

CONTROL SYSTEMS SOCIETY

MARCH

2013



Publications Content Digest

TABLE OF CONTENTS

Vice-President

Publications Activities

FRANCESCO BULLO

University of California, Santa Barbara

Journal Editors

IEEE Transactions on Automatic Control

PANOS J. ANTSAKLIS

University of Notre Dame

<http://www.nd.edu/~ieeetac>

IEEE Transactions on Control Systems Technology

THOMAS PARISINI

Imperial College, UK

<http://www.ieeecss.org/publications/tcst>

IEEE Control Systems Magazine

RICHARD D. BRAATZ

Massachusetts Institute of Technology

<http://www.ieeecss.org/publications/tcst>

Electronics Editor

E-letter on Systems, Control and Signal Processing

MARIA PRANDINI

Politecnico di Milano, Italy

<http://www.ieeecss.org/publications/e-letter/e-letter>

Submission and editorial instructions can be found on each publication's homepage

For subscription to the monthly E-Letter, please visit:

<http://www.ieeecss.org/newsletter/subscriptions>

IEEE TRANSACTIONS ON AUTOMATIC CONTROL

A PUBLICATION OF THE IEEE CONTROL SYSTEMS SOCIETY



MARCH 2013

VOLUME 58

NUMBER 3

IETAA9

(ISSN 0018-9286)

Table of Contents

Full Text: [PDF](#) [142 KB]

IEEE Transactions on Automatic Control

Publication Information

Full Text: [PDF](#) [136 KB]

List of Reviewers 2012

Full Text: [PDF](#) [114 KB]

Scanning The Issue

Full Text: [PDF](#) [126 KB]

Papers

Stabilization of Networked Multi-Input Systems with Channel Resource Allocation

L. Qiu, G. Gu, W. Chen

[Abstract](#) | Full Text: [PDF](#) [3122 KB]

A Nonlinear High-Gain Observer for Systems with Measurement Noise in a Feedback Control Framework

A. A. Prasov, H. K. Khalil

[Abstract](#) | Full Text: [PDF](#) [3010 KB]

State Estimation over Sensor Networks with Correlated Wireless Fading Channels

D. E. Quevedo, A. Ahlen, K. H. Johansson

[Abstract](#) | Full Text: [PDF](#) [3380 KB]

Regularized Iterative Stochastic Approximation Methods for Stochastic Variational Inequality Problems

A. Nedich, J. Koshal, U. V. Shanbhag

[Abstract](#) | Full Text: [PDF](#) [4938 KB]

Reaching an Optimal Consensus: Dynamical Systems that Compute Intersections of Convex Sets

G. Shi, K. H. Johansson, Y. Hong

[Abstract](#) | Full Text: [PDF](#) [3865 KB]

Cooperative Estimation of Averaged 3D Moving Target Poses via Networked Visual Motion Observer

T. Hatanaka, M. Fujita

[Abstract](#) | Full Text: [PDF](#) [5912 KB]

Nash, Social and Centralized Solutions to Consensus Problems via Mean Field Control Theory

M. Nourian, P. E. Caines, R. P. Malhame, M. Huang

[Abstract](#) | Full Text: [PDF](#) [4169 KB]

Adaptive Deployment of Mobile Robotic Networks

J. Le Ny, G. J. Pappas

[Abstract](#) | Full Text: [PDF](#) [3300 KB]

Distributed Matrix Scaling and Application to Average Consensus in Directed Graphs

A. Dominguez-Garcia, C. Hadjicostis

[Abstract](#) | Full Text: [PDF](#) [4622 KB]

Robust State Space Filtering under Incremental Model Perturbations Subject to a Relative Entropy Tolerance

B. C. Levy, R. Nikoukhah

[Abstract](#) | Full Text: [PDF](#) [2761 KB]

Optimization of Lyapunov Invariants in Verification of Software Systems

M. Roozbehani, A. Megretski, E. Feron

[Abstract](#) | Full Text: [PDF](#) [3753 KB]

Delay Robustness of Interconnected Passive Systems: An Integral Quadratic Constraint Approach

E. Summers, M. Arcak, A. K. Packard

[Abstract](#) | Full Text: [PDF](#) [3553 KB]

Technical Notes and Correspondence

Receding Horizon Control with Numerical Solution for Nonlinear Parabolic Partial Differential Equations

T. Hashimoto, Y. Yoshioka, T. Ohtsuka
[Abstract](#) | Full Text: [PDF](#) [1345 KB]

Robustified Anti-windup Via Switching Adaptation

M. Bruckner, S. Galeani, L. Del Re
[Abstract](#) | Full Text: [PDF](#) [1696 KB]

Formation Control of Mobile Agents Based on Distributed Position Estimation

K-K. Oh, H-S. Ahn
[Abstract](#) | Full Text: [PDF](#) [803 KB]

On a Control Algorithm for Time-varying Processor Availability

V. Gupta, F. Luo
[Abstract](#) | Full Text: [PDF](#) [1517 KB]

A Constructive Approach to Linear Lyapunov Functions for Positive Switched Systems Using Collatz-Wielandt Sets

T. S. Doan, A. Kalauch, S. Siegmund
[Abstract](#) | Full Text: [PDF](#) [956 KB]

A Contraction Theory Approach to Singularly Perturbed Systems

D. Del Vecchio, J-J. E. Slotine
[Abstract](#) | Full Text: [PDF](#) [1649 KB]

Observer Design for Uniformly Observable Systems with Sampled Measurements

M. Nadri, H. Hammouri, Rafael Mota Grajales
[Abstract](#) | Full Text: [PDF](#) [1768 KB]

Modal Trajectory Estimation using Maximum Gaussian Mixture

A. Monin
[Abstract](#) | Full Text: [PDF](#) [1135 KB]

Guaranteed Cost Certification for Discrete-Time Linear Switched System with a Dwell Time

M. Jungers, J. Daafouz
[Abstract](#) | Full Text: [PDF](#) [1074 KB]

Control of Nonlinear and LPV Systems: Interval Observer-based Framework

D. Efimov, T. Raïssi, A. Zolghadri
[Abstract](#) | Full Text: [PDF](#) [1370 KB]

Optimal Semistable Control in Ad Hoc Network Systems: A Sequential Two-Stage Approach

Qing Hui
[Abstract](#) | Full Text: [PDF](#) [2020 KB]

Dissipativity-Based Sliding Mode Control of Switched Stochastic Systems

L. Wu, W. Xing Zheng, H. Gao
[Abstract](#) | Full Text: [PDF](#) [1841 KB]

On Reliable Stabilization via Rectangular Dilated LMIs and Dissipativity-Based Certifications

G. Befekadu, V. Gupta, P. J. Antsaklis
[Abstract](#) | Full Text: [PDF](#) [1045 KB]

Bounded Real Lemma for Nonhomogeneous Markovian Jump Linear Systems

S. Aberkane
[Abstract](#) | Full Text: [PDF](#) [1422 KB]

Recursive Identification of MIMO Wiener Systems

B-Q. Mu, H-F. Chen
[Abstract](#) | Full Text: [PDF](#) [2027 KB]

Filtering Quantized Measurements

A. Schöttl
[Abstract](#) | Full Text: [PDF](#) [1054 KB]

Sufficient Conditions for Generic Feedback Stabilizability of Switching Systems via Lie-algebraic Solvability

H. Haimovich, J. H. Braslavsky
[Abstract](#) | Full Text: [PDF](#) [1356 KB]

IEEE TRANSACTIONS ON CONTROL SYSTEMS TECHNOLOGY

A PUBLICATION OF THE IEEE CONTROL SYSTEMS SOCIETY



MARCH 2013

VOLUME 21

NUMBER 2

IETTE2

(ISSN 1063-6536)

Table of Contents

Full Text: [PDF](#) [152 KB]

IEEE Transactions on Control Systems
Technology Publication Information

Full Text: [PDF](#) [138 KB]

Editorial

T. Parisini

[PDF](#) [326 KB]

2012 IEEE Transactions on Control Systems
Technology Outstanding Paper Award

T. Parisini

Full Text: [PDF](#) [84 KB]

Papers

Perspectives on Innovation in Control Systems
Technology: Compatibility With Industry Practices

T. Samad and G. Stewart

[Abstract](#) | Full Text: [PDF](#) [221 KB]

Electrochemical Model Based Observer Design for
a Lithium-Ion Battery

R. Klein, N. A. Chaturvedi, J. Christensen,
J. Ahmed, R. Findeisen, and A. Kojic

[Abstract](#) | Full Text: [PDF](#) [3193 KB]

Optimal Coordination of a Multiple HVDC Link
System Using Centralized and Distributed Control

P. Mc Namara, R. R. Negenborn, B. De Schutter,
and G. Lightbody

[Abstract](#) | Full Text: [PDF](#) [2960 KB]

Transmission Power Control for Opportunistic
QoS Provision in Wireless Networks

F. de Sousa Chaves, M. Abbas-Turki,
H. Abou-Kandil, and J. M. T. Romano

[Abstract](#) | Full Text: [PDF](#) [2747 KB]

A Virtual Rider for Motorcycles: Maneuver
Regulation of a Multi-Body Vehicle Model

A. Saccon, J. Hauser, and A. Beghi

[Abstract](#) | Full Text: [PDF](#) [3160 KB]

Rejection of Periodic Wind Disturbances on a
Smart Rotor Test Section Using Lifted Repetitive
Control

I. Houtzager, J.-W. van Wingerden, and
M. Verhaegen

[Abstract](#) | Full Text: [PDF](#) [2207 KB]

Thermodynamics-Based Nonlinear Control of a
Three-Phase Slurry Catalytic Fed-Batch Reactor

S. Bahroun, F. Couenne, C. Jallut, and
C. Valentin

[Abstract](#) | Full Text: [PDF](#) [2207 KB]

Adaptive Control of a Solid Oxide Fuel Cell
Ultra-Capacitor Hybrid System

T. Das and S. Snyder

[Abstract](#) | Full Text: [PDF](#) [2722 KB]

From Each According to its Ability: Distributed
Grid Regulation With Bandwidth and Saturation
Limits in Wind Generation and Battery Storage

C. A. Baone and C. L. DeMarco

[Abstract](#) | Full Text: [PDF](#) [2064 KB]

Robust Adaptive Position Mooring Control for Marine Vessels

M. Chen, S. S. Ge, B. V. E. How, and Y. S. Choo

[Abstract](#) | Full Text: [PDF](#) [4251 KB]

Motion Control of the Cyber Carpet Platform

A. De Luca, R. Mattone, P. Robuffo Giordano, H. Ulbrich, M. Schwaiger, M. Van den Bergh, E. Koller-Meier, and L. Van Gool

[Abstract](#) | Full Text: [PDF](#) [3660 KB]

A New Closed-Loop Output Error Method for Parameter Identification of Robot Dynamics

M. Gautier, A. Janot, and P.-O. Vandanjon

[Abstract](#) | Full Text: [PDF](#) [3603 KB]

Controller Tuning by Means of Multi-Objective Optimization Algorithms: A Global Tuning Framework

G. Reynoso-Meza, S. García-Nieto, J. Sanchis, and F. X. Blasco

[Abstract](#) | Full Text: [PDF](#) [3174 KB]

Experimental Evidence of Variable-Order Behavior of Ladders and Nested Ladders

D. Sierociuk, I. Podlubny, and I. Petráš

[Abstract](#) | Full Text: [PDF](#) [1977 KB]

An Intelligent Cooperative Decoupling Controller for Coagulation Bath in Polyacrylonitrile Carbon Fiber Production

Y.-S. Ding, X. Liang, K.-R. Hao, and H.-P. Wang

[Abstract](#) | Full Text: [PDF](#) [2574 KB]

Rejection of Aliased Disturbances in a Production Pulsed Light Source

D. J. Riggs and R. R. Bitmead

[Abstract](#) | Full Text: [PDF](#) [1439 KB]

Early Detection of Parametric Roll Resonance on Container Ships

R. Galeazzi, M. Blanke, and N. Kjølstad Poulsen

[Abstract](#) | Full Text: [PDF](#) [2344 KB]

Brief Papers

Distributed Supervisory Predictive Control of Distributed Wind and Solar Energy Systems

W. Qi, J. Liu, and P. D. Christofides

[Abstract](#) | Full Text: [PDF](#) [1634 KB]

Adaptive Dynamic Surface Control for Formations of Autonomous Surface Vehicles With Uncertain Dynamics

Z. Peng, D. Wang, Z. Chen, X. Hu, and W. Lan

[Abstract](#) | Full Text: [PDF](#) [1988 KB]

Rate Assignment in Wireless Networks: Stability Analysis and Controller Design

K. Jaleddini, K. Moezzi, A. G. Aghdam, M. Alasti, and V. Tarokh

[Abstract](#) | Full Text: [PDF](#) [1934 KB]

Robust Saturated Control for Low-Power Circuits

C. Albea, F. Gordillo, and C. Canudas de Wit

[Abstract](#) | Full Text: [PDF](#) [1822 KB]

Sampled Data Model Predictive Idle Speed Control of Ultra-Lean Burn Hydrogen Engines

R. Sharma, D. Nešić, and C. Manzie

[Abstract](#) | Full Text: [PDF](#) [2232 KB]

A Data-Driven Constrained Norm-Optimal Iterative Learning Control Framework for LTI Systems

P. Janssens, G. Pipeleers, and J. Swevers

[Abstract](#) | Full Text: [PDF](#) [985 KB]

Model Predictive Contouring Control for Biaxial Systems

D. Lam, C. Manzie, and M. C. Good

[Abstract](#) | Full Text: [PDF](#) [1944 KB]

PI Stabilization of Power Converters With Partial State Measurements

R. A. Jaafar, A. Alawieh, R. Ortega, E. Godoy, and P. Lefranc

[Abstract](#) | Full Text: [PDF](#) [1868 KB]

Upcoming IEEE Conferences

Important Dates



Draft Manuscripts due:
SEPTEMBER 17, 2012 [Closed]

Acceptance/Rejection Notice:
By **JANUARY 31, 2013 [Closed]**

Final Manuscript Submission due:
MARCH 15, 2013

Student Programs



Student Best Paper Nominations

The 2013 ACC is pleased to announce a Student Best Paper Award. All primary, first-listed authors of a regular contributed paper who were students at the time of submission are eligible.

To be considered for the award, the student's advisor must submit a nomination through PaperPlaza (from the PaperPlaza main page, click on "Submit a contribution to 2013 ACC" and then on "Submit" next to "Student Paper Award Nomination"). The deadline for nominations is October 31, 2012.

Up to five finalists will be announced by the end of January 2013. Each finalist is required to present his or her paper at the conference to remain eligible for the Student Best Paper Award. Travel expenses including hotel, transportation, conference registration, and meals/incidental expenses (on a per diem basis) will be covered for the finalists to enable them to attend the 2013 ACC.



ACC 2013

JUNE 17-19, 2013

WASHINGTON, D.C., USA

AMERICAN CONTROL CONFERENCE

The 2013 American Control Conference will be held Monday through Wednesday, June 17-19, at the Renaissance Washington, D. C. Downtown Hotel, which is centrally located in Washington, D. C., within 7 blocks of the White House, the U. S. Capitol Building, the National Mall and the Smithsonian Institution.

www.a2c2.org/conferences/acc2013/index.html

Important Dates

Special Session Proposal Submission:
FEBRUARY 15, 2013 - [Closed]

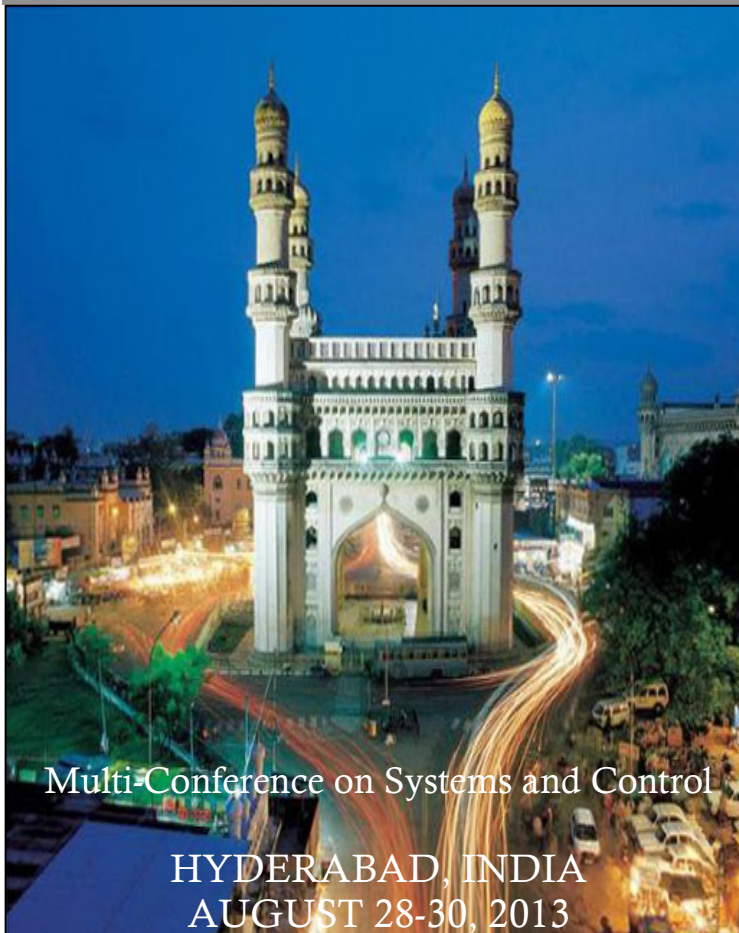
Tutorial and Workshop Proposals Submission:
FEBRUARY 15, 2013 - [Closed]

Technical Paper Submission:
FEBRUARY 15, 2013 - [Closed]

Notification of Acceptance:
MAY 5, 2013

Final Camera Ready Paper Due:
JUNE 15, 2013

Early Registration Ends:
JULY 15, 2013



MSC 2013



The conference will take place in Hyderabad International Convention Centre. HICC is proud to be the winner of the 'Best Convention Centre' National Tourism Award by Incredible India for three years in a row. Novotel Hyderabad Convention Centre adjacent to HICC is a 5-star 287 rooms hotel, built to suit the requirements of the discerning business traveler. HICC is a Green

MSC 2013 includes three international conferences sponsored and promoted by the IEEE Control Systems Society:

- **IEEE Conference on Control Applications (CCA)**, and,
- **IEEE International Symposium on Intelligent Control (ISIC)**, and,
- **IEEE Conference on Computer Aided Control System Design - Systems under Uncertainty (CACSD-SU)**.

MSC 2013 will be a three-day event, preceded by a full day of Tutorials and Workshops. The conference proceedings will be included in **IEEE Xplore** and indexed by **INSPEC** and **Ei-Compendex**.



**IEEE 52nd
Annual Conference on
Decision and Control**

**FIRENZE, ITALY
DECEMBER 10-13, 2013**

Important Dates

Submissions Open:
JANUARY 4, 2013

Final Submission Open:
AUGUST 1, 2013

Session Proposals Due:
MARCH 4, 2013

Registration Opens:
AUGUST 1, 2013

Initial Submissions Due:
MARCH 11, 2013

Final Submissions Due:
SEPTEMBER 5, 2013

Decisions Notification:
MID-JULY 2013

www.cdc2013.units.it/