R. Guiher, A. R. Mills, P. A. Trodden, and V. Kadirkanmanathan 1393
Dissipativity Verification With Guarantees for Polynomial Systems From Noisy Input-State Data .......................................................... T. Martin and F. Allgöwer 1399
Linear-Threshold Dynamics for the Study of Epileptic Events ................................................................. F. Celi, A. Allibhoy, F. Pasqualetti, and J. Cortés 1405
Stability Analysis Using Generalized Sup-Delay Inequalities ........... F. Mazenc, M. Malisoff, and M. Krstic 1411
Minimax Policy for Heavy-Tailed Bandits ................................................ L. Wei and V. Srivastava 1423
Trajectory Optimization for High-Dimensional Nonlinear Systems Under STL Specifications ........................ V. Kurtz and H. Lin 1429
Stochastic Stability of Impulsive Switched Systems With Constrained Switching and Impulses ........................... W. Ren and J. Xiong 1441
Enhancing Controllability of Wind Farms Against Parametric Resonance: A Series Compensation Approach .......................................................... T. Sadamoto and A. Chakrabortty 1447
Sparsity Promoting $\gamma_2$-Conic Control ........................................ E. J. LoCicero and L. Bridgeman 1453
Fault Detection of a Class of Nonlinear Uncertain Parabolic PDE Systems ........................................................... J. Zhang, C. Yuan, W. Zeng, P. Stegagno, and C. Wang 1459
IDA-PBC for LTI Dynamics Under Input Delays: A Reduction Approach .......................................................... M. Mattioni, S. Monaco, and D. Normand-Cyrot 1465
Minimal Differential Difference Realizations of Delay Differential, Differential Difference, and Neutral Delay Systems .................................................................................. M. M. Peet 1471
Data-Driven Scenario Optimization for Automated Controller Tuning With Probabilistic Performance Guarantees ................................................................. J. A. Paulson and A. Mesbah 1477
Optimal Transport-Based Coverage Control for Swarm Robot Systems: Generalization of the Voronoi Tessellation-Based Method ...................................................... D. Inoue, Y. Ito, and H. Yoshida 1483
Cover credit: A historical family tree of engineering applications of thermodynamics, starting from a steam engine to a gas turbine engine and lithography machine, displayed on a multiphysics (mechanical, electrical, chemical) background. (Image credit: Jason Harlow.)

32 Classical Thermodynamics Revisited
A systems and control perspective
ARJAN VAN DER SCHAF

61 Learning Hidden Influences in Large-Scale Dynamical Social Networks
A data-driven sparsity-based approach, in memory of Roberto Tempo
CHIARA RAVAZZI, FABRIZIO DABBENE, CONSTANTINO M. LAGOA, and ANTON V. PROSKURNIKOV

4 FROM THE EDITOR
The Future of Publishing

7 ABOUT THIS ISSUE
From Thermodynamics to Opinion Dynamics

10 PRESIDENT’S MESSAGE
Open Science and Open Access: An Opportunity Not to Be Missed

13 25 YEARS AGO
Algorithms: The Next Technology Bandwagon

16 MEMBER ACTIVITIES
CDC 2021 Diversity and Inclusion Activities

18 TECHNICAL ACTIVITIES
Technical Committee on Nonlinear Systems and Control
Technical Committee on Variable Structure and Sliding Mode Control

21 PEOPLE IN CONTROL
Guy A. Dumont
Ebru Aydin Gol
Tryphon T. Georgiou
Silvère Bonnabel
104 FOCUS ON EDUCATION
An Introduction to Inertial Navigation from the Perspective of State Estimation

129 BOOKSHELF
The Dynamics and Optimal Control of Road Vehicles
Book Announcements

133 CONFERENCE CALENDAR

134 CSS BUSINESS
Changes to the Constitution and the Bylaws of the IEEE Control Systems Society

142 CORRECTION

144 RANDOM INPUTS
Closing the Loop

MISSION STATEMENT AND SCOPE: As the official means of communication for the IEEE Control Systems Society, *IEEE Control Systems* publishes interesting, useful, and informative material on all aspects of control system technology for the benefit of control educators, practitioners, and researchers. With this mission statement in mind, *IEEE Control Systems* encourages submissions, both feature articles and columns, on all aspects of control system technology.

SUBMISSION OF MANUSCRIPTS: A feature article typically provides an in-depth treatment of either an application of control technology, a tutorial on some area of control theory, or an innovation in control education. *IEEE Control Systems* publishes a variety of columns. “Applications of Control” columns are industrially oriented summaries of innovations in control technology. “Focus on Education” typically describes some aspect of education such as novel control experiments. “Lecture Notes” can be theoretical in nature as long as they have clear tutorial value and intent. See recent issues for examples of these and other types of columns. Authors are encouraged to contact the editor-in-chief about the suitability of potential columns.

A detailed Author’s Guide, a sample formatted manuscript, and LATEX template can be found at http://www.ieeecss.org/publications/csm/submissions. The specifications in this guide should be followed by all submissions.

All manuscripts should be submitted electronically to the *IEEE Control Systems* website, https://css.paperplaza.net/conferences/scripts/start.pl, with inquiries on appropriateness of content emailed to r.sepulchre@eng.cam.ac.uk.

SPECIAL ISSUES: *IEEE Control Systems* encourages proposals for special issues. Proposers are encouraged to contact the editor-in-chief to discuss potential topics.

BOOKS AND CONFERENCES: Submit information about recently published books to the associate editor for book reviews. Submit information about past and future conferences to the corresponding editor for conferences.

ADVERTISING: *IEEE Control Systems* accepts advertising for educational products, books, software, conferences, employment, and control-related technology. For information about advertising, contact Mark David, m.david@ieee.org, +1 732 465 6473.

IEEE CONTROL SYSTEMS—ISSN 1066-033X (ISMAD7) is published bimonthly by The Institute of Electrical and Electronics Engineers, Inc. Headquarters: 3 Park Avenue, 17th Floor, New York, NY 10016-5997, U.S.A. © 212 419 7900. Responsibility for the contents rests upon the authors and not upon the IEEE, the Society, or its members. The is a membership benefit of the IEEE Control Systems Society, and subscriptions are US$4.00 per member per year (included in Society fee). Replacement copies for members are available for US$20.00 (one copy only). Nonmembers can purchase individual copies for US$118. Nonmember subscription prices are available on request. Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limits of the U.S. Copyright law for private use of patrons: 1) those post-1977 articles that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01920, U.S.A.; and 2) pre-1978 articles without fee. For other copying, reprint, or republication permission, write to: Copyrights and Permissions Department, IEEE Service Center, 445 Hoes Lane, Piscataway NJ 08854, U.S.A. Copyright © 2021 by The Institute of Electrical and Electronics Engineers, Inc. All rights reserved. Periodicals postage paid at New York, NY, and at additional mailing offices. Postmaster: Send address changes to *IEEE Control Systems*. IEEE, 445 Hoes Lane, Piscataway, NJ 08854 U.S.A. Canadian GST #125634188 Printed in U.S.A.
Conference on Decision and Control
CDC 2021

December 13–15, Austin, USA

Initial Paper Submissions Due:
March 18, 2021 (Passed)

Workshop Proposals Due:
May 1, 2021 (Passed)

Decision Notification:
Mid-July, 2021

Final Submissions Due:
September 30, 2021 (Passed)

https://cdc2021.ieeecss.org/
American Control Conference
ACC 2022
June 8–10, Atlanta, GA, USA

LCSS Option Submission
September 14, 2021 (Passed)

Manuscript Submission
September 28, 2021 (Passed)

Acceptance/Rejection Notice
January 24, 2022

Final Manuscript Submission
March 15, 2022

https://acc2022.a2c2.org/
Conference on
Control Technology and Applications

CCTA 2022

August 23–25, Trieste, Italy

Paper Submission Due:
February 1, 2022

Decision Notification:
April 22, 2022

Registration Opens:
Middle of May, 2022

Final Submissions:
Middle of June, 2022

https://ccta2022.ieeecss.org/
Conference on Decision and Control
CDC 2022

December 6–9, Cancun, Mexico