

E-LETTER on Systems, Control, and Signal Processing

Issue 326

November 2015

Editor: [Maria Prandini](#)

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Welcome to the November issue of the Eletter, available electronically [here](#).

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The next Eletter will be mailed out in the beginning of December 2015.

Contents

1. IEEE CSS Headlines

- 1.1 IEEE Control Systems Society Publications Content Digest
- 1.2 IEEE Transactions on Automatic Control
- 1.3 IEEE Transactions on Control Systems Technology
- 1.4 IEEE Transactions on Control of Network Systems
- 1.5 IEEE Multi-Conference on Systems and Control

2. Books and Toolboxes

- 2.1 Humanitarian Engineering: Creating Technologies That Help People
- 2.2 Introduction to Type-2 Fuzzy Logic Control: Theory and Applications
- 2.3 Safe Robot Navigation Among Moving and Steady Obstacles
- 2.4 YALTA toolbox

3. Journals

- 3.1 Contents: Automatica
- 3.2 Contents: Journal of Automatica Sinica
- 3.3 Contents: Mathematics of Control, Signals, and Systems
- 3.4 Contents: Applied and Computational Mathematics an International Journal
- 3.5 Contents: Control Engineering Practice
- 3.6 Contents: Unmanned Systems
- 3.7 Contents: Asian Journal of Control
- 3.8 CFP: Asian Journal of Control
- 3.9 CFP: Transactions on Automation Science and Engineering

4. Conferences

- 4.1 International Carpathian Control Conference
- 4.2 Intelligent Autonomous Vehicles Symposium
- 4.3 Conference on Norbert Wiener in the 21st Century
- 4.4 Conference on Control and Fault-Tolerant Systems
- 4.5 World Congress: Mathematical Problems in Engineering, Aerospace and Sciences
- 4.6 International Conference on Control, Decision and Information Technologies

4.7 Intelligent Vehicles Symposium

5. Positions

- 5.1 Postgraduate/PhD positions: Università del Salento, Italy
- 5.2 PhD: KU Leuven, Belgium
- 5.3 PhD: New York University, USA
- 5.4 PhD: Illinois Institute of Technology, USA
- 5.5 PhD: Graz University of Technology, Austria
- 5.6 PhD: New York University, USA
- 5.7 PhD: University of Texas at San Antonio, USA
- 5.8 PhD: Chalmers University, Sweden
- 5.9 PhD: Technical University of Munich, Germany
- 5.10 PhD: University of Lorraine and French-German Research Institute of Saint-Louis, France
- 5.11 PhD: Leiden Observatory, The Netherlands
- 5.12 PhD: Lund University, Sweden
- 5.13 PhD: KTH Royal Institute of Technology, Sweden
- 5.14 Post-Doc: Clemson University, USA
- 5.15 Post-Doc: École Polytechnique Fédérale de Lausanne, Switzerland
- 5.16 Post-Doc: Illinois Institute of Technology, USA
- 5.17 Post-Doc: Delft University of Technology, The Netherlands
- 5.18 Post-Doc: Nanyang Technological University, Singapore
- 5.19 Post-Doc: University of Grenoble, France
- 5.20 Post-Doc: ETH Zürich, Switzerland
- 5.21 Post-Doc: Chalmers University of Technology, Sweden
- 5.22 Post-Doc: Nanyang Technological University, Singapore
- 5.23 Post-Doc: Technion - Israel Institute of Technology, Israel
- 5.24 Faculty: Central College, USA
- 5.25 Faculty: Massachusetts Institute of Technology, USA
- 5.26 Faculty: Virginia Tech, USA
- 5.27 Faculty: University of Michigan, USA
- 5.28 Faculty: University of California, USA
- 5.29 Faculty: Harbin Institute of Technology, Shenzhen Graduate School, China
- 5.30 Faculty: Technische Universität Ilmenau, Germany
- 5.31 Faculty: University of Pennsylvania, USA
- 5.32 Faculty: Washington University in St. Louis, USA
- 5.33 Faculty: University of Houston, USA
- 5.34 Faculty: Louisiana State University, USA
- 5.35 Faculty: University of California, Riverside, USA
- 5.36 Faculty: University of Virginia, USA
- 5.37 Faculty: Lehigh University, USA
- 5.38 Senior Researcher: NASA Langley Research Center, USA

1. IEEE CSS Headlines

1.1. IEEE Control Systems Society Publications Content Digest

Contributed by: Elizabeth Kovacs, ekovacs2@nd.edu

CSS Publications Content Digest 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](#)

1.2. IEEE Transactions on Automatic Control

Contributed by: Elizabeth Kovacs, ekovacs2@nd.edu

Table of Contents

IEEE Transactions on Automatic Control

Volume 60 (2015), Issue 11 (November)

Please note that the contents of the IEEE Transactions on Automatic Control, together with links to the abstracts of the papers may be found at the TAC web site: <http://www.nd.edu/ieeetac/contents.html>

- Scanning-the-Issue p. 2845

Papers

- Ancillary Service to the Grid Using Intelligent Deferrable Loads. S. P. Meyn, P. Barooah, A. Busic, Y. Chen, J. Ehren p. 2847
- A Distributed Algorithm for Solving a Linear Algebraic Equation. S. Mou, J. Liu, A. S. Morse p. 2863
- Asymmetric Volterra Models Based on Ladder-Structured Generalized Orthonormal Basis Functions. J. B. Machado, R. J. G. B. Campello, W.C. Amaral p. 2879
- A Multiparametric Quadratic Programming Algorithm with Polyhedral Computations Based on Nonnegative Least Squares. A. Bemporad p. 2892
- A Linear-Quadratic Optimal Control Problem of Forward-Backward Stochastic Differential Equations with Partial Information. G. Wang, Z. Wu, J. Xiong p. 2904
- Global Adaptive Dynamic Programming for Continuous-Time Nonlinear Systems. Y. Jiang, Z-P. Jiang p. 2917
- Input-to-State Stabilizing Control under Denial-of-Service. C. De Persis, P. Tesi p. 2930
- Fractional Order Differentiation by Integration and Error Analysis in Noisy Environment. D-Y. Liu, O. Gibaru, W. Perruquetti, T. M. Laleg Kirati p. 2945
- Bounded Model Checking of Hybrid Systems for Control. Y. Kwon, E. Kim p. 2961

Technical Notes and Correspondence

- Controllability Analysis of Two-dimensional Systems Using 1D Approaches. A. Argha, L. Li, S. W. Su, H. Nguyen p. 2977

- On the Decay Rates of Homogenous Positive Systems of any Degree with Time-Varying Delays. J-G. Dong p. 2983
- Classification-Based Approximate Policy Iteration. A-M. Farahmand, D. Precup, A. M.S. Barreto, Ghavamzadeh Mohammad p. 2989
- Uniform Tube Based Stabilization of Switched Linear Systems with Mode-Dependent Persistent Dwell-Time. L. Zhang, S. Zhuang, P. Shi, Y. Zhu p. 2994
- Distributed Seeking of Time-Varying Nash Equilibrium for Non-Cooperative Games. M. Ye, G. Hu p. 3000
- On the Stabilization of the Disk-Beam System via Torque and Direct Strain Feedback Controls. B. Chentouf, J-M. Wang p. 3006
- Convergence of an Upwind Finite-Difference Scheme for Hamilton-Jacobi-Bellman Equation in Optimal Control. B. Sun, B-Z. Guo p. 3012
- Critical Effects of the Polarity Change in Delayed States within an LTI Dynamics with Multiple Delays. Q. Gao, A. S. Kammer, U. Zalluhoglu, N. Olgac p. 3018
- Optimal Denial-of-Service Attack Scheduling with Energy Constraint. H. Zhang, P. Cheng, L. Shi, J. Chen p. 3023
- On the Necessity of Diffusive Couplings in Linear Synchronization Problems with Quadratic Cost. J. M. Montenbruck, G. S. Schmidt, G. S. Seyboth, F. Allgöwer p. 3029
- A Polynomial Approach to Robust Estimation of Uncertain Discrete-Time Systems. P. Neveux, E. Blanco p. 3035
- Sensor Placement for Fault Isolability Based on Bond Graphs. G. Chi, D. Wang p. 3041
- Average Consensus Over High-Order Multiagent Systems. H. Rezaee, F. Abdollahi p. 3047
- Consensus under Saturation Constraints in Interconnection States. Y-H. Lim, H-S. Ahn p. 3053
- A High-Gain Nonlinear Observer with Limited Gain Power. D. Astolfi, L. Marconi p. 3059
- Scalable Safety-Preserving Robust Control Synthesis for Continuous-Time Linear Systems. S. Kaynama, I. M. Mitchell, M. Oishi, G. A. Dumont p. 3065
- Networked Control with Stochastic Scheduling. K. Liu, E. Fridman, K. H. Johansson p. 3071
- Cone-Copositive Piecewise Quadratic Lyapunov Functions for Conewise Linear Systems. R. Iervolino, F. Vasca, L. Iannelli p. 3077
- Energy-Event-Triggered Hybrid Supervisory Control for Cyber-Physical Network Systems. X. Zeng, Q. Hui p. 3083
- Partially Informed Agents Can Form a Swarm in a Nash Equilibrium. A. Yildiz, A. B. Ozguler p. 3089
- Second-Order Integral Sliding Mode Control for Uncertain Systems with Control Input Time Delay Based on Singular Perturbation Approach. X. Zhang, H. Su, R. Lu p. 3095
- A Numerical Algorithm to find all Feedback Nash Equilibria in Scalar Affine Quadratic Differential Games. J. Engwerda p. 3101
- Distributed N-Player Approachability and Consensus in Coalitional Games. D. Bauso, G. Notarstefano p. 3107
- Model Predictive Tracking Control for Constrained Linear Systems Using Integrator Resets. N. Wada p. 3113
- Comment on "Further Enhancement on Robust H-infinity Control Design for Discrete-Time Singular Systems". X. Ji, M. Ren, H. Su p. 3119

- Authors' Reply to: Comment on "Further Enhancement on Robust H-infinity Control Design for Discrete-Time Singular Systems". M. Chadli, M. Darouach p. 3121

[Back to the contents](#)

1.3. IEEE Transactions on Control Systems Technology

Contributed by: Thomas Parisini, eic-ieeeetct@units.it

Table of Contents

IEEE Transactions on Control Systems Technology

Volume 23 (2015), Issue 6 (November)

Regular papers

- Piecewise Affine System Identification of a Hydraulic Wind Power Transfer System. M. Vaezi and A. Izadian, page 2077
- Self-Tuning Mechanism for the Design of Adaptive Secondary Mirror Position Control. G. Battistelli, D. Mari, A. Riccardi, and P. Tesi, page 2087
- Wind Tunnel Testing of Subspace Predictive Repetitive Control for Variable Pitch Wind Turbines. S. T. Navalkar, E. van Solingen, and J.-W. van Wingerden, page 2101
- Generic Nonsmooth H_∞ Output Synthesis: Application to a Coal-Fired Boiler/Turbine Unit With Actuator Dead Zone. I. U. Ponce, J. Bentsman, Y. Orlov, and L. T. Aguilar, page 2117
- Real-Time Model Predictive Control for Shipboard Power Management Using the IPA-SQP Approach. H. Park, J. Sun, S. Pekarek, P. Stone, D. Opila, R. Meyer, I. Kolmanovsky, and R. DeCarlo, page 2129
- Adaptive Control of a Recompression Four-Cylinder HCCI Engine. J. Larimore, S. Jade, E. Hellström, L. Jiang, and A. G. Stefanopoulou, page 2144
- Sampling-Based Learning Control for Quantum Systems With Uncertainties. D. Dong, M. A. Mabrok, I. R. Petersen, B. Qi, C. Chen, and H. Rabitz, page 2155
- Multiple-Loop Self-Triggered Model Predictive Control for Network Scheduling and Control. E. Henriksson, D. E. Quevedo, E. G. W. Peters, H. Sandberg, and K. H. Johansson, page 2167
- Phase-Lead Stabilization of Force-Projecting Master-Slave Systems With a New Sliding Mode Filter. R. Kikuuwe, K. Kanaoka, T. Kumon, and M. Yamamoto, page 2182
- Backstepping Control of Variable Stiffness Robots. F. Petit, A. Daasch, and A. Albu-Schäffer, page 2195
- Sliding Mode Control of a Hydraulically Actuated Load Application Unit With Application to Wind Turbine Drivetrain Testing. R. F. Schkoda, page 2203
- Optimal Real-Time Control of Wind Turbine During Partial Load Operation. Z. Ma, Z. Yan, M. L. Shaltout, and D. Chen, page 2216
- Analysis of Price of Anarchy in Traffic Networks With Heterogeneous Price-Sensitivity Populations. X. Wang, N. Xiao, L. Xie, E. Frazzoli, and D. Rus, page 2227
- Truncated Predictor Feedback for Periodic Linear Systems With Input Delays With Applications to the Elliptical Spacecraft Rendezvous. B. Zhou and Z.-Y. Li, page 2238
- Solving Multi-UAV Dynamic Encirclement via Model Predictive Control. A. T. Hafez, A. J. Marasco, S. N. Givigi, M. Iskandarani, S. Yousefi, and C. A. Rabbath, page 2251
- Adaptive Image-Based Trajectory Tracking Control of Wheeled Mobile Robots With an Uncalibrated Fixed Camera. X. Liang, H. Wang, W. Chen, D. Guo, and T. Liu, page 2266

- Design and Evaluation of an Automatic Extraventricular Drainage Control System. B. J. E. Misgeld, I. M. Elixmann, L. Fahnster, M. Walter, M. Weinzierl, W.-I. Steudel, and S. Leonhardt, page 2283
- Adaptive Road Profile Estimation in Semiactive Car Suspensions. J. C. Tudón-Martínez, S. Fergani, O. Sename, J. J. Martinez, R. Morales-Menendez, and L. Dugard, page 2293
- Composite Adaptive Internal Model Control and Its Application to Boost Pressure Control of a Turbocharged Gasoline Engine. Z. Qiu, M. Santillo, M. Jankovic, and J. Sun, page 2306
- Design of an Integral Suboptimal Second-Order Sliding Mode Controller for the Robust Motion Control of Robot Manipulators. A. Ferrara and G. P. Incremona, page 2316

Brief papers

- A Potential-Game Approach for Information-Maximizing Cooperative Planning of Sensor Networks. H.-L. Choi and S.J. Lee, page 2326
- Aerodynamic Shape Optimization via Global Extremum Seeking. K. W. Lee, W. H. Moase, S. Z. Khong, A. Ooi, and C. Manzie, page 2336
- A Robust Adaptive RBFNN Augmenting Backstepping Control Approach for a Model-Scaled Helicopter. Y. Zou and Z. Zheng, page 2344
- Modeling, Autopilot Design, and Field Tuning of a UAV With Minimum Control Surfaces. M. Liu, G. K. Egan, and F. Santoso, page 2353
- Robust Disturbance Rejection Control for Attitude Tracking of an Aircraft. L. Wang and J. Su, page 2361
- Recursive Digital Filters With Tunable Lag and Lead Characteristics for Proportional-Differential Control. H. Kennedy, page 2369
- Power Management for Electric Tugboats Through Operating Load Estimation. T. L. Vu, A. A. Ayu, J. S. Dhupia, L. Kennedy, and A. K. Adnanes, page 2375
- Improved Artificial Moment Method for Decentralized Local Path Planning of Multirobots. W.B. Xu, X.P. Liu, X. Chen, and J. Zhao, page 2383
- Vision-Based Tracking Control of Underactuated Water Surface Robots Without Direct Position Measurement. K. Wang, Y. Liu, and L. Li, page 2391
- Nonlinear Disturbance Observer-Based Dynamic Surface Control of Mobile Wheeled Inverted Pendulum. J. Huang, S. Ri, L. Liu, Y. Wang, J. Kim, and G. Pak, page 2400
- Generalized Predictive Control of Temperature on an Atomic Layer Deposition Reactor. W.J. He, H.T. Zhang, Z. Chen, B. Chu, K. Cao, B. Shan, and R. Chen, page 2408
- A Parallel Hybrid Electric Vehicle Energy Management Strategy Using Stochastic Model Predictive Control With Road Grade Preview. X. Zeng and J. Wang, page 2416
- A New Guidance Law for the Defense Missile of Nonmaneuverable Aircraft. R. Harini Venkatesan and N. K. Sinha, page 2424
- Rate-Dependent Modeling and H_∞ Robust Control of GMA Based on Hammerstein Model With Preisach Operator. Y. Guo, J. Mao, and K. Zhou, page 2432
- Invariant EKF Design for Scan Matching-Aided Localization. M. Barczyk, S. Bonnabel, J.-E. Deschaud, and F. Goulette, page 2440
- Integrated Servo-Mechanical Design of Robust Mechatronics Based on Ambiguous Chance Constraints. C. K. Pang, Y. Z. Tan, T. S. Ng, and T. H. Lee, page 2449
- 2015 INDEX, page 2457

1.4. IEEE Transactions on Control of Network Systems

Contributed by: Denise Joseph, dejoseph@bu.edu

Table of Contents

IEEE Transactions on Control of Network Systems

Volume 2 (2015), Issue 3 (September)

The contents of the IEEE-Transactions on Control of Network Systems, with links to the abstracts of the papers are available on <http://sites.bu.edu/tcns/tcns-september-2015/>

- Mean Square Performance and Robust Yet Fragile Nature of Torus Networked Average Consensus, Xu Ma, Nicola Elia, 216
- Distributed generator coordination for initialization and anytime optimization in economic dispatch, Ashish Cherukuri, Jorge Cortes, 226
- A Distributed Approach for the Optimal Power Flow Problem Based on ADMM and Sequential Convex Approximations, Sindri Magnusson, Pradeep Chathuranga Weeraddana, Carlo Fischione, 238
- The Price of Synchrony: Evaluating the Resistive Losses in Synchronizing Power Networks, Emma Tegling, Bassam Bamieh, Dennice Gayme, 254
- Local SIP Overload Control: Controller Design and Optimization by Extremum Seeking, Luca De Cicco, Giuseppe Cofano, Saverio Mascolo, 267
- Quadratically constrained quadratic programs on acyclic graphs with application to power flow, Subhmesh Bose, Dennice Gayme, K. Mani Chandy, Steven H. Low, 278
- Collective behavior for group of generic linear agents interacting under arbitrary network topology, Jiahu Qin, Changbin (Brad) Yu, Huijun Gao, 288
- Distributed stability tests for large-scale systems with limited model information, Frederik Deroo, Martin Meinel, Michael Ulbrich, Sandra Hirche, 298
- A Notion of Robustness in Complex Networks, Haotian Zhang, Elaheh Fata, Shreyas Sundaram, 310

[Back to the contents](#)

1.5. IEEE Multi-Conference on Systems and Control

Contributed by: Felice Andrea Pellegrino, fapellegrino@units.it

IEEE Multi-Conference on Systems and Control 2016

September 19-22, 2016

NH City & Towers Hotel, Buenos Aires, Argentina <http://www.msc2016.org>

The 2016 IEEE Multi-Conference on Systems and Control (MSC 2016) will take place in NH City & Towers Hotel, Buenos Aires, during September 19-22, 2016. MSC 2016 includes three international conferences sponsored by the IEEE Control Systems Society:

The IEEE Conference on Control Applications (CCA)

The IEEE International Symposium on Intelligent Control (ISIC)

The IEEE Conference on Computer Aided Control System Design (CACSD)

MSC 2016 areas of interest traditionally include a wide range of topics in control systems, technology, and applications. This year, in addition to such topics, we would like to address new and emerging research areas in control, such as cyber-physical systems, robotics, intelligent autonomous systems, computational intelligence, architectures for intelligent control, control inspired by systems biology, vision in control, and

control theory in psychology and sociology, as well as application of control theory in economics, next generation healthcare and healthcare delivery. Papers on control applications in new energy resources, and in energy grid control are welcome, as well as on networked control systems and cloud computing in control applications.

MSC 2016 will be a three-day event, preceded by a full day of Tutorials and Workshops. The conference proceedings will be included in IEEE Xplore and indexed by INSPEC and Ei-Compendex.

Important dates:

April 15, 2016: Contributed papers, Invited session proposals, Invited papers, Workshop proposals deadline

July 1, 2016: Notification of Acceptance/Rejection

July 15, 2016: Final submission and advance registration deadline.

All papers and session proposals must be submitted through the conference submission website <http://css.paperplaza.net> and must conform to the policy found at the conference web page requiring, in particular, that all submissions must be written in English.

More details can be obtained from the conference website: <http://www.msc2016.org>

General Co-Chair: Ricardo S. Sánchez Peña

General Co-Chair: Mario Sznaier

[Back to the contents](#)

2. Books and Toolboxes

2.1. Humanitarian Engineering: Creating Technologies That Help People

Contributed by: Kevin M Passino, passino@ece.osu.edu

Humanitarian Engineering: Creating Technologies That Help People

2nd Edition, Bede Pub., OH, 2015

Download at: <https://hebook.engineering.osu.edu>

Courses based on this book, see: <https://hecourse.engineering.osu.edu>(includes iTunesU and YouTube courses online)

Description: Poverty, underdevelopment, sustainability, culture, social justice, and development strategies.

Engineering for community development. A feedback control engineering perspective

[Back to the contents](#)

2.2. Introduction to Type-2 Fuzzy Logic Control: Theory and Applications

Contributed by: Hao Ying, hao.ying@wayne.edu

New book (IEEE Press Series on Computational Intelligence): "Introduction to Type-2 Fuzzy Logic Control: Theory and Applications"

Jerry Mendel, Hani Hagras, Woei-Wan Tan, William W. Melek and Hao Ying

Wiley-IEEE Press, 2014, hardcover, 376 pages, ISBN-10: 1118278399 and ISBN-13: 978-111827839

This book provides theoretical, practical and application coverage of the emerging field of type-2 fuzzy logic control. It uses a coherent structure and uniform mathematical notations to link chapters, which are closely related, reflecting the book's central themes - analysis and design of type-2 fuzzy control systems. The coverage provides both background and an extensive literature survey on fuzzy logic and related type-2 fuzzy control. The book is written with an educational focus rather than a pure research focus (as in the case of a research-oriented edited book). Each chapter includes worked examples, refers to its computer

codes (programs) accessible through the book's common web site, and outlines how to use them at some high level. In addition, each chapter provides comprehensive reference materials. One single index covers all the chapters. Written by world-class leaders in the field, the book is self-contained and a key resource for engineers, researchers, and college graduate students who want to learn type-2 fuzzy control theory and its applications and gain deep insights about type-2 fuzzy logic control.

Contents

Preface

1. Introduction

2. Introduction to Type-2 Fuzzy Sets

3. Interval Type-2 Fuzzy Logic Controllers

4. Analytical Structure of Various Interval Type-2 Fuzzy PI and PD Controllers

5. Analysis of Simplified Interval Type-2 Fuzzy PI and PD Controllers

6. On the Design of Interval Type-2 TSK Fuzzy Controllers

7. Looking Into the Future

Appendix T2 FLC Software: From Type-1 to zSlice Based General Type-2 FLCs

References

Index

[Back to the contents](#)

2.3. Safe Robot Navigation Among Moving and Steady Obstacles

Contributed by: Andrey V.Savkin, a.savkin@unsw.edu.au

New book: Safe Robot Navigation Among Moving and Steady Obstacles

A.S. Matveev, A.V. Savkin, M. Hoy and C.Wang

Elsevier, 2015 - 368 pp. ISBN: 978-0-12-803730-0

<http://store.elsevier.com/Safe-Robot-Navigation-Among-Moving-and-Steady-Obstacles/Andrey-Savkin/isbn-9780128037300/>

Description:

Safe Robot Navigation Among Moving and Steady Obstacles is the first book to focus on reactive navigation algorithms in unknown dynamic environments with moving and steady obstacles.

The first three chapters provide introduction and background on sliding mode control theory, sensor models, and vehicle kinematics. Chapter 4 deals with the problem of optimal navigation in the presence of obstacles. Chapter 5 discusses the problem of reactively navigating. In Chapter 6, border patrolling algorithms are applied to a more general problem of reactively navigating. A method for guidance of a Dubins-like mobile robot is presented in Chapter 7. Chapter 8 introduces and studies a simple biologically-inspired strategy for navigation a Dubins-car. Chapter 9 deals with a hard scenario where the environment of operation is cluttered with obstacles that may undergo arbitrary motions, including rotations and deformations. Chapter 10 presents a novel reactive algorithm for collision free navigation of a nonholonomic robot in unknown complex dynamic environments with moving obstacles. Chapter 11 introduces and examines a novel purely reactive algorithm to navigate a planar mobile robot in densely cluttered environments with unpredictably moving and deforming obstacles. Chapter 12 considers a multiple robot scenario.

This book offers accessible and precise development of important mathematical models and results. All the presented results have mathematically rigorous proofs. On the other hand, the Engineer in Industry can

benefit by the experiments with real robots such as Pioneer robots, autonomous wheelchairs and autonomous mobile hospital beds.

[Back to the contents](#)

2.4. YALTA toolbox

Contributed by: Catherine Bonnet, Catherine.Bonnet@inria.fr

YALTA: A Matlab Toolbox for the stability study of (possibly fractional) systems with commensurate delays given by their transfer function.

YALTA can be freely downloaded through <https://gforge.inria.fr/projects/yalta-toolbox/> (after creating an account on Inria Forge)

YALTA considers (possibly fractional) systems of retarded or neutral type and gives information on the position of their (high and small modulus) poles for a given delay. For systems which only have a finite number of unstable poles in an extended right half-plane, YALTA determines for which values of the delay the system is stable (stability windows), the position of unstable poles for a set of values of the delay (root locus) and for non fractional systems, coprime factors (N, D) of the transfer function as well as an approximation (Nn, Dn) in H_∞ -norm via a Pade2-scheme.

A GUI (graphical user interface) version of YALTA will be available soon.

[Back to the contents](#)

3. Journals

3.1. Contents: Automatica

Contributed by: Elisa Capello, automatica@polito.it

Table of Contents

Automatica

Vol. 61, November 2015

<http://www.sciencedirect.com/science/journal/00051098/61>

- Networked stabilization for multi-input systems over quantized fading channels, Guoxiang Gu, Shuang Wan, Li Qiu, pages 1-8.
- Robust stabilization criterion of fractional-order controllers for interval fractional-order plants, Zhe Gao, pages 9-17.
- Distributed control and optimization in DC microgrids, Jinxin Zhao, Florian Dörfler, pages 18-26.
- Optimal move blocking strategies for model predictive control, Rohan C. Shekhar, Chris Manzie, pages 27-34.
- Unknown input observer for linear time-delay systems, Gang Zheng, Francisco Javier Bejarano, Wilfrid Perruquetti, Jean-Pierre Richard, pages 35-43.
- A note on Wirtinger-type integral inequalities for time-delay systems, Éva Gyurkovics, pages 44-46.
- A robust globally convergent position observer for the permanent magnet synchronous motor, Alexey A. Bobtsov, Anton A. Pyrkin, Romeo Ortega, Slobodan N. Vukosavic, Aleksandar M. Stankovic, Elena V. Panteley, pages 47-54.
- Compositional performance certification of interconnected systems using ADMM, Chris Meissen, Laurent Lessard, Murat Arcak, Andrew K. Packard, pages 55-63.

- Robust cooperative control of multiple heterogeneous Negative-Imaginary systems, Jianan Wang, Alexander Lanzon, Ian R. Petersen, pages 64-72.
- Graph-theoretic analysis of network input-output processes: Zero structure and its implications on remote feedback control, Jackeline Abad Torres, Sandip Roy, pages 73-79.
- On primitivity of sets of matrices, Vincent D. Blondel, Raphaël M. Jungers, Alex Olshevsky, pages 80-88.
- Cooperative distributed stochastic MPC for systems with state estimation and coupled probabilistic constraints, Li Dai, Yuanqing Xia, Yulong Gao, Basil Kouvaritakis, Mark Cannon, pages 89-96.
- Zeros of networked systems with time-invariant interconnections, Mohsen Zamani, Uwe Helmke, Brian D.O. Anderson, pages 97-105.
- Set stability and set stabilization of Boolean control networks based on invariant subsets, Yuqian Guo, Pan Wang, Weihua Gui, Chunhua Yang, pages 106-112.
- Target-point formation control, Shaoshuai Mou, Ming Cao, A. Stephen Morse, pages 113-118.
- Neural-networked adaptive tracking control for switched nonlinear pure-feedback systems under arbitrary switching, Bin Jiang, Qikun Shen, Peng Shi, pages 119-125.
- Lyapunov-Krasovskii functionals for switched nonlinear input delay systems under asynchronous switching, Yue-E Wang, Xi-Ming Sun, Bao-wei Wu, pages 126-133.
- Robust tracking of piecewise linear trajectories with binary sensor networks, Er-wei Bai, Henry Ernest Baidoo-Williams, Raghuraman Mudumbai, Soura Dasgupta, pages 134-145.
- Continuous-time stochastic consensus: Stochastic approximation and Kalman-Bucy filtering based protocols, Huaibin Tang, Tao Li, pages 146-155.
- Synthesis of Petri net supervisors for FMS via redundant constraint elimination, Bo Huang, MengChu Zhou, GongXuan Zhang, pages 156-163.
- Continuous-switch piecewise quadratic models of biological networks: Application to bacterial growth, Alfonso Carta, Madalena Chaves, Jean-Luc Gouzé, pages 164-172.
- Linear matrix inequalities for globally monotonic tracking control, Emanuele Garone, Lorenzo Ntogramatzidis, pages 173-177.
- An algorithmic approach to identify irrelevant information in sequential teams, Aditya Mahajan, Sekhar Tatikonda, pages 178-191.
- Decentralized filtered dynamic inversion for uncertain minimum-phase systems, Jesse B. Hoagg, T.M. Seigler, pages 192-200.
- Escape time formulation of state estimation and stabilization with quantized intermittent communication, Chun-Chia Huang, Robert R. Bitmead, pages 201-210.
- Set-membership estimation of fiber laser physical parameters from input-output power measurements, Vito Cerone, Valentino Razza, Diego Regruto, pages 211-217.
- Stability, stabilization and image-gain analysis of periodic piecewise linear systems, Panshuo Li, James Lam, Kie Chung Cheung, pages 218-226.
- Further deleterious effects of the dissipation obstacle in control-by-interconnection of port-Hamiltonian systems, Meng Zhang, Romeo Ortega, Dimitri Jeltsema, Hongye Su, pages 227-231.
- Adaptive impulsive observers for nonlinear systems: Revisited, Wu-Hua Chen, Wu Yang, Wei Xing Zheng, pages 232-240.
- Codiagnosability and coobservability under dynamic observations: Transformation and verification, Xiang Yin, Stéphane Lafortune, pages 241-252.

- Formation control of a multi-agent system subject to Coulomb friction, Matin Jafarian, Ewoud Vos, Claudio De Persis, Arjan J. van der Schaft, Jacquélien M.A. Scherpen, pages 253-262.
- Model based peer-to-peer estimator over wireless sensor networks with lossy channels, Yuzhe Xu, Carlo Fischione, Alberto Speranzon, pages 263-273.
- Non-zero sum Nash Q-learning for unknown deterministic continuous-time linear systems, Kyriakos G. Vamvoudakis, pages 274-281.
- Submodularity and greedy algorithms in sensor scheduling for linear dynamical systems, Syed Talha Jawaid, Stephen L. Smith, pages 282-288.
- Mechanics, control and internal dynamics of quadrotor tool operation, Hai-Nguyen Nguyen, ChangSu Ha, Dongjun Lee, pages 289-301.
- An iterative partition-based moving horizon estimator with coupled inequality constraints, René Schneider, Ralf Hannemann-Tamás, Wolfgang Marquardt, pages 302-307.
- Model reduction for interval type-2 Takagi-Sugeno fuzzy systems, Hongyi Li, Shen Yin, Yingnan Pan, Hak-Keung Lam, pages 308-314.

[Back to the contents](#)

3.2. Contents: Journal of Automatica Sinica

Contributed by: Yan Ou, yan.ou@ia.ac.cn

Table of Contents

IEEE/CAA Journal of Automatica Sinica

Volume 2 (2015), Issue 4 (October)

Papers

- A Reduced Reachability Tree for a Class of Unbounded Petri Nets. S. G. Wang, M. D. Gan, M. C. Zhou, and D. You, page 345
- Cyber-Physical Systems as General Distributed Parameter Systems: Three Types of Fractional Order Models and Emerging Research Opportunities. F. D. Ge, Y. Q. Chen, and C. H. Kou, page 353
- Anti-windup-based Dynamic Controller Synthesis for Lipschitz Systems under Actuator Saturation. N. Z. Wang, H. L. Pei, and Y. Tang, page 358
- Linguistic Dynamic Modeling and Analysis of Psychological Health State Using Interval Type-2 Fuzzy Sets. H. Mo, J. Wang, X. Li, and Z. L. Wu, page 366
- Distributed Model Predictive Control with Actuator Saturation for Markovian Jump Linear System. Y. Song, H. F. Lou, and S. Liu, page 374
- A Systematic Approach for Designing Analytical Dynamics and Servo Control of Constrained Mechanical Systems. X. L. Liu, S. C. Zhen, K. Huang, H. Zhao, Y.-H. Chen, and K. Shao, page 382
- Function Observer Based Event-triggered Control for Linear Systems with Guaranteed L_∞ -Gain. P. Jia, F. Hao, and H. Yu, page 394
- Review Expert Collaborative Recommendation Algorithm Based on Topic Relationship. S. X. Gao, Z. T. Yu, L. B. Shi, X. Yan, and H. X. Song, page 403
- A Priority-aware Frequency Domain Polling MAC Protocol for OFDMA-based Networks in Cyber-physical Systems. M. Zheng, J. R. Lin, W. Liang, and H. B. Yu, page 412
- Security-aware Signal Packing Algorithm for CAN-based Automotive Cyber-physical Systems. Y. Xie, L. J. Liu, R. F. Li, J. Q. Hu, Y. Han, and X. Peng, page 422

- Security Risk Assessment of Cyber Physical Power System Based on Rough Set and Gene Expression Programming. S. Deng, D. Yue, X. Fu, and A. H. Zhou, page 431

Brief Paper

- Logic-based Reset Adaptation Design for Improving Transient Performance of Nonlinear Systems. X. Wang and J. Zhao, page 440

[Back to the contents](#)

3.3. Contents: Mathematics of Control, Signals, and Systems

Contributed by: Lars Gruene lars.gruene@uni-bayreuth.de

Table of Contents

Mathematics of Control, Signals, and Systems (MCSS)

Volume 27, Number 4, December 2015

<http://link.springer.com/journal/498/27/4>

- Input-to-state stability of Lur'e systems (open access), E. Sarkans & H. Logemann, 439-465
- On the existence of stabilising feedback controls for real analytic small-time locally controllable systems, Pantelis Isaiiah, 467-492
- Local nested transverse feedback linearization, Alireza Doosthoseini & Christopher Nielsen, 493-522
- Static state feedback linearization of nonlinear control systems on homogeneous time scales (open access), Zbigniew Bartosiewicz, Ülle Kotta, Maris Tönso & Małgorzata Wyrwas, 523-550
- Algebraic invariance conditions in the study of approximate (null-)controllability of Markov switch processes, Dan Goreac & Miguel Martinez, 551-578

[Back to the contents](#)

3.4. Contents: Applied and Computational Mathematics an International Journal

Contributed by: Fikret Aliev, chief.ed@acmij.az

Table of Contents

Applied and Computational Mathematics an International Journal

Vol.14, No.3, October 2015

Special Issue on Problems of Applied Analysis and Information

www.acmij.az

- Preface pages: 237
- Wei Miao, Gongfa Li, Guozhang Jiang, Yinfeng Fang, Zhaojie Ju, Honghai Liu. Optimal Grasp Planning of Multi-Fingered Robotic Hands: A Review; pages: 238-247
- S.I.A. El-Ganaini, M. Mirzazadeh, A. Biswas. Solitons and Other Solutions to Long-Short Wave Resonance Equation; pages: 248-259
- G.-W. Wang, T.Z. Xu, H.A. Zedan, R. Abazari, H. Triki, A. Biswas. Solitary Waves, Shock Waves and Other Solutions to Nizhniki-Novikov-Veselov Equation; pages: 260-283
- S. Alkan, A. Secer Solution of Nonlinear Fractional Boundary Value Problems with Nonhomogeneous Boundary Conditions; pages: 284-295

- T.E. Simos. Multistage Symmetric Two-Step P-Stable Method with Vanished Phase-Lag and its First, Second and Third Derivatives; pages: 296-315
- G. Abdel-Azim, S. Abdel-Khalek, A.S.F. Obada. A Novel Edge Detection Algorithm for Image Based on Non-Parametric Fisher Information Measure; pages: 316-327
- S.Abdel-Khalek, M. Abdel-Aty. Effects of Squeezing Parameter and Time Dependent Coupling on the Evaluation of the Entanglement Between Two Two-Level Atoms; pages: 328-335
- Mohamed A. Mabrok, Mohamed . A. Haggag, Ian. R. Petersen. System Identification Algorithm for Negative Imaginary Systems; pages: 336-348
- H. M. Srivastava, Zivorad Tomovski and Delco Leskovski. Some Families of Mathieu Type Series and Hurwitz-Lerch Zeta Functions and Associated Probability Distributions; pages: 349-380

Correspondence

- F.A. Aliev, V.B. Larin. Comment on “Youla-Like Parametrizations Subject to QI Subspace Constraints” by Serban Sabau, Nuno C. Martins; pages: 381-388

[Back to the contents](#)

3.5. Contents: Control Engineering Practice

Contributed by: Tobias Glück, cep@acin.tuwien.ac.at

Table of contents

Control Engineering Practice

Volume 44, November 2015

- Manhal Abouzlam, Régis Ouvrard, Driss Mehdi, Florence Pontlevoy, Bertrand Gombert, Nathalie Karpel Vel Leitner, Sahidou Boukari, A control for optimizing the advanced oxidation processes-Case of a catalytic ozonation reactor, Pages 1-9
- Wayne W. Weaver, Rush D. Robinett III, Gordon G. Parker, David G. Wilson, Distributed control and energy storage requirements of networked Dc microgrids, Pages 10-19
- Colin Waldman, Sabarish Gurusubramanian, Lisa Fiorentini, Marcello Canova, A model-based supervisory energy management strategy for a 12 V vehicle electrical system, Pages 20-30
- I. Mancisidor, X. Beudaert, A. Etxebarria, R. Barcena, J. Munoa, J. Jugo, Hardware-in-the-loop simulator for stability study in orthogonal cutting, Pages 31-44
- Antonio Frezzetti, Sabato Manfredi, Mario Pagano, A design approach of the solar harvesting control system for wireless sensor node, Pages 45-54
- Kresten K. Sørensen, Jakob Stoustrup, Thomas Bak, Adaptive MPC for a reefer container, Pages 55-64
- Evgeny Kharisov, Carolyn L. Beck, Marc Bloom, Design of adaptive controllers for human patient anesthesia, Pages 65-77
- Johannes Huber, Herbert Kopecek, Michael Hofbaur, Nonlinear model predictive control of an internal combustion engine exposed to measured disturbances, Pages 78-88
- Bei Sun, Weihua Gui, Yalin Wang, Chunhua Yang, Mingfang He, A gradient optimization scheme for solution purification process, Pages 89-103
- Henrik Mosskull, Performance and robustness evaluation of dc-link stabilization, Pages 104-116
- Yongsoo Kim, Cheeha Kim, Modeling and response time analysis of the Level 2 system for a continuous steel casting process, Pages 117-125

- Hajime Ase, Tohru Katayama, A subspace-based identification of Wiener-Hammerstein benchmark model, Pages 126-137
- Francis Valentinis, Alejandro Donaire, Tristan Perez, Energy-based guidance of an underactuated unmanned underwater vehicle on a helical trajectory, Pages 138-156
- V. Agrawal, B.K. Panigrahi, P.M.V. Subbarao, A unified thermo-mechanical model for coal mill operation, Pages 157-171
- B. Yang, L. Jiang, Wei Yao, Q.H. Wu, Perturbation estimation based coordinated adaptive passive control for multimachine power systems, Pages 172-192
- C. Pach, T. Berger, Y. Sallez, D. Trentesaux, Reactive control of overall power consumption in flexible manufacturing systems scheduling: A Potential Fields model, Pages 193-208
- A. Pawlowski, J.L. Mendoza, J.L. Guzmán, M. Berenguel, F.G. Ación, S. Dormido, Selective pH and dissolved oxygen control strategy for a raceway reactor within an event-based approach, Pages 209-218
- C. Roos, J.M. Biannic, A detailed comparative analysis of all practical algorithms to compute lower bounds on the structured singular value, Pages 219-230
- Guilherme V. Raffo, Manuel G. Ortega, Vicente Madero, Francisco R. Rubio, Two-wheeled self-balanced pendulum workspace improvement via underactuated robust nonlinear control, Pages 231-242
- Salam Hajjar, Emil Dumitrescu, Laurent Pietrac, Eric Niel, Synthesizing safe control-command systems out of reusable components, Pages 243-259

[Back to the contents](#)

3.6. Contents: Unmanned Systems

Contributed by: Ben M Chen, bmchen@nus.edu.sg

Table of Contents

Unmanned Systems

Vol. 3, No. 3, July 2015

- Self-Organizing Map for Fingerprinting-Based Cooperative Localization in Dynamic Indoor Environments, Wendong Xiao, Apostolia Papapostolou, Hakima Chaouchi, Ming Wei
- Genetic Fuzzy Trees and their Application Towards Autonomous Training and Control of a Squadron of Unmanned Combat Aerial Vehicles, Nicholas Ernest, Kelly Cohen, Elad Kivelevitch, Corey Schumacher, David Casbeer
- A Heuristic Mission Planning Algorithm for Heterogeneous Tasks with Heterogeneous UAVs, Jingjing Wang, Y. F. Zhang, L. Geng, J. Y. H. Fuh, S. H. Teo
- Monitoring an Advection-Diffusion Process Using Aerial Mobile Sensors, Joakim Haugen, Lars Imsland

Table of Contents

Unmanned Systems

Vol. 3, No. 4, October 2015

- Lane Marking-Based Vehicle Localization Using Low-Cost GPS and Open Source Map, Wenjie Lu, Sergio A. Rodríguez F., Emmanuel Seignez, Roger Reynaud
- Moving Object Detection in Real-Time Using Stereo from a Mobile Platform, Maxime Derome, Aurelien Plyer, Martial Sanfourche, Guy Le Besnerais

- A Real-Time Visual Tracking Approach Using Sparse Autoencoder and Extreme Learning Machine, Liang Dai, Yuesheng Zhu, Guibo Luo, Chao He, Hanchi Lin
- An Automatic Self-Calibration Approach for Wide Baseline Stereo Cameras Using Sea Surface Images, Han Wang, Wei Mou, Xiaozheng Mou, Shenghai Yuan, Soner Ulun, Shuai Yang, Bok-Suk Shin
- Vision-Based Iterative Trajectory Tracking for Industrial Manipulators, Bingxi Jia, Shan Liu, Yi Liu
- Learning Hidden Human Context in 3D Office Scenes by Mapping Affordances Through Virtual Humans, Lasitha Piyathilaka, Sarath Kodagoda

Unmanned Systems AeroLion Technologies Outstanding Paper Award:

The award is to recognize outstanding papers published in the Unmanned Systems. Sponsored by AeroLion Technologies Private Limited, the award consists of a cash prize up to US\$3,000 in total each year starting from 2015. The winners will be announced each year by December 1. Authors of papers published in Unmanned Systems during the two calendar years preceding the year of the award are eligible for the award. More information can be found at the journal website: <http://www.worldscientific.com/us/>.

[Back to the contents](#)

3.7. Contents: Asian Journal of Control

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

Table of Contents

Asian Journal of Control

Vol.17, No.6 November, 2015

- State and Output Feedback Certainty Equivalence M-MRAC for Systems with Unmatched Uncertainties. Vahram Stepanyan and Kalmanje Krishnakumar
- Geometric Approaches to State Feedback Control for Continuous and Switched Linear Systems. N. Bajcinca and D. Flockerzi
- Partially-observable stochastic hybrid systems (poshss) state estimation and optimal control. Weiyi Liu and Inseok Hwang
- Simultaneous Perturbation Stochastic Approximation with Norm-Limited Update Vector. Yosuke Tanaka, Shun-ichi Azuma and Toshiharu Sugie
- Synchronization of Heterogeneous Multi-Agent Systems by Adaptive Iterative Learning Control. Shiping Yang, Jian-Xin Xu, Deqing Huang and Ying Tan
- Controllability of Semilinear Systems of Parabolic Equations with Delay on the State. A. Carrasco, Hugo Leiva, N. Merentes and J. L. Sanchez
- New Integral Antiwindup Scheme for PI Motor Speed Control. C. L. Hoo, Sallehuddin Mohamed Haris, Edwin C. Y. Chung and Nik Abdullah Nik Mohamed
- Robust Reliable H_∞ Control for Discrete-Time Systems with Actuator Delays. Rathinasamy Sakthivel, Krishnan Sundaeswari, Kalidass Mathiyalagan, Arumugham Arunkumar and Selvaraj Marshal Anthoni
- A New Method for Getting Rational Approximation for Fractional Order Differintegrals. Ashwin S. Dhabale, Rutuja Dive, Mohan V. Aware and Shantanu Das Application Of H_2/H_∞ Technique To Aircraft Landing Control. Mihai Lungu and Romulus Lungu
- Stabilization of Single-Input LTI Systems by Proportional-Derivative Feedback. Taha H. S. Abdelaziz
- A Saturating Extension of an Output Feedback Controller for Internally Damped Euler-Lagrange Systems. Khoshnam Shojaei and Abbas Chatraei

- Composite State Feedback of the Finite Frequency H_∞ Control for Discrete-Time Singularly Perturbed Systems. Jing Xu, Chenxiao Cai and Yun Zou
- Actuator and Sensor Fault Reconstructions for Uncertain Lipschitz Nonlinear Systems Based on H_∞ Observers. Xiaohang Li, Fanglai Zhu and Liyun Xu
- Straight-Line Tracking Control of an Agricultural Vehicle with Finite-Time Control Technique. Yuexia Jiang, Shihong Ding, Dean Zhao and Wei Ji
- Improved Stabilization for Continuous Dynamical Systems with Two Additive Time-Varying Delays. Lian-glin Xiong, Yongkun Li and Weihong Zhou
- Output Feedback H_∞ Control for Discrete-time Mean-field Stochastic Systems. Limin Ma and Weihai Zhang
- Multiple Model Adaptive Estimator for Nonlinear System with Unknown Disturbance. Kai Xiong and Chunling Wei
- Immersion and Invariance Based Robust Adaptive Control of High-Speed Train with Guaranteed Prescribed Performance Bounds, Hengyu Luo, Hongze Xu and Xiangbin Liu
- Adaptive Control for Simultaneous Stabilization and Tracking of Unicycle Mobile Robots. Zhiqiang Miao and Yaonan Wang
- Short-Time Linear Quadratic Form Technique for Estimating Fast-Varying Parameters in Feedback Loops. Mohammad Reza Homaeinezhad, Iman Tahbaz-zadeh Moghaddam, Zahra Khakpour and Hosein Naseri
- Nonlinear Robust Adaptive Deterministic Control for Flexible Hypersonic Vehicles in the Presence of Input Constraint. Bailing Tian, Wenru Fan, Rui Su and Qun Zong
- Synchronization of Instantaneous Coupled Harmonic Oscillators With Communication and Input Delays. Liyun Zhao, Quanjun Wu, Hua Zhang and Jin Zhou
- Optimal Robust Control for Rigid Serial Manipulators: A Fuzzy Approach. Shengchao Zhen, Kang Huang, Hao Sun, Han Zhao and Ye-Hwa Chen
- Realization of FTA with High Tracking Accuracy in FSO. Chun Lei Lv, Yan Li, Yun Feng Zhang, Hui Lin Jiang and Shou Feng Tong

Brief Paper

- Adaptive Output Feedback Control for a Class of Uncertain Stochastic Nonlinear Systems With Unknown Time-Delays. Wenting Zha, Junyong Zhai and Shumin Fei
- Asymptotical Synchronization of Coupled Nonlinear Partial Differential Systems With Impulsive Effects. Kai-Ning Wu, Ya-Nan Zhu, Bor-Sen Chen and Yu Yao
- Convergence Analysis of Wireless Remote Iterative Learning Control Systems with Channel Noise. Lixun Huang, Yong Fang and Tao Wang
- Velocity Regulation in Pmsms Using Standard Field Oriented Control Plus Adaptation. F. Mendoza-Mondragón, V.M. Hernández-Guzmán and R.V. Carrillo-Serrano
- An Efficient Numerical Scheme for Solving Multi-Dimensional Fractional Optimal Control Problems With a Quadratic Performance Index. A. H. Bhrawy, E. H. Doha, J. A. Tenreiro Machado and S. S. Ezz-Eldien
- Sensorless Control of Induction Machine Supplied by Current Source Inverter. Marcin Morawiec
- Adaptive Motion/Force Tracking Control for a Class of Mobile Manipulators. Wei Sun and Yuqiang Wu
- Repetitive Learning Control Design and Period Uncertainties. C. M. Verrelli
- Latent-variable Nonlinear Model Predictive Control Strategy for a pH Neutralization Process. Qinghua Chi, Zhengshun Fei, Kangling Liu and Jun Liang

- Real-Time Results for High Order Neural Identification and Block Control Transformation Form Using High Order Sliding Modes. Sergio Alvarez Rodr guez, Carlos E. Casta eda Hdez, Onofre A. Morfin G., Francisco Jurado and P. Esquivel Prado
- Performance Limitation of Networked Systems with Network-Induced Delay and Packet-Dropout Constraints. Xi-Sheng Zhan, Tao Li, Zhi-Hong Guan, Tao Jiang and Xian-He Zhang
- Reset Control Systems With Time-Varying Delay: Delay-Dependent Stability And \mathcal{L}_2 Gain Performance Improvement. Guanglei Zhao and Jingcheng Wang

[Back to the contents](#)

3.8. CFP: Asian Journal of Control

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

Call for papers

Special issue on “Advances in Control and Optimization over Wireless Sensor and Actuator Networks”

<http://www.ajc.org.tw>

As different from traditional sensor networks which are deemed as open-loop information gathering systems, the emerging wireless sensor and actuator networks (WSANs) are closed-loop systems of wireless-capable sensors and actuators which can facilitate intimate interactions between human and the physical world. For their low cost, ease of maintenance, convenient upgrading and the ability to enhance system intelligence, WSANs have found promising applications in a variety of fields such as environment monitoring and control, building automation, industrial control, smart grid management, and intelligent transportation.

WSANs are an integrated technology of control and communication. However, control engineers and network experts often work separately to design control algorithms and communication protocols without closely examining their intimate interactions and interdependencies in WSANs, resulting in system overall performance underexplored.

WSANs are systems of heterogeneous sensors and actuators which call for joint control and optimization of issues such as task scheduling, node coordination and resource allocation. Also, large-scale WSANs call for distributed and cooperative control schemes where each node make decisions based on only limited local information. Recently, mobile WSANs are emerging where the network connectivity becomes dynamic and even stochastic. In such a dynamic environment, it calls for advanced control and optimization schemes with abilities such as mobility control, path planning, and robust control against topology dynamics.

This special issue seeks original contributions which address recent emerging issues of control and optimization over WSANs. We solicit on (but not limited to) the following topics:

Sensor-actuator and actuator-actuator coordination in WSANs, Estimation and control over wireless networks, Distributed and collaborative control over WSANs, Control and communication co-design in WSANs, Cross-layer optimization and resource allocation for WSANs, Wireless sensor/robot networks and mobile WSANs, Energy efficiency, security and privacy issues of WSANs, Emerging applications, simulation tools, experiments, test-beds and prototyping systems.

Guest Editors:

Prof. Xianghui Cao, School of Automation, Southeast University, China, xhcao@seu.edu.cn

Prof. Enrico Natalizio, Heudiasyc Lab, Universit  de Technologie de Compi gne, France, enrico.natalizio@hds.utc.fr

Prof. Jiming Chen, College of Control Science and Engineering, Zhejiang University, China, jmchen@iipc.zju.edu.cn

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Call for papers

Special Issue on “Theoretical and Practical Challenges in Learning Control”

<http://www.ajc.org.tw>

Learning control, including iterative learning control (ILC) and repetitive learning control (RLC), has been widely used in industry such as chemical reactors, batch processes, robotic manipulators, high precision CNC machining, hard disc drives, milling and laser cutting, traffic flow control systems, and rehabilitation robotic systems. Although learning control algorithms have been successfully applied to various engineered applications, there are still many challenges including the fundamental problem of robust design in the presence of model uncertainty, disturbance and noise, novel applications and the development of new analysis tools.

This special issue invites original articles that address both theoretical and application-oriented challenges in the area of learning control, including novel applications, performance improvement along iteration domain and time domain, new analysis tools, and any related technologies in learning control. Topics of potential interest include, but are not limited to: Robust design methods, Performance improvement, New stability/convergence analysis tools, Novel applications.

Guest Editors:

Prof. Ying Tan, Department of Electrical and Electronic Engineering University of Melbourne, VIC 3010, Australia, Email: yingt@unimelb.edu.au

Prof. Chris Freeman, Electronics and Electrical Engineering, School of Electronics and Computer Science, University of Southampton, Southampton, SO17 1BJ, UK, Email: cf@ecs.soton.ac.uk

Prof. Kira Barton, Department of Mechanical Engineering University of Michigan, United States, Email: bartonkl@umich.edu

How to submit:

Potential authors are encouraged to upload the electronic file of their manuscript (in PDF format) through the journal’s online submission website: <http://mc.manuscriptcentral.com/asjc>.

All submission should include a title page containing the title of the paper, an abstract and a list of keywords, authors’ full names and affiliations, complete postal and electronic address, phone and fax numbers. The contacting author should be clearly identified. For detailed submission guidelines, please visit <http://wileyonlinelibrary.com/journal/asjc>.

[Back to the contents](#)

3.9. CFP: Transactions on Automation Science and Engineering

Contributed by: Sergio Grammatico, s.grammatico@tue.nl

IEEE Transactions on Automation Science and Engineering, Special Issue on “Automation and Optimization for Energy Systems”

Introduction:

As innovative energy-related technologies are fast developing, new elements -such as unpredictable renewable energies (RE), plug-in electric vehicles (EV), smart electrical home appliances, energy efficient homes/buildings, distributed energy storage- are populating the electrical power grid. All these elements induce paradigm shifts in power grids, from producer-controlled structures to large, distributed and customer-interactive ones, enhancing the coupling between the physical and the information layers. In order to be effectively employed on a large scale, all these elements must rely on automation, as well as on optimization methods for efficient management and consumption of energy resources in variable and stochastic conditions.

Driven by these emerging technological changes, power grids will become complex and large-scale platforms with a growing need for automation and optimal energy management services.

Scope, Description, and More Information:

The goal of this special issue is to provide a forum of interaction between researchers and practitioners in the area of automation and optimization for energy systems. In this special issue, original papers with novel contributions in all aspects of automation and optimization for energy systems are invited. Topics of interest for this special issue include, but are not limited to:

Energy management systems for smart home/building automation; Demand response control and optimization for large-scale energy systems; Stochastic optimization methods for energy management in large-scale systems; Data-driven identification and big data analytics for large-scale energy systems; Communication and automation in energy management systems; Automation of energy management systems for microgrids; Energy management applications.

Application domains may include (but are not limited to) the following:

Smart homes/building automation; Plug-in electric vehicles; Power grids; Renewable energy sources; Electrical energy storage systems.

Important Dates;

- January 1, 2016: paper submission opening;
- March 1, 2016: paper submission deadline;
- July 1, 2016: completion of first round of reviews;
- October 1, 2016: completion of second round of reviews;
- January 15, 2017: final acceptance/rejection decisions;
- February 1, 2017: final accepted manuscripts submission deadline;
- April 1, 2017: tentative publication date.

Special Issue Guest Editors:

Prof. Mariagrazia Dotoli (Politecnico di Bari, Italy), e-mail: mariagrazia.dotoli@poliba.it;

Dr. Sergio Grammatico (Eindhoven University of Technology, The Netherlands), e-mail: s.grammatico@tue.nl;

Ing. Nicola Ciulli (Nextworks, SME, Italy), e-mail: n.ciulli@nextworks.it.

Submission Information:

Papers should be submitted to <http://mc.manuscriptcentral.com/t-ase> with a cover letter including the statement "This manuscript is submitted for the special issue on Automation and Optimization for energy systems". Authors must refer to the IEEE Transactions on Automation Science and Engineering author guidelines at

<http://www.ieee-ras.org/publications/t-ase/information-for-authors> for information on content and formatting of submissions.

For information purposes, prospective authors are encouraged to email to one of the guest editors abstracts of possible contributions including a cover letter with authors' contact information.

4. Conferences

4.1. International Carpathian Control Conference

Contributed by: Ivo Petras, ivo.petras@tuke.sk

2016 17th International Carpathian Control Conference (ICCC'2016)

Slovak Republic, High Tatras, Grandhotel Praha, May 29-June 1, 2016

Aim and scope:

The aim of the conference is to support exchange of information and experience in the field of automation of engineering and production, in research, applications, and education. The conference will enable presentation of most recent advances in complex automation, robotics, modelling, control of production and technological processes, including quality control systems oriented to environment, means of support, and information technologies.

The scientific program of the conference is divided in ten main areas, which will run in parallel:

1. Measurement, sensors, monitoring and diagnostic systems,
2. Identification, modeling, simulation of processes and systems,
3. Theory and application of control systems,
4. Automation, mechatronics, robotics,
5. Intelligent embedded systems, instrumentation and Internet of things (IoT),
6. Information systems (SCADA/HMI, GIS, MES) and their Internet support,
7. Engineering application of informatics,
8. Quality control systems (TQM), production management and industrial logistics,
9. Engineering education in control and computer systems,
10. Fractional calculus and its applications.

Important deadlines:

November 15, 2015 Registration and abstract submission.

January 15, 2016 Full papers submission for review.

February 15, 2016 Notification of acceptance/rejection (after review process).

March 1, 2016 Submission of final camera-ready papers.

March 11, 2016 The final registration card delivery, accommodation reservation and payment of the conference fee.

May 29-June 1, 2016 Conference negotiation.

More information on the conference web site: <http://www.tuke.sk/ICCC/>

[Back to the contents](#)

4.2. Intelligent Autonomous Vehicles Symposium

Contributed by: Paul G. Plöger, paul.ploeger@h-brs.de

2nd Call for Papers: Intelligent Autonomous Vehicles Symposium (IAV2016), Leipzig, Germany

IFAC 9th Symposium on Intelligent Autonomous Vehicles IAV 2016,

June 29 - July 1, 2016, Leipzig, Germany.

<http://iav2016.inf.h-brs.de>

Paper submission is open from papercept <http://ifac.papercept.net/conferences/scripts/start.pl#IAV16>

Objectives and Scope:

The symposium addresses topics in the field of Intelligent Autonomous Vehicles (IAV). It aims at the presentation of methods and/or innovative techniques to solve typical problems, to exemplify successful test cases or to document operational applications.

Modalities extend from land, sea, air and reach as far as space.

Involved target systems have been designed as multi vehicle compounds, swarms or networked platoons as well as individual carriers. The systems may perform domestic, service, field, maritime, ocean, air or even outer space related tasks.

The subjects of IAV expand from onboard control over interaction with its environment up till auxiliary support systems.

Key topics include but are not limited to:

- Navigation, Guidance and Control, e.g. motion control, controller design, modeling, stability analysis, trajectory tracking, path following and pose regulation.
- Sensing and Perception, e.g. sensors, including smart and networked sensors, integration of sensors, localization including SLAM, map building, recognition.
- Planning and Mission Control, e.g. local and global roadmap planning, task and motion planning, decision support systems, driver support systems, advanced driver assistance systems.
- Architectural Aspects of IAVs, e.g. for individual vehicles, for teams and swarms.
- Communication, Cooperation and Networking, e.g. multiple-vehicle systems, platoons and teams, vehicle to vehicle communication, operator or infrastructure communication, human-vehicle interaction.
- Applications, Execution and Use, e.g. transportation systems, land and ocean exploration, air and space applications, remote control, remote and local monitoring, tele-operation, fault detection, diagnosis and removal.

Important Dates:

Paper submission: November 15, 2015

Acceptance notification: February 15, 2016

Final paper submission: March 15, 2016

Submission Procedure:

To submit a paper, please follow the link “submissions” located on the top line of the conference website or directly under the papercept link <http://ifac.papercept.net/conferences/scripts/start.pl#IAV16>

Proposals for Invited Sessions are welcome and should be sent by email to the IPC-chairs by November 15th 2015. More detailed instructions are given below.

The proceedings of the Symposium will be published on-line on the <http://www.ifac-papersonline.net> website.

All participants of IAV2106 also have free access to RoboCup 2016, <http://www.robocup2016.org/en/>.

Giuseppe Oriolo and Paul Plöger

IPC co-chairs

<http://iav2016.inf.h-brs.de>

For further information on IAV2016, please contact the co-chairs paul.ploeger@h-brs.de, oriolo@dis.uniroma1.it, or contact marcel.zimmerling@h-brs.de.

[Back to the contents](#)

4.3. Conference on Norbert Wiener in the 21st Century

Contributed by: Valery Ugrinovskii, v.ugrinovskii@gmail.com

2016 IEEE Conference on Norbert Wiener in the 21st Century: Thinking Machines in the Physical World, 13-15 July 2016, Melbourne, Australia.

We invite you to participate in the 2nd IEEE Conference on Norbert Wiener in the 21st Century, to be held in Melbourne, Australia, 13-15 July 2016. The conference will focus on opportunities and threats presented by advances in cognitive computing, in the context of Wiener’s technical work and his concerns regarding technology and society. The conference follows the successful inaugural conference in Boston, June 2014.

The keynote speakers for 2016 conference will include Prof Thomas Kailath (Stanford University), Prof Brain

Anderson (Australian National University), Dr James Hughes (Trinity College, Hartford, Connecticut), Prof Mathukumalli Vidyasagar (University of Texas at Dallas).

We invite paper submissions that consider Wiener's work from perspectives across applied, hard, and social sciences, as well as the humanities, fine arts, and professional/industry practice. Conference topics will include:

- Cognitive computing in theory and practice.
- Wiener's fields of work (cybernetics, information theory, philosophy, life sciences, interval computation, fuzzy sets, Brownian motion, analysis under uncertainty...).
- Wiener's societal concerns (information ethics, innovation and economic development, robots and work, cyber warfare and crime, science fiction as social commentary, cybernetics and literature, art and design...)

Key dates:

- 1 Dec 2015: Deadline for special session proposals.
- 14 February 2016: Deadline for full papers for peer review (6 pages, IEEE format), Abstract (2 pages).
- 30 Apr 2016: Deadline for final camera-ready copy of full papers.

For more details, please visit <http://21stcenturywiener.org>. To download the call for papers, please follow the link <http://21stcenturywiener.org/instructions-to-authors-and-students-2/> . To submit a paper, follow <http://controls.papercept.net/>

[Back to the contents](#)

4.4. Conference on Control and Fault-Tolerant Systems

Contributed by: Christophe Aubrun, christophe.aubrun@univ-lorraine.fr

SysTol'16: 3rd Conference on Control and Fault-Tolerant Systems

September 7-9, 2016 - Barcelona, Catalonia, Spain (<http://systol16.cs2ac.upc.edu>)

The two previous editions of the International Conference on Control and Fault-Tolerant Systems (Systol'10 and Systol'13) were a success and demonstrated the demand for establishing a permanent scientific forum in the general area of system monitoring, fault diagnosis and fault-tolerant control. The third conference on Control and Fault-Tolerant Systems (Systol'16), through its technical program, will provide a unique opportunity for the academic and industrial community to formulate new challenges, share solutions and discuss future research directions.

Faults/failures in technical systems may have many undesired consequences as damage to technical parts of plants, endangering of human life or pollution of the environment. Equipment failures may also have profound negative impact on production costs and product quality. The development of fault diagnosis methods allowing early detection of faults/failures is crucial in order to protect complex manufacturing machineries, to increase human life safety and to support decision making on emergency actions and repairs. Moreover, in highly automated industrial systems where maintenance or repair cannot be carried-out immediately, it is crucial to employ fault-tolerant control systems capable of ensuring acceptable performance even in the presence of faults. The conference will bring together academics, engineers and practitioners active in the fields of fault diagnosis, fault tolerant control and their application in process monitoring and maintenance.

Important Dates:

Invited session proposals, Workshop/Tutorial proposals due: March 7, 2016

Contributed papers, Invited session papers due: March 14, 2016

Notification of acceptance/rejection: June 1, 2016

Final submission and on-line registration, due: July 4, 2016

Paper Submission:

All papers accepted and presented at SYSTOL'16 will be published in the conference proceedings, and included in the IEEE Xplore on line digital library and EI Compendex database.

All papers must be submitted and uploaded electronically. Go to <http://www.controls.papercept.net> Click on the link "submit a contribution to SysTol'16" and follow the steps.

[Back to the contents](#)

4.5. World Congress: Mathematical Problems in Engineering, Aerospace and Sciences

Contributed by: Seenith Sivasundaram, seenithi@gmail.com

World Congress: Mathematical Problems in Engineering, Aerospace and Sciences

05-08 July 2016

La Rochelle, France, University of La Rochelle

Website: <http://www.icnpaa.com>

<http://www.internationalmathematics.com/icnpaa/>

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

[Back to the contents](#)

4.6. International Conference on Control, Decision and Information Technologies

Contributed by: Achraf Jabeur Telmoudi, achraf.telmoudi@yahoo.fr

CoDIT'16 : 2016 International Conference on Control, Decision and Information Technologies

April 6-8, 2016 - Malta

Website: www.codit2016.com

CFP: <http://codit2016.com/CFP-CoDIT2016.pdf>

This conference is an occasion to form and establish networks, to interact with scientists and invited speakers from all over the world, and to attend highly qualified scientific sessions. CoDIT'16 aims to bring together researchers, computer scientists, engineers, mathematicians and industrial scientists to exchange their research results and experiences about all aspects (theory, applications and tools) of Control, Decision-Optimization and Information Technologies.

Topics of interest include, but are not limited to, the following:

Track I. Control and Automation

Track II. Decision and Optimization

Track III. Information Technologies and Computer Science

Important Dates:

Special Session proposal: November 20, 2015

Deadline for submission of papers: December 7, 2015

Notification: February 2, 2016

Papers presented will be published on IEEE Xplore.

Selected papers will be published in "Procedia Engineering" (Indexed in Scopus):

http://www.elsevier.com/wps/find/journaldescription.cws_home/719240/description#description

[Back to the contents](#)

4.7. Intelligent Vehicles Symposium

Contributed by: Jonas Sjöberg, jonas.sjoberg@chalmers.se

2016 IEEE Intelligent Vehicles Symposium (IV'16)

June 19-22, 2016

Lindholmen Science Park, Gothenburg, Sweden

www.iv2016.org

The Intelligent Vehicles Symposium (IV'16) is a premier forum sponsored by the IEEE Intelligent Transportation Systems Society (ITSS). Researchers, engineers, practitioners, and students, from industry, universities and government agencies are invited to present their latest work and to discuss research and applications for Intelligent Vehicles and Vehicle-Infrastructure Cooperation. Technical sessions, workshops, poster sessions, exhibition, and technical visits will be organized. The IV'16 is hosted by Chalmers University of Technology and SAFER Vehicle and Traffic Safety Centre.

Gothenburg is a perfect city for the symposium because it is the centre of automotive industry in Sweden, with headquarters of Volvo Group, Volvo Cars, and the supplier Autoliv, and where many international companies and academia have their development and research base.

January 22, 2016: Paper submission deadline (Note, this is the FINAL extension)

January 22, 2016: Special/Tutorial Sessions/Workshop Proposal deadline

[Back to the contents](#)

5. Positions

5.1. Postgraduate/PhD positions: Università del Salento, Italy

Contributed by: Giuseppe Notarstefano, [Giuseppe Notarstefano](#)

Postgraduate (toward PhD) research positions will be soon available within the ERC Starting Grant project OPT4SMART. Research will be conducted at the Università del Salento (Lecce, Italy), under the supervision of Prof. Giuseppe Notarstefano.

About the position:

We are looking for motivated, talented graduate students from all over the world, who wish to:

- undertake PhD research at the cutting edge of optimization and control in cyber-physical networks;
- contribute to the startup of an excellent, international new research group;
- study in one of the most beautiful Italian cities with a great quality of life.

The candidate will be enrolled for 1 year as a postgraduate and will have the possibility to apply for a 3 years PhD position according to the application procedure at Università del Salento. If eligible for the PhD program, the post-graduate will be enrolled as a PhD student and will be required to spend periods abroad to improve her/his education and to foster ongoing collaborations with world-class, international research groups.

About OPT4SMART (Distributed optimization methods for smart cyber-physical networks):

OPT4SMART is a 5 years research project funded under the EU Horizon 2020 excellence program “ERC Starting Grant”, <http://erc.europa.eu>, supporting investigator-driven frontier research on the basis of scientific excellence. OPT4SMART will investigate a novel distributed, large-scale optimization framework and its application to big-data estimation, learning, decision and control problems in cyber-physical networks.

Who should apply:

The desired candidate holds a Master degree (or equivalent, giving access to doctoral studies) in Engineering (preferably ECE, ME, AE), (Applied) Mathematics or related fields, and has

- an excellent academic record showing excellent analytical skills;
- a strong mathematical background including optimization and preferably systems and control theory;
- strong interest in optimization and at least one of: control theory, estimation, machine learning;
- proficiency in oral and written English.

The above skills and background should clearly appear from the candidate CV, from the bachelor and master records and from the master thesis.

Contact: For information about the positions and the official calls you can send an email to giuseppe.notarstefano@unisalento.it with subject “OPT4SMART PhD-student last-name”.

See also http://cor.unisalento.it/notarstefano/opt4smart/PhD_OPT4SMART_flyer.pdf

[Back to the contents](#)

5.2. PhD: KU Leuven, Belgium

Contributed by: Jan Swevers, jan.swevers@mech.kuleuven.be

Two fully funded open PhD positions at KU Leuven, Department of Mechanical Engineering on Robust optimal feedback control of multivariate mechatronic systems

The KU Leuven (Belgium), Department of Mechanical Engineering is searching for two young, motivated and skilled PhD researchers with a strong background in systems, control, numerical optimization and mechatronics.

Research project: Many companies are dealing with systems consisting of interacting subsystems that exhibit complex dynamic behaviour. The current industrial control practice for these systems is often a decoupled PID-like control approach that focuses on controlling each subsystem separately. Due to its limited number of degrees of freedom, decoupled PID control fails to address the complex behaviour of systems of subsystems as a whole, as well as uncertain system dynamics or systems with varying dynamics. Consequently, the robustness and performance that is achievable with the current industrial control approach is limited and insufficient to meet the continuously increasing economic (installation and operation costs vs. productivity/profit), and ecologic demands.

With this research project we want to take a first step in establishing a new industrial control practice that will enable companies to find economic solutions to control complex systems of interacting subsystems. The current state-of-the-art in control design can cope with complex system dynamics and uncertainty, but fails

to make its way to industry mainly because it ignores the economic aspects of more advanced controllers, that is, their implementation cost, which is related to the complexity of the control configuration (the number and type of sensors and actuators and the complexity of the control architecture) and the complexity to design and tune these controllers.

Therefore, in this research project, we will develop methods and software (i) to design simple controllers compatible with industrial control hardware that can cope with complex system dynamics and uncertainty and (ii) to optimize the control configuration in order to manage the costs and pay-back time of a more involved control configuration, and find a good trade-off between costs and benefits (improved performance and robustness). In addition, we will develop a user-friendly design interface that automates the design and supports use by non-experts. In order to safeguard the practical viability of the developments, we will validate the software developments continuously throughout the project on experimental test setups and models of industrial cases, which are selected in agreement with and based on the input from our industrial project partners.

For this ambitious research project, we are searching for two young, motivated and skilled PhD researchers. One researcher (PhD 1) will focus on the development of methodologies and software to design robust optimal controllers for a given control configuration. The other researcher (PhD 2) will focus on the development of methodologies and software to optimize the control configuration and on the experimental validation of the design methods. Both researchers will be involved in the development of the user interface. Also see http://www.mech.kuleuven.be/en/pma/research/meco/vacancies/pdfs/rocsis_phd_positions.pdf

The research will be carried out in the MECO research group at the Division PMA of the Department of Mechanical Engineering, KU Leuven, Leuven, Belgium (<http://www.mech.kuleuven.be/en/pma/research/meco>) in cooperation with Flanders Make (<http://www.flandersmake.be/>).

Candidate profile: An ideal candidate for the first position (PhD1) has a MSc degree in applied mathematics or engineering, a strong background in control, numerical optimization and programming (Matlab, C/C++). An ideal candidate for the second position (PhD2) has a MSc degree in engineering and a strong background in control, mechatronics, programming (Matlab, C/C++), a strong interest to work on and experience with industrial mechatronic test cases. Both candidates should have an enthusiasm for scientific research. Proficiency in English is a requirement for both candidates and applicants whose mother tongue is neither Dutch nor English must present an official language test report. Acceptable tests are TOEFL and Academic IELTS. Required minimum scores are:

- TOEFL: 610 (paper-based test), 102 (internet-based test)
- IELTS: 7.5 (only Academic IELTS test accepted)

Apply now. A start date in course (Preferably at the beginning) of 2016 is to be agreed upon. To apply, send an email to Prof. Dr. Jan Swevers (rocsis@kuleuven.be). The subject of your email should be: "ROCSIS PhD1 application" or "ROCSIS PhD2 application". Include:

- an academic CV
- a pdf of your diplomas and transcript of course work and grades
- statement of research interests and career goals
- sample of technical writing
- list of at least two referees: names and email addresses
- proof of English language proficiency test results.

[Back to the contents](#)

5.3. PhD: New York University, USA

Contributed by: Tao Bian, tbian@nyu.edu

The Department of Electrical and Computer Engineering at New York University, Tandon School of Engineering, is looking for outstanding Ph.D. candidates in the following fields:

1. Computational neuroscience.
2. Intelligent transportation systems and control design.
3. Cyber-physical systems.

Selected candidates will work at the control and networks (CAN) lab under the supervision of Prof. Zhong-Ping Jiang. Applicants are expected to have strong background in mathematical control theory, optimization or stochastic systems. Preference will be given to candidates who have prior MS research and/or research publications in these areas.

Scholarships covering the cost of full tuition and stipends at a competitive rate, will be available to successful candidates.

Interested individuals should apply officially to NYU Tandon School of Engineering via <http://engineering.nyu.edu/admissions/graduate>. Also, please mention your interest in our research projects in the personal statement. Applicants should also send their curriculum vitae, copies of their recent transcripts to Mr. Tao Bian at the following email address: tbian@nyu.edu.

[Back to the contents](#)

5.4. PhD: Illinois Institute of Technology, USA

Contributed by: Ali Cinar, cinar@iit.edu

Doctoral student positions - Fall 2016

Illinois Institute of Technology

Doctoral student positions in system identification, adaptive predictive control, and fault detection and diagnosis with application to artificial pancreas control systems are available in the Process Modeling, Supervision and Control Laboratory of Ali Cinar at Illinois Institute of Technology. The start date is Summer or Fall 2016 semester.

The candidates can be enrolled in the PhD program in Chemical Engineering or Biomedical Engineering (more appropriate for students in Biomedical, Electrical or Systems Engineering or related disciplines). The candidates are expected to have strong interest in some of the following areas modern control techniques, system identification, and fault detection and diagnosis techniques. Good computer programming skills and expertise in Matlab are expected, and knowledge of Java programming is desirable. Candidates with a master degree must have solid foundation in some of areas listed above and should submit their publications and samples of their programming work in these areas.

Interested applicants should send a detailed curriculum vita, publications and a list of three references to Dr. Ali Cinar (cinar@iit.edu).

[Back to the contents](#)

5.5. PhD: Graz University of Technology, Austria

Contributed by: Martin Horn, martin.horn@tugraz.at

10 PhD Positions in “Dependable Internet of Things”, Graz University of Technology, Austria

Graz University of Technology (TU Graz) has recently established an Excellence Research Center entitled “Dependable Internet of Things in Adverse Environments”, for further information see <http://dependablethings.tugraz.at>.

The mission of this long-term center is to foster a highly interdisciplinary research team spanning the computer science and electrical engineering faculties to lay the scientific foundations for an Internet of Things that is highly reliable, safe, and secure in order to enable critical applications that require guaranteed performance even in adverse environments.

The center is seeking to fill 10 PhD positions with excellent candidates, who will work closely together in four subprojects that focus on the following topics:

- Dependable Wireless Communication and Localization (three positions in wireless networking, physical layer signal processing, and tunable microwave frontends)
- Dependable Embedded Computing (two positions in embedded hardware and software with a focus on security and real-time operating systems)
- Dependable Composition of Smart Things (three positions in model checking, model-based testing, and machine learning)
- Dependable Networked Control (two positions in control theory and information theory)

Applicants must hold a Master degree (or equivalent) in computer engineering, computer science, or electrical engineering before they can take on the position.

Proficiency in the English language (spoken and written) is required. Applicants should be highly motivated, have initiative and responsibility, be able to work independently and in an interdisciplinary team, should have interest in scientific research, should have commitment to publish research results and to obtain a doctoral degree.

The positions are to be filled from January 1, 2016 with an initial appointment for three years. The position is remunerated according to the collective contract (Kollektivvertrag) for Austrian Universities, i.e., the salary amounts to at least 37.280Euros/year before taxes and may increase depending on prior experience. TU Graz aims to increase the number of female employees and therefore specifically invites qualified women to apply.

TU Graz is a leading technical university in Austria (ranking 151-200 in the world in engineering in the Shanghai Ranking) in a medium-sized city with a very high quality of life, located at the south-eastern foot of the Alps, offering plentiful recreation opportunities.

Applicants should fill in the application form at <http://dependablethings.tugraz.at/jobs> and upload it together with a transcript of records, a copy of the master’s degree, a recent certificate of the level of proficiency of the English language, and a copy of the master’s thesis at

<https://easychair.org/conferences/?conf=dependablethings2016>. The application deadline is November 30, 2015.

For further information please contact the center coordinator Prof. Kay Römer roemer@tugraz.at.

[Back to the contents](#)

5.6. PhD: New York University, USA

Contributed by: Quanyan Zhu, qz494@nyu.edu

Research assistantships are available for doctoral level studies in the Department of Electrical and Computer Engineering at New York University for Fall 2016.

We are looking for a motivated, talented student, who wish to undertake PhD research at the cutting edge of automatic control; and optimization. Provided that the applicant is admitted to candidacy in the Ph.D. program at NYU, the appointment will be for up to 5 years.

The desired candidate holds a B.S. or M.S. degree in engineering or mathematics or a related field, and has a strong academic record showing excellent analytical skills; a strong mathematical background including systems and control theory; proficiency in Matlab; proficiency in oral and written English. For more information, please contact: Prof. Quanyan Zhu, Electrical and Computer Engineering, NYU, 11201.

[Back to the contents](#)

5.7. PhD: University of Texas at San Antonio, USA

Contributed by: Yongcan Cao, yongcan.cao@utsa.edu

Fully funded PhD positions are available starting Fall 2016 in distributed data-driven control for heterogeneous vehicles with focus on cooperative control, distributed optimization, sensor fusion, machine learning, and motion planning. Research will be conducted in the Department of Electrical and Computer Engineering, University of Texas at San Antonio (UTSA), under the supervision of Dr. Yongcan Cao.

Position description:

Required

- A Bachelor's degree in electrical engineering, computer science, mechanical engineering, aerospace engineering, or a related field;
- Strong background in systems and control theory and signal processing;
- Excellent writing and communication skills;
- Proficiency in Matlab and C++.

Preferred

- Master's degree;
- Experience in Robot Operating System, machine learning, and computer vision;
- Hands-on experience in UAVs or ground robots;
- Demonstrated research experience (i.e., a good publication record).

As a minority institution, we welcome applications from underrepresented students such as African American, Hispanic, and Native American students.

If you are interested, please send the following documents

- One page cover letter describing your interest, goal, and how your background fits well;
- CV or resume;
- Transcripts;

in a single PDF file to yongcan.cao@utsa.edu.

About UTSA and San Antonio

Established in 1969, UTSA is the largest university in the San Antonio area with over 28,000 students enrolled. It was selected by Times Higher Education as one of the best universities in the world under 50 years old. UTSA has evolved to be one of the largest institutions within the University of Texas system.

San Antonio, officially the City of San Antonio, is the seventh most populated city in the United States of America and the second most populated city in the state of Texas. It is notable for Spanish colonial missions,

the Alamo, the River Walk, the Tower of the Americas, the Alamo Bowl, and Marriage Island. Commercial entertainment includes SeaWorld and Six Flags Fiesta Texas theme parks, and according to the San Antonio Convention and Visitors Bureau, the city is visited by about 26 million tourists a year. The city is home to the five-time NBA champion San Antonio Spurs.

[Back to the contents](#)

5.8. PhD: Chalmers University, Sweden

Contributed by: Jonas Sjöberg, jonas.sjoberg@chalmers.se

Topic: Control of Autonomous Vehicles in Complex Traffic with Safety Constraints

The PhD position is at the Signal & Systems Department at Chalmers University, Sweden.

Starting 1 February 2016.

Position Description:

The goal for the PhD project is to further develop control algorithms for safe and energy efficient path planning and decision taking in autonomous driving. This will be done with the use of model-based control techniques that incorporate predictive information. This is, typically, done with model predictive controllers (MPCs) operating in real-time, which in most cases entails a tradeoff between computational demands and optimality. This project will focus on addressing this tradeoff by looking beyond the standard MPC techniques of linearization. Techniques, such as convex relaxations, time-to-space transformations, variable changes, model abstractions, approximations and bi-level optimization will be of main interest.

The project will heavily rely on applied non-linear programming and direct and indirect optimal control.

Who should apply:

By the starting date, the applicant should have a Master of Science degree or equivalent in Electrical Engineering, Engineering Physics, Mechanical Engineering, Applied Math or in a related discipline. A successful applicant should have a strong background in control theory and optimization and be familiar with system modelling tools. Programming skills in Matlab are required and in C/C++ are welcome. A genuine interest and curiosity in the subject, excellent oral and written English communication skills are needed.

More information:

<http://www.chalmers.se/en/about-chalmers/vacancies/Pages/default.aspx?rmpage=job&rmjob=3484>

Contact: Professor Jonas Sjöberg, jonas.sjoberg@chalmers.se

Ass. Professor Nikolce Murgovski, nikolce.murgovski@chalmers.se

[Back to the contents](#)

5.9. PhD: Technical University of Munich, Germany

Contributed by: Majid Zamani, zamani@tum.de

The Hybrid Control Systems group in the Department of Electrical and Computer Engineering at Technical University of Munich announces a PhD opening on the topic of “Platform-Aware Synthesis of Embedded Control Software”. Particularly, the aims of the position are to propose a new paradigm, in which the controller code is automatically synthesized from high-level correctness requirements while taking into account the features of the computational platforms.

The successful candidate must have, or expect to have, a Master degree in a related topic such as Systems and Control, Applied (Pure) Mathematics, or Computer Science and should have a strong theoretical background

as well as good programming skills (C/C++, Matlab, Simulink etc.). A competitive salary will be offered according to the German rules (TV-L E13).

Please send your detailed CV including a list of referees, your BSc and MSc transcripts (list of courses with the corresponding grades), and a one-page letter of motivation by email to (zamani@tum.de).

[Back to the contents](#)

5.10. PhD: University of Lorraine and French-German Research Institute of Saint-Louis, France

Contributed by: Marie Albisser, marie.albisser@isl.eu

PhD Thesis Proposal

Title: Linear Parameter Varying (LPV) model identification of aerodynamic coefficients based on free flight data

Profile: Master internship

Good background in signals and systems, automatic control and MATLAB

Knowledge in aerodynamics and flight mechanics is not necessary, but is appreciated

The Research Center for Automatic Control of Nancy (CRAN) at University of Lorraine and the French-German Research Institute of Saint-Louis (ISL) announce a vacancy for a three year PhD position to be started in October 2016.

Project description:

The use of aerodynamic coefficients for the characterization of the behavior of an object in flight remains one of the oldest and most emergent research project in the field of exterior ballistic. Currently, there exist complementary methods able to quantify the aerodynamic coefficients of vehicles in flight. Considered as reference, free flight tests allow to reveal the vehicle aerodynamics under real experimental conditions and aerodynamic coefficients can be determined from free flight measurements through the use of system identification procedures.

System identification of a vehicle in free flight consists first in the determination of a model structure and secondly in the estimation of the unknown parameters contained in the chosen model structure. The problem focuses on this latter since the general model structure is assumed known. Indeed, the state equations are constructed by taking into account Newton/Euler's laws of a rigid body motion, while the output equations correspond to free flight measurements. More precisely, it is a continuous-time nonlinear state-space model, composed of 12 state variables and seven output signals. The unknown aerodynamic coefficients can be further represented as a function of several state variables, where the parameters describing them are precisely the model parameters to be determined.

The present PhD project intends to improve the accuracy of the estimated aerodynamic coefficients based on onboard and on-ground measurements: radar data, magnetometer and accelerometer measurements, 3D high speed cameras. For this purpose, the proposed approach aims at constructing a Linear Parameter-Varying (LPV) model derived from the known nonlinear equations describing the behavior of a vehicle in free flight. In that direction, several linearization methods should be benchmarked and the identification of the state-space LPV system investigated.

The candidate will integrate ISL Division II (Flight Techniques for Projectiles) ABX (Aerodynamics and eXterior Ballistics) research group and CID (Control Identification Diagnostic) department at the Research Center for Automatic Control of Nancy (CRAN), University of Lorraine. The PhD subject is funded by ISL, about 2500Euros/month.

Contacts: Dr. Claude BERNER and Dr. Simona DOBRE

ISL - Aerodynamics and eXterior Ballistics

Claude.Berner@isl.euv; Simona.Dobre@isl.eu tel : +33 (0)3 89 69 50 53, +33 (0)3 89 69 53 48

Pr. Marion GILSON, Dr. Floriane COLLIN

CRAN - Centre de Recherche en Automatique de Nancy, University of Lorraine

Marion.Gilson@univ-lorraine.fr; Floriane.Collin@univ-lorraine.fr

[Back to the contents](#)

5.11. PhD: Leiden Observatory, The Netherlands

Contributed by: Niek Doelman, niekdoelman@strw.leidenuniv.nl

Leiden Observatory, The Netherlands invites applications for two PhD positions in Control for Adaptive Optics in Exoplanet imaging.

The aim of the research projects is to carry out a comprehensive analysis and design of the performance of Adaptive Optics (AO) systems in order to meet the extreme challenges for the direct imaging of exoplanets, which require imaging contrasts up to 10^{10} at angular separations of less than 1 arcsec.

Advancements in Control and Optical Sensing are expected to play a key role in achieving the required performance improvement of Adaptive Optics for exoplanet imaging.

The research will particularly address the design of the large-scale, high performance MIMO controller in the AO system with respect to robustness towards disturbance non-stationarity and sensor-induced non-linearity.

The research covers fundamental control design and analysis aspects as well as laboratory experiments, testing and on-sky verification on a 4m telescope.

PhD-candidates preferably have an MSc degree in Control / Systems Technology and have a strong interest in Optics and Astronomy or vice versa. The research is a part of a larger effort in instrumentation for the direct detection and characterization of exoplanets, with a particular emphasis on coronagraphy, polarimetry, spectroscopy and adaptive optics. More information about research at Leiden Observatory can be found at <http://www.strw.leidenuniv.nl/research/>

Supervisors of the PhD projects are: Prof. Niek Doelman, Prof. Christoph Keller and Dr. Matthew Kenworthy.

Leiden Observatory, founded in 1633, is the oldest university astronomy department in the world. With about 25 faculty, over 40 postdoctoral associates and about 75 PhD students it is the largest astronomy department in the Netherlands. Leiden is a charming university town with an international flair. Most Leiden researchers have an international background. English is the common language.

During their thesis, Leiden PhD students are paid as civil servants, which means that they earn competitive salaries (the current annual gross salary, including allowances, increases from about EUR 28,000 in year 1 to about EUR 36,000 in year 4) and are eligible for both social security and retirement benefits. PhD positions are funded for four years.

Applicants are requested to send a curriculum vitae, a list of all university courses taken and transcripts of grades obtained, brief statements of research interests and experience, and the contact information for at least two referees. These documents should be combined into a single pdf file and sent to Prof. Niek Doelman (niekdoelman@strw.leidenuniv.nl) with subject "PhD application of <Name >"

The successful candidates must have an MSc degree (or equivalent) by the starting date. The starting dates are negotiable. Complete applications received by December 20, 2015 will receive full consideration.

The positions are open to candidates from all countries. The research will be carried out in the framework of the Netherlands Research School for Astronomy (NOVA).

More information about the Leiden Observatory can be found at <http://www.strw.leidenuniv.nl>.

Included Benefits:

Leiden University offers comprehensive benefits including paid vacation, sick leave, disability insurance, maternity and parental leave, and retirement benefits.

Health care insurance amounts to approx. 100 euro/month/person (children are free).

[Back to the contents](#)

5.12. PhD: Lund University, Sweden

Contributed by: Anders Rantzer, rantzer@control.lth.se

Applications are invited for positions as PhD student at Automatic Control LTH, Lund University, Sweden. The positions are funded by Knut and Alice Wallenberg's Foundation within the Wallenberg Autonomous Systems Program (WASP).

Wallenberg Autonomous Systems Program (WASP) is Sweden's largest individual research program ever, and provides a platform for academic research and education, fostering interaction with Sweden's leading technology companies. The WASP graduate school provides unique opportunities for students who are dedicated to achieving international research excellence with industrial relevance.

The official announcements are posted on <http://www.lth.se/english/about-lth/vacant-positions>.

[Back to the contents](#)

5.13. PhD: KTH Royal Institute of Technology, Sweden

Contributed by: Karl H. Johansson, kallej@kth.se

2 PhD students on Cyber-Physical Systems at KTH Royal Institute of Technology

We are seeking two PhD students for a new project motivated by application scenarios in future transportation systems with integrated communication and autonomous vehicles. One position is in automatic control and the other in wireless networking. The candidates should have a strong theoretical background and an interest of working on problems with potentially high industrial impact.

For further information and application submission, see

<https://www.kth.se/en/om/work-at-kth/lediga-jobb/what:job/jobID:75036/where:4/>

Deadline for the application is 2015-11-04

Dr James Gross, Assoc. Prof.

Phone: +46(0)8 790 8819

Email: jamesgr@kth.se

Dr Karl H. Johansson, Prof. Phone: +46(0)8 790 6320

Email: kallej@kth.se

[Back to the contents](#)

5.14. Post-Doc: Clemson University, USA

Contributed by: Pierluigi Pisu, pisup@clemson.edu

Clemson University is proud to announce this strategic hiring initiative as part of its 2020 Road Map. This Road Map provides significant investment in four strategic priorities (i) Enhance student quality and performance, (ii) provide engagement and leadership opportunities for all students, (iii) attract, retain and reward top people, and (iv) build to compete facilities, infrastructure and technology. Presently, Clemson is ranked 21th among national public universities by U.S. News & World Report and is a research university with a strong commitment to teaching and student success.

Clemson University is described by students and faculty as an inclusive, student-centered community characterized by high academic standards, a culture of collaboration, school spirit and a competitive drive to excel.

We encourage applications for a postdoctoral position in the research area of Connected and Automated Vehicles. Preferred research expertise includes modeling, large-scale optimization, and optimal and predictive control. We aim to approach key challenges in the area of optimization for large-scale vehicle networks with shared and on-board vehicle and traffic data. The postdoc fellow will be affiliated with the Department of Automotive Engineering at the Campbell Graduate Engineering Center in the Clemson University International Center for Automotive Research campus.

Applicants must have an earned doctorate in Electrical Engineering, Mechanical Engineering or a closely related field with a background in control and optimization.

Applicants should submit a current curriculum vitae and a minimum of 3 references with full contact information. Electronic submissions (PDF files) to <http://www.clemson.edu/employment/prospective/findjobs.html> (ID#14506) are preferred, but applications and nominations can also be mailed to pisup@clemson.edu, with a copy to Beshah@clemson.edu. Application material must be received by Oct 20th, 2015 to receive full consideration, though the search will remain open until the position is filled.

Clemson University is an AA/EEO employer and does not discriminate against any person or group on the basis of age, color, disability, gender, pregnancy, national origin, race, religion, sexual orientation, veteran status or genetic information. Clemson University is building a culturally diverse faculty and staff committed to working in a multicultural environment and encourages applications from minorities and women.

aksanyal@syr.edu.

[Back to the contents](#)

5.15. Post-Doc: École Polytechnique Fédérale de Lausanne, Switzerland

Contributed by: Dominique Bonvin, dominique.bonvin@epfl.ch

Post-doctoral position in Control and Optimization at EPFL, Lausanne, Switzerland.

We are looking for an outstanding candidate with a PhD degree in the area of control and optimization. The position is limited to one year. The duties will include research in the area of real-time optimization, supervision of doctoral students and interaction with industrial partners.

The Laboratoire d'Automatique is a multidisciplinary teaching and research unit that includes two professors, two senior lecturers, 4 post-docs, about 20 PhD students and excellent supporting staff. Lausanne is a mid-sized, French-speaking city nicely located on the northern shore of Lake Geneva. It offers a large variety of cultural and recreational activities.

The position is available starting as early as Spring 2016. A highly competitive salary is offered. The application material should include a CV with a list of publications and the name of three professional references as well as a short description of experiences and future professional objectives.

For inquiry, please contact Prof. Dominique Bonvin, Laboratoire d'Automatique, EPFL - Station 9, CH-1015 Lausanne, Switzerland, Tel: +41 21 693 3843.

[Back to the contents](#)

5.16. Post-Doc: Illinois Institute of Technology, USA

Contributed by: Ali Cinar, Cinar@iit.edu

Postdoctoral positions, Illinois Institute of Technology

* Postdoctoral position in Agent-based modeling of bioreactor systems - January 2016

A postdoctoral position in the area of agent-based modeling with application to modeling of mammalian cell bioreactor systems is available in the Process Modeling, Supervision and Control Laboratory of Ali Cinar at Illinois Institute of Technology. The start date is January 2016.

Candidates should have a Ph.D. in chemical engineering (or related area) with strong mathematical and computer skills and expertise in bioreactor modeling and agent-based systems. Expertise in Matlab is expected and knowledge of C++ programming is desirable.

An initial appointment will be made for one year, and will be renewable contingent upon performance and availability of funds.

Interested applicants should send a detailed curriculum vita, publications and a list of three references to Dr. Ali Cinar (cinar@iit.edu).

* Postdoctoral position in System Identification, Adaptive Predictive Control, and fault detection and diagnosis - April 2016

A postdoctoral position in system identification, adaptive predictive control, and fault detection and diagnosis with application to artificial pancreas control systems is available in the Process Modeling, Supervision and Control Laboratory of Ali Cinar at Illinois Institute of Technology. The start date is April 2016.

The candidate should hold a doctoral degree in Chemical, Biomedical, Electrical or Systems Engineering (or related disciplines). The candidate is expected to have strong background in modern control techniques, system identification, and fault detection and diagnosis techniques, and good computer programming skills. Expertise in Matlab is expected and knowledge of Java programming is desirable.

An initial appointment will be made for one year, and the appointment will be renewable contingent upon successful performance.

Interested applicants should send a detailed curriculum vita, publications and a list of three references to Dr. Ali Cinar (cinar@iit.edu).

[Back to the contents](#)

5.17. Post-Doc: Delft University of Technology, The Netherlands

Contributed by: Manuel Mazo Jr., M.Mazo@tudelft.nl

The Delft Center for Systems and Control at Delft University of Technology, the Netherlands, announces a vacancy for a one year Postdoc position within the Dutch-funded project CADUSY (Control and data-driven modeling using symbolic methods).

Project description:

The CADUSY project investigates the application of symbolic evolutionary approaches to automatically synthesize controllers starting from bare experimental data. The research in this project is highly interdisciplinary, involving the fields of system identification, control, machine learning - evolutionary methods, and symbolic methods. Furthermore, the research has both theoretic as well as applied components, performed in collaboration with our industrial partners. For the applied work a number of real robotics and mechatronic test-cases will be employed.

What do we ask?

We are looking for a candidate with a PhD degree in systems and control, applied mathematics, formal verification, artificial intelligence or machine learning, with a strong interest in inter-disciplinary research. Experience with satisfiability modulo theories (SMT) solvers, SAT solvers, and the field of formal verification and synthesis in general, is a strong asset. The candidate must have strong analytical skills and must be able to work at the intersection of several research domains. A very good command of the English language is required, as well as excellent communication skills.

What do we offer?

We offer the opportunity to do scientifically challenging research in a multi-disciplinary research group. The appointment is for a period of 2 year. As an employee of the university you will receive a competitive salary (between approx. EUR 3000 and EUR 4000 gross per month based on a full-time appointment and depending on the candidate's qualifications), as well as excellent secondary benefits in accordance with the Collective Agreement (CAO) of the Association of Universities in the Netherlands (VSNU). Assistance with accommodation can be arranged.

How to apply?

Submit you application to Willeke Zeestraten (W.J.M.Zeestraten@tudelft.nl) with the subject code CADUSY-POSTDOC before January 15th, 2016. Include a cover letter along with a detailed curriculum vitae, a separate motivation letter stating why the proposed research topic interests you, electronic copies of your top three publications, the summary of your PhD thesis, names and addresses of three reference persons, and other information that might be relevant to your application.

For questions you may contact Dr. Manuel Mazo Jr (M.Mazo@tudelft.nl)

[Back to the contents](#)

5.18. Post-Doc: Nanyang Technological University, Singapore

Contributed by: Erdal Kayacan, erdal@ntu.edu.sg

NTU: Postdoc position in the Flight Mechanics and Control Laboratory in the School of Mechanical and Aerospace Engineering at NTU (Singapore) is available.

Research topic: Intelligent control of unmanned aerial vehicles. The project involves:

- Soft computing methods including artificial neural networks, fuzzy logic control theory and adaptive neuro-fuzzy systems
- Parameter update rules for artificial neural networks and adaptive neuro-fuzzy systems
- State estimation and control of unmanned aerial vehicles

Requirements:

Prospective candidates should hold a Ph.D. degree in electrical engineering, aerospace engineering, mechanical engineering, automatic control, mechatronics, applied mathematics, or other related disciplines. Moreover, he/she should have a strong publication record in the fields related to control theory and state estimation, preferable in model-free control methods. The ideal candidate will have prior experience with unmanned aerial vehicles. The candidate should also have excellent verbal and writing skills in English.

The contract is for one year, and the salaries are competitive and are determined according to the successful applicant's accomplishments, experience and qualifications.

How to apply for the Postdoc position:

The application should consist of

- . A motivation letter (explaining the reason that you are interested in joining NTU),
- . A CV with a full publication list,
- . The contact details of three referees.

These documents must be compiled as a single pdf file, and named as "<Name >_<Surname >.pdf". Then, the single file should be sent to "erdal@ntu.edu.sg" with a subject line of "Postdoc application for FNN project"

Deadline and starting date: The deadline for the applications is 22th of November 2015.

We regret that only shortlisted candidates will be notified.

For further information, feel free to contact: Erdal Kayacan (erdal@ntu.edu.sg)

[Back to the contents](#)

5.19. Post-Doc: University of Grenoble, France

Contributed by: Christophe Prieur, Christophe.prieur@gipsa-lab.fr

Mirko Fiacchini, mirko.fiacchini@gipsa-lab.fr

Keywords: Nonlinear systems, communication constraints, event-based and quantized control, Lyapunov methods.

Application deadline: December, 1st 2015

Starting date: January, 1st 2016 (could be modified)

Appointment length: 12 months (could be modified)

Description. The post-doctoral position is funded by the ANR projet Limicos (Limited Information Control Systems). This national interdisciplinary project involves researchers in control theory, information theory and digital communications. The aim of this post-doc is to go beyond recent works on the modeling and the performance of control systems in presence of heterogeneities and networks in the loop. Among the perturbations that are due to communication, let us cite quantizers and signal samplings. These nonlinearities may affect both the measures and the control inputs. Other models and control objectives may be tackled such as non-uniform quantizers and robustness issues with respect to external perturbations. The design of new control paradigms and new quantizers in information theory is also welcome. The candidate will have to provide new bridges between control theory and information theory.

Application. Candidates must hold a PhD degree in control theory or applied mathematics, preferably with a background in nonlinear systems. Candidates with a background in information theory are also welcome. Candidates are invited to contact Dr. Mirko Fiacchini, mirko.fiacchini@gipsa-lab.fr to apply or for more information. Please consider also <http://www.gipsa-lab.grenoble-inp.fr/christophe.prieur/post-doc-2016.pdf> for further information

In the application, please provide a curriculum vitae, a list of publications, as well as the names and contacts of two referees.

[Back to the contents](#)

5.20. Post-Doc: ETH Zürich, Switzerland

Contributed by: Alexander Domahidi, domahidi@inspire.ethz.ch

Postdoc Position in Advanced Mechatronics Control at ETH Zürich (inspire AG)

About us: Inspire AG is the Swiss competence center for production technology and is a strategic partner of ETH Zürich for technology transfer, promoting innovation in Swiss companies by a quick transfer of research results from universities to an implementation in industry. The research group inspire-IfA is the latest of six groups within inspire AG, and has been established in 2013 together with the Automatic Control Laboratory (IfA) of ETH Zurich.

We have an opening in advanced mechatronics control to work on a new inspire innovation project on the development and implementation of advanced control methods for ultra-high precision grinding technology in collaboration with a leading Swiss manufacturer of grinding machines. The project has an initial duration of 1 year. The following tasks are to be addressed:

- Development of a physical model of a grinding process for control
- Design and supervision of on-site physical grinding experiments for collection of data
- Identification of model parameters from measured data
- Creation of a simulation framework for validation of models and controllers
- Development and testing of model-based control strategies, including numerical optimization

Requirements:

- Master's degree in electrical or mechanical engineering with focus on systems & control
- Excellent track record: among the top 10% of your class
- PhD degree or 2 years+ experience in industry in controls
- Knowledge of model-based optimal control (classical & numerical, MPC, MHE etc.)
- Basic knowledge in numerical optimization is a plus
- Experience in writing C code
- Good communication skills, proficient oral and written English skills, German is a plus

We offer a young, dynamic environment with a strong international focus where you can make an impact with your excellent ideas and implementations. Salary will be in the range of an ETH Zurich PhD or postdoc position depending on your profile.

If you are interested submit your application to domahidi@inspire.ethz.ch along with

- Motivation letter
- CV, including 2-3 references with contact details
- One technical document authored by you (e.g. a thesis, a publication or a technical report)

Starting date: December 1, 2015

[Back to the contents](#)

5.21. Post-Doc: Chalmers University of Technology, Sweden

Contributed by: Balazs Kulcsar, kulcsar@chalmers.se

Postdoctoral position at Chalmers in wireless communication for cooperating autonomous vehicles

At the Department of Signals and Systems, Chalmers University of Technology, Gothenburg, we conduct internationally renowned research in biomedical engineering, antenna systems, signal processing, image analysis, automatic control, automation, mechatronics, and communication systems. We offer a dynamic and international research environment with about 150 employees from more than 20 countries, and with extensive national and international research collaborations with academia, industry and society. Read more at <http://www.chalmers.se/en/departments/s2>.

Information about the division and the project:

Chalmers has a long tradition of research in Transportation Systems, with intensive collaboration with society and automotive industry. A large part of such research is performed at the Department of Signals and Systems (S2), where this post-doctoral position is announced. S2 is engaged in both fundamental and applied research, spanning a large variety of research areas including Automatic Control, Automation, Mechatronics, Biomedical Engineering, Communication Systems and Information Theory, Signal Processing and Antennas. Cross-disciplinary research is central and encouraged through projects across different groups

within the Department. The Communication Systems Division employs around 35 people, including 8 faculty and 25 PhD students, and is active in a wide range of topics in digital communication. These include fiber-optical communication, 5G systems, hardware-constrained communication, modern coding and modulation, and vehicular communication.

In this project, a number of postdoctoral researchers will be recruited to collaborate on cooperative autonomous vehicles. This particular position pertains to the wireless communication aspect of inter-vehicle communication. The postdoc is expected to interact with other researchers in vehicular communication, as well as controls and signal processing.

Major responsibilities:

The main focus of the research should be on the communication aspects related to cooperative automated transportation. The goal is to support the development of an cooperative automated vehicle research platform in the form of an actual vehicle equipped with sensors, processing units, path planning, control, and wireless communications. The communication subsystem should solve the following problems:

- Design and analysis to provide basic functionalities to share perception and map information;
- Design and analysis to provide basic functionalities to share control and intention information;
- Modeling and simulation of various real-world scenarios;
- Integration with sensor fusion and control subsystems;
- Possibly integration and experimental validation;
- Development, analysis, and implementation of large-scale control methods
- co-supervision of PhD students.

Position summary:

The postdoctoral position is an appointment that offers an opportunity to qualify for further research positions within academia or industry. The majority of your working time is devoted to your own research, normally as a member of a research group. Included in your work is also to take part in supervision of Ph.D. students and M.Sc thesis students. Teaching of undergraduate students may also be included to a small extent, if desired. The employment is limited to a maximum of 2 years (1+1).

Qualifications:

A PhD (or close to completion) in wireless communications, automatic control or a relevant field is required. The degree should generally not be older than three years. Experience with automotive applications and/or background in at least one of the following research areas will be preferred: vehicular networks, cooperative networks. Knowledge of signal processing, transportation, or control theory are preferred, but not mandatory. Preference will be given to applicants with a track record in high-quality publications.

The ability to initiate new research collaborations across disciplinary boundaries is essential. Good communication skills in oral and written English are required.

Chalmers continuously strives to be an attractive employer. Equality and diversity are substantial foundations in all activities at Chalmers.

Application procedure:

The application should be marked with Ref 20150396 and written in English. The application should be sent electronically, see <http://www.chalmers.se/en/about-chalmers/vacancies/Pages/default.aspx>.

Application deadline: 30 November 2015

For questions, please contact:

Associate Professor Henk Wymeersch, henkw@chalmers.se

Associate Professor Balázs Kulcsár, kulcsar@chalmers.se

5.22. Post-Doc: Nanyang Technological University, Singapore

Contributed by: Soong Boon Hee, ebhsoong@ntu.edu.sg

A Post Doc position available in the Rolls Royce corporate lab “Wireless Networking for Fault Detection and Prognosis”.

The Post Doc will assist the Principal Investigator on the Project:

- To develop models for design of networking algorithms to enhance fault tolerant capabilities of the sensor networks deployed on electrical machine platform.
- To develop methodology for reliability of the sensor networks applied to electrical machine platform, with an optimal allocation of number of sensors, and networking algorithm that improves the fault tolerant capabilities of electrical drives and mechanical drives at minimum cost.
- To implement the algorithms in simulation and verify the performance in hardware test.

Instruction:

Interested candidates can send your to A/Prof Soong Boon Hee by E-mail: ebhsoong@ntu.edu.sg

- Detail CV, List of publications and References
- List job reference number RRWSN15-93
- Only shortlisted candidates will be notified for interview.
- Electronic submission of application is highly encouraged.

The applicant must have:

- A PhD degree in the area of Electrical & Electronic Engineering or Computer Engineering;
- Experience on Sensor network deployment, Communication Protocols, Networking algorithms for modelling of Electrical and Mechanical components for electrical machine platform;
- Good knowledge about Energy efficient protocols of for wireless sensors networks, Energy harvesting capabilities design;
- Good Team Dynamics and Project Management Skills;
- Excellent Communication Skills (both oral and written) in English.

5.23. Post-Doc: Technion - Israel Institute of Technology, Israel

Contributed by: Tal Shima, tal.shima@technion.ac.il

A post-doctoral position is available at the Department of Aerospace Engineering, Technion - Israel Institute of Technology, in Haifa, Israel.

The research is in the general area of guidance of unmanned vehicles, such as airplanes, missiles, and submarines. The scope of the research is broad and possible topics include: 1) Cooperative guidance; 2) Integrated guidance and flight control; 3) Estimation based guidance; 4) Intertwined guidance and task assignment. The research will involve both theoretical and algorithmic aspects. Laboratory experiments on available ground and aerial robots may also be performed.

Candidates for this position should have a Ph.D. in engineering (aerospace, mechanical, electrical, or similar), computer science, or applied math. Strong background in optimal control and/or differential games is an advantage.

Application material should include:

- a cover letter
- detailed curriculum vitae, including educational background and a list of publications
- undergraduate and graduate studies grades transcripts
- contact information for at least two, preferably three, academic references

The material should be submitted, in pdf, via e-mail, to Prof. Tal Shima, tal.shima@technion.ac.il

The position is available immediately and applications will be handled as they arrive until the position is filled.

For further inquiries, please contact Tal Shima at: tal.shima@technion.ac.il

[Back to the contents](#)

5.24. Faculty: Central College, USA

Contributed by: Central College, centraldean@central.edu

Central College is hiring for a Lecturer of Electrical/Mechanical engineering in our Physics Department beginning August 2016 as a non-tenure line faculty appointment.

Qualifications and teaching responsibilities:

The successful candidate will have an M.S. in Electrical Engineering with additional educational background in Mechanical Engineering or an M.S. in Mechanical Engineering with additional educational background in Electrical Engineering. Other required qualifications are industrial work experience including significant engineering design, and strong teaching skills. Preference will be given to licensed Professional Engineers (P.E.) with digital control experience.

The successful candidate will be expected to teach undergraduate engineering courses at advanced and intermediate levels (Capstone Design I, Capstone Design II, Electrical Control Systems, Mechanical Dynamic Systems and Controls, Theory of Machines, Signals and Systems, and engineering electives). Candidates should be committed to undergraduate teaching and have an understanding of and appreciation for the liberal arts environment. Additionally, candidates will be expected to contribute to program development and assessment, including the ABET accreditation.

Department of Physics: Central's physics department currently offers a major and a minor in physics and a new program leading to a B.S. in Engineering approved by the Board of Trustees in February 2015. The program focuses on mechanical and electrical engineering and is grounded in liberal arts and basic science. An application for ABET accreditation is planned when the program produces its first group of graduates. The department is comprised of dynamic and dedicated faculty who work collegially with each other and students to support teaching and learning. Students benefit from the one-on-one attention provided by faculty devoted to teaching and working with students. The physics and engineering programs at Central College prepare students for industrial jobs, graduate school, and careers in research, teaching, engineering and other technical areas.

The department graduates an average of nine majors annually. Many continue directly to graduate school to study engineering on the graduate level at various universities across the nation. 84% of physics graduates enter graduate school within one year of leaving Central College; 95% are admitted in to their first or second choice graduate school. The department is housed in a modern natural science facility, which is

LEED (Leadership in Energy and Environmental Design) certified and also includes the departments of biology, chemistry, mathematics and computer science. An 11-inch reflector telescope is located in a nearby observatory.

Founded in 1853, Central College of Pella, Iowa, is a private, residential four-year liberal arts college known for its academic rigor and strength in global experiential learning, STEM (science, technology, engineering and math), sustainability education, athletics success and tradition, and leadership and service. Central continues to value its long-standing relationship with the Reformed Church in America that began in 1916. The college participates in NCAA Division III athletics and is a member of the Iowa Conference. Central is an active part of the Greater Des Moines region and just two minutes from Lake Red Rock, Iowa's largest lake.

Application procedure: To apply for this position please visit <http://www.central.edu/jobseekers/>. Review of applications will begin on 15 October 2015 and continue until the position is filled. Please submit the following materials online:

1. a letter of application relating your qualifications to the position and the College
2. an updated curriculum vita
3. copies of undergraduate and graduate transcripts
4. a one-page statement of teaching philosophy

Three confidential letters of reference addressing the candidate's qualifications for this faculty appointment at a liberal arts college can be sent electronically to centraldean@central.edu or mailed to: Vice President for Academic Affairs & Dean of the Faculty, Central College, 812 University, Pella, Iowa 50219.

Central College is an equal opportunity employer dedicated to creating a diverse community. Individuals from underrepresented groups are encouraged to apply.

[Back to the contents](#)

5.25. Faculty: Massachusetts Institute of Technology, USA

Contributed by: Jonathan How, jhow@mit.edu

Tenure-Track Faculty Position in the Department of Aeronautics and Astronautics at the Massachusetts Institute of Technology (MIT)

The Department of Aeronautics and Astronautics at MIT invites applications for a tenure-track faculty position with a start date of September 1, 2016 or thereafter.

The department is conducting a search for exceptional candidates with a strong background in any discipline related to Aerospace Engineering, broadly defined. We are seeking highly qualified candidates with a commitment to research and education. Faculty duties include teaching at the graduate and undergraduate levels, advising students, and conducting research.

Candidates should hold a doctoral degree in a field related to aerospace engineering by the beginning of employment. The search is for a candidate to be hired at the assistant professor level; however, under special circumstances, a senior faculty appointment is possible.

Applications must include a cover letter, curriculum vitae, 2-3 page statement of research and teaching interests and goals, and names and contact information of at least three individuals who will provide letters of recommendation.

Applications must be submitted as a pdf at

<https://school-of-engineering-faculty-search.mit.edu/aeroastro/register.tcl>. Letters of recommendation must be submitted directly by the recommenders at <https://school-of-engineering-faculty-search.mit.edu/letters>.

To ensure full consideration, complete applications should be received by December 1, 2015. Note: Applications will be considered complete only when both the applicant materials and at least three letters of recommendations are received.

MIT is building a culturally diverse faculty and strongly encourages applications from female and minority candidates. For more information on the Department of Aeronautics & Astronautics at MIT, please visit <http://aeroastro.mit.edu>. We especially encourage minorities and women to apply, because of MIT's strong commitment to diversity in education, research and practice.

[Back to the contents](#)

5.26. Faculty: Virginia Tech, USA

Contributed by: Mazen Farhood, farhood@vt.edu

The Department of Aerospace and Ocean Engineering at Virginia Tech invites applications for a tenure-track faculty position in Cyber-Physical Security of Aerospace and Ocean Systems effective August 2016. The position will be filled, depending upon qualifications, at the rank of assistant or associate professor. A Ph.D. degree in aerospace engineering, ocean engineering, or a closely related field is required.

AOE faculty members are active in a number of interdisciplinary research centers and groups, including the Hume Center for National Security and Technology (www.hume.vt.edu) and the Virginia Center for Autonomous Systems (VaCAS, www.unmanned.vt.edu). The successful applicant will be expected to develop a significant, externally funded research program and demonstrate enthusiasm for collaborative and interdisciplinary research. Candidates should also demonstrate a strong commitment to undergraduate instruction and specialized graduate education. The AOE Department is comprised of 25 faculty members, with approximately 150 full-time graduate students and 550 undergraduate students.

Candidates for this position should be capable of conducting research with primary focus on the development of aerospace and/or ocean systems that are resilient to cyber-physical security threats. A cyber-physical attack might compromise the command or control of an aerospace or ocean system, as well as the security or integrity of data that it returns. Attack modes include direct methods that hack command or data links, along with indirect methods that spoof or degrade the system's sensors.

Cyber-physical security research goes beyond pure traditional forms of cyber-security, such as message encryption. It includes the development and study of defense strategies that exploit physical aspects of system response and associated models in order to better defend against traditional cyber threats. It also develops and studies strategies to defend against threats that affect the system's cyber component through physical means. Research also involves the development of cyber attack models.

Candidates should have research expertise in the broad area of Dynamics and Control. Areas of particular interest include: network intrusion detection, countermeasures and recovery, cyber-physical security vulnerabilities and threats, and validation of response strategies. Expertise in areas such as secure control, networked control, fault-tolerant control, and their applications to aerospace and ocean systems will be highly desirable. Candidates are expected to contribute to teaching at both the undergraduate and graduate level. In addition to the Hume Center and VaCAS, the Institute for Critical Technology and Applied Science (ICTAS, www.ictas.vt.edu), the Center for Space Science and Engineering Research (Space@VT, www.space.vt.edu), and the Virginia Tech Airworthiness Center (<http://www.cnavs.ictas.vt.edu/vtac/>) provide further opportunities for collaboration.

Virginia Tech is a recipient of the National Science Foundation ADVANCE Institutional Transformation Award to increase the participation of women in academic science and engineering careers. Virginia Tech is

an Equal Opportunity/Affirmative Action employer. The AOE Department strongly supports the Virginia Tech Principles of Community. Information about the AOE Department is available at www.aoe.vt.edu.

Applicants must provide a cover letter, contact information for three professional references, a candidate statement discussing teaching, research, and professional goals, and a current CV. Those wishing further information about the search process may contact Dr. Mazen Farhood, Faculty Search Committee Chair, Department of Aerospace and Ocean Engineering, 215 Randolph Hall, 460 Old Turner Street, Virginia Tech, Blacksburg, VA 24061 or at farhood@vt.edu. Review of applications will begin January 4, 2016 and continue until the position is filled.

Applicants are required to apply online at <https://listings.jobs.vt.edu/login> and should use posting number TR0150132.

[Back to the contents](#)

5.27. Faculty: University of Michigan, USA

Contributed by: Jodie Mason, jodiem@umich.edu

Faculty Search - Aerospace Engineering, University of Michigan

The Department of Aerospace Engineering at The University of Michigan invites applications for multiple tenure-track/tenured faculty positions in all areas of Aerospace Engineering. We are seeking exceptional candidates who will develop a world-class research program and innovative educational experiences for our students.

This is a broad search, and while we will be considering all levels, preference will be given to junior-level applicants.

The Aerospace Engineering Department completed its 100th anniversary last year and our undergraduate and graduate programs continue to be among the very best in our nation. Research interests of the faculty cover a broad spectrum of topics including high-performance multiphysics computational sciences, aerostructures, smart structures and materials, flight dynamics and control, avionics and software systems, multidisciplinary design optimization, propulsion, combustion, and sustainable energy with a mix of air and space applications. More information about the department can be found at <http://www.engin.umich.edu/aero/>. Applicants should have earned a doctoral degree in Aerospace Engineering or a closely related field. The successful candidate will be expected to participate in all aspects of the Department's mission, including the development of a strong and relevant externally funded research program, the teaching of undergraduate and graduate courses, and the supervision of graduate students.

Applicants should apply via the Aerospace Engineering Department website

<http://www.engin.umich.edu/aero/about/new-faculty-search>.

Please prepare a single PDF file that contains the curriculum vita, statements of research and teaching interests, three representative publications, and the names and contact information of five references to the Faculty Search Committee, c/o Prof. Carlos Cesnik, Department of Aerospace Engineering, University of Michigan. The evaluation process will start on November 1, 2015 and will continue until the positions are filled.

The University of Michigan is an equal opportunity/affirmative action employer with an active dual-career assistance program. The college is especially interested in candidates who can contribute, through research, teaching, and/or service, to the diversity and excellence of the academic community.

[Back to the contents](#)

5.28. Faculty: University of California, USA

Contributed by: Francesco Borrelli, fborrelli@berkeley.edu

Applications for a Tenure Track, Assistant Professor in Mechanical Engineering with Emphasis in Several Broad Areas

The Department of Mechanical Engineering, University of California, Berkeley, seeks applications for a tenure track, Assistant Professor position in the following areas: Design, Control and Robotics, Applied Energy Systems and Nanoscale Systems Engineering. Topics of specialization include, but are not limited to, for design: prototyping, design methodology, theory, design-for-wellbeing, computer aided design tools and visualization and support the Jacobs Institute for Design Innovation; for controls: theoretical control background as well as design and development of advanced mechatronic systems for application to human health and wellbeing, security and energy; for applied energy systems: combustion and primary energy conversion processes, design of energy systems, alternative energy technologies, energy efficient processes with basis in thermodynamics and heat transfer; and for nanoscale systems engineering: nanoscale engineering or engineering science in one of the fields of nanoscale mechanics, materials, heat transfer, dynamics, process and manufacturing, and device and system design along with the appropriate analytical and computational capabilities.

Basic Qualifications: Applicants must, at a minimum, be in the process of completing a doctoral dissertation or the equivalent degree at the time of application.

Additional Qualifications: Applicants must hold a doctorate or equivalent degree by the start of the position. The requirement for appointment is Ph.D. or equivalent degree awarded.

To apply please go to the following link, <https://aprecruit.berkeley.edu/apply/JPF00858>

For questions regarding this position, please contact: Debra Chin, chin@me.berkeley.edu

[Back to the contents](#)

5.29. Faculty: Harbin Institute of Technology, Shenzhen Graduate School, China

Contributed by: Ms. Zhao, scc.hitsz@gmail.com

Faculty Positions in Systems and Control

Organization/Institution: Harbin Institute of Technology, Shenzhen Graduate School, Shenzhen, China

Department: School of Mechanical Engineering and Automation

The Division of Control and Mechatronics Engineering at Harbin Institute of Technology, Shenzhen Graduate School (HITSGS) invites applications for several faculty positions at all ranks. We are seeking candidates with excellent credentials in the areas of systems and control, wind energy, power systems and smart grids. Applicants must have a Ph.D. or equivalent in electrical, mechanical and power systems engineering and need to show strong research record and potential. Successful candidates will be received a joint appointment in the Center of Systems and Control. The Division currently has 11 full-time faculty members, and is expected to grow to 20 faculties in the next few years.

HITSZ offers a competitive salary and the salary levels at HITSG for these positions are substantially higher than those provided by most universities in China, with full professor in the range of RMB 170K to 230K per year, associate professor in the range of RMB130K to 160K per year, and assistant professor in the range of RMB 90K to 110K per year. Bonus is a plus for all levels, subject to faculty's performance.

Interested candidates can send detailed CV, list of publications, statement of research (no more than 3 pages), teaching interests (no more than 2 pages), and a cover letter including contact information of three references to:

Ms. Zhao
School of Mechanical Engineering and Automation
HIT Campus Shenzhen University Town
Xili, Shenzhen
Guangdong
P. R. China 518055
or email the documents to scc.hitsz@gmail.com

[Back to the contents](#)

5.30. Faculty: Technische Universität Ilmenau, Germany

Contributed by: Johann Reger, reger@ieee.org

The Department of Computer Science and Automation at Technische Universität Ilmenau invites applications for the position of a Full Professor (W3) for Automation Systems which is to be filled as soon as possible. The position is hosted at the Institute of Automation and Systems Engineering of the department where the appointee will head the group for automation systems.

A highly qualified and motivated team will assist the new colleague in pushing forward cooperations within the department and also with other university departments.

The group shall contribute methodological research to the university research clusters, in particular, to “Precision Engineering and Precision Measurement Technology”, “Technical and Biomedical Assistance Systems”, and “Drive, Energy and Environment Technology”.

Candidates are expected to have an excellent scientific record in the area of automation systems and should document experience in some of the following areas:

- process automation and distributed process control
- modeling and identification of automation systems
- verification and diagnosis of process control systems
- discrete event and hybrid systems

Teaching contributions are expected in the area of automation systems within the bachelor and master courses of engineering programs at the university. The candidate should feature pedagogical aptitude and willingness to decisively advance the quality of student programs and teaching syllabus. A disposition of the candidate to offer non-elective courses in German language is required, elective courses may be taught in English. The appointee is expected to show activities in the academic self-administration.

The institute of automation and systems engineering traditionally holds strong relationship with the local Application Center System Technology AST of the Fraunhofer Institute of Optronics, System Technologies and Image Exploitation (IOSB). In collaborative research, the Ilmenau Fraunhofer IOSB-AST opens up the possibility to put application oriented research into industrial practice.

Prerequisite for taking the position as a university professor are the regulations according to §77 ThürHG, especially concerning proof of additional scientific accomplishments shown generally through the habilitation as well as through experience in teaching.

Having achieved the certificate “Total E-Quality”, the university desires to increase female participation in research and teaching and thus encourages qualified female researchers to submit their applications. The university also actively supports moving the center of life to the vicinity of the job place. The university will provide information on employers in the technology region Ilmenau-Erfurt-Jena in connection with the career wishes of family partners. Severely disabled persons have preference for the application process if they

are equally qualified and suited for the position.

Applications with the usual supporting information (CV, certificates, list of publications including reprints of selected papers, teaching credentials, and a collection of projects conducted) should be submitted to:

Prof. Dr.-Ing. habil. Kai-Uwe Sattler

Dean, Department of Computer Science and Automation

Technische Universität Ilmenau P.O. Box 100565

98684 Ilmenau, Germany

or by Email to: dekanat-ia@tu-ilmenau.de

Extended deadline for applications: Nov 27, 2015

[Back to the contents](#)

5.31. Faculty: University of Pennsylvania, USA

Contributed by: George J. Pappas, pappasg@seas.upenn.edu

Multiple Tenure-track Positions

The School of Engineering and Applied Science at the University of Pennsylvania is growing its faculty by 33% over the next five years. As part of this initiative, the Department of Mechanical Engineering and Applied Mechanics is engaged in an aggressive, multi-year hiring effort for multiple tenure-track positions at the Assistant, Associate, and Full Professor levels.

We seek applicants with exceptional research achievement and future promise, a commitment to excellence in undergraduate and graduate education in mechanical engineering, and a dedication to service and collegiality. Candidates should couple with the department's core strengths in mechanical systems, mechanics of materials, fluid mechanics, and thermal sciences. Applicants in all areas related to mechanical engineering will be considered; particular areas of interest are: (1) robotics and controls, (2) manufacturing, and (3) energy technology. Candidates whose research can contribute to school-wide cross-cutting initiatives in human health, scientific computing, and nanoscale engineering are particularly encouraged to apply.

The Department maintains strong collaborations with all other engineering departments, the School of Arts and Sciences, the Perelman School of Medicine, the Wharton School of Business, and the School of Design. Faculty engage strongly with leading centers including the General Robotics, Automation, Sensing, and Perception (GRASP) Laboratory, the Penn Institute for Computational Science (PICS), and the Laboratory for Research on the Structure of Matter (LRSM). The Department encourages candidates who can leverage and add to these relationships. Successful candidates will conduct innovative, leading research programs benefiting from Penn's strong interdisciplinary tradition and excellent facilities such as the new Singh Center for Nanotechnology. We are especially interested in candidates whose interests are aligned with the School's new strategic plan (<http://www.seas.upenn.edu/PennEngineering2020>). Candidates who enrich the diversity of our community are strongly encouraged to apply.

Applicants should supply a cover letter (up to 2 pages), curriculum vitae, teaching statement (up to 2 pages), research statement (up to 4 pages, with a 300-word abstract at the beginning), 3-6 references, and 4-6 representative publications at <https://facultysearches.provost.upenn.edu/postings/711>

The University of Pennsylvania is an affirmative action/equal opportunity employer. All qualified applicants will receive consideration for employment and will not be discriminated against on the basis of race, color, religion, sex, sexual orientation, gender identity, creed, national or ethnic origin, citizenship status, disability, veteran status, or any other characteristic protected by law.

[Back to the contents](#)

5.32. Faculty: Washington University in St. Louis, USA

Contributed by: Hiro Mukai, facsearch@ese.wsutl.edu

Faculty Positions at Washington University in St. Louis, USA

Washington University in St. Louis is a medium-size private university, which is 14th in U.S. News & World Report's national university ranking.

Washington University in St. Louis is an Equal Opportunity and Affirmative Action employer, and the Engineering School seeks an exceptionally qualified and diverse faculty; women, minorities, protected veterans and candidates with disabilities are strongly encouraged to apply. Employment eligibility verification required upon employment.

The details of the application process and necessary documents are found at

<http://ese.wustl.edu/aboutthedepartment/Pages/faculty-openings.aspx>.

* Tenured/Tenure-Track Faculty

The Preston M. Green Department of Electrical & Systems Engineering at Washington University in St. Louis invites applications for faculty positions at all levels, for fall 2016. The Electrical & Systems Engineering department moved to a new building, Preston M. Green Hall, with state-of-the-art facilities. Candidates should be exceptionally strong, possess novel and creative visions of research, and commit gladly to teaching at both the undergraduate and graduate levels. They should have an earned doctorate in Electrical Engineering, Computer Engineering, Computer Science, Applied Physics, Systems Engineering, Mathematics, Statistics, Operations Research or related fields.

Technical areas of interest include, but are not limited to, signal processing, machine learning, imaging, information theory, network science, applied physics, electronics, control systems, operations research, optimization, applied mathematics, and applied statistics. Applications include biomedicine, energy, the environment, robotics, financial engineering, and modeling of physical and complex systems. Successful candidates are expected to conduct high-quality research and teaching, publish in peer-reviewed journals, and participate in department and university service.

Applications will be accepted immediately, and interviews will begin after January 1, 2016. Applications received by December 1, 2015, will receive full consideration.

* Lecturer in Electrical Engineering

The Preston M. Green Department of Electrical and Systems Engineering at Washington University, St. Louis, Missouri invites applications for a full-time faculty position as a Lecturer. This non-tenure-track position will start in January 2016.

Candidates should have a doctorate in Electrical Engineering or related fields or industrial experience of more than 5 years with a strong commitment to excellence in teaching at the undergraduate level. The department is interested in candidates who can teach lecture courses as well as laboratory courses. Applicants in all areas of electrical engineering will be considered; however our current needs are greatest in electric and electronic circuits.

Applications will be accepted immediately, and interviews will begin any time. Applicants should prepare in electronic format (PDF) a letter of interest, a curriculum vitae, a list of at least three academic or professional references (names, affiliations and electronic addresses, please), a statement of teaching philosophy and a list of courses taught when applicable with clarification for your role as TA or instructor in charge as well as any teaching evaluations.

[Back to the contents](#)

5.33. Faculty: University of Houston, USA

Contributed by: Karolos Grigoriadis, karolos@uh.edu

Assistant/Associate/Full Professor-Mechanical Engineering

The Department of Mechanical Engineering at the University of Houston (UH) invites applications for an open rank faculty position at the Assistant/Associate/Full Professor level beginning Fall 2016. Successful candidates are expected to establish an internationally recognized dynamic research program in the broad areas of solid mechanics or control systems.

As part of a major drive for excellence, including the recent designation of UH as a Tier One university, the Cullen College of Engineering has a strong commitment to expand, as well as, advance the quality of our engineering research programs. UH is Texas' premier public metropolitan research and teaching institution with more than 40,000 students. Houston is home to the Texas Medical Center, the largest medical center in the world, the NASA Johnson Space Center, and multiple high-tech companies offering excellent local collaboration opportunities.

Applicants must have earned a PhD in a relevant area of physical sciences or engineering. Successful applicants must demonstrate a strong record of scholarship, and external funding, as well as a commitment to teaching. Candidates need to apply through the University website at <https://jobs.uh.edu/postings/26893>. You will need to attach a cover letter, statement of teaching and research interests, goals and accomplishments, curriculum vitae and a list of five references. If you have any questions concerning the position, please contact Dr. Yashashree Kulkarni at ykulkarn@central.uh.edu. The position(s) will be filled contingent upon the availability of funds.

The University of Houston is an equal opportunity/affirmative action employer. Minorities, women, veterans and persons with disabilities are encouraged to apply.

[Back to the contents](#)

5.34. Faculty: Louisiana State University, USA

Contributed by: Marcio de Queiroz, mdeque1@lsu.edu

Faculty Positions in Robotics and Aerospace Engineering

The Department of Mechanical and Industrial Engineering (MIE) at The Louisiana State University (LSU) is pleased to announce a significant growth of faculty over the next five years. The Department is currently seeking excellent applicants to fill multiple tenure-track positions in Mechanical Engineering.

The College of Engineering (CoE) at LSU is experiencing a period of unprecedented growth, which includes an investment of a \$110M in a new engineering complex, a result of a public-private partnership. The CoE actively encourages, and provides resources, for interdisciplinary research including but not limited to Advanced Manufacturing and Materials, Energy, BioTechnology and Infrastructure. Depending on their background, new hires will have the opportunity to leverage the resources and collaborative environments of the CoE, the National Center for Advanced Manufacturing (NCAM - <http://ncam.eng.lsu.edu/>), the recently NSF-funded (\$20M over 5 years)

Consortium for Innovation in Manufacturing and Materials (CIMM), the Center for Computation and Technology (CCT - <https://www.cct.lsu.edu/>), the newly founded Institute for Advanced Materials (IAM), as well as partnerships with IBM and ANSYS.

The MIE Department realizes Mechanical and Industrial Engineering education, research and scholarship and advances professional frontiers within a creative, multi-disciplinary and diverse atmosphere that promotes discovery, creativity and innovation. It is the largest of seven departments in the CoE and is currently

home to 22 Mechanical Engineering faculty, 8 Industrial Engineering Faculty, and a vibrant undergraduate and graduate student body. The faculty conduct funded research across a broad spectrum of traditional and emerging areas. The Department offers separate B.S., M.S., and Ph.D. degree programs in both Mechanical Engineering and Industrial Engineering. Further information on the Department can be found at: <http://www.mie.lsu.edu/>.

Duties of the positions include undergraduate and graduate level teaching; initiating and sustaining independent, externally-funded research, and supervising graduate students. Successful candidates are expected to develop substantive collaborations across departmental and college boundaries, engage local industries and develop activities supporting the State's economic development efforts.

General Area: Robotics

The successful candidate will have the opportunity to support a recently introduced multidisciplinary Robotics Minor in the College of Engineering. Required Qualifications: At least one degree in Mechanical Engineering, with a Ph.D. in Engineering or related scientific field. Expertise in Robotics.

Desired Qualifications: Background in any area of robotics is welcome, including but not limited to: medical robotics, integrated human robotics (e.g., assistive and wearable robotics), autonomous vehicles, subsea robotics, and industrial robotics.

General Area: Aerospace

The successful candidate will have the opportunity to support a highly popular Aerospace Minor in Mechanical Engineering.

Required Qualifications: At least one degree in Aerospace Engineering and a Ph.D. in either Aerospace, Mechanical Engineering or a related field.

Preferred Qualifications: Background in all areas of aerospace engineering is welcome including, but not limited to structures, aerodynamics and heat transfer, propulsion and energy, dynamic systems and control. Experimental and/or Computational experience are equally welcome.

Apply on line through URL:

<https://lsusystemcareers.lsu.edu/applicants/jsp/shared/frameset/Frameset.jsp?time=1446066493939>

An offer of employment is contingent on a satisfactory pre-employment background check. Applications will be accepted until the positions are filled and those received before January 15, 2016 will be guaranteed full consideration. Women and minority candidates are encouraged to apply.

Lsu is an equal opportunity/equal access employer

[Back to the contents](#)

5.35. Faculty: University of California, Riverside, USA

Contributed by: Fabio Pasqualetti, fabipas@engr.ucr.edu

3 Faculty Positions in Intelligent and Autonomous Embedded Systems at UC Riverside

The Electrical and Computer Engineering Department of the Bourns College of Engineering is leading a cluster hire search (3 open rank positions, with opportunity for appointment in ECE, ME, and/or other departments in engineering or the sciences) in the area of Intelligent and Autonomous Embedded Systems. Areas of primary interest include: robotics, autonomy, and computer vision; planning, decision-making, and machine learning; and embedded, networked, and real-time systems. Excellent candidates with theoretical and system-building research experience are desired. Candidates must have published research of the highest quality and demonstrate exceptional promise for, or a proven record of, high quality research and teaching, securing external funding, collaborating across disciplines, and working successfully to benefit a diverse student body.

Details and application materials can be found at www.engr.ucr.edu/facultysearch. Contact search@ece.ucr.edu for further questions.

Full consideration will be given to applications received by December 23, 2015. Applications will continue to be accepted until the positions are filled.

EEO/AA/ADA/Vets Employer.

[Back to the contents](#)

5.36. Faculty: University of Virginia, USA

Contributed by: Deborah Rose, dcr4f@virginia.edu

Eight (8) Faculty Positions in Cyber-Physical Systems The University of Virginia

The University of Virginia School of Engineering and Applied Science has launched a multi-million dollar initiative to create a collaborative world class center of research excellence in Cyber-Physical Systems. The initiative includes an international search for 8 new tenured/tenure-track faculty members across 5 different departments:

Civil and Environmental Engineering, Computer Science, Electrical and Computer Engineering, Mechanical and Aerospace Engineering, Systems and Information Engineering We are seeking candidates (all ranks) who are committing to solving the most critical problems at the intersection of the cyber and physical worlds. All areas of research will be considered, including but not limited to:

Smart Cities; Advanced infrastructure and intelligent transportation systems; Wireless and mobile health, and closed-loop medical devices; The safety, security, and reliability of Cyber-Physical systems; Robotics, drones, and autonomous or connected vehicles; Smart manufacturing systems; Low-power and energy harvesting technologies; Sensor design including RF sensing and novel sensing devices; Other technologies or applications related to Cyber-Physical Systems.

The U.Va. School of Engineering is widely recognized for its pioneering work in areas such as Wireless Health, Smart Buildings, Bio-inspired Platforms, and Intelligent Transportation Systems. We are interested in candidates who are collaborative in nature and would complement or expand the school's current strengths.

To support the initiative, the school is launching a lab called the Link Lab that is dedicated to collaborative and interdisciplinary research. In their research statement, applicants should explicitly discuss any experiences with or plans for collaborative or cross-cutting research and emphasize how they will contribute to the lab's goal to create a truly collaborative environment, and its role as a bridge between departments.

The University of Virginia is rated as one of the top 3 public universities in the nation and in the top 30 among all universities, public and private. Charlottesville is frequently cited as one of the best cities in which to live and work. More information about town, the school, faculty benefits, and other topics can be found at: <http://uvacharge.virginia.edu/guide.html>

The School of Engineering offers a vibrant research culture where innovative, interdisciplinary, and foundational research is conducted in a collegial atmosphere. It is committed to enhancing a culturally diverse community, is an active dual career employer, and is actively boosting the participation of women faculty in science and engineering with the support of a National Science Foundation ADVANCE grant. The University of Virginia is an equal opportunity and affirmative action employer. Women, minorities, veterans, and persons with disabilities are encouraged to apply.

Candidates must have a record of excellence in research, as appropriate for the candidate's rank, and a commitment to teaching excellence. Applicants should expect to have a PhD by the appointment start date that is consistent with one of the 5 disciplines listed above, or closely related fields. Candidates will be expected to engage in funded research, to teach at the undergraduate and graduate levels, and to perform

service for the institution and professional organizations.

More information about these 8 positions and the school's larger initiative around Cyber-Physical Systems can be found through the Link Lab (<http://linklab.virginia.edu>). To apply, candidates must submit a Candidate Profile through Jobs@UVA (<https://jobs.virginia.edu>), search on posting number 0617535.

Applicants should submit a cover letter, CV, teaching statement, research statement, and names and contact information for 3 references. We will begin reviewing applications on December 1, 2015 and will continue to review applications as they are received until the positions are filled. For questions about this position, please contact Kamin Whitehouse at whitehouse@virginia.edu.

[Back to the contents](#)

5.37. Faculty: Lehigh University, USA

Contributed by: Eugenio Schuster, schuster@lehigh.edu

Lehigh University

Department of Mechanical Engineering & Mechanics

Lehigh University is accepting applications for a tenure-track faculty position at the Assistant or Associate Professor level in the broad area of Control Systems. Applications aligned with the department expertise include, but are not limited to, robotics, energy and power systems, networked systems.

The ideal candidate will have a doctoral degree in Engineering with a strong background in the experimental, theoretical or computational aspects of one or more of the areas of control systems, and will be expected to develop a vigorous research program, accompanied by excellence in teaching at both the graduate and undergraduate levels. Multidisciplinary research programs are an important priority at Lehigh University, and include strong interactions with government agencies, industry, and existing research centers on campus.

Candidates should provide curriculum vitae that include: a statement of professional experience and goals; detailed plans for research and funding; a list of refereed publications and presentations; a summary of teaching experience and plans; and the names and contact information of four references. This material should be submitted electronically using our online application found at <https://academicjobsonline.org/ajo/jobs/6616>.

For questions regarding this position, please contact Barbara McGuire, bcm208@lehigh.edu. Review of applications will begin upon receipt and will continue until the position is filled. Full consideration will be given to applications received by January 15, 2016.

Lehigh University is an affirmative action/equal opportunity employer and does not discriminate on the basis of age, color, disability, gender, gender identity, genetic information, marital status, national or ethnic origin, race, religion, sexual orientation, or veteran status. Lehigh University provides comprehensive benefits including partner benefits.

[Back to the contents](#)

5.38. Senior Researcher: NASA Langley Research Center, USA

Contributed by: Luis G. Crespo, Luis.G.Crespo@nasa.gov

The Dynamic Systems and Control Branch of NASA Langley Research Center is looking for a senior researcher for advanced control theory and applications. Details of the position are available at <https://www.usajobs.gov/GetJob/ViewDetails/418267800>. This position, open to US citizens only, closes on November 9th, 2015.

[Back to the contents](#)