Welcome to the xx issue of the Eletter, available electronically here.
To submit new articles, go “Article Submissions” on the Eletter website.
To unsubscribe, please send an email with the subject line “Eletter Unsubscribe”.

The next Eletter will be mailed out at the beginning of xx 2017.

Contents

1. IEEE CSS Headlines
   1.1 IEEE Control Systems Society Technically Cosponsored Conferences
   1.2 IEEE Transactions on Automatic Control
   1.3 IEEE Control Systems Society Publications Content Digest

2. Graduate School & Courses
   2.1 EECE International Graduate School on Control
   2.2 Graduate Course on “Model-Based Fault Diagnosis - A Linear Synthesis Framework using MATLAB”
   2.3 Short Course on ”Game Theory and Distributed Control”

3. Books
   3.1 Introduction to Averaging Dynamics over Networks
   3.2 Solving Fault Diagnosis Problems - Linear Synthesis Techniques

4. Journals
   4.1 Contents: Control Engineering Practice
   4.2 Contents: Asian Journal of Control
   4.3 Contents: Systems & Control Letters
   4.4 Contents: European Journal of Control
   4.5 Contents: IET Control Theory & Applications
   4.6 Contents: Control Theory and Technology
   4.7 Contents: Mechatronics
   4.8 Contents: Engineering Applications of Artificial Intelligence
   4.9 Contents: Annual Reviews in Control
   4.10 Contents: ISA Transactions
   4.11 Contents: Journal of the Franklin Institute
   4.12 Contents: International Journal of Control
5. Conferences
5.1 IEEE Conference on Control Technology and Applications
5.2 ACM International Conference on Hybrid Systems: Computation and Control
5.3 IFAC Conference on Cyber-Physical & Human Systems
5.4 IFAC Conference on Modelling Identification and Control of Nonlinear Systems
5.5 IFAC Conference on Analysis and Design of Hybrid Systems
5.6 IFAC Conference on Control Applications in Marine Systems, Robotics, and Vehicles
5.7 IFAC Workshop on Distributed Estimation and Control in Networked Systems
5.8 ASME Dynamic Systems and Control Conference
5.9 World Congress: Mathematical Problems in Engineering, Aerospace and Sciences
5.10 International Conference on Methods and Models in Automation and Robotics
5.11 International Conference on Unmanned Aircraft Systems
5.12 International Conference on Power, Control, Signal, and Computations
5.13 UKACC International Conference on Control

6. Positions
6.1 PhD: Norwegian University of Science and Technology, Norway
6.2 PhD: University of Luxembourg, Luxembourg
6.3 PhD: Delft University of Technology, the Netherlands
6.4 PhD: University of Massachusetts Lowell, USA
6.5 PhD: University of Louisiana at Lafayette, USA
6.6 Research Assistant: Illinois Institute of Technology, USA
6.7 PhD/PostDoc: New York University Abu Dhabi, UAE
6.8 PostDoc: Poitiers University, France
6.9 PostDoc: University of Melbourne, Australia
6.10 PostDoc: Clemson University, USA
6.11 PostDoc: Georgia Institute of Technology, USA
6.12 PostDoc: University of Michigan, USA
6.13 PostDoc: Purdue University, USA
6.14 PostDoc: Mid-Sweden University, Sweden
6.15 PostDoc: Université Mohammed VI Polytechnique, Morocco
6.16 PostDoc: Lund University, Sweden
6.17 PostDoc: Delft University of Technology, the Netherlands
6.18 PostDoc: Delft University of Technology, the Netherlands
6.19 PostDoc: NC A&T State University, USA
6.20 Research Associate: University of Strathclyde, UK
6.21 Research Fellow: Melbourne School of Engineering, Australia
6.22 Faculty: Southern Illinois University Edwardsville, USA
6.23 Faculty: University of California at Santa Cruz, USA
6.24 Faculty: Nanjing University of Aeronautics & Astronautics, China
6.25 Faculty: KU Leuven, Belgium
6.26 Faculty: Georgia Institute of Technology, USA
6.27 Faculty: Georgia Institute of Technology, USA
6.28 Faculty: Georgia Institute of Technology, USA
6.29 Faculty: University of Delaware, USA
6.30 Faculty: University of Vermont, USA
6.31 Faculty: University of Minnesota, USA
6.32 Faculty: TU Delft, the Netherlands
6.33 Faculty: University of Colorado Boulder, USA
6.34 Faculty: University of Colorado Boulder, USA
6.35 Faculty: National Taiwan University, Taiwan
6.36 Faculty: University of Massachusetts Lowell, USA
6.37 Faculty: New York University, USA
6.38 Faculty: Delft University of Technology, the Netherlands
6.39 Research Scientist: Optikom, China
1. IEEE CSS Headlines

1.1. IEEE Control Systems Society Technically Cosponsored Conferences

Contributed by: Luca Zaccarian, CSS AE Conferences, zaccarian@laas.fr

The following conferences have been recently included in the list of events technically cosponsored by the IEEE Control Systems Society:


For a full listing of CSS technically cosponsored conferences, please visit http://ieeecss.org/conferences/technically-cosponsored, and for a list of the upcoming and past CSS main conferences please visit http://ieeecss.org/conferences

1.2. IEEE Transactions on Automatic Control

Contributed by: Elizabeth Kovacs, ekovacs2@nd.edu

Table of Contents
IEEE Transactions on Automatic Control
Volume 62 (2017), Issue 11 (November)
Scanning the Issue, p. 5494

Papers
- Fixed-Time Synchronization of Complex Networks with Impulsive Effects via Non-Chattering Control, X. Yang, J. Lam, D. W. C. Ho, F. Zhiguo p. 5511
- Fast Convergence Rates for Distributed Non-Bayesian Learning, C. A. Uribe, A. Olshevsky, A. Nedich p. 5538
- Structured Projection-Based Model Reduction with Application to Stochastic Biochemical Networks, A. Sootla, J. Anderson p. 5554
- Multi-party Consensus of Linear Heterogeneous Multi-agent Systems, F. Adib Yaghmaie, R. Su, F. L.
Lewis, L. Xie p. 5578
- On Control Lyapunov-Razumikhin Functions, Nonconstant Delays, Nonsmooth Feedbacks, and Nonlinear Sampled-Data Stabilization p. 5604
- Feedback Stability of Negative Imaginary Systems, A. Lanzon, H-J. Chen p. 5620
- Direct and Indirect Model Reference Adaptive Control for Multivariable Piecewise Affine Systems, S. Kersting, M. Buss p. 5634
- Pairwise Stochastic Bounded Confidence Opinion Dynamics: Heavy Tails and Stability, F. Baccelli, A. Chatterjee, S. Vishwanath p. 5678
- Robust Event-triggered MPC With Guaranteed Asymptotic Bound and Average Sampling Rate, F. D. Brunner, W.P.M.H. Heemels, F. Allgöwer p. 5694
- Robust H-infinity Observer-Based Control of Fractional-Order Systems with Gain Parametrization, Y. Boukal, M. Darouach, M. Zasadzinski, N-E. Radhi p. 5710
- Robust Online Algorithms for Peak-Minimizing EV Charging under Multi-Stage Uncertainty, S. Zhao, X. Lin, M. Chen p. 5739
- Reduction of Distributions: Definitions, Properties and Applications, L. Lin, S. Ware, R. Su, W. M. Wonham p. 5755

Technical Notes and Correspondence
- On the Output of Nonlinear Systems Excited by Discrete Prolate Spheroidal Sequences, K. Q. Lepage, S. Ching p. 5780
- Distributed Velocity-Constrained Consensus of Discrete-Time Multi-Agent Systems with Nonconvex Constraints, Switching Topologies, and Delays, P. Lin, W. Ren, H. Gao p. 5788
- Distributed Active Anti-Disturbance Consensus for Leader-Follower Higher-Order Multi-agent Systems with Mismatched Disturbances, X. Wang, S. Li, X. Yu, J. Yang p. 5795
- Adaptive Asymptotic Tracking Control of Uncertain Time-Driven Switched Linear Systems, S. Yuan, B. De Schutter, S. Baldi p. 5802
- Optimized State Space Grids for Abstractions, A. Weber, M. Rungger, G. Reissig p. 5816
- Continuous Sampled-Data Observer Design for Nonlinear Systems with Time Delay Larger or Smaller than the Sampling Period, D. Zhang, Y. Shen p. 5822
- Active Disturbance Rejection Control for Uncertain Nonaffine-in-control Nonlinear Systems, M. Ran, Q. Wang, C. Dong p. 5830
- Switching Controller Design with Dwell-Times and Sampling, M. Souza, A. R. Fioravanti, M. Corless, R. N. Shorten p. 5837
- H2 State Feedback Control Design of Continuous-Time Positive Linear Systems, G. S. Deaecto, J. C. Geromel p. 5844
- A Novel Markov Chain Based ILC Analysis for Linear Stochastic Systems Under General Data Dropouts Environments, D. Shen, J-X. Xu p. 5850
- Observer-Based Control for Piecewise-Affine Systems With Both Input and Output Quantization, L. Zhang, Z. Ning, W. X. Zheng p. 5858
- Synchronization of the Delayed Vicsek Model, J. Zheng, J-G. Dong, L. Xie p. 5866
- Synchronization of Pulse-Coupled Oscillators and Clocks under Minimal Connectivity Assumptions, A. Proskurnikov, M. Cao p. 5873
- Global Stabilization of Stochastic Nonlinear Systems via C1 and C∞ Controllers, H. Wang, Q. Zhu p. 5880
- Calculating All Minimal Transition-Based Sensor Activation Policies for the Purpose of Supervisory Control, W. Wang, C. Gong p. 5894
- A Resource Allocation Mechanism Using Matching and Bargaining, S. Sikdar, S. Givigi, K. Rudie p. 5909
- Event-Triggered Global Robust Output Regulation for a Class of Nonlinear Systems, W. Liu, J. Huang p. 5923
- Realization and Discretization of Asymptotically Stable Homogeneous Systems, D. Efimov, A. Polyakov, A. Levant, W. Perruquetti p. 5962
- On General Properties of Eigenvalues and Eigenfunctions of a Sturm-Liouville Operator: Comments on "ISS with Respect to Boundary Disturbances for 1-D Parabolic PDEs", Y. Orlov p. 5970
- Asynchronous Distributed Camera Network Patrolling under Unreliable Communication, N. Bof, R. Carli, A. Cenedese, L. Schenato p. 5982
- On a Class of Optimization-Based Robust Estimators, L. Bako p. 5990
- Adaptive Finite-Time Stabilization of a Class of Uncertain Nonlinear Systems via Logic-Based Switchings, J. Fu, R. Ma, T. Chai p. 5998
- Recursive Robust Regulator for Discrete-time Markovian Jump Linear Systems, J. P. Cerri, M. H. Terra p. 6004
- An Improved Criterion for Controllability of Boolean Control Networks, J. Liang, H. Chen, J. Lam p. 6012
- Continuous Asymptotically Tracking Control for a Class of Nonaffine-in-Input System with Non-Vanishing Disturbance, B. Xian, Y. Zhang p. 6019
- Single Sample Fictitious Play, B. Swenson, S. Kar, J. Xavier p. 6026
- Centralized Optimization for Dec-POMDPs under the Expected Average Reward Criterion, X. Jiang, X. Wang, H. Xi, F. Liu p. 6032
Remarks on Stability of Time-Varying Linear Systems, A. D. Lewis p. 6039
Hybrid Attitude and Gryo-Bias Design on SO(3), S. Berkane, A. Abdessameud, A. Tayebi p. 6039
Variational Bayesian Adaptive Cubature Information Filter Based on Wishart Distribution, P. Dong, Z. Jing, H. Leung, K. Shen p.6051
Data Rate for Distributed Consensus of Multi-agent Systems with High-order Oscillator Dynamics (16-1470), Z. Qiu, L. Xie, Y. Hong p. 6065

Back to the contents

1.3. IEEE Control Systems Society Publications Content Digest
Contributed by: Elizabeth Kovacs, ekovacs2@nd.edu
The IEEE Control Systems Society Publications Content Digest is a novel and convenient guide that helps readers keep track of the latest published articles. The CSS Publications Content Digest, available at http://ieeecss.org/publications-content-digest provides lists of current tables of contents of the periodicals sponsored by the Control Systems Society. Each issue offers readers a rapid means to survey and access the latest peer-reviewed papers of the IEEE Control Systems Society. We also include links to the Society’s sponsored Conferences to give readers a preview of upcoming meetings.

Back to the contents

2. Graduate School & Courses

2.1. EECI International Graduate School on Control
Contributed by: Alessandro D’Innocenzo, alessandro.dinnocenzo@univaq.it
In the context of the 2018 EECI International Graduate School on Control, Dr. Alessandro D’Innocenzo (University of L’Aquila) and Prof. Carlo Fischione (KTH) will teach a 1-week module in Paris between 09/04/2018-13/04/2018, entitled Modeling, analysis and design of wireless sensor and actuator networks (http://people.disim.univaq.it/ alessadin/Flier EECI Course M14 WSAN 2018.pdf)
Abstract of the course: Cyber-physical systems such as Smart Grids, Internet of Things Networks, and Intelligent Transport Systems, are supported by three main engineering components: sensing/actuating, networking, and automatic decision making. These components can be generally abstracted as a wireless network of sensors and actuators (WSANs). In WSANs, the new interaction of sensing/actuating, networking, and decision making is demanding the development of novel fundamental design principles, so to reliably observe the physical world, interconnect its units, analyze data and perform control actions, even with resilience, privacy and security guarantees.
This course presents the most relevant design principles of WSANs:
- Mathematical modeling of networks and networked control systems;
- Resilient and secure methodologies for control-networking co-design;
- Networked optimization for WSANs;
2.2. Graduate Course on “Model-Based Fault Diagnosis - A Linear Synthesis Framework using MATLAB”
Contributed by: Andreas Varga, varga.andreas@gmail.com

A 21-hour Graduate Module Course on ”Model-Based Fault Diagnosis - a Linear Synthesis Framework using MATLAB” will be held at the Université Paris Saclay in the period March 19-23, 2018. The course is organized by the International Graduate School on Control. The online registration for this course is open by now at http://www.eeci-igsc.eu/registration/. The deadline for the reduced fee is December 31, 2017.

Lecturer: Dr. Andreas Varga, IEEE Fellow, Former Senior Scientist at DLR (German Aerospace Center) https://sites.google.com/site/andreasvargacontact/home/

Abstract: The model-based approach to fault detection and diagnosis has been the subject of ongoing research for the past few decades. The aim of this course is to describe the recent developments in the synthesis procedures of fault detection and isolation filters relying on computational approaches suitable to solve the basic synthesis problems in the most general setting. Freely available MATLAB-based software will serve as basis of computational synthesis experiments.

The course is centered on chapters 1–8 of the recent book: ”A. Varga, Solving Fault Diagnosis Problems – Linear Synthesis Techniques, Springer, 2017.”

Covered topics:
- Modelling systems with faults
- Basic problems of linear model-based fault diagnosis
- Nullspace-based synthesis paradigm
- Solution of synthesis problems of fault detection and isolation filters
- Solution of synthesis problems of model-detection filters using multiple-model-based techniques
- Computational issues in solving the synthesis problems
- Computational synthesis experiments using MATLAB

For more information see https://sites.google.com/site/andreasvargacontact/home/news/EECI-IGSC-2018-SUMMARY-VARGA.pdf

2.3. Short Course on ”Game Theory and Distributed Control”
Contributed by: Jeff S. Shamma, jeff.shamma@kaust.edu.sa

Short course on ”Game Theory and Distributed Control”
PARIS-SACLAY
26/02/2018–02/03/2018

As part of the EECl 2018 International Graduate School on Control (http://www.eeci-igsc.eu), there will be a one week short course by Profs. Jason Marden (UCSB) and Jeff Shamma (KAUST) on ”Game theory and distributed control”. This course presents an introduction to game theory and how it can be used as an
effective design approach for distributed architecture control systems, with various illustrative examples of multi-agent distributed coordination.

Topics include:
- Elements of normal form games
- Nash equilibrium and generalized solution concepts
- Potential games and their variants
- Price-of-anarchy and price-of-stability
- Mechanism and utility design
- Multi-agent online learning algorithms
- Applications to distributed control problems

Advanced registration deadline: 31 December 2017

Please visit http://www.eeci-igsc.eu for additional information.

3. Books

3.1. Introduction to Averaging Dynamics over Networks

Contributed by: Yasmin Brookes, yasmin.brookes@springer.com

Introduction to Averaging Dynamics over Networks
by Fabio Fagnani and Paolo Frasca
ISBN: 978-3-319-68021-7
November 2017, Springer
Hardcover, 135 pages, $109.00/euro 79.99

This book deals with averaging dynamics, a paradigmatic example of network based dynamics in multi-agent systems. The book presents all the fundamental results on linear averaging dynamics, proposing a unified and updated viewpoint of many models and convergence results scattered in the literature.

Starting from the classical evolution of the powers of a fixed stochastic matrix, the text then considers more general evolutions of products of a sequence of stochastic matrices, either deterministic or randomized. The theory needed for a full understanding of the models is constructed without assuming any knowledge of Markov chains or Perron–Frobenius theory. Jointly with their analysis of the convergence of averaging dynamics, the authors derive the properties of stochastic matrices. These properties are related to the topological structure of the associated graph, which, in the book’s perspective, represents the communication between agents. Special attention is paid to how these properties scale as the network grows in size.

Finally, the understanding of stochastic matrices is applied to the study of other problems in multi-agent coordination: averaging with stubborn agents and estimation from relative measurements. The dynamics described in the book find application in the study of opinion dynamics in social networks, of information fusion in sensor networks, and of the collective motion of animal groups and teams of unmanned vehicles. Introduction to Averaging Dynamics over Networks will be of material interest to researchers in systems and control studying coordinated or distributed control, networked systems or multiagent systems and to graduate students pursuing courses in these areas.

Contents
3.2. Solving Fault Diagnosis Problems - Linear Synthesis Techniques

Contributed by: Andreas Varga, varga.andreas@gmail.com

Title: Solving Fault Diagnosis Problems - Linear Synthesis Techniques
Author: Andreas Varga

eBook ISBN: 978-3-319-51559-5
Hardback Book ISBN: 978-3-319-51558-8
Publisher: Springer International Publishing
Series Title and Volume: Studies in Systems, Decision and Control, Vol. 84
Published Date: May 20, 2017
Hardcover, 394+XXVIII pages, $189.00 (USA)


This book addresses fault detection and isolation topics from a computational perspective. Unlike most existing literature, it bridges the gap between the existing well-developed theoretical results and the realm of reliable computational synthesis procedures.

The model-based approach to fault detection and diagnosis has been the subject of ongoing research for the past few decades. While the theoretical aspects of fault diagnosis on the basis of linear models are well understood, most of the computational methods proposed for the synthesis of fault detection and isolation filters are not satisfactory from a numerical standpoint. Several features make this book unique in the fault detection literature:

- Solution of standard synthesis problems in the most general setting, for both continuous- and discrete-time systems, regardless of whether they are proper or not; consequently, the proposed synthesis procedures can solve a specific problem whenever a solution exists

- Emphasis on the best numerical algorithms to solve the synthesis problems for linear systems in generalized state-space form (also known as descriptor systems)

- Development of general synthesis procedures relying on new computational paradigms, such as factorization-based design based on filter updating techniques and nullspace-based synthesis

- Availability of a comprehensive set of free accompanying software tools for descriptor systems, which allows readers to easily implement all synthesis procedures presented in the book and ensures that all results are reproducible

This book is primarily intended for researchers and advanced graduate students in the areas of fault diagnosis and fault-tolerant control. It will also appeal to mathematicians with an interest in control-oriented numerics.

Contents

Part I Basics of Fault Diagnosis
Chapter 1 Introduction
Chapter 2 Modelling systems with faults
Chapter 3 Fault diagnosis
Chapter 4 Model detection
Part II Synthesis of Residual Generators
Chapter 5 Synthesis of fault detection and isolation filters
Chapter 6 Synthesis of model detection filters
Chapter 7 Computational issues
Chapter 8 Case studies
Part III Background Material
Chapter 9 System theoretical concepts
Chapter 10 Computational algorithms and software

Author’s homepage: https://sites.google.com/site/andreasvargacontact/home/book

4. Journals

4.1. Contents: Control Engineering Practice
Contributed by: Martin Böck, cep@acin.tuwien.ac.at

Control Engineering Practice
Volume 69
December 2017
- Yankai Cao, David Acevedo, Zoltan K. Nagy, Carl D. Laird, Real-time feasible multi-objective optimization based nonlinear model predictive control of particle size and shape in a batch crystallization process, Pages 1-8
- Graziana Cavone, Mariagrazia Dotoli, Nicola Epicoco, Carla Seatzu, Intermodal terminal planning by Petri Nets and Data Envelopment Analysis, Pages 9-22
- I Yung, Carlos Vázquez, Leonid B. Freidovich, Robust position control design for a cylinder in mobile hydraulics applications, Pages 36-49
- Rodolfo C.C. Flesch, Julio E. Normey-Rico, Carlos A. Flesch, A unified anti-windup strategy for SISO discrete dead-time compensators, Pages 50-60
- Jan Šulc, Sigurd Skogestad, A systematic approach for airflow velocity control design in road tunnels, Pages 61-72
- Jérôme Mendes, Luís Osório, Rui Araújo, Self-tuning PID controllers in pursuit of plug and play capacity, Pages 73-84
- Farzad F. Bigelow, Ahmad Kalhor, Robust adaptive controller based on evolving linear model applied to a Ball-Handling mechanism, Pages 85-98
- Pavel Osinenko, Stefan Streif, Optimal traction control for heavy-duty vehicles, Pages 99-111
- Amru Alqurashi, Amir H. Etemadi, Amin Khodaei, Model predictive control to two-stage stochastic dynamic economic dispatch problem, Pages 112-121
- T. Hägglund, The Tracking Ratio Station, Pages 122-130
- Ali Bakeri, Shamir Bin-Karim, Alireza Bafandeh, Christopher Vermillion, Real-time control using Bayesian optimization: A case study in airborne wind energy systems, Pages 131-140
4.2. Contents: Asian Journal of Control
Contributed by: LiChen Fu, lichen@ntu.edu.tw

Asian Journal of Control
Vol.19, No.6 November, 2017
CONTENTS
[Regular Paper]
1. Controller Reset Strategy for Anti-Windup Based on Switching L2 Gain Analysis (pages 1877–1890), K. Suyama and N. Sebe
2. Robust Stochastic Stability and $H_{\infty}$ Control for Uncertain Singular Markovian Jump Systems with Multiplicative Noise (pages 1891–1904), Yong Zhao, Weihai Zhang, Jianwei Xia and Tianliang Zhang
3. Critical Issues on Kalman Filter with Colored and Correlated System Noises (pages 1905–1919), Zebo Zhou, Jin Wu, Yong Li, Chen Fu and Hassen Fourati
4. An Improved Parameterized Controller Reduction Technique via New Frequency Weighted Model Reduction Formulation (pages 1920–1930), Ahmad Jazlan, Pantazis Houlis, Victor Sreeram and Roberto Togneri
6. Stabilization of Hybrid Systems by Feedback Control Based on Discrete-Time State and Mode Observations (pages 1943–1953), Yuyuan Li, Jianqiu Lu, Xuerong Mao and Qinwei Qiu
8. Disturbance Observer-Based Elegant Anti-Disturbance Control for Stochastic Systems with Multiple Disturbances (pages 1966–1976), Linqing Zhang, Xinjiang Wei and Huifeng Zhang
12. Rapid Exponential Stabilization of a 1-D Transmission Wave Equation with In-domain Anti-damping (pages 2017–2027), Fathi Hassine
13. Three-Axis Global Magnetic Attitude Control of Earth-Pointing Satellites in Circular Orbit (pages 2028–2041), Dipak Giri, Bijoy Mukherjee, Bidul T N and Manoranjan Sinha
15. Observer-Based Piecewise Fault-Tolerant Control for Discrete-Time Nonlinear Dynamic Systems (pages 2051–2061), Liheng Chen, Xianlin Huang and Ming Liu
16. Synchronization of Complex Networks with Coupled and Self-Feedback Delays Via Aperiodically Intermittent Strategy (pages 2062–2075), Mei Liu, Zhiyong Yu, Haijun Jiang and Cheng Hu
17. Consensus of Fractional Multi-Agent Systems Using Distributed Adaptive Protocols (pages 2076–2084),
Guojian Ren and Yongguang Yu


19. Optimal Control Problem for Risk-Sensitive Mean-Field Stochastic Delay Differential Equation with Partial Information (pages 2097–2115), Heping Ma and Bin Liu


Author: Shuang Zhang


22. Stabilization of Time-Varying and Disturbed Complex Dynamical Networks with Different-Dimensional Nodes and Uncertain Nonlinearities (pages 2143–2154), Lili Zhang, Youfa Lei, Yinhe Wang and Baoying Chen

23. Distributed Adaptive Event-Triggered Control for Leader-Following Consensus of Multi-Agent Systems (pages 2155–2164), Xiu You, Changchun Hua and Xingping Guan

24. A Numerical Approximation-Based Controller for Mobile Robots with Velocity Limitation (pages 2165–2177), Mario E. Serrano, Sebastián A. Godoy, Santiago Rómoli and Gustavo J.E. Scaglia


[Brief Paper]


2. Consensus Control of Fractional-Order Systems Based on Delayed State Fractional Order Derivative (pages 2199–2210), Xueliang Liu, Zhi Zhang and Huazhu Liu

3. Minimum Energy Control of Fractional Descriptor Discrete-Time Linear Systems with Bounded Inputs Using The DRAZIN Inverse (pages 2211–2218)

Author: Tadeusz Kaczorek


5. Observer Design for a Time Delay System via the Razumikhin Approach (pages 2226–2231)

Author: Branislav Rehák


Back to the contents
- Mohammed Safi, Lucie Baudouin, Alexandre Seuret, Tractable sufficient stability conditions for a system coupling linear transport and differential equations, Pages 1-8
- Said Aoues, Michael Di Loreto, Damien Eberard, Wilfrid Marquis-Favre, Hamiltonian systems discrete-time approximation: Losslessness, passivity and composability, Pages 9-14
- Jianhui Huang, Xun Li, Tianxiao Wang, Characterizations of closed-loop equilibrium solutions for dynamic mean–variance optimization problems, Pages 15-20
- Fahad Albalawi, Helen Durand, Panagiotis D. Christofides, Distributed economic model predictive control with Safeness-Index based constraints for nonlinear systems, Pages 21-28
- C. Altafini, Involutive flows and discretization errors for nonlinear driftless control systems, Pages 29-37
- Huabin Chen, Peng Shi, Cheng-Chew Lim, Stability analysis for neutral stochastic delay systems with Markovian switching, Pages 38-48
- James Louisell, Imaginary axis eigenvalues of matrix delay equations with a certain alternating coefficient structure, Pages 49-54
- Tyler Homer, Prashant Mhaskar, Constrained control Lyapunov function-based control of nonlinear systems, Pages 55-61

Systems & Control Letters
Volume 109
November 2017
- Henrik Anfinsen, Ole Morten Aamo, Model reference adaptive control of coupled linear hyperbolic PDEs, Pages 1-11
- Hugo Leiva, Controllability of the impulsive functional BBM equation with nonlinear term involving spatial derivative, Pages 12-16
- Mohamadreza Ahmadi, Hamed Mojallali, Rafael Wisniewski, On robust stability of switched systems in the context of Filippov solutions, Pages 17-23
- Nikita Barabanov, Romeo Ortega, On global asymptotic stability of with not persistently exciting, Pages 24-29
- Cristopher Hermosilla, Richard Vinter, Hasnaa Zidani, Hamilton–Jacobi–Bellman equations for optimal control processes with convex state constraints, Pages 30-36
- Corrado Possierri, Andrew R. Teel, A Lyapunov theorem certifying global weak reachability for stochastic difference inclusions with random inputs, Pages 37-42
- Tomás Caraballo, Mohamed Ali Hammami, Lassaad Mchiri, Practical exponential stability of impulsive stochastic functional differential equations, Pages 43-48
- Vakhtang Lomadze, Converting high order linear PDEs to first order: Noncommutative case, Pages 49-52
- M. Ouzahra, Exponential stability of nondissipative linear system in Banach space and application to unbounded bilinear systems, Pages 53-62

Systems & Control Letters
Volume 108
October 2017
- Jiapeng Xu, Chenglin Wen, Quanbo Ge, Daxing Xu, Optimal multiple-sensor scheduling for general scalar Gauss–Markov systems with the terminal error, Pages 1-7
- M.V. Kulikova, Square-root algorithms for maximum correntropy estimation of linear discrete-time systems in presence of non-Gaussian noise, Pages 8-15
- Rafal Goebel, Stability and robustness for saddle-point dynamics through monotone mappings, Pages 16-22
- Dany Abou Jaoude, Mazen Farhood, Distributed control of nonstationary LPV systems over arbitrary graphs, Pages 23-32
- Mohamadreza Ahmadi, Giorgio Valmorbida, Antonis Papachristodoulou, Safety verification for distributed parameter systems using barrier functionals, Pages 33-39
- S. Feng, P. Tesi, Networked control systems under Denial-of-Service: Co-located vs. remote architectures, Pages 40-47
- Annika Eichler, Herbert Werner, Optimal convergence speed of consensus under constrained damping for multi-agent systems with discrete-time double-integrator dynamics, Pages 48-55
- Changliu Liu, Masayoshi Tomizuka, Real time trajectory optimization for nonlinear robotic systems: Relaxation and convexification, Pages 56-63
- Dongsheng Du, Shengyuan Xu, Vincent Cocquempot, Actuator fault estimation for discrete-time switched systems with finite-frequency, Pages 64-70
- Mireille E. Broucke, Melkior Ornik, Abdol-Reza Mansouri, A topological obstruction in a control problem, Pages 71-79
- Luca Consolini, Marco Locatelli, Andrea Minari, Aurelio Piazzi, Corrigendum to “An optimal complexity algorithm for minimum-time velocity planning” [Systems & Control Letters 103 (2017) 50–57], Page 80

4.4. Contents: European Journal of Control
Contributed by: John Coca, j.coca@elsevier.com

European Journal of Control
Volume 38
November 2017

- Bo Li, Yuanguo Zhu, A parametric optimization approach for uncertain linear quadratic models, Pages 1-6
- Liubao Deng, Yuefen Chen, Optimal control of uncertain systems with jump under optimistic value criterion, Pages 7-15
- Fakhreddin Abedi, Wah June Leong, Stabilization of some composite stochastic control systems with non-trivial solutions, Pages 16-21
- Nkemdilim A. Ofodile, Matthew C. Turner, Anti-windup design for input-coupled double integrator systems with application to quadrotor UAV’s, Pages 22-31
- Alexey A. Vedyakov, Anastasia O. Vediakova, Alexey A. Bobtsov, Anton A. Pyrkin, Stanislav V. Aranovskiy, A globally convergent frequency estimator of a sinusoidal signal with a time-varying amplitude, Pages 32-38
- JinRong Wang, Zijian Luo, Michal Feckan, Relative controllability of semilinear delay differential systems with linear parts defined by permutable matrices, Pages 39-46
- Hamid Reza Shaker, Maryamsadat Tahavori, On the existence of frequency-interval gramians for bilinear systems, Pages 47-51
- Miguel Parada Contzen, Consensus in networks with arbitrary time invariant linear agents, Pages 52-62
- Meirong Zhang, Ali Saberi, Anton A. Stoorvogel, Synchronization in the presence of unknown, nonuniform and arbitrarily large communication delay, Pages 63-72
- Lorenzo Sabattini, Cristian Secchi, Cesare Fantuzzi, Multi-robot systems implementing complex behaviors under time-varying topologies, Pages 73-87
4.5. Contents: IET Control Theory & Applications
Contributed by: Alexandria Lipka, alipka@theiet.org

IET Control Theory & Applications
Volume 11
December 2017 - Liang Hu, Zidong Wang, Xiaohui Liu, Athanasios V. Vasilakos, Fuad E. Alsaadi, Recent advances on state estimation for power grids with unconventional measurements, Pages 3221 - 3232
- Yunlei Zou, Jiandong Zhu, Yurong Liu, State-feedback controller design for disturbance decoupling of Boolean control networks, Pages 3233 - 3239
- Yiwen Qi, Ming Cao, Finite-time boundedness and stabilisation of switched linear systems using event-triggered controllers, Pages 3240 - 3248
- Luy Nguyen Tan, Distributed optimal integrated tracking control for separate kinematic and dynamic uncertain non-holonomic mobile mechanical multi-agent systems, Pages 3249 - 3260
- Baeyoung Koo, Wookyong Kwon, Sangmoon Lee, Integral-based event-triggered PD control for systems with network-induced delay using a quadratic generalised free-weighting matrix inequality, Pages 3261 - 3268
- Cui-li Jin, Li-li Li, Rui Wang, H.R. Karimi, Asynchronous output regulation with passivity control for a class of switched stochastic delay systems, Pages 3269 - 3277
- Daizhan Cheng, Ting Liu, Linear representation of symmetric games, Pages 3278 - 3287
- Jianbo Lu, Yugeng Xi, Dewei Li, Yuli Xu, Zhongxue Gan, Model predictive control synthesis for constrained Markovian jump linear systems with bounded disturbance, Pages 3288 - 3296
- Junfeng Zhang, Xiao He, Donghua Zhou, Robust optimal filtering for linear time-varying systems with stochastic uncertainties, Pages 3297 - 3304
- Jinhuan Wang, Pengxiao Zhang, Wei Ni, Observer-based event-triggered control for consensus of general linear MASs, Pages 3305 - 3312
- Cui-Qin Ma, Zheng-Yan Qin, Yun-Bo Zhao, Bipartite consensus of integrator multi-agent systems with measurement noise, Pages 3313 - 3320
- Song Zhu, Min Wang, Yingke Liu, Adaptive decentralised control of fluid networks with random disturbances, Pages 3321 - 3328
- Shoulin Hao, Tao Liu, Bin Zhou, Predictor-based output feedback control design for sampled systems with input delay subject to disturbance, Pages 3329 - 3340
- Wim Michiels, Gijs Hilhorst, Goele Pipeleers, Tomas Vyhlidal, Jan Swevers, Reduced modelling and fixed-order control of delay systems applied to a heat exchanger, Pages 3341 - 3352
- Wei Wang, Jie Zhou, Optimal linear filtering design for discrete-time systems with cross-correlated stochastic parameter matrices and noises, Pages 3353 - 3362
- Jiangtao Dai, Ge Guo, Exponential consensus of non-linear multi-agent systems with semi-Markov switching topologies, Pages 3363 - 3371
- Qingbo Li, Jin Guo, Chang-Yin Sun, Yuanyuan Wu, Adaptive synchronisation for a class of output-coupling complex networks with output feedback nodes, Pages 3372 - 3380
- Yulei Wang, Ning Bian, Jingyu Li, Jingxin Yuan, Hong Chen, A triple-step non-linear control for path following of autonomous vehicles with uncertain kinematics and dynamics, Pages 3381 - 3387
- Yicheng Liu, Tao Zhang, Chengxin Li, Bin Liang, Robust attitude tracking with exponential convergence, Pages 3388 - 3395
- Chong Tan, Xiao Yin, Guo-Ping Liu, Jinjie Huang, Yun-Bo Zhao, Prediction-based approach to output consensus of heterogeneous multi-agent systems with delays, Pages 3391 - 3399
- Junfeng Zhang, Rihong Zhang, Xiushan Cai, Xianglei Jia, A novel approach to control synthesis of positive
4.6. Contents: Control Theory and Technology
Contributed by: Zou Tiefeng, tfzou@scut.edu.cn

Table of Contents
Control Theory and Technology
(formerly entitled Journal of Control Theory and Applications)
Vol. 15, No. 4, November 2017
ISSN: 2095-6983 CODEN: CTTOAM
http://www.springer.com/engineering/control/journal/11768
Special issue dedicated to the occasion of Prof. Tzyh-Jong Tarn’s 80th birthday
Editorial
D. Cheng, F. L. Lewis, M. W. Spong, J. Liu, J. Zhang P.245
- Cooperative visibility maintenance in SE(3) for multi-robot-networks with limited field-of-view sensors, H. A. Poonawala, M. W. Spong P.246
- Modeling robotic operations controlled by natural language, Y. Cheng, J. Bao, Y. Jia, Z. Deng, Z. Sun, S. Bi, C. Li, N. Xi P.258
- Solving Lyapunov equation by quantum algorithm, H. Sun, J. Zhang P.267
- Distributed and recursive blind channel identification to sensor networks, R. Liu, H.-F. Chen P.274
- A transverse local feedback linearization approach to human head movement control, T. Oki, B. K. Ghosh P.288
- Design of high performance linear feedback laws for operation that extends into the nonlinear region of AMB systems, X. Lyu, Y. Hu, H. Wu, Z. Lin P.301
- Morgan’s problem of Boolean control networks, S. Fu, Y. Wang, D. Cheng, J. Liu P.316
- On the minimum number of neighbors needed for consensus of flocks, C. Chen, G. Chen, L. Guo P.327
- Adaptive leader-following rendezvous and flocking for a class of uncertain second-order nonlinear multi-agent systems, W. Liu, J. Huang P.354

4.7. Contents: Mechatronics
Contributed by: John Coca, j.coca@elsevier.com

Mechatronics
Volume 48
December 2017
- Gang Wang, Xi Chen, Shengxi Yang, Peng Jia, Xingya Yan, Jiang Xie, Subsea crab bounding gait of leg-paddle hybrid driven shoal crablike robot, Pages 1-11
- Pengbing Zhao, Yaoyao Shi, Jin Huang, Dynamics modeling and deviation control of the composites winding system, Pages 12-29
- Milad Jalali, Saeid Khosravani, Amir Khajepour, Shih-ken Chen, Bakhtiar Litkouhi, Model predictive control of vehicle stability using coordinated active steering and differential brakes, Pages 30-41
4.8. Contents: Engineering Applications of Artificial Intelligence
Contributed by: John Coca, j.coca@elsevier.com

Engineering Applications of Artificial Intelligence
Volume 67
December 2017

- Hong-Qiao Wang, Yan-Ning Cai, Guang-Yuan Fu, Ming Wu, Zhen-Hua Wei, Data-driven fault prediction and anomaly measurement for complex systems using support vector probability density estimation, Pages 1-13
- Abdullah Caliskan, Mehmet Emin Yuksel, Hasan Badem, Alper Basturk, Performance improvement of deep neural network classifiers by a simple training strategy, Pages 14-23
- M.H. Sangdani, A.R. Tavakolpour-Saleh, A. Lotfavar, Genetic algorithm-based optimal computed torque control of a vision-based tracker robot: Simulation and experiment, Pages 24-38
- Ivo Marinic-Kragic, Milan Curkovic, Damir Vucina, Adaptive re-parameterization based on arbitrary scalar fields for shape optimization and surface fitting, Pages 39-51
- Prem Kumar Singh, μ-polar fuzzy graph representation of concept lattice, Pages 52-62
- Álvaro Javier Prado, Maciej Marcin Michalek, Fernando Auat Cheein, Machine-learning based approaches for self-tuning trajectory tracking controllers under terrain changes in repetitive tasks, Pages 63-80
- Santiago López-Tapia, Rafael Molina, Nicolás Pérez de la Blanca, Using machine learning to detect and localize concealed objects in passive millimeter-wave images, Pages 81-90
- Haibin Li, Xiaobo Nie, Structural reliability analysis with fuzzy random variables using error principle, Pages 91-99
- Marcin Wozniak, Dawid Polap, Leon Kosmider, Tomasz Clapa, Automated fluorescence microscopy image analysis of Pseudomonas aeruginosa bacteria in alive and dead stadium, Pages 100-110
- Jyotsana Grover, Madasu Hanmandlu, The fusion of multispectral palmprints using the information set based features and classifier, Pages 111-125
- Luca Puggini, Seán McLoone, An enhanced variable selection and Isolation Forest based methodology for anomaly detection with OES data, Pages 126-135
- Massimo Esposito, Aniello Minutolo, Rosario Megna, Manolo Forastiere, Mario Magliulo, Giuseppe De Pietro, A smart mobile, self-configuring, context-aware architecture for personal health monitoring, Pages 136-156
- Cengiz Kahraman, Selcuk Cebi, Sezi Cevik Onar, Basar Oztaysi, A novel trapezoidal intuitionistic fuzzy information axiom approach: An application to multicriteria landfill site selection, Pages 157-172
- Davood Zabihzadeh, Reza Monsefi, Hadi Sadoghi Yazdi, Sparse Bayesian similarity learning based on posterior distribution of data, Pages 173-186
- Ivo Martin, Dieter Bestle, Automated eigenmode classification for airfoils in the presence of fixation uncertainties, Pages 187-196
- Hai Duong, Tin Truong, Bac Le, Efficient algorithms for simultaneously mining concise representations of sequential patterns based on extended pruning conditions, Pages 197-210
Haitao Liu, Yew-Soon Ong, Jianfei Cai, Yi Wang, Cope with diverse data structures in multi-fidelity modeling: A Gaussian process method, Pages 211-225

Kwang-Eun Ko, Kwee-Bo Sim, Deep convolutional framework for abnormal behavior detection in a smart surveillance system, Pages 226-234

Zhuhong Zhang, Xiaoxia Wang, Jiaxuan Lu, Multi-objective immune genetic algorithm solving nonlinear interval-valued programming, Pages 235-245

Najmeh Sadat Jaddi, Salwani Abdullah, Optimization of neural network using kidney-inspired algorithm with control of filtration rate and chaotic map for real-world rainfall forecasting, Pages 246-259

K. Liagkouras, K. Metaxiotis, Multi-period mean–variance fuzzy portfolio optimization model with transaction costs, Pages 260-269

Bárbara Cervantes, Raúl Monroy, Miguel Angel Medina-Pérez, Miguel Gonzalez-Mendoza, Jose Ramirez-Marquez, Some features speak loud, but together they all speak louder: A study on the correlation between classification error and feature usage in decision-tree classification ensembles, Pages 270-282

Gai Li, Youfen Chen, Zhiqiang Zhang, Jianghong Zhong, Qiang Chen, Social personalized ranking with both the explicit and implicit influence of user trust and of item ratings, Pages 283-295

Nerea del-Rey-Maestre, David Mata-Moya, María-Pilar Jarabo-Amores, Pedro-Jose Gomez-del-Hoyo, Jose-Luis Barcena-Humanes, Artificial intelligence techniques for small boats detection in radar clutter. Real data validation, Pages 296-308

Zhiji Yang, Yitian Xu, A safe screening rule for Laplacian support vector machine, Pages 309-316


Saba Sedghizadeh, Soosan Beheshti, Particle swarm optimization based fuzzy gain scheduled subspace predictive control, Pages 331-344

Tobias Münnker, Oliver Nelles, Nonlinear system identification with regularized local FIR model networks, Pages 345-354

Koppány Máté, Lucian Bușoniu, Rémi Munos, Bart De Schutter, Optimistic planning with an adaptive number of action switches for near-optimal nonlinear control, Pages 355-367

Thomas Lombaerts, Gertjan Looye, Andreas Seefried, Miguel Neves, Tobias Bellmann, Proof of concept simulator demonstration of a physics based self-preserving flight envelope protection algorithm, Pages 368-380

M. Blandeau, V. Estrada-Manzo, T.M. Guerra, P. Pudlo, F. Gabrielli, Fuzzy unknown input observer for understanding sitting control of persons living with spinal cord injury, Pages 381-389

H.K. Lam, A review on stability analysis of continuous-time fuzzy-model-based control systems: From membership-function-independent to membership-function-dependent analysis, Pages 390-408

Zsófia Lendek, Zoltán Nagy, Jimmy Lauber, Local stabilization of discrete-time TS descriptor systems, Pages 409-418

Abdelmadjid Cherifi, Kevin Guelton, Laurent Arcese, Uncertain T-S model-based robust controller design with -stability constraints—A simulation study of quadrotor attitude stabilization, Pages 419-429

D. Ichalal, B. Marx, S. Mannar, D. Maquin, J. Ragot, How to cope with unmeasurable premise variables in Takagi–Sugeno observer design: Dynamic extension approach, Pages 430-435

Branislav Holý, Registration of lines in 2D LIDAR scans via functions of angles, Pages 436-442

4.9. Contents: Annual Reviews in Control
Contributed by: John Coca, j.coca@elsevier.com
- Selma Musić, Sandra Hirche, Control sharing in human-robot team interaction, Pages 342-354
- Thomas Schauer, Sensing motion and muscle activity for feedback control of functional electrical stimulation: Ten years of experience in Berlin, Pages 355-374

4.10. Contents: ISA Transactions

Contributed by: John Coca, j.coca@elsevier.com

ISA Transactions
Volume 71 Part 1
November 2017

- Qingling Wang, Changyin Sun, Coordinated tracking of linear multiagent systems with input saturation and stochastic disturbances, Pages 3-9
- Haiyun Hu, Zongli Lin, Consensus of a class of discrete-time nonlinear multi-agent systems in the presence of communication delays, Pages 10-20
- Xue Li, Kai Gao, Peng Lin, Lipo Mo, A further result on consensus problems of second-order multi-agent systems with directed graphs, a moving mode and multiple delays, Pages 21-24
- Lijing Dong, Jing Li, Qin Liu, Relay tracking control for second-order multi-agent systems with damaged agents, Pages 25-31
- Dan Ye, Mengmeng Chen, Kui Li, Observer-based distributed adaptive fault-tolerant containment control of multi-agent systems with general linear dynamics, Pages 32-39
- Yongzhao Hua, Xiwang Dong, Qingdong Li, Zhang Ren, Distributed fault-tolerant time-varying formation control for high-order linear multi-agent systems with actuator failures, Pages 40-50
- Z. Gallehdari, N. Meskin, K. Khorasani, Distributed reconfigurable control strategies for switching topology networked multi-agent systems, Pages 51-67
- Cheng-Lin Liu, Scaled consensus seeking in multiple non-identical linear autonomous agents, Pages 68-75
- Hongwei Ren, Feiqi Deng, Mean square consensus of leader-following multi-agent systems with measurement noises and time delays, Pages 76-83
- Quan Yuan, Jingyuan Zhan, Xiang Li, Outdoor flocking of quadcopter drones with decentralized model predictive control, Pages 84-92
- Huaxin Qiu, Haibin Duan, Pigeon interaction mode switch-based UAV distributed flocking control under obstacle environments, Pages 93-102
- Housheng Su, Zhenghao Li, Yanyan Ye, Event-triggered Kalman-consensus filter for two-target tracking sensor networks, Pages 103-111
- Rui Wang, Yanxiao Li, Hui Sun, Zengqiang Chen, Analyses of integrated aircraft cabin contaminant monitoring network based on Kalman consensus filter, Pages 112-120
- Wei Wang, Changyun Wen, Jiangshuai Huang, Huijin Fan, Distributed adaptive asymptotically consensus tracking control of uncertain Euler-Lagrange systems under directed graph condition, Pages 121-129
- Weiye Cang, Zhongkui Li, Hanlei Wang, Observer-based consensus of networked thrust-propelled vehicles with directed graphs, Pages 130-137
- Feifan Ji, Yanjun Li, Ji Xiang, Synchronized output regulation of leader-following heterogeneous networked systems via repetitive controllers, Pages 138-147
- Wenlun Yang, Minyue Fu, A proportional integral estimator-based clock synchronization protocol for wireless sensor networks, Pages 148-160
- Ke-Cai Cao, Bin Jiang, Dong Yue, Cooperative path following control of multiple nonholonomic mobile robots, Pages 161-169
- Xi Yang, Fuhua Wan, Mengchuan Tu, Guojiang Shen, Robust output synchronization of heterogeneous nonlinear agents in uncertain networks, Pages 170-177
- Wen Zhao, Gang Liu, Xi Ma, Bing He, Yunfeng Dong, Distributed synchronization of networked drive-response systems: A nonlinear fixed-time protocol, Pages 178-184

4.11. Contents: Journal of the Franklin Institute
Contributed by: John Coca, j.coca@elsevier.com

Journal of the Franklin Institute
Volume 354 Issue 17
November 2017

- Chaoliang Dang, Xiangqian Tong, Jun Yin, Jingjing Huang, Yao Xu, The neutral point-potential and current model predictive control method for Vienna rectifier, Pages 7605-7623
- Zhiqiang Zuo, Shuyang Guan, Yijing Wang, Hongchao Li, Dynamic event-triggered and self-triggered control for saturated systems with anti-windup compensation, Pages 7624-7642
- Min Xiao, Wei Xing Zheng, Jinxing Liu, Guoping Jiang, Lindu Zhao, Jinde Cao, Fractional-order PD control at Hopf bifurcations in delayed fractional-order small-world networks, Pages 7643-7667
- Shengda Liu, JinRong Wang, Yong Zhou, Optimal control of noninstantaneous impulsive differential equations, Pages 7668-7698
- Zhao Zhang, Zhiliang Wang, Xuebo Chen, Xiao-Ping Liu, Improved results on BIBO stability and stabilization of networked control systems with short time-varying delays, Pages 7699-7716
- Guoliang Wang, Qingling Zhang, Chunyu Yang, Fault-tolerant control of Markovian jump systems via a partially mode-available but unmatched controller, Pages 7717-7731
- Prakash Dwivedi, Sandeep Pandey, Anjali S. Junghare, Stabilization of noninstantaneous equilibrium point of rotary inverted pendulum using fractional controller, Pages 7732-7766
- Yi Ren, Zhengsheng Chen, Yechao Liu, Yikun Gu, Minghe Jin, Hong Liu, Adaptive hybrid position/force control of dual-arm cooperative manipulators with uncertain dynamics and closed-chain kinematics, Pages 7767-7793
- Zhaoke Ning, Jinyong Yu, Tong Wang, Simultaneous fault detection and control for uncertain discrete-time stochastic systems with limited communication, Pages 7794-7811
- Yating Zheng, Haitao Li, Xueying Ding, Yansheng Liu, Stabilization and set stabilization of delayed Boolean control networks based on trajectory stabilization, Pages 7812-7827
- Nabil EL FEZAZI, Fatima EL HAOUSSI, El Houssaine TISSIR, Teresa ALVAREZ, Design of robust $H_\infty$ controllers for congestion control in data networks, Pages 7828-7845
- Chengzhi Yuan, Cooperative $H_\infty$ output regulation of heterogeneous parameter-dependent multi-agent systems, Pages 7846-7870
- Haoyi Que, Zheng-Guang Wu, Hongye Su, Globally exponential synchronization for dynamical networks with discrete-time communications, Pages 7871-7884
- Mengting Chen, Feng Ding, Ling Xu, Tasawar Hayat, Ahmed Alsaeed, Iterative identification algorithms for bilinear-in-parameter systems with autoregressive moving average noise, Pages 7885-7898
- Xiaona Song, Zhen Wang, Hao Shen, Feng Li, Bo Chen, Junwei Lu, A unified method to energy-to-peak filter design for networked Markov switched singular systems over a finite-time interval, Pages 7899-7916
- Jian Deng, Higher-order stochastic averaging for a SDOF fractional viscoelastic system under bounded
noise excitation, Pages 7917-794
- Weiwei Ma, Xin-Chun Jia, Dawei Zhang, Networked continuous-time filtering for quadratically inner-bounded time-delay systems with multirate sampling, Pages 7946-7967
- Xu Li, Rui Wang, Iasson Karafyllis, Xi-Ming Sun, L2-gain analysis for systems with interval time-varying delay based on the switching technique, Pages 7968-7982
- Wenling Li, Yingmin Jia, Jumping Du, Distributed extended Kalman filter with nonlinear consensus estimate, Pages 7983-7995

Back to the contents

Contributed by: Bing Chu, b.chu@soton.ac.uk

International Journal of Control
Volume 90, Issue 12, 2017
http://www.tandfonline.com/toc/tcon20/current

- Controllability for a class of integro-differential evolution equations involving non-local initial conditions, He Yang, Ravi P. Agarwal & Yue Liang, pages: 2567-2574
- Mixed LQG and $H_\infty$ coherent feedback control for linear quantum systems, Lei Cui, Zhiyuan Dong, Guofeng Zhang & Heung Wing Joseph Lee, pages: 2575-2588
- An argument-principle-based framework for structural and spectral characteristics in linear dynamical systems, J. Zhou, H. M. Qian & X. B. Lu, pages: 2589-2604
- Reconfigurability of behavioural specifications for manufacturing systems, Klaus Werner Schmidt, pages: 2605-2617
- The parameters optimisation design for variable speed control momentum gyroscopes—Attitude Control Constraint Case, Feng Liu, Hui Zhao, Yu Yao, Yang Guo & Long Wang, pages: 2618-2630
- Stabilisation of perturbed chains of integrators using Lyapunov-based homogeneous controllers, Mohamed Harmouch, Salah Laghrouche, Yacine Chitour & Mustapha Hamerlain, pages: 2631-2640
- Uncertainty observer-based robust tracking control for high-order nonlinear systems using forwarding technique, X. Zhang, X.L. Huang & H.Q. Lu, pages: 2641-2654
- Homogeneous finite-time consensus tracking of high-order-integrator agents by parametric approach, Shuanghe Yu, Xiaojun Long & Ge Guo, pages: 2655-2666
- Modulus consensus in a network of singularly perturbed systems with collaborative and antagonistic interactions, Wu Yang, Yan-Wu Wang, Jiang-Wen Xiao & Wu-Hua Chen, pages: 2667-2676
- Flyback CCM inverter for AC module applications: iterative learning control and convergence analysis, Sung-Ho Lee & Minsung Kim, pages: 2677-2691
- Development of multivariable PID controller gains in presence of measurement noise, Samer S. Saab, pages: 2692-2710
- Robust adaptive uniform exact tracking control for uncertain Euler–Lagrange system, Yana Yang, Changchun Hua, Junpeng Li & Xiuiping Guan, pages: 2711-2720
- The robust model predictive control based on mixed $H_2/H_\infty$ approach with separated performance formulations and its ISpS analysis, Dewei Li, Jiwei Li, Yugeng Xi & Furong Gao, pages: 2721-2733
- Intrinsic dynamics and total energy-shaping control of the ballbot system, A. C. Satici, A. Donaire & B. Siciliano, pages: 2734-2747
- Optimisation of strain selection in evolutionary continuous culture, T. Bayen & F. Mairet, pages: 2748-2759
- Formation tracking of multi-vehicle systems in unknown environments using a multi-region control scheme,
- A spatial domain decomposition approach to distributed $H_{\infty}$ observer design of a linear unstable parabolic distributed parameter system with spatially discrete sensors, Jun-Wei Wang, Ya-Qiang Liu, Yan-Yan Hu & Chang-Yin Sun, pages: 2772-2785
- Neumann boundary controls for finite diffusion process, R. Tenno, pages: 2786-2798
- Real-time economic nonlinear model predictive control for wind turbine control, Sebastien Gros & Axel Schild, pages: 2799-2812

5. Conferences

5.1. IEEE Conference on Control Technology and Applications
   Contributed by: Alessandro Beghi, beghi@dei.unipd.it

IEEE CCTA 2018
2nd IEEE Conference on Control Technology and Applications
August 21-24, 2018
The Scandic Hotel Copenhagen
Copenhagen, Denmark
http://ccta2018.ieeecss.org

The 2018 IEEE Conference on Control Technology and Applications will be held in Wonderful Copenhagen, Denmark. This conference is one of the main conferences sponsored by the IEEE Control Systems Society. It is the second in a series that follows an evolution, replacing the successful former IEEE CCA and IEEE MSC series. The CCTA 2018 technical program will feature the presentation of contributed and invited papers, as well as tutorial sessions and workshops, focusing on technological advances and applications of control engineering. Scandinavia has several strong control groups with a tradition of cooperation with companies, and significant participation from industry is anticipated. The conference includes all aspects of control engineering for practical control systems, from analysis and design, through simulation and hardware. Major themes of energy, manufacturing, and transportation will feature applications of control technology for robotic, automotive, biomechanical, aerospace, power and energy systems, control of networks, and many others. Plenary lectures will be delivered on each of the three days as part of the conference program. Confirmed plenary speakers are Dr. Peter Terwiesch (ABB) and Dr. Anuradha Annaswamy (MIT).

CCTA 2018 will be held at the Scandic Hotel Copenhagen, located in central Copenhagen, with views of one of the three lakes and the city, and close to the Tivoli Gardens and the pedestrian street, Strøget.

Call for Contributed Papers: Papers are invited in the form of regular manuscripts. Papers must conform to the submission policy, described below, requiring that all manuscripts be in 2-column IEEE Proceedings format, written in English and meet strict page limits.

Call for Invited Sessions: Invited sessions consist of 6 papers presenting a unifying theme from a diversity of viewpoints. Proposals must clearly describe the motivation and relevance of the session. Proposals must be accompanied by full versions of each paper, which will be individually reviewed together with the proposal itself. Individual papers may be removed from a proposed session and replaced by appropriate contributed papers. In case an entire proposed session is rejected, selected papers may be accepted as contributed ones.

Call for Tutorial Sessions: Tutorial sessions addressing state-of-the-art control theory and advanced industrial applications are solicited. Call for Workshops: Workshops to be held prior to the conference are solicited on
all related topics. Proposals for workshops addressing novel control methodologies and nonstandard control applications are strongly encouraged.

All papers and session proposals must be submitted through the conference submission website css.paperplaza.net and must conform to the policy found on the CCTA 2018 web site, ccta2018.ieeecss.org. Papers must be submitted in English. The 2nd IEEE CCTA is sponsored by the IEEE Control Systems Society, and is organized in cooperation with the Society for Instrument and Control Engineers (SICE).

Important Dates:
Paper submissions site css.paperplaza.net opens: November 1, 2017
Deadline for submission of Invited Session proposals: January 15, 2018
Deadline for submission of contributed and invited papers: January 15, 2018
Notification of acceptance/rejection: April 23, 2018
Final submission and registration sites open: April 27, 2018
Deadline for final submission of all papers: May 21, 2018

Jakob Stoustrup (General Chair)
Thomas Parisini (General Co-Chair)
Kristin Y. Pettersen (Program Chair)

5.2. ACM International Conference on Hybrid Systems: Computation and Control
Contributed by: Kostas Margellos, kostas.margellos@eng.ox.ac.uk

21st ACM International Conference on Hybrid Systems: Computation and Control (HSCC)
April 11-13, 2018,
Porto, Portugal
URL: www.hscc2018.deib.polimi.it

Important dates:
Paper submission deadline: October 6, 2017 (11:59pm UTC-12) [Papers currently under review]
Notification: December 2017
Camera-ready: February 2018
Conference dates: April 11-13, 2018
* Please refer to the conference website for up-to-date information. *

Awards:
- Best Repeatability Evaluation Award; Papers would be eligible upon passing the repeatability evaluation process will receive the “artifact evaluated” badge.
- Best Demo/Poster Award
- Best Paper Award *New*
- Test-of-Time Award *New*

Conference scope:
HSCC 2018 is the 21st in a series of conferences focusing on original research on concepts, tools, and techniques from computer science, control theory, and applied mathematics for the analysis and control of hybrid systems, with an emphasis on computational aspects. By drawing on strategies from computation and control, hybrid systems theory finds application in both man-made cyber-physical systems (ranging from small robots to global infrastructure networks) and natural systems (ranging from biochemical networks to physiological models). Papers are expected to cover a wide spectrum of topics from theoretical results to practical considerations, from academic research to industrial adoption, including but not limited to:
5.3. IFAC Conference on Cyber-Physical & Human Systems

Contributed by: Yue Wang, yue6@clemson.edu

CALL FOR PAPERS
The 2nd IFAC Conference on Cyber-Physical & Human Systems
December 14-15, 2018, Miami, USA
Submission Deadline: April 15, 2018
Acceptance notification: September 1, 2018
Final Submission Deadline: October 1, 2018

Steady advances in controls, communications, and computing are enabling new forms of cyber-physical systems (CPS), and are simultaneously redefining the role and position of humans in broad areas of applications.
and blurring the traditional boundaries between humans and technology. Therefore, for the most part, hu-
man interactions in these technical systems are becoming more complex and raising a range of new technical
challenges and broader questions, touching social and even cultural domains. This newfound relationship
between humans and technology must be studied from an engineering perspective, a human-factors perspec-
tive, and from the perspective of social sciences. This conference series on Cyber-Physical & Human Systems
(CPHS) is intended to examine these multidisciplinary dimensions.

The second IFAC conference on CPHS builds on the success of CPHS 2016 and the H-CPS-I meeting in
2014. CPHS 2018 aims to bring together researchers and practitioners from academia and industry to share
scientific and technological advances as well as gain a deeper understanding of the interactions between
cyber-physical systems and humans. Of particular interest are human-centered technologies in a wide-range
of applications including transportation, energy, robotics, manufacturing, and health-care. Examples of
topics include human-machine symbiosis, humans as supervisors/operators of complex engineering systems,
humans as agents in multi-agent systems, and humans as elements in controlled systems. In addition to the
technical and theoretical contributions, CPHS 2018 also invites papers studying the ethical questions, public
policies, regulatory issues, and new risks associated with interactions between humans and cyber-physical
systems. Towards this end, we invite submissions in the following categories:

- Full conference papers (6-8 pages) addressing relevant CPHS topics, which will be peer-reviewed, and
  presented at the conference (if accepted). Review, Tutorial and Vision papers are also welcome.
- Extended abstracts (a minimum of 500 words) addressing topics of interest, subject to the same review
  process as full papers, and invited to present at the conference (if accepted).
- Invited sessions, consisting of six full papers and/or short abstracts, to fill a two-hour block.
- Tutorials and/or workshops, a half-day or full-day event either before or after the conference (please contact
  the organizers for guidance and details)

We encourage submissions on human-centered technologies in a wide-range of applications including trans-
portation (ground, air, and space), energy, robotics, manufacturing, and health-care. Example of topics
include the following:

1. Human-Machine Symbiosis
   o Control of smart prosthetics
   o Neurostimulation
   o Exoskeletons
   o Biomedical implants
   o Augmented Human
2. Humans as supervisors/operators of complex engineering systems
   o Human-Machine interaction in flight control
   o Cooperative control in Automotive systems (ex. ADAS)
   o Process plant operation
   o Robotic surgery
   o Spacecraft control
   o Control in hazardous environments
   o Automated or semi-automated trains
   o Remote operation of robotic teams (ex. in rescue scenarios)
3. Humans as agents in multi-agent systems
   o Intelligent road transportation
   o Next-generation air traffic management
The conference program will only include papers of the highest standard as selected by the IPC, in accordance with the IFAC guidelines www.ifac-control.org/publications/Publications-requirements-1.4.pdf. All papers and abstracts will be accepted with the understanding that the authors will present them at the CPHS Conference. At least one author of every accepted paper will be required to register for the conference before uploading the final version. Accepted papers and abstracts will be presented either in oral or poster format. Accepted papers will be included in the conference “preprints” (USB drive) and published online, whereas accepted abstracts will only be included as preprints and not published on-line. All papers, abstracts, and invited session proposals must be submitted through the conference submission website, www.cphs2018.org, and conform to the policy found therein.

Operating Committee
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General Chair Dawn Tilbury, UMichigan, USA
Program Chair Sandra Hirche, TU Muenchen, Germany
Vice Chair, Invited Sessions Goldie Nejat, UToronto, Canada
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Copyright: ”All publication material submitted for presentation at an IFAC-sponsored meeting (Congress, Symposium, Conference, Workshop) must be original and hence cannot be already published, nor can it be
under review elsewhere. The authors take responsibility for the material that has been submitted. IFAC-sponsored conferences will abide by the highest standard of ethical behavior in the review process as explained on the Elsevier webpage (https://www.elsevier.com/authors/journal-authors/policies-and-ethics), and the authors will abide by the IFAC publication ethics guidelines (https://www.ifac-control.org/events/organizers-guide/PublicationEthicsGuidelines.pdf/view).

Accepted papers will be published in the open-access IFAC-PapersOnLine series hosted on ScienceDirect (http://www.sciencedirect.com/). To this end, author(s) must confer the copyright to IFAC when they submit the final version of the paper through the paper submission process. The author(s) retain the right to use a copy of the paper for personal use, internal institutional use at the author(s)’ institution, or scholarly posting at an open web site operated by the author(s) or their institution, limited to noncommercial use. Any other use of the paper requires approval by IFAC.”

5.4. IFAC Conference on Modelling Identification and Control of Nonlinear Systems

Contributed by: Alma Y. Alanis, almayanalanis@gmail.com

2nd IFAC Conference on Modelling Identification and Control of Nonlinear Systems (IFAC MICNON 2018)
June 20-22, 2018
Guadalajara, Mexico
https://www.micnon2018.org/

On behalf of the Program Committee, it is our pleasure to welcome you to the Second IFAC Conference on Modelling Identification and Control of Nonlinear Systems (IFAC MICNON 2018). MICNON 2018 will be held in Guadalajara, Mexico during June 20-22, 2018, as a sequence to MICNON 2015 (Saint-Petersburg, Russia). This conference series that is organized by the IFAC Technical Committee on Nonlinear Systems (that is also in charge of the NOLCOS series).

The MICNON 2018 will cover all areas of nonlinear systems theory and applications, including control and analysis of nonlinear systems, modelling and identification of nonlinear systems and all types of applications in connection to nonlinear systems. The organization of MICNON 2018 in Guadalajara-Mexico will be a catalyzer to increase the research interest in nonlinear systems as well as a great opportunity to explore the research advances in the Automatic Control community.

The MICNON 2018 program will consist of plenary lectures, parallel and panel sessions, invited talks, industrial exhibitions and more. MICNON 2018 will be accompanied by a pre-conference day of workshops and tutorials. Besides, the MICNON 2018 is complemented with a social and cultural program to enjoy Guadalajara and Mexico.

We invite you to participate in different ways with: Contributed papers, Invited Sessions, Tutorial Sessions, Panel Sessions, Special Sessions, Workshops, Exhibits and more. Papers, session and workshop proposals must be submitted through the submission website. Submissions must conform to policies given on the conference website https://www.micnon2018.org/, for the rest of proposals, please contact us at: contact@micnon2018.org, and looking forward to welcoming you in Guadalajara!

Important Dates
Deadline for special sessions/workshops proposals: November 30
Deadline for submission: December 23, 2017
Notification of acceptance: March 16, 2018
Final paper submission: April 30, 2018
Conference dates: June 20-22, 2018
Sincerely,
Lorenzo Marconi and Jaime A. Moreno, IPC Chairs
Alma Y. Alanis and Marco A. Perez-Cisneros, NPC Chairs
Edgar N. Sanchez and Esteban A. Hernandez-Vargas, Editors

5.5. IFAC Conference on Analysis and Design of Hybrid Systems
Contributed by: Daniele Magazzeni, daniele.magazzeni@kcl.ac.uk

ADHS 2018 Call for Papers
The 6th IFAC Conference on Analysis and Design of Hybrid Systems
Oxford University, UK, July 11-13, 2018.
Website: http://www.cs.ox.ac.uk/conferences/ADHS18/

* Invited Session Proposals due: December 1, 2017
* Paper Submissions due: December 8, 2017
* Author notification: February 2018

The Organising Committee has the pleasure of inviting you to participate in the 6th IFAC Conference on Analysis and Design of Hybrid Systems (ADHS 18) to be held at Oxford University, UK, July 11-13, 2018. ADHS 2018 will be held at the Department of Computer Science, University of Oxford. ADHS will be hosted within FLOC 2018 (http://www.floc2018.org) and will precede CAV 2018 (http://cavconference.org/2018/).
The conference happens under the auspices of IFAC and is sponsored by the IFAC Technical Committee on Discrete Event and Hybrid Systems.

Contributions are invited in all areas pertaining to the engineering of hybrid systems including: modelling, specification, verification, analysis, control synthesis, simulation, validation, and implementation. We solicit papers and invited session proposals describing theoretical or applied research in the area. We also welcome papers describing tools, reporting case studies or connecting the cognate fields of control theory and formal verification.

Contributions are encouraged on applications of hybrid methods in various fields, such as automotive, avionics, energy and power, mobile and autonomous robotics, the process and manufacture industry, transportation and infrastructure networks, communication networks and networked control systems, cyber-physical systems, safety-critical systems, systems and synthetic biology.

Author Guidelines
* Regular papers: Regular papers can have a length of up to 8 pages at submission. Accepted papers are limited to 6 pages in the conference preprints and on-line proceedings.
* Invited session proposals: Invited sessions consist of 4 to 6 papers related to a common theme that fits within the scope of ADHS. An invited session proposal should contain a short description of the common theme as well as the list of papers in the session and their abstracts.
The invited session organiser first has to submit the pdf file of the session proposal (without participating papers). The IFAC Conference Manuscript Management System then returns an acknowledgment that contains an alpha-numeric code for the proposed session. Subsequently, the organiser has to notify the contributing authors of their invited session code. The corresponding author of each paper then submits the
paper on-line as an invited paper.
* Invited session papers: Invited session papers can have a length of up to 8 pages at submission. Invited session papers go through the same review process as regular papers. Accepted papers are limited to 6 pages in the conference preprints and on-line proceedings. Submission as an invited session paper requires the invited session code, which can be obtained from the session organiser.

Submission Instructions
* The website for submission is: https://ifac.papercept.net/conferences/scripts/start.pl
* All papers submitted to ADHS 18 must be written in English and formatted in the standard IFAC 2-column format provided on the IFAC Conference Management System website (see the item "Support for Authors" above).
* For initial submissions, all regular and invited session papers are limited to eight (8) pages. The submission website will not permit longer papers to be uploaded.
* For the final upload all accepted and invited papers are limited to six (6) pages.
* For each accepted paper at least one of the authors should have a full registration in order to have the paper included in the preprints and the post-conference on-line proceedings at IFAC-PapersOnLine.
* Author’s kits with style (.cls) files for LaTeX are available from the submission website. Go to http://ifac.papercept.net and select "Support" for these files and example files, or directly go to the support page. Please do not change the formatting in any way.

Important Dates
Invited Session Proposals due: December 1, 2017
Paper submission due: December 8, 2017
Author notification: February 2018
Final papers due: April 2018
Early registration: TBA
Conference: July 11-13, 2018

The reference timezone for all deadlines is UTC-12.

Committees
General Chair
* Alessandro Abate (U. Oxford, UK)

Program Chairs
* Maurice Heemels (TU Eindhoven, NL)
* Antoine Girard (CNRS, FR)

5.6. IFAC Conference on Control Applications in Marine Systems, Robotics, and Vehicles
Contributed by: Vahid Hassani, vahid.hassani@ntnu.no

IFAC CAMS 2018,
11th IFAC Conference on Control Applications in Marine Systems, Robotics, and Vehicles
Opatija, Croatia, September 9-12, 2018

Paper submission is open from papercept http://ifac.papercept.net/conferences/scripts/start.pl#CAMS18

We would like to invite you to participate in the 11th IFAC Conference on Control Applications in Marine Systems, Robotics, and Vehicles (CAMS2018) that will take place in Opatija, Croatia, 9-12 September 2018.
CAMS returns to Croatia after 11 years and will be organized by University of Zagreb in cooperation with the KoREMA, the national member organization for Croatia in the IFAC.

CAMS 2018 will provide an excellent opportunity for the presentation and discussion of research results and development in the areas of control applications for surface & underwater vessels, floating & sub-sea structures, and other marine systems. The conference opens possibilities for industry, universities and research facilities to explore the future trends in application of control theory to marine systems, and to establish new and innovative activities for applying advanced solutions to marine systems.

Areas and Topics (including but not limited to)

- Marine cyber-physical systems
- Ship automation
- Surface and underwater vehicles
- Communication in marine domain
- Systems for integrated operation
- Internet of things (IoT) in maritime domain
- Subsea construction and operation
- Propulsion and energy savings
- Decision support and safe operation
- Control applications in offshore wind and wave marine renewables
- Maritime robotics (underwater, surface, aerial)
- Biomimetics in marine robotics
- Marine cyber-physical systems for aquaculture
- Applications of maritime robotics (monitoring, mapping, search & rescue, habitat and environment, mine counter measure, . . .)
- Hybrid power generations for marine systems
- Navigation, guidance and control of marine vehicles
- Adaptive, nonlinear and reconfigurable systems
- Marine swarms of heterogeneous agents
- Cooperative and intelligent marine cyber-physical systems
- Robust and resilient marine systems
- Modelling, identification and estimation
- Monitoring, diagnosis and fault handling
- Autonomous marine vehicles
- Safety and security for ports and ships
- Ship roll stabilization techniques
- Maritime security
- Sensors and sensor fusion in marine systems
- Supervision and surveillance in marine applications
- Human-machine interface in marine systems
- Risk and life cycle assessment in marine systems

Important dates:
- Paper submission deadline: March 20, 2018
- Paper Acceptance/Rejection: May 7, 2018

Submission Procedure:
To submit a paper, please follow the link "Submission" located on the top line of the conference website or
Proposals for Invited Sessions are welcome and should be submitted in Papercept by February 15th 2018. The proceedings of the Symposium will be published on-line on the http://www.ifac-papersonline.net website.

For further information on CAMS 2018 please contact the Technical Program Chair cams2018@fer.hr

5.7. IFAC Workshop on Distributed Estimation and Control in Networked Systems

Contributed by: Bart Besselink, b.besselink@rug.nl

7th IFAC Workshop on Distributed Estimation and Control in Networked Systems (NecSys18)
August 27-28, 2018
University of Groningen, Groningen, the Netherlands
https://fwn06.housing.rug.nl/necsys2018/

INVITATION
The Organising Committee has the pleasure of inviting you to participate in the 7th IFAC Workshop on Distributed Estimation and Control in Networked Systems (NecSys18) to be held at the University of Groningen, the Netherlands, August 27-28, 2018.

SCOPE
Networked systems and complex dynamical systems can be taken as composed of a large number of simple systems interacting through a communication medium. These systems arise as natural models in many areas of engineering and sciences, such as sensor networks, autonomous and unmanned vehicles, Internet of Things (IoT), smart manufacturing systems (Industry 4.0), biological networks, and animal cooperative aggregation.

The workshop will focus on recent theoretical and experimental developments in the last few years for the analysis, design, identification, estimation and control of networked systems. The aim of this workshop is to bring together researchers from control, computer science, communication, game theory, statistics, mathematics and other areas, as well as practitioners in the related industrial or educational fields, to discuss emerging topics in networked systems of common interest.

PROGRAMME
Following the tradition of previous NecSys workshops, the workshop will be single track and will feature plenary presentations and poster/interactive sessions of contributed papers.

IMPORTANT DATES
* Paper submission deadline: April 15, 2018
* Notification of acceptance: June 30, 2018
* Final paper submission deadline: July 20, 2018

COMMITTEES
Conference Co-chairs
* Claudio De Persis (University of Groningen)
* Ming Cao (University of Groningen)
International Programme Committee Chair
* Mehran Mesbahi (University of Washington)
5.8. ASME Dynamic Systems and Control Conference
Contributed by: Yue Wang, yue6@clemson.edu

The ASME 2018 Dynamic Systems and Control Conference
(https://www.asme.org/events/dscc)
October 1-3, 2018, Hyatt Regency Atlanta, Atlanta, Georgia, USA

The 2018 Dynamic Systems and Control (DSC) Conference will be held on October 1-3, 2018 at the Hyatt Regency Atlanta, located in the heart of downtown Atlanta, Georgia. The venue is one of the top Atlanta luxury hotels and is connected to the MARTA transit system and blocks away from major attractions such as Georgia Aquarium and the World of Coca-Cola. On behalf of the 2018 DSCC Organization Committee and the Dynamics Systems and Control Division (DSCD) of ASME, we cordially invite you to enjoy an exciting technical program and a unique opportunity to network.

The DSC conference is the showcase technical forum of the ASME Dynamic Systems and Control Division. It provides a focused and intimate setting for dissemination and discussion of the state of the art in dynamic systems and control research, with a mechanical engineering focus. The 2018 DSC Conference Technical Program will consist of sessions in all of the usual areas of interest to the Division that include, but are not limited to, automotive and transportation systems, bio-systems and health care, energy systems, mechatronics, modeling, identification, intelligent systems, robotics, vibrations, and smart structures. Highlights of the 2018 DSCC will include:

- Four plenary talks given by distinguished scholars, including the Oldenburger Lecture and the Nyquist Lecture.
- Workshops and tutorials that are focused on emerging topics.
- Invited and special sessions on technical tracks and funding programs that are of interest to the DSC community.
- Student programs including Best Student Paper competition, networking with faculty recruiters, and networking with industry.
- Exhibits by industry.
- Extensive networking opportunities during the opening reception, continental breakfasts, the banquet, and the farewell lunch.

All accepted papers must be presented on-site at the conference by an author of the paper. Papers which are not presented (no-shows) will be removed from the official conference proceedings and will not be indexed through the ASME Digital Collection.

Online access to conference papers will be given to all registered attendees at the start of the conference. Following the event, the official proceedings of the conference are published in the ASME Digital Collection, and will be submitted to all major indexers including EI Complex, Scopus, and the ISI Conference Proceedings Citation Index.

Important Dates
- Submission of invited session proposals - April 2, 2018
- Submission of contributed and invited papers - April 9, 2018
5.9. World Congress: Mathematical Problems in Engineering, Aerospace and Sciences
Contributed by: Seenith Sivasundaram, seenithi@gmail.com
ICNPAA’s AIM

Mathematical Problems in Engineering, Aerospace and Science have stimulated cooperation among scientists from a variety of disciplines. Developments in computer technology have additionally allowed for solutions of mathematical problems. This international forum will extend scholarly cooperation and collaboration, encouraging the dissemination of ideas and information.

The conference will have a pool of active researchers, with a proper balance between academia and industry, as well as between senior and junior researchers, including graduate students and post-doctoral fellows. It is anticipated that such a balance will provide both senior and junior researchers an opportunity to interact and to have a wider picture of recent advances in their respective fields. The conference, especially, enables the setting up of new interdisciplinary research directions among its participants by establishing links with world renowned researchers, making possible joint international projects that will no doubt bring about fresh and innovative ideas and technologies in engineering, aerospace and sciences.

Co-Sponsored by: AIAA: American Institute of Aeronautics and Astronautics

IFIP: International Federation of Information Processing

American University of Armenia, Yerevan

The proceedings will be published by the American Institute of Physics.

AIP Conference Proceedings are indexed in:

- Astrophysics Data System (ADS)
- Chemical Abstracts Service (CAS)
- Crossref
- EBSCO Publishing
- Electronic Library Information Navigator (ELIN), Sweden
- Elsevier – SCOPUS
- International Atomic Energy Agency (IAEA)
- Thomson Reuters (ISI)

5.10. International Conference on Methods and Models in Automation and Robotics

Contributed by: Pawel Dworak, pawel.dworak@zut.edu.pl

23rd International Conference on Methods and Models in Automation and Robotics
27-30 August 2018
Amber Baltic Hotel, Miedzyzdroje, Poland

It is our great pleasure to invite You to participate in the 23rd International Conference on Methods and Models in Automation and Robotics, MMAR 2018 to be held in Miedzyzdroje, Poland, from August 27th to August 30th, 2018.

The Conference will be a good opportunity for highlighting the new results and directions of Automatic Control theory, technology and applications. As such, it mainly will concentrate on the following key points:

- emphasis on invited lectures including plenaries,
industry participation promotion,
- attract young people to study and work in the field.

The participants of the 23rd International MMAR Conference will have the opportunity to take part in the wide spectrum of categories for technical presentations, including plenary lectures, regular papers of both lecture and poster session types, and panel discussion. We look forward to seeing our old and new friends in Poland. You are kindly invited to participate in the 23rd International MMAR Conference in Miedzyzdroje, Poland.

The proceedings of the conference will be submitted for review and approval for inclusion in the IEEE Xplore® Digital Library and will be submitted for inclusion in the Conference Proceedings Citation Index - Science (ISI Web of Science).

Key Dates
March 5, 2018 - Paper submission
May 21, 2018 - Notification of acceptance
June 25, 2018 - Registration
July 2, 2018 - Camera-ready paper submission

For more information see http://www.mmar.edu.pl

5.11. International Conference on Unmanned Aircraft Systems
Contributed by: Youmin Zhang, Youmin.Zhang@concordia.ca

Call-for-Papers: 2018 International Conference on Unmanned Aircraft Systems (ICUAS’18)
(http://www.uasconferences.com)

On behalf of the ICUAS’18 Organizing Committee, this is to invite you to submit your contributions to the 2018 International Conference on Unmanned Aircraft Systems (ICUAS’18; http://www.uasconferences.com). The conference is co-sponsored by the IEEE CSS and RAS, and several other organizations.

The ICUAS’18 will be held on June 12-15, in the Dallas Marriott City Center, http://www.marriott.com/hotels/travel/daldt-dallas-marriott-city-center that is situated in the heart of a vibrant Arts District area. June 12 will be a Workshop/Tutorial day, followed by a three-day technical Conference on June 13-15. Judging from the interest ICUAS has drawn over the past eight years and its growth, ICUAS’18 is again expected to continue on this path and attract the highest number of participants from academia, industry, federal and state agencies, government, the private sector, users, practitioners and engineers who wish to be affiliated with and contribute technically to this highly demanding and evolving and expanding field. Details may be found at http://www.uasconferences.com and related links. ICUAS’18 is fully sponsored by the ICUAS Association, which is a non-profit organization. Information about the Association may be found at www.icuas.com. The theme of ICUAS’18 will be twofold: UAS/RPAS design for assured autonomy and regulations, policy and law to enable UAS/RPAS technologies, both important and timely topics. The main novelty of ICUAS’18, is a completely separate track on regulations, policy, legal and ethical issues that are essential to allow for integration of UAS/RPAS in the national airspace. National and international organizations, agencies, industry, military and civilian authorities are working towards defining roadmaps of UAS expectations, technical requirements and standards that are prerequisite to their full utilization, as well as legal, policy and ethical issues. The next generation of UAS is expected to be used for a wide spectrum of civilian and public domain applications. Challenges to be faced and overcome include, among others, see-and-avoid systems, robust and fault-tolerant flight control systems, payloads, communications, levels of autonomy, manned-unmanned swarms, network-controlled swarms, as
well as challenges related to policies, procedures, regulations, safety, risk analysis assessment, airworthiness, certification issues, operational constraints, standardization and frequency management, all of paramount importance, which, coupled with ‘smart’, ‘environmentally friendly’ cutting edge technologies will pave the way towards full integration of UAS with manned aviation and into the respective national airspace.

ICUAS’18 aims at bringing together different groups of qualified military and civilian representatives worldwide, organization representatives, funding agencies, industry and academia, to discuss the current state of UAS advances, and the roadmap to their full utilization in civilian and public domains. Special emphasis will be given to current and future research opportunities, and to ‘what comes next’ in terms of the essential technologies that need to be utilized to advance further UAS.

Conference topics include (but not limited to): Airspace Control; Integration; See/Sense-Detect-and-Avoid Systems; Airspace Management; Interoperability; Security; Airworthiness; Levels of Safety; Sensor Fusion; Autonomy; Manned/Unmanned Aviation; Smart Sensors; Biologically Inspired UAS; Micro- and Mini-UAS; Standardization; Certification; Networked UAS; Technology Challenges; Control Architectures; Payloads; Training; Energy Efficient UAS; Path Planning and Navigation; UAS Applications; Environmental Issues; Regulations; UAS Communications; Fail-Safe Systems; Reliability of UAS; UAS Testbeds; Frequency Management; Risk Analysis; UAS Transportation Management (UTM); Policy/Regulation/Law Aspects.

Unmanned system autonomy, collaboration and coordination, formation control, validation and verification and unmanned system design for assured autonomy, are topics of great interest to ICUAS’18.

Through Keynote addresses, round table panel discussions and presentations, it is expected that the outcome of the Conference will be a clear understanding of what industry, military, civilian, national/international authorities need, and what are the crucial next steps that need to be completed before UAS are utilized in everyday life applications.

IMPORTANT DATES (Please check the latest information at http://www.uasconferences.com
February 12, 2018: Full Papers/Invited Papers/Tutorial Proposals Due
April 15, 2018: Acceptance/Rejection Notification
May 7, 2018: Upload Final, Camera Ready Papers
April 15 - May 7, 2018: Early Registration

PAPER SUBMISSION
All papers must be submitted and uploaded electronically. Go to https://controls.papercept.net. Click on the link “Submit a Contribution to ICUAS'18” and follow the steps. The paper format must follow IEEE paper submission rules, two-column format using 10 point fonts, Times New Roman. The maximum number of pages per submitted paper is 10. For accepted papers, up to two additional pages will be permitted for a charge of $100 per additional page. Illustrations and references are included in the page count. Invited and Special Sessions: Proposals for invited/special sessions must be submitted/uploaded electronically. A Summary Statement describing the motivation and relevance of the proposed session, invited paper titles and author names must be uploaded electronically by February 12, 2018. In addition, authors must submit FULL versions of invited papers electronically, through https://controls.papercept.net. Each paper must be marked as 'Invited Session Paper'. Workshops/Tutorials: Proposals for workshops/tutorials should contain title, the list of speakers, and extended summaries (2000 words) of their presentations. Proposals must be sent by e-mail to the Tutorial/Workshop Chair by February 12, 2018. Paper Review Process: All submitted papers will undergo a peer review process coordinated by the Program Chairs, Advisory Committee Members, IPC members and qualified reviewers. Authors will be notified of results at the latest by April 15, 2018. Accepted papers must be uploaded electronically no later than May 7, 2018. Authors are encouraged to accompany their presentations with multimedia material, which will be included in the Conference Digital Proceedings.
Conference Proceedings will be acquired by IEEE and they appear in IEEE Xplore. Welcome and look forward to receiving your contributions and attendance to the ICUAS’18! For information about the ICUAS Association, Inc., see www.icuas.com.

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5.12. International Conference on Power, Control, Signal, and Computations
Contributed by: Sudha Balagopalan, principal@vidyaacademy.ac.in

International Conference on “Power, Control, Signal, and Computations” (EPSCICON’18) “: Celebration of Biswa Datta’s INSA AWARD

EPSCICON’18 to be held at the Vidya Academy of Science and Technology, Kerala, January 6-10, 2018 is the fourth in this series of the EPSCICON conferences. The previous three conferences were also hosted by Vidya Academy of Science and Technology and were held in 2010, 2012, and 2014, respectively.

Like its predecessors, this conference has been organized to reflect the vision of Vidya Academy of Science and Technology, “PROGRESS THROUGH EDUCATION”.

A major highlight of EPSCICON’18 will be celebration of Professor Biswa Datta’s PC Ray Distinguished Chair Award by Indian National Science Academy (INSA). The nominating institutes for his award were Vidya Academy of Science and Technology and APJ Abdul Kalam Technological University (KTU).

INSA has established three Chairs for distinguished scientists named after Professor PC Ray, Dr. Vikram Sarabhai and Professor D.S. Kothari. The purpose of these awards is “to facilitate the interaction with distinguished overseas scientists with their Indian counterparts”. Professor Datta is the recipient of the 2017/2018 PC Ray Distinguished Chair Award.

The purpose of this conference is to bring the state-of-the art research and other associated educational activities to Indian researchers and educators through lectures, workshops and short courses by both Indian and international experts. The conference, like the three past conferences, is aimed at stimulating research, education, and teaching, especially of the post-graduate Indian students and the young researchers and educators in several interdisciplinary areas of science and engineering of interests to this conference.

The conference will comprise of Invited Lectures, contributed Lectures by students and young researchers, and pre-conference workshops and short courses given by the experts. Furthermore, there will be a Panel Discussion on “Development of Interdisciplinary Research and Education in Indian Colleges and Universities.” Establishment of an Interdisciplinary Centre on “Computational Science and Engineering” is in progress at Vidya Academy of Science and Technology.
In addition to these activities, some special sessions will be organized in honor and recognition of some of the notable researchers and educators for their contributions to the development of education and research in science and engineering in Kerala.

The following are the major themes of the conference. Special consideration will be given to the areas of teaching and research of interests to Professor Datta.

- Control, Signals, Systems and Communications
- Image Processing
- Power & Energy Systems
- Numerical Optimization and Applications
- Mechanical Vibration and Finite Element Model Updating
- Aerospace Engineering and Structural Dynamics
- Numerical Linear Algebra, Computational Methods and Scientific Software, and Applications to Science and Engineering
- Computer Graphics and Computer Vision
- Numerical Partial Differential Equations and Applications
- Data Mining
- Bio-Medical Engineering
- Robotics
- Inverse Eigenvalue Problems in Science and Engineering
- Statistical Applications

5.13. UKACC International Conference on Control

Contributed by: Parham Aram, p.aram@sheffield.ac.uk

12th UKACC International Conference on Control
5th–7th September 2018
Sheffield, United Kingdom
Website: http://control2018.group.shef.ac.uk/
Twitter: http://twitter.com/control2018

United Kingdom Automatic Control Council (UKACC) invites you to the 12th UKACC International Conference on Control. The conference theme is grand challenges for Control and Systems Engineering that addresses the emerging theoretical concepts and expanding the scope of applications. We welcome papers in the general theoretical and algorithmic concepts as well as applications in topics that include, but are not limited to:

General Systems and Control
- Robust and optimal control: model predictive control, distributed control
- Optimisation and decision making: Nonlinear and convex programming, randomised and evolutionary search
- Modelling, identification and signal processing: multi-scale modelling, fractional system identification
- Health monitoring and fault diagnosis: fleet-wide monitoring, sensor and data fusion
- Systems theory: stability, observability and controllability, PDE systems
- Sensors and actuator systems: IoT, wireless energy harvesting sensors, self-healing systems
- Embedded and real-time systems: control on multi-core processors, cloud computing
• Stochastic and hybrid systems: cyberphysical systems, verification and validation, uncertainty quantification
• Intelligent systems: artificial intelligence for control, deep learning machines
• Complex systems: networked systems, big data systems, systems of systems
• Autonomous systems: game theoretic control, multi-agent systems, adaptive and learning control

Control and Systems Applications
• Social systems: future cities, disease control
• Bio- and ecological systems: future agricultural systems, biosystems and bioprocesses, biological and medical systems
• Transportation and vehicle systems: smart transportation systems, autonomous systems, next-generation aircrafts
• Process and power systems: hybrid power systems, renewable energy, smart grids
• Manufacturing and logistic systems: Industry 4.0, additive manufacturing and 3D printing
• Mechatronics, robotics and components: swarm robotics, social robotics and assistive devices
• Healthcare: bionic systems, digital patient, pharmacological control systems, robotic surgery
• Economic and business systems: financial market systems, supply chain and logistics

Sessions:
In order to provide a diverse learning experience for all delegates, there will be various types of session: Plenaries, regular sessions, sessions with short presentations, special sessions, demonstration sessions, poster sessions, PGR Symposium, tutorial/training sessions and industry sessions.

Proposals for special sessions should be sent to control2018@sheffield.ac.uk in the first instance, providing a short summary of their plans. Such sessions should be in the standard format of four to six 20 minute presentations or poster-based or demonstration-based or other alternatives where appropriate.

In addition the conference organisers are planning a number of special session on important themes and delegates are also invited to contribute to these sessions using the information provided. These themes include:
• Battery management systems for the transport sector
• Robotics
• Engineering education
• Electricity distribution
• Manufacturing

Submission information:
Full paper submissions: Full paper submissions can have a length of up to 6 sides. Authors have the option to select a preference for presentation format (talk, poster, demonstration), although the organisers will make a final decision based on an effective overall programme design. Accepted papers will be published on the IEEEXplore website.

Abstract only submissions: Please use the same templates as provided for full papers for both the initial submission and final accepted versions to ensure consistency of information and presentation such as authors names’ and affiliations. Abstract only submissions should be sent to control2018@sheffield.ac.uk. Please note these will not be published on the IEEEXplore website.

To ensure that your file is fully compliant with IEEEXplore, you need to verify your paper with IEEE PDF eXpress http://www.pdf-express.org/plus/ using the conference ID: 40988X. Please use the templates
provided by the IEEE (http://www.ieee.org/conferences_events/conferences/publishing/templates.html) for both the initial submission and final accepted versions for both full papers and abstract only submissions.

Important Dates:
Deadline for special session proposals: 1st February 2018
Deadline for paper/abstract-only submissions: 1st March 2018
Reviews complete: 1st May 2018
Final paper submissions and early registration: 1st July 2018
Conference: 5th–7th September 2018

Organising committee:
Chair: Visakan Kadirkamanathan
Co-Chair: Anthony Rossiter
International Programme Committee Chair: Eric Kerrigan

Sponsors:
The conference is sponsored by United Kingdom Automatic Control Council (UKACC) and the University of Sheffield.

More Information:
We welcome you to browse our website at http://control2018.group.shef.ac.uk/ where you can join our mailing list to keep informed on important notifications. We also welcome you to follow us on Twitter (http://twitter.com/control2018) where we will be posting updates in the lead up to the conference.

6. Positions

6.1. PhD: Norwegian University of Science and Technology, Norway
Contributed by: Morten Breivik, morten.breivik@ntnu.no

PhD research fellowship position in Robotic Vision and Data Driven Learning on Autonomous Robotic Platforms

The PhD position is related to a highly interdisciplinary project which targets fundamental research questions in the fields of Robotic Vision, Machine Learning, Artificial Intelligence (AI) and Control Theory for the use in microbiology and oceanography.

The project aims to image, process, analyze plankton images taken from the upper water–column by a mobile autonomous underwater vehicle (AUV) thereby autonomously target specific microbiological taxa.

It will build upon state-of-the-art machine learning methods including Deep Convolutional Neural Networks (Deep Learning) and support vector machines (SVMs) to enable optimal navigation decisions with an improved context awareness and the ability to classify microbiological images unsupervised and do so online onboard an AUV. Exploiting such relatively new concepts for which a huge amount of data is required and sufficient training data has to be generated with respect to an expected taxonomy is a significant challenge. Labelling of new classes may require augmented taxonomic classification capabilities from a biological expert.

In the next step, the autonomous control part of the process pipeline will bypass input from a biological expert exploiting new self-guided Machine Learning methods. In addition, the project will explore how to train a neural network with image data not only along the spatial but also temporal domain for information evolution.
The successful candidate will be appointed for a period of 3 years, with possible extension to a fourth year if the candidate undertakes teaching related duties.

Successful applicants must have a Master’s degree in computer science, artificial intelligence, mathematics, cybernetics, physics or similar with a solid background in mathematical modelling and machine learning. Education in robotics, computer vision, machine learning, and/or biological oceanography is an advantage. Applicants that expect to complete their Master’s degree by summer 2018 can apply. Applicants must have significant programming experience ideally in C, C++ and/or Python and should be willing and able to go to sea.

Application deadline: 31. December 2017


6.2. PhD: University of Luxembourg, Luxembourg

Contributed by: Jorge Goncalves, jorge.goncalves@uni.lu

2 PhD Positions are available in the Systems Control group of the University of Luxembourg.

PhD position #1 (theoretical): Classification and detection of critical transitions
PhD position #2 (applied): Prediction of causal regulatory interaction networks based on large-scale time-series data

Start Date: flexible from now until September 2018.

Closing date for applications: open until filled.

Funding: full funding available for up to 4 years, with a highly competitive salary.

Candidate profile:
- Hold (or being about to obtain) a Master degree in Mathematics, Theoretical Physics, Control Systems Engineering, Theoretical Machine Learning or related fields.
- Strong mathematical background is a requirement.
- We will only consider students that graduate in their top 20% undergraduate and Master’s class rank (equivalent to a UK first class degree).
- Excellent working knowledge of English.

Applications (to be sent online) should contain the following documents:
- A detailed Curriculum vitae that includes your class rank.
- A motivation letter, including a brief description of past research experience and future interests. Please indicate to which project you are more interested in.
- Copies of diploma and transcripts of Bachelor/Master.
- Please ask at least two references to email their confidential letters directly to Mrs Sofia Pereira (sofia.pereira@uni.lu) within two weeks of submitting the application.

Only complete applications will be considered.

Instructions to apply and for further information:
Position 1: [https://www.critics.uni.lu/Projects/Goncalves-P1](https://www.critics.uni.lu/Projects/Goncalves-P1)
Position 2: [https://www.lih.lu/page/nextimmune-vacant-positions](https://www.lih.lu/page/nextimmune-vacant-positions) under project 13

Informal inquiries: jorge.goncalves@uni.lu.

The University of Luxembourg is an equal opportunity employer. All applications will be treated in the strictest confidence.
6.3. PhD: Delft University of Technology, the Netherlands
Contributed by: Sergio Grammatico, s.grammatico@tudelft.nl

PhD position: Complex Network Games.
Delft Center for Systems and Control (DCSC), Delft University of Technology, The Netherlands.

We are looking for a talented candidate with an M.Sc. degree (or close to completion) in Systems and Control, or Applied Mathematics, Electrical or Mechanical Engineering, or related field, with theoretical background and interest in System Theory, Automatic Control, Optimization, Game Theory, and with good command of the English language (knowledge of Dutch is not required).

Project description: The candidate will conduct fundamental, multi-disciplinary, research on complex multi-agent systems characterized by the presence of: (i) noncooperative (e.g. selfish) agents; (ii) complex networks that define the inter-dependence between objective functions and constraints, and the information exchange; (iii) uncertain variables and probabilistic constraints. The key challenge is to design structured multi-agent dynamics that converge to an efficient equilibrium solution, despite the presence of uncertainty. With this aim, stochastic or randomized methods, e.g. the scenario approach, shall be developed for game theory. Application areas include smart power grids and automated driving.

The PhD position is in the context of the project “Complex Network Games: The Scenario Approach” (OMEGA), funded by the Netherlands Organization for Scientific Research (NWO) for curiosity-driven research in Mathematics.

Conditions of employment: The appointment will be for 4 years. The PhD student will participate in the training and research activities of the TU Delft Graduate School and of the Dutch Institute of Systems and Control (DISC). As an employee of TU Delft, the PhD student will receive a competitive salary in accordance with the Collective Labour Agreement for Dutch Universities (CAO), from 2.2k EUR/month (gross, 1st year) to 2.8k EUR/month (gross, 4th year), namely from 1.7k EUR/month (after taxes, 1st year) to 2.0k EUR/month (after taxes, 4th year), plus holiday allowance (8% of gross annual income) and end-of-year allowance (8.3% of gross annual income), travel budget, secondary benefits, discounts for health insurance and sport membership. Assistance with accommodation can be arranged.

Applications shall include the following documents:
curriculum vitae;
statement of motivation and research interests (up to one page);
transcripts of all exams taken and obtained degrees (in English);
names and contact information of up to three references (e.g. project/thesis supervisors);
up to two research-oriented documents (e.g. thesis, conference/journal publication).

Applications or inquires shall be emailed to prof. Sergio Grammatico (s.grammatico@tudelft.nl).

The call for applications will remain open until the ideal candidate is found. The starting date is flexible, but ideally would be February/March 2018.

More information: s.grammatico@tudelft.nl, https://sites.google.com/site/grammaticosergio.

6.4. PhD: University of Massachusetts Lowell, USA
Contributed by: Ioannis Raptis, Ioannis_Raptis@uml.edu

Ph.D. Student - Distributed Fault Diagnosis
Applications are invited for one Ph.D. position in Distributed Fault Diagnosis for Large-Scale Nonlinear Stochastic Systems. The positions are with the Department of Mechanical Engineering at the University of Massachusetts Lowell and the students will work under the supervision of Dr. Ioannis Raptis. The research has analytical, computational and experimental components. The project involves the derivation of distributed estimation-based algorithms for complex processes. This project will establish a mathematical framework for the design of distributed model-based fault-sensitive filters for complex processes. Estimation-based filters will be designed that can identify and isolate faults that occur in large-scale nonlinear systems. The results of this work will be disseminated to contemporary large-scale systems of interest such as mobile robots, water distribution networks, and transportation systems.

Students from all majors relevant to estimation theory, control systems, and applied mathematics are encouraged to apply. The successful candidate should hold a Master’s degree in Engineering or Science. Preference will be given to students with strong background in signal processing, nonlinear dynamic systems, and probability theory. Good communication skills (written and oral) are essential.

The assistantship includes a tuition waiver and a graduate student stipend. Review of submissions will begin immediately. Interested students are strongly encouraged to apply early, as the hire of successful candidates will take place on the first-come-first-served basis. The desired start date is September 2018.

To Apply:
Please email, as a single .pdf document: (i) a cover letter (clearly indicating expected start date, relevant experience, and motivation); (ii) detailed Curriculum Vita; (iii) copies of unofficial transcripts; and, (iv) copies of relevant publications (if any) (Ioannis_Raptis@uml.edu). Only shortlisted applicants will be directed to apply to the Department of Mechanical Engineering at UMass Lowell.

6.5. PhD: University of Louisiana at Lafayette, USA
Contributed by: Afef Fekih, afef.fekih@louisiana.edu

The Advanced Controls Laboratory at the University of Louisiana at Lafayette, USA has available funding to support a PhD student in the general area of advanced control design/Fault Tolerant Control design with application to wind turbines/PVs/power systems. The successful candidate is expected to have a strong background in control systems theory, power systems, fault tolerant control, robust control, and adaptive control. Programming skills in MATLAB/Simulink are required. A genuine interest and curiosity in the subject, excellent oral and written English communication skills are needed.

Applicants shall have a Master’s degree or equivalent in systems and controls, power systems, electrical engineering, mechanical engineering, applied Math or a related discipline. The PhD student is expected to carry out original research and complete coursework throughout the period of appointment. Results will be communicated in the form of journal publications, conference presentations, and the PhD dissertation. The funding covers the cost of full tuition and stipends at a competitive rate and will start in Fall 2017.

Interested individuals should send their detailed curriculum vitae, copies of their recent transcripts, a copy of their best publication in English, and if applicable GRE/test scores to Dr. Afef Fekih (afef.fekih@louisiana.edu).

6.6. Research Assistant: Illinois Institute of Technology, USA
Contributed by: Baisravan HomChaudhuri, bhomchaudhuri@iit.edu
One research assistant position available within the Dynamic Systems and Control research area of Mechanical Materials and Aerospace Engineering department of Illinois Tech’s Armour College of Engineering. The student will work under Dr. Baisravan HomChaudhuri in the general research area of optimal control, (stochastic) model predictive control, stochastic systems, semi-autonomous systems control, and their applications in robotics and cyber physical systems (e.g., connected vehicle systems, power systems).

Successful candidates would have a strong background in optimization and controls, model predictive control, and probability theory. Candidates with knowledge and background in stochastic model predictive control, and/or system verification methods would be preferred. Applicant to this position should already have completed (or will soon complete) a Master’s degree in systems and controls.

Expected Start Date: Fall 2018.

Requirement:
We are seeking an outstanding and enthusiastic researcher who has the expertise and/or interest in one or more of the following areas:
Optimization, optimal control, model prediction control
Probability theory, stochastic optimal control
System verification methods
Robotics, automotive engineering, and connected vehicles

For more information about this position, contact Dr. Baisravan HomChaudhuri at bhomchaudhuri@iit.edu. Interested candidates can email their CV to bhomchaudhuri@iit.edu.

6.7. PhD/PostDoc: New York University Abu Dhabi, UAE
Contributed by: Nick Freris, nf47@nyu.edu

RESEARCH OPPORTUNITIES IN CYBERPHYSICAL SYSTEMS
The Cyberphysical Systems Lab at New York University Abu Dhabi is hiring PhD Students and Postdoctoral Fellows.
About: The focus of the Cyberphysical Systems Lab (CPSLab) is to conduct interdisciplinary research across a broad range of topics and applications pertaining to cyberphysical systems such as: a) distributed algorithms for estimation, optimization and control, b) big data: data mining/machine learning, c) wireless sensor networks, d) system theory: control & optimization, e) signal processing: sparse sampling and online algorithms, as well as applications in transportation, robotics, cyber security, networking, and biomedical modeling.

Requirements: PhD applicants must hold (or be close to completing) an MS degree, and postdoctoral fellow applicants a PhD degree, in Electrical Engineering, Computer Science, Applied Mathematics, or a relevant field, with significant research experience in at least one of the aforementioned focal areas of CPSLab. PhD applicants need to additionally apply directly to NYU (http://engineering.nyu.edu/admissions/graduate) for admission, by Dec. 15. A proven publication record, solid mathematical background, excellent communication skills, and the ability to work in multi-disciplinary teams are essential. Applicants must submit a CV, cover letter, research statement with detailed research plan, two selected publications, and the names and contact information of three recommenders, in a single PDF file to Prof. Nick Freris (nf47@nyu.edu).

Start date & Salary: The start date is flexible. A very competitive salary and benefits package (including relocation, housing, insurance, transportation and conference travel support) are provided – note: UAE do not levy any income tax.
For more information, please visit: https://wp.nyu.edu/cpslab

About NYUAD: New York University has established itself as a Global Network University, a multi-site, organically connected network encompassing key global cities and idea capitals. The network has three foundational degree-granting campuses: New York, Abu Dhabi, and Shanghai, complemented by a network of 12 research and study-away sites across five continents. Faculty and students circulate within the network in pursuit of common research interests and the promotion of cross-cultural and interdisciplinary endeavors, both local and global.

Entering its eighth year, NYU Abu Dhabi has recruited a cohort of faculty who are at once distinguished in both research and teaching. Our students are drawn from around the world and surpass all traditional recruitment benchmarks, both US and global. NYU Abu Dhabi’s highly selective liberal arts enterprise is enhanced by an institute for advanced research, sponsoring cutting-edge projects across the Arts, Humanities, Social Sciences, Sciences, and Engineering. NYUAD is housed at a newly built campus in the vibrant city of Abu Dhabi, the capital of UAE.

NYUAD is an Equal Opportunity/Affirmative Action Employer.

6.8. PostDoc: Poitiers University, France
Contributed by: Guillaume Mercère, guillaume.mercere@univ-poitiers.fr

Postdoctoral Position at the Laboratory for Computer Science and Automatic Control (LIAS, https://www.lias-lab.fr/?lang=en), Poitiers University, France

We are looking for a student who recently completed a PhD degree in automatic control or applied mathematics for a post-doctoral research position in the area of data-driven modeling (system identification) for tire parameters estimation. The position is for a period of one year, with the possibility of renewal depending on the student’s performance and achievements.

Applications (including an application letter, complete CV, list of publications) and inquiries should be addressed to Dr. G. Mercère (guillaume.mercere@univ-poitiers.fr) and Dr. J. Vayssettes (Jeremy.vayssettes@michelin.com).


6.9. PostDoc: University of Melbourne, Australia
Contributed by: Iman Shames, ishames@unimelb.edu.au

The Department of Electrical and Electronic Engineering, School of Electrical, Mechanical and Infrastructure Engineering, University of Melbourne invites applications for 2-year Research (Postdoctoral) Fellow position.

The research fellow will join a team of academic staff and postgraduate students working on problems pertaining to real-time decision making in dynamic systems. The team maintains a longstanding partnership with Defence Science and Technology Group in this area.

This position is available for 2 years and will be reviewed at the end of this period.

In this research, the investigation will focus on the coordination of a group of autonomous vehicles to achieve a common objective under uncertain and time varying operational considerations. The flexibility to be able to handle different scenarios and associated mission constraints will be an integral aspect of the research.
The aim of the research is to explore and develop novel algorithms that are implementable in real-time, can predict over a long horizon and make optimal decisions under given performance metrics while satisfying hard constraints. This will involve a combination of predictive control and machine learning (data-driven) techniques to optimally respond to rapidly changing conditions, and to disrupt the planning algorithms of adversarial actions.

The research fellow will have an outstanding background in Engineering or Applied Mathematics (or equivalent), and experience with the implementation of numerical methods and engineering applications of optimisation techniques in real-time control of dynamical systems with exposure to mathematical foundations of learning, graph theory, and combinatorial optimisation. The research fellow will be located in the Department of Electrical and Electronic Engineering within the Melbourne School of Engineering, and collaborate with researchers and engineers internally and externally. In addition to preparing technical reports, research publications, and computer simulations, the research fellow may also have the opportunity to undertake teaching and student supervision in areas directly related to their research.

1. Essential Selection Criteria
- A PhD in Engineering or Applied Mathematics, or an equivalent qualification;
- A record of quality research as evidenced by research publications in leading journals and at conferences of systems and control, and optimisation commensurate with opportunity;
- Expertise in system modelling and control and a strong interest in the application of these to address practical problems in real-time decision-making scenarios;
- A commitment to pursue the fundamental research topics as described in “Position Summary” above;
- Experience in using initiative, working with minimal supervision and ability to prioritise tasks to achieve project objectives within timelines;
- Demonstrated capacity to communicate research concepts to technical and non-technical audiences;
- Ability to work as part of a team that includes graduate and undergraduate students and good interpersonal and communication skills and the ability to interact with University staff and Defence Science and Technology Group at all levels.

2. Desirable Selection Criteria
- Experience with the implementation of numerical methods and engineering applications of optimisation techniques in real-time control of dynamical systems;
- Exposure to mathematical foundations of learning, graph theory, and combinatorial optimisation.

Candidates must apply via the following link:
Application Closing Date: 31 December 2017. Start Date: As soon as possible from March 2018.

6.10. PostDoc: Clemson University, USA
Contributed by: Ardalan Vahidi, avahidi@clemson.edu
Postdoctoral Fellow in Control of Connected and Automated Vehicles
We are looking for a postdoctoral candidate to start working immediately on a project involving control of connected and automated vehicles at Clemson University. A Ph.D. in Engineering, documented experience in vehicle and traffic microsimulation, a solid publication record, and strong coding skills are among the main requirements.

The candidate is expected to play a leadership role in a team and should have strong communication and writing skills.
Other desired areas of expertise are: optimal control, predictive control, proficiency in C++/Python/Java. Hands on experimental skill is strongly desired. Two years of competitive funding is expected.

Applicant’s CV and cover letter in PDF and further enquiries should be sent by e-mail to Professor Ardalan Vahidi (avahidi@clemson.edu).

6.11. PostDoc: Georgia Institute of Technology, USA
Contributed by: Panagiotis Tsiotras, tsiotras@gatech.edu

Post-Doctoral Position in Stochastic Optimal Control and Stochastic Games at Georgia Tech

A postdoctoral position is available immediately with the Dynamics and Control Systems Laboratory at the School of Aerospace Engineering at Georgia Tech in the general area of stochastic control and stochastic games with application to multi-agent and networked control systems. The successful candidate should have a PhD degree in Engineering, Mathematics or Computer Science, with a demonstrated record of publications in this area. The appointment will be initially for 12 months with a possible extension for up to 36 months. The position is available immediately.

Interested candidates should submit an extended resume, along with a list of publications and the names of three references to: Prof. Panagiotis Tsiotras, School of Aerospace Engineering, Georgia Institute of Technology, Atlanta, GA 30332-0150 USA, Email: tsiotras@gatech.edu

6.12. PostDoc: University of Michigan, USA
Contributed by: Ilya Kolmanovsky, ilya@umich.edu

Post-doctoral position opening in advanced modelling and control of flexible aircraft at the University of Michigan

A post-doctoral research fellow position is open in the Department of Aerospace Engineering at the University of Michigan, Ann Arbor. The position entails conducting research into advanced modelling and control of flexible aircraft towards the development of systematic, theoretically rigorous, effective and experimentally validated framework for the design of control laws for maneuver load alleviation, gust load alleviation and shape control. Such controllers must optimally coordinate conventional and advanced control effectors to deal with complex, nonlinear, uncertain, interactive and high-order aero-elastic aircraft dynamics, while enforcing constraints on loads and elastic deflections during maneuvers and in presence of wind gust disturbances. The preferred candidate will have a strong background and interest in one or more areas of advanced control, such as model predictive control, nonlinear control and/or adaptive control, and past experience with or interest in control experiments. Familiarity with aircraft flight dynamics and control is a plus. The position is initially for one year, and renewable for subsequent years. The intended start date is January 1, 2018.

Potential applicants should send via e-mail (Subject: PostDoc Applications in Modelling and Controls) a CV and the names of three references to Prof. Ilya Kolmanovsky at ilya@umich.edu and to Prof. Carlos Cesnik at cesnik@umich.edu.

6.13. PostDoc: Purdue University, USA
Contributed by: Gesualdo Scutari, gscutari@purdue.edu
Postdoc Position at Purdue University

Position Description - Postdoctoral Associate: The School of Industrial Engineering at Purdue University and the Cyber Center (Discovery Park) are looking for a few postdoctoral associates whose research is interdisciplinary and to build a foundation for distributed data science (which is broadly interpreted). Areas of interest include distributed (nonconvex) optimization, statistical learning, and Information Processing. The postdoctoral associates will be expected to conduct fundamental and top-notched research in collaboration with the other members of the team. The research team has several ongoing research projects (supported by NSF, ONR, and ARO) in the areas of i) distributed (stochastic) optimization for (nonconvex) large-scale systems; ii) computational big-data analytics over networks; and iii) deep learning.

Position Qualifications: We are seeking candidates that have a record of scholarship under the rubric of “distributed (nonconvex) optimization” and/or data analytics/processing (e.g., analysis of large datasets, machine learning, multi-agent optimization, network analysis) who have the potential to publish in premier journals. Candidates may come from different backgrounds, such as operation research, electrical engineering, computer science or a related field, but preference will be given to candidates with a strong background in (distributed) optimization and machine learning. All applicants must have strong mathematical and computing skills. Prior knowledge in stochastic programming is a plus. Applicants should possess a Ph.D. in Mathematics, Operation Research, Statistics, Electrical Engineering, or other relevant fields. Applicants are expected to be outstanding, intellectually curious researchers at an early stage of their scholarly career.

Application Process: The positions are available immediately and offered for one-year term, subject to renewal (up to two more years) based on performance. Salary is competitive and commensurate with rank and qualifications. Review of applications will begin immediately and continue until the positions are filled. Applicants must provide

1. a cover letter no more than one page,
2. a curriculum vita including a list of publications,
3. A research statement (maximum 3 pages in A4 format; names and contact information for three potential references; and
4. a copy of at least 1 research paper (can be unpublished) or a copy of your dissertation.

Please send all materials to: Dr. Gesualdo Scutari at gscutari@purdue.edu.

6.14. PostDoc: Mid-Sweden University, Sweden

Contributed by: Mikael Gidlund, mikael.gidlund@miun.se

The Communication Systems and Networks (CSN) (https://www.miun.se/en/stc-research-centre/Research-Groups/communication-systems-and-networks/) group at Mid-Sweden University offers one post-doctoral position in the areas of low-power wireless communication and networking for IoT and one in low latency communication for future wireless networks. The CSN group belongs to the research center Sensible Things that Communicate, which is one of the leading research centers in Sweden in the area of sensor networks and systems.

The positions is for one year with possibility to extension depending on funding. The positions are based in Sundsvall. Candidates should have a PhD in computer science, computer engineering, electrical engineering, Signal processing, or related areas, and a track record of publications in high-quality journals and/or conferences. Strong mathematical background in optimization and statistics is necessary. Good written/oral communication skills in English, and ability to work effectively in a collaborative team, are required. Skills and experience in both analytical and empirical research are highly desirable. Experience with low rate
devices like IEEE 802.15.4, NB-IoT, PHY waveforms and standards, and RRM techniques for dense massive networks is advantageous.

For more information about the positions and how to apply is given here:
Last day to reply is December 31th, 2017.

6.15. PostDoc: Université Mohammed VI Polytechnique, Morocco
Contributed by: Kurt Sternlof, umrp@mit.edu

Post-Doctoral Research Positions available at Université Mohammed VI Polytechnique (UM6P) in Ben Guerir, Morocco.

UM6P is actively searching to fill multiple post-doctoral research positions at its new Ben Guerir campus. Well-qualified candidates are sought with research interests in the general areas of: water resources and climate; precision agriculture; industrial process optimization; chemical processing of phosphate; smart Urbanization; and renewable energy.

This UM6P post-doctoral program is intended to serve as a pipeline for future faculty hires at the university, so candidates should have genuine interest in living and working in Morocco while pursuing research on critical issues of sustainable development in Africa.

By virtue of the joint UM6P-MIT Research Program (UMRP) successful candidates will enjoy opportunities to collaborate with participating MIT faculty as Visiting Scholars at the Institute for extended periods working on joint UMRP projects. UMRP consists of six research projects supervised by MIT faculty and covering the topical areas listed above.

Potential candidates are invited to email a concise statement of interest along with their CV and contact information to the UMRP executive director at umrp@mit.edu. Responses will be forwarded as appropriate to the hiring authorities at UM6P for immediate consideration on a rolling basis. Candidates of interest will be contacted directly by UM6P. Please do not contact UMRP regarding the status of a submitted statement of interest.

6.16. PostDoc: Lund University, Sweden
Contributed by: Anders Rantzer, rantzer@control.lth.se

Applications are invited for positions as postdoc at the LCCC Linnaeus center, Lund University, Sweden. See http://www.lccc.lth.se. LCCC - Lund Center for Control of Complex engineering systems has been created with support from a ten year Linnaeus grant by the Swedish Research Council, a special grant allocated to research environments of highest international quality. The positions will enable excellent young individuals to develop their own line of research in synergy with a strong environment. Co-funding is available from projects such as robot navigation and medical intensive care.

6.17. PostDoc: Delft University of Technology, the Netherlands
Contributed by: Rudy Negenborn, r.r.negenborn@tudelft.nl

PostDoc: ”Automatic control for system integration of future ships” at Delft University of Technology
The project GasDrive proposes the development of innovative efficient LNG-powered ship systems designed for operating optimally under future environmental, societal and economic constraints. An innovative approach is proposed by exploring and maximizing the system integration opportunities of LNG that lay in the integration of gas engine, gas turbine (and/or turbocharger), solid oxide fuel cell (SOFC), and new types of drag-reducing ship hull nano-laminates interacting with exhaust gases. Such an approach could result in future ships with no direct emission to atmosphere, with very low indirect emission of the greenhouse gas carbon dioxide into the atmosphere and a new paradigm shift in very high efficiency and extremely low energy requirements of ships systems, including propulsion.

The Dept. of Maritime & Transport Technology at Delft University of Technology is seeking an enthusiastic post-doctoral research to work on this new type of ships. The 2-year post-doc project focuses on using advanced automatic control techniques for the integration of the different types of systems (engines, fuel cells, propulsion systems, etc.) in order to maximize the operational ship system wide performance. You will consider model-based control approaches that give a holistic perspective on how to control GasDrive ships. You will hereby closely collaborate with the PhD candidates that have started working on this project earlier and have developed first models that you can incorporated in the control strategies.

Applicants have expertise and interest in one or more of the following areas:
* Automatic control, distributed control, predictive control;
* Ship components, dynamics, and modelling.

Applicants have obtained a PhD or an equivalent degree or expect to obtain such a degree very soon related to these areas (control; ship design; maritime engineering).

For more information about this position and application, see:

or contact prof.dr. R.R. Negenborn, e-mail: r.r.negenborn@tudelft.nl.

Application deadline: January 15, 2018.

6.18. PostDoc: Delft University of Technology, the Netherlands
Contributed by: Sergio Grammatico, s.grammatico@tudelft.nl

PostDoc position: Game theory and optimization for automated driving.

Delft Center for Systems and Control (DCSC), Delft University of Technology, The Netherlands.

We are looking for a talented postdoctoral research fellow with a Ph.D. degree (or close to completion) in Systems and Control, or Operations Research, or related field, with background and interest in System Theory, Automatic Control, Optimization, Game Theory, and with good command of the English language (knowledge of Dutch is not required). Expertise in mixed-integer optimization is appreciated.

Project description: The researcher will conduct fundamental and algorithmic research on complex multiagent systems with application to automated driving in highways. The key challenge is to design distributed control algorithms with mixed-integer decision variables for noncooperative, multiagent and dynamic environments, such as semi-automated highways. With this aim, game-theoretic and optimization-based distributed control shall be developed.

Conditions of employment: The appointment will be for 1 year, with the possibility for extension. As an employee of TU Delft, the research fellow will receive a competitive salary in accordance with the Collective Labour Agreement for Dutch Universities (CAO) of about 2.9k EUR/month gross, possibly about 2.4k EUR/month after taxes, plus holiday allowance (8% of gross annual income) and end-of-year allowance.
Applications shall include the following documents:
- curriculum vitae;
- statement of motivation and research interests (up to one page);
- transcripts of all exams taken and obtained degrees (in English);
- names and contact information of up to three references (e.g. PhD supervisors);
- up to five research-oriented documents (e.g. thesis, conference/journal publications).

Applications or inquiries shall be emailed to prof. Sergio Grammatico (s.grammatico@tudelft.nl).

The call for applications will remain open until the ideal candidate is found. The starting date is flexible, but ideally would be February/March 2018.

More information: s.grammatico@tudelft.nl, https://sites.google.com/site/grammaticosergio.

6.19. PostDoc: NC A&T State University, USA
Contributed by: Ali Karimoddini, akarimod@ncat.edu

Post-Doctoral Position in Machine Learning

The Autonomous Control and Information Technology (ACIT) Institute at NC A&T State University, invites applications for a full-time, post-doctoral research associate position in Machine Learning and approximate reasoning for handling of uncertainty. The project uses these methods to develop and implement test and evaluation techniques for autonomy algorithms of autonomous vehicles.

This is a non-tenure-track, year-to-year appointment, renewable annually for up to four years subjected to satisfactory performance, availability of resources, and the needs of the Center. The research results of this project are expected to reach a high Technology Readiness Level (TRL) to be applied to testing and evaluation of autonomous vehicles. We thus look for applicants that have a demonstrated track record in the applications of Machine Learning techniques to systems and control problems. Programming skills and practical experiences with embedded real-time systems are desired.

The candidate will be also working with both graduate and undergraduate students in a mentoring role, and will be involved in conducting workshops, and seminars. The candidate will enjoy a dynamic and collaborative working environment. U.S. citizenship is preferred and minority candidates are strongly encouraged to apply. If interested, please apply electronically by sending a detailed curriculum vitae, copies of your top three publications, the summary of your PhD dissertation, names and contact information of three references, and other information that might be relevant to your application to Dr. Homaifar (homaifar@ncat.edu) and Dr. Karimoddini (akarimod@ncat.edu).

6.20. Research Associate: University of Strathclyde, UK
Contributed by: Manuela L. Bujorianu, luminita.bujorianu@strath.ac.uk

Research Assistant (Associate) in Cyber-Security

The Maritime Safety Research Centre (MSRC), Department of Naval Architecture, Ocean and Marine Engineering, University of Strathclyde (Glasgow, Scotland, UK).

Job description

Safety and security are at the heart of sustainable marine operations. However, given the dynamic nature
and the growing size and complexity of modern vessels, effective management of pertinent risks remains a serious issue. There has hardly ever been a year featuring no maritime accident, let alone incidents and near misses. However, growing prevalence of cyber-physical systems on-board along with new sensor and information technologies jointly known as Industry 4, bring new problems but also new opportunities for more effective risk management.

The Maritime Safety Research Centre (MSRC) of the University of Strathclyde is engaged in a number of high impact, industrial research with focus on on-board risk management with cyber-security being an integral part of it. A talented individual with the background in engineering or science is sought to fill an open research position in the topic of cyber-security. The main research focus will be security risk modelling and decision support, using both quantitative and qualitative approaches.

The successful candidate will be highly motivated, independent and yet an excellent team player, well organised, and result-oriented. As this work requires a multi-disciplinary approach, a wide set of right skills and aspirations would be advantageous. The successful candidate would be offered to commence immediately.

Required skills
You expected to be analytically minded, like to solve problems and have background in cyber-security (e.g., a master/PhD thesis in the area, work experience) in maritime (preferable) or other domains. Specific skills include:

Essential: Ph.D. in computer science, computer engineering, or networking, with a focus on cyber risk/security, network security, or similar, is required (Ph.D. students who have handed in, but not yet defended their thesis are welcome to apply); good programming skills; an established research record.

Desirable: probabilistic system analysis methods (e.g. probabilistic model checking, statistical model checking, probabilistic model learning), good understanding of complex/cyber-physical systems.

Working conditions
• Appointment at Grade 6 – 7 (£27k – £36k p.a.).
• Increments are paid each year, when the employee has a minimum of 6 full months of service, allowing progression to the next point on the salary scale.
• The normal working week is 35 hours.
• Annual leave entitlement is 31 days per year.
• Pension: new members of staff, aged under 75, will be admitted automatically to membership of the Universities Superannuation Scheme (USS) on taking up appointment.

Information and applying
Please send your CV and cover letter to Dr Luminita Bujorianu, luminita.bujorianu@strath.ac.uk

Application closing date: 20 December 2017. Prompt application is advised, as this position is only available until a suitable candidate is found.

6.21. Research Fellow: Melbourne School of Engineering, Australia
Contributed by: Chris Manzie, manziec@unimelb.edu.au

RESEARCH FELLOW IN MACHINE LEARNING FOR ENGINE CONTROL
Work type: Fixed Term, Continuing
Department of Electrical and Electronic Engineering
School of Electrical, Mechanical and Infrastructure Engineering
Melbourne School of Engineering

Salary: $69,148* - $93,830 p.a. (Level A) (*PhD entry Level A.6 $87,415 p.a.) plus 9.5% superannuation

The research fellow will join a team of academic staff and postgraduate students working on problems related to the control and calibration of diesel engines. The team maintains a longstanding partnership with Toyota Motor Company in this area.

This position is available for 2 years and will be reviewed at the end of this period.

The aim of the research is to explore and develop novel algorithms that are implementable in real-time to improve the fuel economy and emissions of diesel engines. Given the constraints present in the system, much of the work to date has focused on the development of model predictive control designs. One of the challenges in implementation of these controllers is the calibration to achieve the appropriate level of performance under different legislated limits and consumer demands for different markets. We intend to develop methods (based on a combination of machine learning and traditional optimisation methods) that can partially automate the calibration process for these advanced controller designs, leading ultimately to faster calibration of better performing engine controllers.

The research fellow must have a background in engineering or applied mathematics, with demonstrated expertise in modelling and control of dynamical systems and numerical optimisation. Experience with at least one of model predictive control; engine modelling and control; machine learning; and implementation of controllers on real systems is essential – while some background in more than one of these areas is highly desirable.

The research fellow will be located in the Department of Electrical and Electronic Engineering in the Melbourne School of Engineering and will be expected to be an active member of the Department, collaborating with other researchers and engineers internally and externally. In addition to preparing technical reports, research publications, and computer simulations, the research fellow may also have the opportunity to undertake teaching and student supervision is areas directly related to their research.

The Melbourne School of Engineering is strongly committed to supporting diversity and flexibility in the workplace. Applications for part-time or other flexible working arrangements will be welcomed and will be fully considered subject to meeting the inherent requirements of the position.

The University plan seeks to increase the diversity of the workforce and the representation of women in areas they have been traditionally under-represented. Consistent with this the School is seeking to increase the representation of women in the academic workforce across engineering disciplines. Under a Special Measure, under Section 12 (1) of the Equal Opportunity Act 2010 (Vic) the School is seeking to lift the representation of women from 20% in 2014 to at least 25% over the next 5 years, and strongly encourages applications from suitably qualified female candidates.

Close date: 31 Jan 2018

For further information and to apply please visit our website

6.22. Faculty: Southern Illinois University Edwardsville, USA
Contributed by: Colleen James, coljame@siue.edu
Please visit the following website for information about an opening for Assistant Professor in the Mechanical Engineering Department at the SIUE in Edwardsville, Illinois.

http://www.siue.edu/employment/employmentopportunities/engineering/FY18-052.shtml

Applicants must have a doctoral degree in Mechanical Engineering or a related field and established interest in Mechatronics, Robotics, and Control Systems

If you are interested and qualify please follow the Application process at follows:

Candidates must submit letter of application, curriculum vitae, transcripts (including those for SIUE), statements of research and teaching interests, and a list of at least three references in a single PDF file to:

coljame@siue.edu

Please put “Application for Faculty Position” in the e-mail subject line.

Thank you for your interest,

Colleen James
Office Support Specialist
SIUE School of Engineering
Campus Box 1805
Mechanical Engineering Rm 2036
Edwardsville, IL 62026-1805
618-650-3389

6.23. Faculty: University of California at Santa Cruz, USA

Contributed by: Dejan Milutinovic, dmilutin@ucsc.edu

The Department of Computer Engineering at the University of California, Santa Cruz (UCSC) is seeking applications for a tenure track or tenured faculty position in the area of Cyber-Physical Systems with research focus on safety, security, privacy, and resilience of systems applied to autonomous vehicles, distributed wearable systems, healthcare and independent living, or other areas in which safety, security, privacy, and resilience of systems are challenged by the combination of physics, computers and the environment.

UCSC is the nearest University of California campus to Silicon Valley and has close research ties with the local computer industry.

Eligibility and submission requirements, as well as other details are posted at the link:

https://apo.ucsc.edu/academic_employment/jobs/JPF00496-18.pdf

Review of applications will begin on January 3, 2018.

Dejan Milutinovic
Associate Professor
Computer Engineering Department
University of California, Santa Cruz
https://www.soe.ucsc.edu/people/dejan

6.24. Faculty: Nanjing University of Aeronautics & Astronautics, China

Contributed by: Mingyang Xie, myxie@nuaa.edu.cn

Tenure Track Faculty Position in Control Science and Engineering
Nanjing University of Aeronautics & Astronautics (NUAA), China
The Institute of Flight Control at the NUAA is seeking excellent candidates in the area of navigation, guidance and control in all levels, Assistant Professor, Associate Professor, and Full Professor.

The Institute of Flight Control, affiliated to the College of Automation Engineering, is subordinated to the discipline of Control Science and Engineering, which has already been listed as one of the top five priority development disciplines of NUAA. Moreover, Navigation, Guidance and Control (the subdiscipline of Control Science and Engineering) belongs to National Key Disciplines (Nurture). Further information about the College is available at http://cae.nuaa.edu.cn/.

The Institute of Flight Control commits to the development of advanced control system of unmanned aerial vehicle (UAV), has already established the Engineering Research Center of Aircraft autonomous control Technology of National Education Ministry. The key technologies of our institute include: the overall design of flight control system, the design and development of flight control computer with high reliability, the design and validation of flight control law, software development and test of flight control with high security, etc. The developed UAVs (unmanned aerial vehicles) has won the first prize of national award for science and technology progress (one time), the second prize of national award for science and technology progress (two times), and also various provincial awards for science and technology progress (more than ten times).

A. Position Available
- Assistant Professor/Associate Professor/Full Professor

B. Salary and Fringe benefits
- For Assistant Professor, we offer a competitive salary (above US$ 25,000 per year, plus housing allowance of US$48,000), and a research start-up funding, which commensurates with qualification and experience;
- For Associate Professor, the salary is above US$ 30,000 per year, plus housing allowance of US$56,000, and also provides a competitive research start-up funding based on your qualifications;
- For Professor, the salary is above US$ 60,000 per year, plus housing allowance of US$70,000, and also provides a competitive research funding.

C. Your Profile
- A Ph.D. degree in Control Science and Engineering, Robotics, Mechatronics, or a closely related field;
- An excellent research background in one of the following areas: navigation, guidance and control, flight control, control theory, etc..

D. Required documents
- Cover letter stating your interest in the faculty position in the Institute of Flight Control;
- A full academic CV;
- Qualification certificate, such as funding, awards, a record of publications;
- Details of two references.

Applicants who are interested in flight control should send their CV, qualification certificates, and two references to Prof. Yimin Huang (ymhuang@nuaa.edu.cn).

6.25. Faculty: KU Leuven, Belgium
Contributed by: Steffen Waldherr, steffen.waldherr@kuleuven.be

There is a full-time faculty vacancy at KU Leuven (Belgium) within the area of simulation and (thermal) optimization of chemical processes in the Science, Engineering and Technology Group, Faculty of Engineering Technology, Department of Chemical Engineering, Process and Environmental Technology Lab (PETLab) at the Technology Campus De Nayer, Sint-Katelijne-Waver. We are looking for internationally oriented
candidates with an excellent applied research record and with educational competence within the field of chemical engineering, including the domain of (chemical) thermodynamics.

You develop an industry oriented research programme at an international level in the simulation of chemical processes, with a clear link to the (thermal) optimisation of chemical production plants. A non-exhaustive list of examples is: intensification of separation processes, mass and heat transfer in chemical reactors, mixing optimization and flow behaviour. Your work is supported by computational fluid dynamics and advanced process simulation software, which you will use as tools to study and design complex processes.

You should hold a PhD in Chemical Engineering, Bioscience Engineering, Engineering Technology or any field that prepares equally well for the research programme. You are expected to have an excellent track record in applied research in the field of this vacancy as reflected by your academic or industrial experience. Additionally, you have demonstrable teaching and training skills. International research and education experience is highly appreciated. Proficiency in English is required.

Depending on your record and qualifications, you will be appointed to or tenured in one of the grades of the senior academic staff: assistant professor, associate professor, professor or full professor. In principle, junior researchers are appointed as assistant professor on the tenure track for a period of 5 years; after this period and a positive evaluation, they are permanently appointed (or tenured) as an associate professor.


The deadline for application is March 31, 2018.

6.26. Faculty: Georgia Institute of Technology, USA

Contributed by: Panagiotis Tsiotras, tsiotras@gatech.edu

Faculty Position in Control Systems

The School of Aerospace Engineering at Georgia Institute of Technology, Atlanta, Georgia, invites nominations and applications for a faculty position in the areas of flight dynamics, dynamical systems, control theory, information science, and the interactions between these fields beginning August 2018.

All ranks will be considered, but senior level appointments will reserved for exceptional candidates having a demonstrated superior research and teaching record. Salary and rank will be commensurate with qualifications.

While all related areas of research in dynamical systems and control will be considered, candidates with a research agenda most closely aligned with aerospace applications are highly desirable.

Candidates are required to have a doctorate in Aerospace Engineering or a closely related field. The successful transdisciplinary candidates will have an outstanding research record and will be expected to teach graduate and undergraduate courses, supervise graduate students, and interact with the faculty on the development of a strong externally funded research program.

The School of Aerospace Engineering presently has 36 full-time faculty members and its undergraduate and graduate programs are ranked among the top aerospace engineering programs in the nation. The research interests of the faculty cover a broad spectrum of aerospace engineering including gas dynamics, propulsion, combustion, aerodynamics, structural mechanics, flight dynamics, and control. Information about the School can be found at www.ae.gatech.edu.

Applicants should send (electronically or via mail, in a single pdf) a curriculum vitae, a cover letter, a statement of teaching interests and philosophy, a statement of research plans, and the name and contact
Faculty Position in Autonomy (AE/IRIM-GaTech)

The Institute for Robotics and Intelligent Machines and the School of Aerospace Engineering at the Georgia Institute of Technology (Georgia Tech) invites nominations and applications for a faculty position in the general area of autonomous and intelligent systems. The appointment is expected to be at the Assistant or Associate Professor level, but appointments at the Full Professor level will be considered for exceptional candidates having demonstrated a superior research and teaching record.

Candidates are expected to have a strong commitment to teaching at the undergraduate and graduate levels as well as to the development of an externally funded research program. An earned doctorate in Aerospace Engineering, Electrical Engineering, Computer Science/Engineering, Software Engineering or a closely related field is required.

The Aerospace Engineering program at Georgia Tech is the largest program of its kind in the US, having approximately 40 full-time faculty members, and more than 800 undergraduate students and 500+ graduate students. Its undergraduate and graduate programs are typically ranked among the top aerospace engineering programs in the nation. The research interests of the faculty cover a broad spectrum including gas dynamics, propulsion, combustion, aerodynamics, structural mechanics, flight mechanics, robotics and autonomy, orbital mechanics, rotorcraft, aircraft and space systems design, dynamics and control, air-traffic control, and cognitive engineering. Information about the School can be found at www.ae.gatech.edu.

The Institute for Robotics and Intelligent Machines (IRIM) is one of the twelve interdisciplinary research institutes (IRI) at Georgia Tech, and serves as an umbrella under which robotics researchers, educators, and students from across campus come together to advance the many high-powered and diverse robotics activities at Georgia Tech. IRIM’s mission is to create new and exciting opportunities for faculty collaboration; educate the next generation of robotics experts, entrepreneurs, and academic leaders; and partner with industry and government to pursue truly transformative robotics research. More than 70 faculty, 30 labs and 60+ PhD students across the College of Engineering, the College of Computing, the College of Science, and the College of Design are affiliated with IRIM. More details about IRIM can be found at http://robotics.gatech.edu

Applicants should send (electronically or via mail in a single pdf) a curriculum vitae, a cover letter, a statement of teaching interests and philosophy, a statement of research plans, and the name and contact information of at least three references to: Tamecia Wright, e-mail: tamecia.wright@aerospace.gatech.edu, c/o Professor Panagiotis Tsiotras, School of Aerospace Engineering, Georgia Institute of Technology, Atlanta, GA, 30332-0150.
Faculty Position in Experimental Unmanned Aerial Systems (UAS) at Georgia Tech

The School of Aerospace Engineering at Georgia Tech is searching for a tenure-track faculty member at the Assistant or Associate professor level to continue current and develop new research thrusts in experimental unmanned aerial systems (UAS), with a particular emphasis on software and hardware integration.

The successful candidate will be expected to pursue collaborations with diverse centers and laboratories across the Georgia Tech campus, including robotics and vertical lift. Serious candidates should have a strong interest in flight systems research with a proven record, preferably on avionics integration and testing, UAS development (including testbeds), software and hardware integration, and flight testing. In conjunction with this research, the faculty member will lead, mentor, and support an established team of graduate students and research engineers in the Georgia Tech UAV Research Facility (UAVRF) (http://www.uavrf.gatech.edu/).

The faculty member will also develop and/or teach related undergraduate and graduate courses.

Application packages should include a cover letter clearly stating the faculty position(s) being sought, a curriculum vitae, statements of research and teaching interests, and contact information for four professional references. The search committee requests that application packages be submitted in one pdf file to ae-facsearch@aerospace.gatech.edu. Applications will be accepted until the position is filled. The start date is negotiable, but the anticipated start is as early as January 2018 or June 2018.

Faculty candidates are encouraged to find out more about the Daniel Guggenheim School’s research program, its labs and research collaborations, and its current academic faculty.

Georgia Tech is an equal opportunity affirmative action employer and is committed to increasing the diversity of its faculty. Nominations and applications of qualified members of under-represented groups are welcome.

6.29. Faculty: University of Delaware, USA

Contributed by: Ryan Zurakowski, ryanz@udel.edu

Faculty Position in Biomedical Engineering (Continuing Track Assistant Professor)

The Biomedical Engineering Department (www.bme.udel.edu) at the University of Delaware (UD) invites applications for a full time, Continuing Track Assistant Professor faculty position. Responsibilities will include teaching and curriculum development related to all aspects of the undergraduate biomedical engineering program with specific concentration in bioelectrical systems and instrumentation. The successful candidate will develop and teach new and existing undergraduate courses on engineering fundamentals and design, mentor undergraduate students, and take an active role in the continuous improvement of our undergraduate curriculum. The candidate will apply innovative teaching methods and engage with the broader engineering education community to promote best practices.

Candidates must have a Ph.D. in biomedical engineering or closely related field. Successful candidates are expected to have demonstrated excellence in teaching and curriculum development in engineering, with particular expertise in bioelectrical systems, instrumentation, biosensors, imaging, controls, circuits and design. Industrial engineering experience will be viewed favorably.

Successful applicants will share our vision to be a BME department that is nationally recognized for high impact research and exceptional engineering education. Launched in 2010, BME at UD is ABET accredited, ranked in the top 40% of BME departments nationally, and has ambitious plans for the next five years. We seek creative individuals who are eager to work in a collaborative and interdisciplinary environment.
The University of Delaware combines a rich historic legacy in science and engineering with a commitment to undergraduate education and scholarly excellence. With external funding exceeding $200 million, the University ranks among the top 100 universities in federal R&D support. The main campus in Newark, Delaware, provides the amenities of a vibrant college town with convenient access to the major cities of the East Coast. The recently opened 194,000-square-foot Harker Interdisciplinary Science and Engineering Laboratory greatly expands opportunities and resources for research and education, and the 272-acre STAR (Science, Technology and Advanced Research) campus offers even more opportunities for research, academic, and commercial development.

Continuing Track (CT) positions at UD are full-time, non-tenure track positions with an initial two-year contract, renewable in a program that leads to substantial job security including sabbatical benefits and a promotion path. The University offers an active CT Caucus and professional centers dedicated to effective teaching.

To submit an application, please visit http://apply.interfolio.com/45504. Applicants should prepare a curriculum vitae, a statement of teaching interests and achievements, and a list of at least four references. UD values diversity and is supportive of the needs of dual-career couples; women and minorities are especially encouraged to apply. Applications must be received by Jan 1, 2018 for priority consideration, though the search will remain open until the position is filled. For additional information about this position, contact Dr. Jill Higginson (higginson@udel.edu).

6.30. Faculty: University of Vermont, USA
Contributed by: Mads Almassalkhi, malmassa@uvm.edu

Hire in System Biology (Biomedical Systems Engineering)

The Department of Electrical and Biomedical Engineering at the University of Vermont (UVM) invites applications for a tenure-track hire in the area of biomedical engineering. Positions will be nominally at the Assistant Professor level; candidates are expected to hold a baccalaureate degree in engineering and a doctorate in biomedical or electrical engineering. Preferences will be given to highly qualified candidates with research interests in the areas of (1) synthetic and systems biology or (2) biosensing and imaging. The hire will support bachelor and graduate programs in electrical and biomedical engineering and will augment existing faculty associated with an interdisciplinary PhD program in Bioengineering. The anticipated start date is Fall 2018.

Successful candidates will develop and maintain an active program of externally-funded research, advise and mentor undergraduate and graduate students, and contribute broadly to undergraduate and graduate teaching in the Department of Electrical and Biomedical Engineering. The University values interdisciplinary research and innovative approaches to engineering education. Strong curricular and research ties exist between the engineering departments and the University’s College of Medicine, and it is expected that the successful candidates will leverage this opportunity. The engineering programs at UVM have seen significant recent growth in undergraduate and graduate student enrollments and research funding, and that growth has accelerated with the introduction of new programs such as the biomedical engineering degrees. To support this growth, the University is undergoing its largest-ever capital project with the construction of the STEM Complex. The University is located in Burlington, Vermont, rated as one of the best small cities in America.

The University of Vermont is an Equal Opportunity/Affirmative Action Employer. Applications from women, veterans, individuals with disabilities and people from diverse racial, ethnic, and cultural backgrounds are
encouraged. The University is especially interested in candidates who can contribute to the diversity and excellence of the academic community through their research, teaching, and/or service. Applicants are requested to include in their cover letter information about how they will further this goal. In addition, the application package should include a detailed curriculum vitae, the names and contact information of at least three references, a statement describing current and future research activities and directions, and a statement describing teaching interests and teaching philosophy. A background check will be conducted on the final candidate. Evaluation of applications will begin December 15, 2017, and will continue until the position is filled. For further information, please email Katarina.Khosravi@uvm.edu. Applications must be submitted through the UVM website www.uvmjobs.com (Search posting #F934PO)).

6.31. Faculty: University of Minnesota, USA
Contributed by: Murti Salapaka, murtis@umn.edu

The Department of Electrical and Computer Engineering at the University of Minnesota – Twin Cities invites applications for faculty positions in Control systems.

For more details follow the link: https://ece.umn.edu/research/open-faculty-positions/.

The position invites applications at the assistant professor level. The Department of Electrical and Computer Engineering is fully committed to a culturally and academically diverse faculty; candidates who will further expand that diversity are particularly encouraged to apply.

Successful candidates will have outstanding academic and research records and are expected to establish a vigorous, funded research program, teach at the undergraduate and graduate levels, and be involved in service to the university and the profession.

An earned doctorate in an appropriate discipline is required at the time of the appointment. Rank and salary will be commensurate with qualifications and experience. Applications will be considered as they are received. Applications will be accepted until the positions are filled, but for full consideration, please apply online by December 15, 2017.

6.32. Faculty: TU Delft, the Netherlands
Contributed by: Jan-Willem van Wingerden, j.w.vanwingerden@tudelft.nl

Vacancy at the TU Delft (the Netherlands): Assistant/Associate Professor of Systems & Control

The 3mE Faculty trains committed engineering students, PhD candidates and post-doctoral researchers in groundbreaking scientific research in the fields of mechanical, maritime and materials engineering. 3mE is the epitome of a dynamic, innovative faculty, with a European scope that contributes demonstrable economic and social benefits.

The Delft Centre for Systems and Control (DCSC) coordinates the education and research activities in the fields of systems and control at the Delft University of Technology. The Centre’s mission is to conduct fundamental research in systems dynamics and control, involving dynamic modelling, advanced control theory, optimisation and signal analysis. This undertaking is motivated by advanced technology developments in several (emerging) application fields.

Within the data-driven control section of DCSC the focus is on the analysis and decision making for large-scale (in size), multi-disciplinary, dynamical systems. It addresses the question of what model complexity
is necessary for all individual system components in order to use data-driven models for reliable and robust model-based diagnostics, parameter estimation, monitoring and control.

Description:
Uncertainty quantification and disturbance modelling are essential parts of the data-driven control cycle of multi-disciplinary systems. They addresses the question of what is possible and what is important, respectively. Therefore, the combination of uncertainty descriptions with multi-disciplinary system models is essential to enable reliable, robust, and efficient decision making. This fundamental framework makes it possible to develop robust, data-driven control systems for demanding industrial application fields, including large-scale mechatronic systems, dynamic positioning systems, and ocean/-wind energy harvesting systems.

Currently, we seek an expert in the field of data-driven modelling and/or control with a solid background in the field of (robust) control engineering and/or nonlinear system identification.

Cooperation with other members of the scientific staff and establishing relationships with practitioners are important aspects of this position. You will also contribute to teaching at the MSc and BSc levels. Every new Assistant/Associate Professor is given a tenure-track position.

A tenure track, a process leading up to a permanent appointment with the prospect of becoming an Associate or full Professor, offers young, talented academics a clear and attractive career path. During the tenure track, you will have the opportunity to develop into an internationally acknowledged and recognised academic. We offer a structured career and personal development programme designed to offer individual academics as much support as possible. For more information about the tenure track and the personal development programme, please visit www.tudelft.nl/tenuretrack.

Requirements:
The successful candidate must have the following qualifications:

• A PhD degree in systems and control, applied mathematics, mechanical engineering, electrical engineering, or a related field
• Fundamental knowledge of control systems theory and/or system identification
• The capacity to communicate effectively with peers, students and stakeholders in the application field
• An excellent track record in scientific publications, acquisition and management of externally funded research projects, a clear view on required future developments, aiming at a high degree of sustainability in the application field, and experience as a post-doctoral researcher
• Fluency in English and the willingness to learn Dutch within three years
• An open personality and good communication skills in English.

Information and application
For more information about this position, please contact dr. J.W. van Wingerden, j.w.vanwingerden@tudelft.nl. To apply, please submit the following:
1) a detailed curriculum vitae that explicitly states your educational record, recent major achievements, list of publications,
2) a separate motivation letter stating why the proposed research topic interests you,
3) a vision on research and education, and
4) the names of three persons who could be contacted for a reference.

You may also include other information that might be relevant to your application. Please e-mail your application by 7 January 2018 to Irina Bruckner, application-3mE@tudelft.nl.

When applying for this position, please refer to vacancy number 3mE17-60.
Faculty Positions in Machine Learning, Data Science and Security at CU Boulder

The College of Engineering and Applied Science at the University of Colorado Boulder invites applications for two tenure-line faculty positions beginning Fall 2018. This is an interdisciplinary search in data science, machine learning, and security, conducted by the Departments of Computer Science, Electrical, Computer and Energy Engineering, and Aerospace Engineering Sciences. Candidates are encouraged to demonstrate interdisciplinary work and must clearly indicate their areas of relevant research expertise in their cover letters. Successful candidates will be rostered in suitable home departments within the College.

Candidates are expected to complement and strengthen the existing college research portfolio or develop new high-impact research directions. A demonstrated ability/record of excellence working with and contributing to a climate that attracts and supports students of all races, nationalities, and genders is expected. A successful candidate has a doctorate in computer science or engineering or a closely related scientific field, a significant commitment to scholarship, the potential to develop a successful externally funded research program, and ability to teach at both the undergraduate and graduate levels in computer science and engineering. One position is at the assistant professor level, and the other position is open as to rank.

By January 15, 2018, interested persons should apply through the web site http://www.cu.edu/cu-careers and submit electronic files (pdf format) containing a cover letter, curriculum vita, two-page statements of research and teaching interests, and the names, addresses, and telephone numbers of at least three professional references. Review of applications will begin immediately, and will continue until the positions are filled. Additional information regarding the College of Engineering search process as well as our research and academic programs can be found at http://www.colorado.edu/engineering/. The University of Colorado is an Equal Opportunity Employer committed to building a diverse workforce. We encourage applications from women, racial and ethnic minorities, individuals with disabilities and veterans. Alternative formats of this ad can be provided upon request for individuals with disabilities by contacting the ADA Coordinator at: hr-ada@colorado.edu. The University of Colorado Boulder is committed to providing a safe and productive learning and living community. To achieve that goal, we conduct background investigations for all final applicants being considered for employment.

Faculty Positions in Aerospace Engineering Sciences at the University of Colorado Boulder - Open Rank

The Ann and H.J. Smead Department of Aerospace Engineering Sciences in the College of Engineering and Applied Science at the University of Colorado Boulder invites applications for two tenure-track/tenured faculty position in all areas of aerospace engineering sciences.

The Department’s vision of successful candidates includes their potential for developing innovative and inspiring teaching and research programs that address relevant technical challenges, contribute to academia and the aerospace industry, and support diverse communities. For information about the department, please visit http://www.colorado.edu/aerospace.

These positions are targeted at the assistant professor level; other levels will be considered for experienced candidates with outstanding credentials. A Ph.D. degree in Aerospace Engineering or a related field is required.
Applicants are requested to indicate in the cover letter their main area of research, and to provide a curriculum vitae and statements of research and teaching interests, which may include the candidate’s experience and vision for working with and contributing to diverse communities. The names and contact information of four references should be included. The cover letter should be addressed to the Search Committee Chair Prof. Kurt Maute, Department of Aerospace Engineering Sciences, University of Colorado Boulder.

Review of applications will begin December 15, 2017 and continue until finalists are identified.

Qualifications

A Ph.D. degree in Aerospace Engineering or a related field is required.

Job posting links:
https://www.colorado.edu/aerospace/careers

6.35. Faculty: National Taiwan University, Taiwan

Contributed by: LiChen Fu, lichen@ntu.edu.tw

Faculty positions opening for Professor, Associate Professor and Assistant Professor:
Department of Electrical Engineering, National Taiwan University, Taiwan.

The Department of Electrical Engineering at National Taiwan University are opening applications for the faculty positions of Professor, Associate Professor and Assistant Professor. We are searching for highly qualified academics with enthusiasm in teaching and great potentials in research to contribute to the department. We welcome the applicants whose research interests lie in (but not limited to) the following areas of Electrical Engineering:
- Multi-Agent Systems
- Intelligent Robotics,
- Mechatronics,
- General Control Areas.

Please prepare the following materials for the on-line application process:
- A curriculum vitae, along with a full publication list and a teaching and research plan
- Reprints of 1-3 publications within the past 3 years
- Two or more reference letters (sent directly to us by your referees)
- A copy of the highest diploma granted (or a proof of Ph.D. degree to be granted by July 31, 2018)
- Original copies of undergraduate and graduate transcripts.

And please also send a hardcopy of your application materials to the following address by December 31, 2017:
Professor Chih-Wen Liu, Chairman
Department of Electrical Engineering, National Taiwan University, No. 1, Section 4, Roosevelt Road, Taipei 10617, Taiwan ROC.

To see more information about the application, please visit our website at:
https://ee.ntu.edu.tw/eeoffice/ntueejob/

For any questions, please contact our staff by the following information
e-mail: deptee@ntu.edu.tw
Tel.: +886-2-33663700 ext. 123 Fax: +886-2-23671909 URL: http://www.ee.ntu.edu.tw/
6.36. Faculty: University of Massachusetts Lowell, USA
Contributed by: Christopher Niezrecki, Christopher_Niezrecki@uml.edu

Assistant/Associate/Full Professors - Mechanical Engineering, University of Massachusetts Lowell

The Department of Mechanical Engineering at the University of Massachusetts Lowell is seeking to hire several full-time tenure-track faculty at the ranks of Assistant or Associate Professor; applications for Full Professor will also be considered for exceptional candidates. Applicants must have earned Doctoral degrees in mechanical engineering, or closely related disciplines, and are required to have a record of quality teaching and scholarship. Successful applicants will collaborate with existing faculty members, teach classes to support the undergraduate and graduate programs, develop new courses, advise and recruit graduate students, and are expected to develop a robust, externally funded research program in: Robotics and Autonomous Systems: dexterous manipulation, biomechanics, soft robotics, compliant robots for manufacturing, advanced networked control systems, multi-agent dynamic systems, cooperative robotics, cyber-physical systems, and exoskeletons to support robotic programs with a strong applied complement. Faculty will have the opportunity to work with the NERVE Center, a 10,000 sq. ft. robot testing facility, as well as the NASA Valkyrie humanoid robot. In cases of demonstrated outstanding research productivity and scholarship, an appointment with tenure may be considered.

To apply, visit: http://jobs.uml.edu. Applications received by December 15, 2017 will be considered in the first review of candidates. However, later applications may be considered for these positions. Each position will close after an adequate number of qualified applications is received. UMass Lowell is a Carnegie Doctoral High Research (RU/H) university ranked in the top tier of US News’ National Universities, and is strategically located 30 miles northwest of Boston in the northeast Massachusetts high-tech region. The department has over 900 undergraduate students and 150 graduate students. An optional co-op program is available to undergraduates. The undergraduate engineering program is based on a design-build-test methodology and is ABET accredited. The University of Massachusetts Lowell is committed to increasing diversity in its faculty, staff, and student populations, as well as curriculum and support programs, while promoting an inclusive environment. We seek candidates who can contribute to that goal and encourage candidates to apply and to identify their strengths in these areas.

6.37. Faculty: New York University, USA
Contributed by: Vikram Kapila, vkapila@nyu.edu

New York University, Tandon School of Engineering, Brooklyn, NY

Faculty Positions in Robotics

Mechanical and Aerospace Engineering and Electrical and Computer Engineering

New York University has multiple open tenured/tenure-track faculty positions in Robotics at its Tandon School of Engineering in the Departments of Electrical and Computer Engineering (ECE) and Mechanical and Aerospace Engineering (MAE) as part of a major multi-year growth initiative in robotics.

We seek applicants with outstanding research achievements and future promise in all areas of robotics, including, but not limited to, learning and perception for robotics, bio-inspired robotics, robotics for healthcare, autonomous vehicles, and soft robotics. Candidates must have a PhD degree in an engineering or related discipline, show evidence of the ability to pursue an independent and ambitious research program and a strong commitment to teaching.

The NYU Tandon School of Engineering strongly supports interdisciplinary research and has close collaborations with the Langone School of Medicine, the Courant Institute of Mathematical Sciences, NYU Abu
The faculty and students of the NYU Tandon School of Engineering are at the forefront of the high-tech start-up culture in New York City, and have access to and engage strongly with the school’s world-class research centers in cyber security (ccs.nyu.edu), wireless communications (nyuwireless.com), smart transportation, augmented and virtual reality, and AI and have access to a state-of-the-art MakerSpace.

Candidates should include a cover letter, curriculum vitae, research and teaching statements, and letters from at least three references. All application materials should be submitted electronically via https://apply.interfolio.com/46118.

Applications received by January 15, 2018 will receive full consideration.

6.38. Faculty: Delft University of Technology, the Netherlands
Contributed by: Rudy Negenborn, r.r.negenborn@tudelft.nl

3 Assistant/Associate Professorship Vacancies on Large-Scale Systems at Delft University of Technology

The Section of Transport Engineering & Logistics at Delft University of Technology (Faculty 3mE) is seeking 3 assistant or associate professors in the following domains:

* System Analysis and Design for Large-Scale Transport and Logistics – https://t.co/Zmo9h9J9P1
* Health Monitoring and Maintenance Strategies for Transport and Logistics – https://t.co/Qn8W9ETu79
* Kinematics and Dynamics of Large-Scale Mechanical Systems – https://t.co/3ukr1jEHzM

Application deadline: January 31, 2018.

You are kindly invited to forward this announcements to potential applicants.

More information: Prof. Rudy Negenborn (r.r.negenborn@tudelft.nl).

6.39. Research Scientist: Optikom, China
Contributed by: Daniel Chu, dchu@optikom.cn

A research scientist available at Optikom, Xiamen China

Responsibilities
1. Algorithm Development
2. Matlab/R Programming
3. On-site Commissioning
4. Be involved in the whole cycle of the software development: design, documentation, testing, alpha trial, beta trial, release, etc.
5. Customer support, Collaboration with oversea and domestic Universities
6. Publication and funding application

Requirements
1. Have the Ph.D. degree in the area of process control, applied mathematics, chemical engineering, computer science, or the other related area.
2. Be familiar with system identification, system failure prediction, abnormal detection, model based control, plant lifecycle management, and other related knowledge.
3. Will be an asset to have experience of industrial project commissioning
4. Will be an asset to have the experience with big data analysis
5. The candidate with strong interests on the industrial applications using complicated algorithm development is highly recommended to apply.

6. Fluent in both spoken and written Chinese

Interested applicants may send his/her CV to dchu@optikom.cn. Benefits included competitive salary package, plus health insurance and housing allowance. For more information check www.optikom.cn