Welcome to the 359 issue of the E-letter, available electronically here. To submit new articles, go “Article Submissions” on the E-letter website. To unsubscribe, please send an email with the subject line “UNSUBSCRIBE”.

The next E-letter will be mailed out at the beginning of August 2018.

Contents

1. IEEE CSS Headlines
   1.1 IEEE Control Systems Society Technically Cosponsored Conferences
   1.2 IEEE Transactions on Automatic Control
   1.3 IEEE Transactions on Control of Network Systems
   1.4 IEEE Transactions on Control Systems Technology
   1.5 IEEE Control Systems Letters
   1.6 IEEE Control Systems Society Publications Content Digest

2. MISC
   2.1 IQPC Survey on “The Future of AI: Opportunities, Trends and Challenges that Will Reshape Enterprise”

3. Books
   3.1 Control Subject to Computational and Communication Constraints: Current Challenges

4. Journals
   4.1 New Journal: Annual Review of Control, Robotics, and Autonomous Systems
   4.2 Contents: Automatica
   4.3 Contents: Systems & Control Letters
   4.4 Contents: IEEE/CAA Journal of Automatica Sinica
   4.5 Contents: Evolution Equations and Control Theory
   4.6 Contents: Asian Journal of Control
   4.7 Contents: International Journal of Applied Mathematics and Computer Science
   4.8 Contents: International Journal of Control
   4.9 Contents: Proceedings of the Institute of Applied Mathematics
   4.10 Contents: IET Control Theory & Applications
   4.11 Contents: Control Engineering Practice
   4.12 Contents: Mechatronics
   4.13 Contents: Journal of Process Control
   4.14 Contents: Engineering Applications of Artificial Intelligence
   4.15 Contents: Annual Reviews in Control
4.16 Contents: European Journal of Control
4.17 Contents: ISA Transactions
4.18 Contents: Journal of the Franklin Institute
4.19 Contents: IFAC Journal of Systems and Control
4.20 Contents: Applied and Computational Mathematics an International Journal
4.21 CFP: International Journal of Adaptive Control and Signal Processing

5. Conferences
5.1 American Control Conference
5.2 Allerton Conference on Communication, Control, and Computing
5.3 International Conference on Control, Automation and Systems

6. Positions
6.1 PhD: Delft University of Technology, The Netherlands
6.2 PhD: Delft University of Technology, The Netherlands
6.3 PhD: Delft University of Technology, The Netherlands
6.4 PhD: Johannes Kepler University Linz, Austria
6.5 PhD: University of Grenoble-Alpes, France
6.6 PhD: University of Grenoble-Alpes, France
6.7 PhD: George Washington University, USA
6.8 PhD: University of New South Wales, Australia
6.9 PhD: University of New South Wales, Australia
6.10 PhD: University of Sannio in Benevento, Italy
6.11 PhD: Illinois Institute of Technology, USA
6.12 PhD/PostDoc: KU Leuven, Belgium
6.13 PostDoc: Delft University of Technology, The Netherlands
6.14 PostDoc: Delft University of Technology, The Netherlands
6.15 PostDoc: INRIA Grenoble, France
6.16 PostDoc: USP, Brazil
6.17 PostDoc: University of Sydney, Australia
6.18 Research Associate: Paderborn University, Germany
6.19 Faculty: Aalborg University, Denmark
6.20 Department Head: French German Research Institute of Saint-Louis, France
6.21 Research Scientist: Optikom, China
1. IEEE CSS Headlines

1.1. IEEE Control Systems Society Technically Cosponsored Conferences
Contributed by: Luca Zaccarian, CSS AE Conferences, zaccarian@laas.fr

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


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

1.2. IEEE Transactions on Automatic Control
Contributed by: Alessandro Astolfi, ieeetac@imperial.ac.uk

IEEE Transactions on Automatic Control
Volume 63 (2018), Issue 6 (June)

Scanning the Issue, p. 1547

Papers
- Approximate Best-Response Dynamics in Random Interference Games, Ilai Bistritz, Amir Leshem, p. 1549
- Performance Bounds on Spatial Coverage Tasks by Stochastic Robotic Swarms, Fangbo Zhang, Andrea L. Bertozzi, Karthik Elamvazhuthi, Spring Berman, p. 1563
- Stabilizing Stochastic Predictive Control under Bernoulli Dropouts, Prabhat Kumar Mishra, Debasish Chatterjee, Daniel E. Quevedo, p. 1579
- Observability of Finite Labeled Transition Systems, Kuize Zhang, Ting Liu, Daizhan Cheng, p. 1591
- An Adaptive Observer-Based Robust Estimator of Multi-sinusoidal Signals, Boli Chen, Gilberto Pin, Wai N. Ng, Shu Yuen Hui, Thomas Parisini, p. 1618
- On Weight-Prioritized Multi-Task Control of Humanoid Robots, Karim Bouyarmane, Abderrahmane Kheddar, p. 1632
Technical Notes and Correspondence
- Formation-Preserving Properties of Cooperative Kinematic Agents Without and With an External Influence of Target Attraction, Wei Li, p. 1737
- Asynchronous Implementation of Distributed Coordination Algorithms: Conditions Using Partially Scrambling and Essentially Cyclic Matrices, Yao Chen, Weiguo Xia, Ming Cao, Jinhu Lu, p. 1745
- Distributed Nonsmooth Optimization with Coupled Inequality Constraints via Modified Lagrangian Function, Shu Liang, Xianlin Zeng, Yiguang Hong, p. 1753
- Importance Splitting for Finite-Time Rare Event Simulation, Guangxin Jiang, Michael C. Fu, p. 1760
- Worst-case Prediction Performance Analysis of the Kalman Filter, Sholeh Yasini, Kristiaan Pelckmans, p. 1768
- Constrained Consensus in Continuous-Time Multi-Agent Systems under Weighted Graph, Zheqing Zhou, Xiaofeng Wang, p. 1776
- Robust Consensus Analysis and Design under Relative State Constraints or Uncertainties, Dinh Hoa Nguyen, Tatsuo Narikiyo, Michihiro Kawanishi, p. 1784
- Synchronization of Coupled Dynamical Systems: Tolerance to Weak Connectivity and Arbitrarily Bounded Time-Varying Delays, Ziyang Meng, Tao Yang, Guoqi Li, Wei Ren, Di Wu, p. 1791
- Finite Horizon Tracking Control of Boolean Control Networks, Zhilua Zhang, Thomas Leifeld, Ping Zhang, p. 1798
- Reduced Order Internal Models in the Frequency Domain, Petteri Laakkonen, Lassi Paunonen, p. 1806
- Input-to-State Stabilizing Control for Cyber-Physical Systems with Multiple Transmission Channels Under Denial-of-Service, An-Yang Lu, Guang-Hong Yang, p. 1813
- Extremum Cycle Times in Time Interval Models, Philippe Declerck, p. 1821
- Verification of Prognosability for Labeled Petri Nets, Xiang Yin, p. 1828
- Towards Event-Triggered Extended State Observer, Yuan Huang, Dawei Shi, Junzheng Wang, Ling Shi, p. 1842
- Data-Driven Coordinated Attack Policy Design Based on Adaptive L2-Gain Optimal Theory, Liwei An, Guang-Hong Yang, p. 1850
- A Pulse Based Integrated Communication and Control Design for Decentralized Collective Motion Coordination, Huan Gao, Yongqiang Wang, p. 1858

Back to the contents
Table of Contents
IEEE Transactions on Control of Network Systems
Volume 5 (2018), Issue 2 (June)
Special Issue: Approaches to Control Biological and Biologically Inspired Networks

PAPERS
- Introduction to the Special Issue on Approaches to Control Biological and Biologically Inspired Networks-R. Albert, J. Baillieul, and A. E. Motter, p. 690
- State Observation and Sensor Selection for Nonlinear Networks- A. Haber, F. Molnar, and A. E. Motter, p. 694
- Selecting Sensors in Biological Fractional-Order Systems- V. Tzoumas, Y. Xue, S. Pequito, P. Bogdan, and G. J. Pappas, p. 709
- Network Identification With Latent Nodes via Autoregressive Models- E. Nozari, Y. Zhao, and J. Cortés, p. 722
- Identification of Nonlinear State-Space Systems From Heterogeneous Datasets- W. Pan, Y. Yuan, L. Ljung, J. Gonçalves, and G.-B. Stan, p. 737
- Combinatorial Algorithms for Control of Biological Regulatory Networks- A. Clark, P. Lee, B. Alomair, L. Bushnell, and R. Poovendran, p. 748
- Control of Gene Regulatory Networks With Noisy Measurements and Uncertain Inputs- M. Imani and U. M. Braga-Neto, p. 760
- Controllability of Conjunctive Boolean Networks With Application to Gene Regulation- Z. Gao, X. Chen, and T. Başar, p. 770
- Design Constraints for Biological Systems That Achieve Adaptation and Disturbance Rejection- H. Steel and A. Papachristodoulou, p. 807

Back to the contents

1.4. IEEE Transactions on Control Systems Technology
Contributed by: Michelle Colasanti, ieeetcst@osu.edu

Table of Contents
IEEE Transactions on Control Systems Technology
Volume 26 (2018), Issue 4 (July)

REGULAR PAPERS
- Distortion Compensation for a Robotic Hardware-In-The-Loop Contact Simulator, C. Qi, F. Gao, X. Zhao, Q. Wang, and Q. Sun, page 1170
- Gain Scheduled Attitude Control of Fixed-Wing UAV With Automatic Controller Tuning, P. Poksawat, L. Wang, and A. Mohamed, page 1192
- Adaptive Near-Optimal Control of Uncertain Systems With Application to Underactuated Surface Vessels, Y. Zhang, S. Li, and X. Liu, page 1204
- A Cooperative Charging Protocol for Onboard Supercapacitors of Catenary-Free Trams, H. Li, J. Peng, J. He, R. Zhou, Z. Huang, and J. Pan, page 1219
- Leader–Follower Navigation in Obstacle Environments While Preserving Connectivity Without Data Transmission, D. Sakai, H. Fukushima, and F. Matsuno, page 1233
- Reconfigurable Tolerant Control of Uncertain Mechanical Systems With Actuator Faults: A Sliding Mode Observer-Based Approach, B. Xino, S. Yin, and H. Gao, page 1249
- Adaptive Target Scheme for Learning Control of Quantum Systems, W. Zhang, D. Dong, and I. R. Petersen, page 1259
- Aircraft Fault Accommodation With Consideration of Actuator Control Authority and Gyro Availability, X. Yu, Y. Fu, and Y. Zhang, page 1285
- A Dual Particle Filter-Based Fault Diagnosis Scheme for Nonlinear Systems, N. Daroogheh, N. Meskin, and K. Khorasani, page 1317
- Minimum-Time Trajectory Generation for Quadrotors in Constrained Environments, S. Spedicato and G. Notarstefano, page 1335
- Tricriteria Optimization–Coordination Motion of Dual-Redundant-Robot Manipulators for Complex Path Planning, Z. Zhang, Y. Lin, S. Li, Y. Li, Z. Yu, and Y. Luo, page 1345
- A Guiding Vector-Field Algorithm for Path-Following Control of Nonholonomic Mobile Robots, Y. A. Kapitanyuk, A. V. Proskurnikov, and M. Cao, page 1372

BRIEF PAPERS
- Active Disturbance Rejection Attitude Control for a Dual Closed-Loop Quadrotor Under Gust Wind, H. Yang, L. Cheng, Y. Xia, and Y. Yuan, page 1400
- Experimental Validation of a Novel PI Speed Controller for AC Motor Drives With Improved Transient Performances, R. Errouissi, A. Al-Durra, and S. M. Muyeen, page 1414
- Direct Data-Driven Control of Constrained Systems, D. Piga, S. Formentin, and A. Bemporad, page 1422
- LiDAR-Based Control of Autonomous Rotorcraft for the Inspection of Pierlike Structures, B. J. Guerreiro, C. Silvestre, R. Cunha, and D. Cabecinhas, page 1430
- Demand-Side Energy Management by Use of a Design-Then-Approximate Controller for Aggregated Thermostatic Loads, M. Ghanavati and A. Chakravarthi, page 1439
- Optimal Motion Planning and Energy-Based Control of a Single Mast Stacker Crane, H. Rams, M. Schöberl, and K. Schlacher, page 1449
- Formation Control of Teleoperating Cyber-Physical System With Time Delay and Actuator Saturation, J. Yan, Y. Wan, X. Luo, C. Chen, C. Hua, and X. Guan, page 1458
- A Stall Warning Scheme for Aircraft Engines With Inlet Distortion via Deterministic Learning. P. Lin, C. Wang, and T. Chen, page 1468
- On-the-Fly Control Design of Modular Robot Manipulators, A. Giusti and M. Althoff, page 1484
- Scalable Multiobjective Control for Large-Scale Water Resources Systems Under Uncertainty, M. Giuliani, J. D. Quinn, J. D. Herman, A. Castelletti, and P. M. Reed, page 1492
- Application of the Method of Maximum Likelihood to Identification of Bipedal Walking Robots, K. Dolinský and S. Celikovsky, page 1500
- Robust Team Formation Control for Quadrotors, W. Jasim and D. Gu, page 1516
- Complexity Analysis About Nonlinear Mixed Oligopolies Game Based on Production Cooperation, J. Ma and L. Sun, page 1532

1.5. IEEE Control Systems Letters
Contributed by: Francesca Bettini, bettini@dei.unipd.it

Table of Contents
IEEE Control Systems Letters
Volume 2 (2018), Issue 3 (July)


PAPERS
- A Linear Algorithm for Optimization Over Directed Graphs With Geometric Convergence, R. Xin and Usman A. Khan - p. 315
- Sparsity-Constrained Controllability Maximization With Application to Time-Varying Control Node Selection, T. Ikeda and K. Kashima - p. 321
- A Dual Quaternion Feedback Linearized Approach for Maneuver Regulation of Rigid Bodies, A. Antonello, G. Michieletto, R. Antonello, and A. Cenedese - p. 327
- Fractional Controller Tuning Expressions for a Universal Plant Structure, P. Sathishkumar and N. Selvaganesan - p. 345
- Control of Rolling Disk Motion on an Arbitrary Smooth Surface, M. Rehan and M. Reyhanoglu - p. 357
- Data-DrivenDistributionallyRobustOptimalPowerFlowforDistributionSystems, R. Mieth and Y. Dvorkin -
- Realization of Nonlinear Time-Delay Input–Output Equations, A. Kaldmäe, Ü. Kotta, and M. Tönso - p. 369
- Open Multi-Agent Systems With Discrete States and Stochastic Interactions, V. S. Varma, I.-C. Morarescu, and D. Nesic - p. 375
- Accelerating Consensus in High-Order Leader-Follower Networks, G. Parlangeli and M. E. Valcher - p. 381
- Persistence in Control Systems, M. Inoue - p. 387
- A New Classification Algorithm With Guaranteed Sensitivity and Specificity for Medical Applications, A. Carè, F. A. Ramponi, and M. C. Campi - p. 393
- Indefinite Linear Quadratic Optimal Control: Strict Dissipativity and Turnpike Properties, J. Berberich, J. Köhler, F. Allgöwer, and M. A. Müller - p. 399
- Bio-Inspired Evolutionary Game Dynamics in Symmetric and Asymmetric Models, L. Stella and D. Bauso - p. 405
- Switched Adaptive Control of Air Handling Units With Discrete and Saturated Actuators, S. Yuan, L. Zhang, O. Holub, and S. Baldi - p. 417
- Data-Driven Modelling of Subjective Pain/Pleasure Assessments As Responses to Vaginal Dilation Stimuli, D. Varagnolo, S. Knorn, E. Oliver-Chiva, R. Melles, and M. Dewitte - p. 423
- Operator-Theoretic Characterization of Eventually Monotone Systems, A. Sootla and A. Mauray - p. 429
- Periodic Orbits in Planar Linear Systems With Input Saturation, T. Lathuilière, G. Valmorbida, and E. Panteley - p. 435
- Barrier Lyapunov Functions and Constrained Model Reference Adaptive Control, A. L’Afflitto - p. 441
- A Consistent Threshold-Based Policy for Event-Triggered Control, B. A. Khashooei, D. J. Antunes, and W. P. M. H. Heemels - p. 447
- Backstepping Control of a Wave PDE With Unstable Source Terms and Dynamic Boundary, C. Roman, D. Bresch-Pietri, E. Cerpa, C. Prieur, and O. Sename - p. 459
- Optimal Diffusion Processes, S. Jafarizadeh - p. 465
- Impact of Time Correlated Mode Mismatch on Markov Jump Linear System State Estimation, W. Zhang and B. Natarajan - p. 489
- Robust Distributed Formation Control of Agents With Higher-Order Dynamics, K. Fathian, T. H. Summers, and N. R. Gans - p. 495
- On Periodic Dissipativity Notions in Economic Model Predictive Control, J. Köhler, M. A. Müller, and F. Allgöwer - p. 501
- Scalable Input-to-State Stability for Performance Analysis of Large-Scale Networks, B. Besselink and S. Knorn - p. 507
1.6. IEEE Control Systems Society Publications Content Digest
Contributed by: Alessandro Astolfi, ieeeac@imperial.ac.uk

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.

2. MISC

2.1. IQPC Survey on “The Future of AI: Opportunities, Trends and Challenges that Will Reshape Enterprise”
Contributed by: Beth Brody, beth@brodypr.com

Industry Cultural Resistance is Biggest Enemy of Automation, Says New IQPC Survey
The Future of AI: Opportunities, Trends and Challenges that Will Reshape Enterprise

While customers perceive that artificial intelligence (AI) will allow brands to deliver what they want when they want it, there remains a widespread lack of understanding among enterprises of the potential benefits for AI to solve real-world business problems. The biggest corporate challenge to implementing an intelligent business strategy is cultural resistance (49%), according to a new research report, “AI2020: The Global State of Intelligent Enterprise” by IQPC’s Intelligent Automation Network.

Very few (less than 5%) of the 430 respondents surveyed have established an intelligent enterprise (IE) and nearly 35% either hadn’t begun or had no plans to establish IE technologies such as AI and intelligent automation. However, the survey found that more than half (54%) hope to have IE established by 2020.
The report found that there remains a widespread lack of understanding of the potential benefits for artificial intelligence to solve real-world business problems. However, nearly half (47%) of survey respondents felt that the most significant impact AI and IE tools will have on their business is helping them stay ahead of the competition. The focus to date has largely been on adopting AI as a technology rather than applying AI as a tool to solve existing problems.

“AI promises a world of insights, analytics and business smarts,” says Geena Monaco, Content Manager, Intelligent Automation Week. “Sectors such as banking and financial services, defense and retail are already reaping the benefits as early adopters of AI.”

Barriers to Innovation

The path to establishing IE can be fraught with risks and challenges, such as failure to implement governance and regulatory frameworks, a lack of long-term IE strategy and a lack of in-market case studies and best practice guidance. The need to change business culture, rapid changes in technology and competing priorities are among the major inhibitors to a delayed response to AI.

“Our survey found that industry cultural resistance is the biggest enemy of automation,” explains Monaco. “Business leaders may be keen to support an automation program but often harbor serious doubts and deep-seated fear for their own survival.”

There is a strong consensus that there will be new job opportunities due to the implementation of IE. This awareness illustrates that management is open to developing talent in their organization to meet the demands of this new technology and recruit new skills. Predictive analytics, one of the top intelligent technologies, can streamline processes and help firms avoid gaps in productivity.

AI will automate some jobs, particularly the dirty, dangerous or dull work that people don’t want to do – everything from sewer reconnaissance to repetitive factory work.

The skills needed for future employment include critical thinking and problem solving, good communication and teamwork, leadership, initiative, creativity and the willingness to leverage the current technology.

The IQPC report studied the intelligent enterprise at various industry sectors, including oil and gas, pharma and healthcare, defense and security and financial services. To download a copy of the report, visit Intelligent Automation Network. Intelligent Automation Week 2018 will be held July 30 – Aug 2 in Chicago featuring industry leaders from various sectors presenting on the transformation and adoption of enterprise automation.

To register, visit https://intelligentautomation.iqpc.com/

About the Intelligent Automation Network

The Artificial intelligence & Intelligent Automation Network (aiia.net) is an online community focused on building the intelligent enterprise. It combines a range of real world and digital assets to help business executives navigate the brave new world of AI.

3. Books

3.1. Control Subject to Computational and Communication Constraints: Current Challenges

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

Control Subject to Computational and Communication Constraints: Current Challenges
by Sophie Tarbouriech, Antoine GIRARD and Laurentiu Hetel (Eds.)
ISBN: 978-3-319-78448-9
June 2018, Springer
Hardcover, 376 pages, $179.99/EURO 149.99
This book provides a broad overview of the current problems, challenges and solutions in the field of control theory, communication theory and computational resources management. Recent results on dynamical systems, which open new opportunities for research and challenges to be addressed in the future, are proposed in the context of computational and communication constraints. In order to take into the account complex phenomena, such as nonlinearities, time-varying parameters and limited availability of information, the book proposes new approaches for open problems with both theoretical and practical significance.

The contributors' research is centred on robust stability and performance of control loops that are subject to computational and communication constraints. A particular focus is placed on the presence of constraints in communication and computation, which is a critical issue in networked control systems and cyber-physical systems. The contributions, which rely on the development of novel paradigms are provided by leading experts in the field from all over the world, thus providing readers with the most accurate solutions for the constraints.

Control subject to Computational and Communication Constraints highlights many problems encountered by control researchers, while also informing graduate students of the many interesting ideas at the frontier between control theory, information theory and computational theory. The book is also a useful point of reference for engineers and practitioners, and the survey chapters will assist instructors in lecture preparation.

Contents

Part I Switched and Sampled-Data Systems
1 Minimal- and Reduced-Order Models for Aperiodic Sampled-Data Systems
2 Stabilizability and Control Co-Design for Discrete-Time Switched Linear Systems
3 Stability Analysis of Singly Perturbed Switched Linear Systems
4 Stability of LTI Systems with Distributed Sensors and Aperiodic Sampling
5 Template Complex Zonotope Based Stability Verification
6 Timing Contracts for Multi-Core Embedded Control Systems

Part II Event-Triggered Architectures
7 Time-Regularized and Periodic Event-Triggered Control for Linear Systems
8 Event-Triggered State-Feedback via Dynamic High-Gain Scaling for Nonlinearly Bounded Triangular Dynamics
9 Insights on Event-Triggered Control for Linear Systems Subject to Norm-Bounded Uncertainty
10 Abstracted Models for Scheduling of Event-Triggered Control Data Traffic
11 Resilient Self-Triggered Network Synchronization

Part III Distributed Control of Cyber-Physical Systems
12 Distributed Hybrid Control Synthesis for Multi-Agent Systems
13 Modeling and Co-Design of Control Tasks over Wireless Networking Protocols from High-Level Specifications
14 Discontinuities, Generalized Solutions, and (Dis)agreement in Opinion Dynamics
15 Information Constraints in Multiple Agent Problems with I.I.D. States

Back to the contents
4. Journals

4.1. New Journal: Annual Review of Control, Robotics, and Autonomous Systems

Contributed by: Jenni Rankin, jrankin@annualreviews.org

New Journal: The Annual Review of Control, Robotics, and Autonomous Systems, edited by Naomi Ehrich Leonard, provides comprehensive reviews of significant theoretical and applied developments that impact the engineering of autonomous and semiautonomous systems. The broad fields of control and robotics are the major areas covered, together with connections to theoretical and applied mechanics, optimization, communication, information theory, machine learning, computing, and signal processing. The journal will cover important intersections with fields outside of engineering, including biology, neuroscience, and human behavioral sciences. Available online now: https://www.annualreviews.org/journal/control

Back to the contents

4.2. Contents: Automatica

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

Automatica
Vol. 93
July 2018

- Anastasiia A. Usova, Ilia G. Polushin, Rajni V. Patel, Scattering-based stabilization of non-planar conic systems, Pages 1-11
- Siyu Xie, Lei Guo, A necessary and sufficient condition for stability of LMS-based consensus adaptive filters, Pages 12-19
- Ali Chibani, Mohammed Chadli, Steven X. Ding, Naceur Benhadj Braiek, Design of robust fuzzy fault detection filter for polynomial fuzzy systems with new finite frequency specifications, Pages 42-54
- Fei Miao, Quanyan Zhu, Miroslav Pajic, George J. Pappas, A hybrid stochastic game for secure control of cyber-physical systems, Pages 55-63
- Mirko Fiacchini, Marc Jungers, Antoine Girard, Stabilization and control Lyapunov functions for language constrained discrete-time switched linear systems, Pages 64-74
- Han Zhang, Xiaoming Hu, Consensus control for linear systems with optimal energy cost, Pages 83-91
- Claudio Altafini, Francesca Ceragioli, Signed bounded confidence models for opinion dynamics, Pages 114-125
- Miloš S. Stanković, Srdjan S. Stanković, Karl Henrik Johansson, Distributed time synchronization for networks with random delays and measurement noise, Pages 126-137
- Wei Liu, Jie Huang, Cooperative global robust output regulation for a class of nonlinear multi-agent systems by distributed event-triggered control, Pages 138-148
- Milan Korda, Igor Mezić, Linear predictors for nonlinear dynamical systems: Koopman operator meets model predictive control, Pages 149-160
- Yanjie Li, Xinyu Wu, Yunjiang Lou, Haoyao Chen, Jiangan Li, Coupling based estimation approaches for the average reward performance potential in Markov chains, Pages 172-182
- Jun-Wei Wang, Ya-Qiang Liu, Chang-Yin Sun, Pointwise exponential stabilization of a linear parabolic PDE system using non-collocated pointwise observation, Pages 197-210
- Francesca Boem, Yilun Zhou, Carlo Fischione, Thomas Parisini, Distributed Pareto-optimal state estimation using sensor networks, Pages 211-223
- Umer Hameed Shah, Keum-Shik Hong, Active vibration control of a flexible rod moving in water: Appla-
cation to nuclear refueling machines, Pages 231-243
- Andreas A. Malikopoulos, Christos G. Cassandras, Yue J. Zhang, A decentralized energy-optimal control framework for connected automated vehicles at signal-free intersections, Pages 244-256
- Alessandro Costalunga, Luca Consolini, Synthesis of virtual holonomic constraints for obtaining stable constraint dynamics, Pages 262-273
- Stefano Miani, Michele Zilletti, Paolo Gardonio, Franco Blanchini, Patrizio Colaneri, Switching and sweeping vibration absorbers: Theory and experimental validation, Pages 290-301
- Vladimir Gaitsgory, Lars Grüne, Matthias Höger, Christopher M. Kellett, Steven R. Weller, Stabilization of strictly dissipative discrete time systems with discounted optimal control, Pages 311-320
- Gianluigi Pillonetto, System identification using kernel-based regularization: New insights on stability and consistency issues, Pages 321-332
- Yiding Ji, Yi-Chin Wu, Stéphane Lafortune, Enforcement of opacity by public and private insertion functions, Pages 369-378
- Simon Rohou, Luc Jaulin, Lyudmila Mihaylova, Fabrice Le Bars, Sandor M. Veres, Reliable non-linear state estimation involving time uncertainties, Pages 379-388
- Adriano Da Silva, Christoph Kawan, Robustness of critical bit rates for practical stabilization of networked control systems, Pages 397-406
- Farshad Harirchi, Necmiye Ozay, Guaranteed model-based fault detection in cyber–physical systems: A model invalidation approach, Pages 476-488
- Martin Guay, Isaac Vandermeulen, Sean Dougherty, P. James McLellan, Distributed extremum-seeking control over networks of dynamically coupled unstable dynamic agents, Pages 498-509
- Viorel Barbu, Chiara Benazzoli, Luca Di Persio, Mild solutions to the dynamic programming equation for stochastic optimal control problems, Pages 520-526
- Johan Thunberg, Johan Markdahl, Jorge Gonçalves, Dynamic controllers for column synchronization of rotation matrices: A QR-factorization approach, Pages 20-25
- Yan-Wu Wang, Xiao-Kang Liu, Jiang-Wen Xiao, Yanjun Shen, Output formation-containment of interacted heterogeneous linear systems by distributed hybrid active control, Pages 26-32
- Jun Song, Yugang Niu, Yuanyuan Kou, Asynchronous sliding mode control of Markovian jump systems with time-varying delays and partly accessible mode detection probabilities, Pages 33-41
- Giorgio Battistelli, Luigi Chisci, Daniela Selvi, A distributed Kalman filter with event-triggered communication and guaranteed stability, Pages 75-82
- Saeed Ahmed, Frédéric Mazenc, Hitay Özbay, Dynamic output feedback stabilization of switched linear systems with delay via a trajectory based approach, Pages 92-97
- Jiangshuai Huang, Wei Wang, Changyun Wen, Jing Zhou, Adaptive control of a class of strict-feedback time-varying nonlinear systems with unknown control coefficients, Pages 98-105
- Qijiang Song, Recursive identification of systems with binary-valued outputs and with ARMA noises, Pages 106-113
- Pingyuan Cui, Tong Qin, Shengying Zhu, Yang Liu, Rui Xu, Zhengshi Yu, Trajectory curvature guidance for Mars landings in hazardous terrains, Pages 161-171
- Bo-Yang Liu, Ming Zhang, Peng Kang, Hong-Yi Dai, Suppressing phase damping decoherence by periodical imperfect projective measurements
- Miloje S. Radenković, Miroslav Krstić, Extremum seeking-based perfect adaptive tracking of non-PE references despite nonvanishing variance of perturbation, Pages 189-196
- Jinya Su, Wen-Hua Chen, Further results on “Reduced order disturbance observer for discrete-time linear systems”, Pages 550-553
- Augusto Ferrante, Lorenzo Ntogramatzidis, On the reduction of the continuous-time generalized algebraic Riccati equation: An effective procedure for solving the singular LQ problem with smooth solutions, Pages 554-558

Automatica
Vol. 94
August 2018
- Xue Luo, Stephen S.-T. Yau, The suboptimal method via probabilists’ Hermite polynomials to solve non-linear filtering problems, Pages 9-17
- William Lewis Scott, Naomi Ehrich Leonard, Optimal evasive strategies for multiple interacting agents with motion constraints, Pages 26-34
- Rong Su, Supervisor synthesis to thwart cyber attack with bounded sensor reading alterations, Pages 35-44
- Alireza Mohammadi, Manfredi Maggiore, Luca Consolini, Dynamic virtual holonomic constraints for stabilization of closed orbits in underactuated mechanical systems, Pages 112-124
- Mattia Zorzi, Alessandro Chiuso, The harmonic analysis of kernel functions, Pages 125-137
- Will Challis Clarke, Chris Manzie, Michael John Brear, Hierarchical economic MPC for systems with storage states, Pages 138-150
- Jing Chen, Biao Huang, Feng Ding, Ya Gu, Variational Bayesian approach for ARX systems with missing observations and varying time-delays, Pages 194-204
- Xuyu Cong, Maria Pia Fanti, Agostino Marcello Mangini, Zhiwu Li, On-line verification of current-state opacity by Petri nets and integer linear programming, Pages 205-213
- Xiang-Shen Ye, Ruo-Bing Xue, Jianjun Gao, Xi-Ren Cao, Optimization in curbing risk contagion among financial institutes, Pages 214-220
- Guanghui Sun, Ligang Wu, Zhian Kuang, Zhiqiang Ma, Jianxing Liu, Practical tracking control of linear motor via fractional-order sliding mode, Pages 221-235
- Fengwei Chen, Xiangtao Zhuan, Hugues Garnier, Marion Gilson, Issues in separable identification of continuous-time models with time-delay, Pages 258-273
- Sonja Stüdli, Maria M. Seron, Richard H. Middleton, Vehicular platoons in cyclic interconnections, Pages 283-293
- Giuseppe Giordano, Sébastien Gros, Jonas Sjöberg, An improved method for Wiener–Hammerstein system identification based on the Fractional Approach, Pages 349-360
- Siyu Lv, Zhen Wu, Qing Zhang, Optimal switching under a hybrid diffusion model and applications to stock trading, Pages 361-372
- Biqiang Mu, Tianshi Chen, Lennart Ljung, On asymptotic properties of hyperparameter estimators for kernel-based regularization methods, Pages 381-395
- Xiang Xu, Lu Liu, Gang Feng, Stabilization of linear systems with distributed infinite input delays: A low gain approach, Pages 396-408
- Renato Markele Ferreira Cândido, Laurent Hardouin, Mehdi Lhommeau, Rafael Santos Mendes, Conditional reachability of uncertain Max Plus Linear systems, Pages 426-435
- Panshuo Li, James Lam, Ka-Wai Kwok, Renquan Lu, Stability and stabilization of periodic piecewise linear systems: A matrix polynomial approach, Pages 1-8
- Rui Li, Yingjing Shi, Yongduan Song, Localization and circumnavigation of multiple agents along an unknown target based on bearing-only measurement: A three dimensional solution, Pages 18-25
- Xu Zhang, Wei Lin, Yan Lin, Adaptive control of time-delay cascade systems with unknown parameters by partial state feedback, Pages 45-54
- Chong-Xiao Shi, Guang-Hong Yang, Augmented Lagrange algorithms for distributed optimization over multi-agent networks via edge-based method, Pages 55-62
- Xu Jin, Fault-tolerant iterative learning control for mobile robots non-repetitive trajectory tracking with output constraints, Pages 63-71
- Bao Wang, Quanxin Zhu, Stability analysis of semi-Markov switched stochastic systems, Pages 72-80
- D.P. Borgers, R. Postoyan, A. Anta, P. Tabuada, D. Nešić, W.P.M.H. Heemels, Periodic event-triggered control of nonlinear systems using overapproximation techniques, Pages 81-87
- Pauline Bernard, Laurent Praly, Convergence of gradient observer for rotor position and magnet flux estimation of permanent magnet synchronous motors, Pages 88-93
- Insoon Yang, A dynamic game approach to distributionally robust safety specifications for stochastic systems, Pages 94-101
- Ido Avraham, Maxim Kristalny, Yoash Levron, Leonid Mirkin, Real-time power sharing: Dynamic control allocation and VPP aggregation, Pages 102-111
- Victoria Grushkovskaya, Alexander Zuyev, Christian Ebenbauer, On a class of generating vector fields for the extremum seeking problem: Lie bracket approximation and stability properties, Pages 151-160
- Tong Zhou, Minimal inputs/outputs for subsystems in a networked system, Pages 161-169
- Yukan Gu, Jun Shen, Yong Chen, Stability analysis for positive singular systems with distributed delays, Pages 170-177
- Graham C. Goodwin, Maria M. Seron, Christopher Townsend, A modified relay autotuner for systems having large broadband disturbances, Pages 178-185
- Maobin Lu, Lu Liu, Robust output consensus of networked heterogeneous nonlinear systems by distributed output regulation, Pages 186-193
- Xiaojie Su, Fengqin Xia, Jianxing Liu, Ligang Wu, Event-triggered fuzzy control of nonlinear systems with its application to inverted pendulum systems, Pages 236-248
- Chi Seng Pun, Robust time-inconsistent stochastic control problems, Pages 249-257
- Xiaochen Xie, James Lam, Guaranteed cost control of periodic piecewise linear time-delay systems, Pages 274-282
- Anqi Fu, Manuel Mazo, Decentralized periodic event-triggered control with quantization and asynchronous communication, Pages 294-299
- Svyatoslav Pavlichkov, Chee Khiang Pang, Decentralized uniform input-to-state stabilization of hierarchically interconnected triangular switched systems with arbitrary switchings, Pages 300-306
- Alexander Schaum, Thomas Meurer, Jaime A. Moreno, Dissipative observers for coupled diffusion–convection–reaction systems, Pages 307-314
- Martin A. Sehr, Robert R. Bitmead, Stochastic output-feedback model predictive control, Pages 315-323
- Jun Yang, Jiankun Sun, Wei Xing Zheng, Shihua Li, Periodic event-triggered robust output feedback control for nonlinear uncertain systems with time-varying disturbance, Pages 324-333
- Sebastian Florin Tudor, Cristian Oară, Robust stabilization of discrete generalized systems, Pages 334-340
- Yaning Lin, Xiushan Jiang, Weihai Zhang, Necessary and sufficient conditions for Pareto optimality of the stochastic systems in finite horizon, Pages 341-348
- Shigeru Akashi, Hideaki Ishii, Ahmet Cetinkaya, Self-triggered control with tradeoffs in communication and computation, Pages 373-380
- Humberto Caballero-Barragán, Linda Patricia Osuna-Ibarra, Alexander G. Loukianov, Franck Plestan, Sliding mode predictive control of linear uncertain systems with delays, Pages 409-415
- Erliang Zhang, Rik Pintelon, Nonparametric identification of linear dynamic errors-in-variables systems, Pages 416-425
- Xin Xin, Linear strong structural controllability and observability of an n-link underactuated revolute planar robot with active intermediate joint or joints, Pages 436-442
- Parijat Bhowmick, Sourav Patra, On decentralized integral controllability of stable negative-imaginary systems and some related extensions, Pages 443-451
- Rafael Suzuki Bayma, Yinpeng Zhu, Zi-Qiang Lang, The analysis of nonlinear systems in the frequency domain using Nonlinear Output Frequency Response Functions, Pages 452-457

4.3. Contents: Systems & Control Letters
Contributed by: John Coca, j.coca@elsevier.com

Systems & Control Letters
Vol. 117
July 2018
- Arash Sadeghzadeh, On exploiting inexact scheduling parameters for gain-scheduled control of linear parameter-varying discrete-time systems, Pages 1-10
- Yonggang Li, Yi Huang, Peng Lin, Wei Ren, Distributed rotating consensus of second-order multi-agent systems with nonuniform delays, Pages 18-22
- Víctor Ayala, Adriano Da Silva, Max Ferreira, Affine and bilinear systems on Lie groups, Pages 23-29
- Xiaoquan Tang, Long Zhang, Stability orthogonal regression for system identification, Pages 30-36
- Mojeed O. Oyedeji, Magdi S. Mahmoud, Couple-group consensus conditions for general first-order multi-agent systems with communication delays, Pages 37-44
- Jian Wang, Stabilization of a discrete time linear system over finite data-rate channel with noise attenuation performance by spherical polar coordinate quantizer, Pages 45-52
- Tanagorn Jennawasin, David Banjerdpongchai, Design of state-feedback control for polynomial systems with quadratic performance criterion and control input constraints, Pages 53-59
- I. Pontes Duff, C. Poussot-Vassal, C. Seren, H2-optimal model approximation by input/output-delay structured reduced order models, Pages 60-67

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

IEEE/CAA Journal of Automatica Sinica
Volume 5 (2018), Issue 4 (July)

PAPERS
- Polyhedral Feasible Set Computation of MPC-Based Optimal Control Problems. L. T. Xie, L. Xie, H. Y. Su, and J. D. Wang, page 765
- The Power Allocation Game on A Network: A Paradox. Y. K. Li and A. S. Morse, page 771
- Finite Frequency Fuzzy $H_{\infty}$ Control for Uncertain Active Suspension Systems With Sensor Failure. Z. X. Zhang, H. Y. Li, C. W. Wu, and Q. Zhou, page 777
- Analysis of the Caratheodory’s Theorem on Dynamical System Trajectories Under Numerical Uncertainty. P. Osinenko, G. Devadze, and S. Streif, page 787
- Robust Leader-Following Output Regulation of Uncertain Multi-Agent Systems With Time-Varying Delay. A. Shariati and Q. Zhao, page 807
- A Matrix Approach to the Modeling and Analysis of Networked Evolutionary Games With Time Delays. G. D. Zhao, Y. Z. Wang, and H. T. Li, page 818
- Parallel Reinforcement Learning: A Framework and Case Study. T. Liu, B. Tian, Y. F. Ai, L. Li, D. P. Cao, and F.-Y. Wang, page 827
- DOA Estimation Based on Sparse Representation of the Fractional Lower Order Statistics in Impulsive Noise. S. Li, R. X. He, B. Lin, and F. Sun, page 860
- Comparative Study of Different Decoupling Schemes for TITO Binary Distillation Column via PI Controller. M. Hamdy, A. Ramadan, and B. Abozalam, page 869
- Adaptive Sliding-Mode Control of an Automotive Electronic Throttle in the Presence of Input Saturation Constraint. R. Bai, page 878

4.5. Contents: Evolution Equations and Control Theory
Contributed by: Irena Lasiecka, lasiecka@memphis.edu

Evolution Equations and Control Theory (EECT)
Please find the link to the EECT vol 7. nr 2 -published June 2018.
http://aimsciences.org/journal/A0000-0000/2018/7/2

4.6. Contents: Asian Journal of Control
Contributed by: Li-Chen Fu, lichen@ntu.edu.tw

Asian Journal of Control
Vol.20, No.3 May, 2018
CONTENTS
[Special Issue: Theoretical and Practical Challenges in Learning Control]
https://onlinelibrary.wiley.com/toc/19346093/20/3
1. Optimal Estimation of Rational Feedforward Control via Instrumental Variables: With Application to a Wafer Stage (Pages: 975-992), Frank Boeren, Lennart Blanken, Dennis Bruijnen and Tom Oomen
2. Rohrs’ Example Revisited: On the Robustness of Adaptive Iterative Learning Control (Pages: 993-1002), Berk Altin and Kira Barton
3. Learning Control of Robot Manipulators in Task Space (Pages: 1003-1013), K. M. Dogan, E. Tatlicioglu,
E. Zergeroglu and K. Cetin
4. Unmanned Aerial Vehicles Formation Using Learning Based Model Predictive Control (Pages: 1014-1026),
Ahmed T. Hafez, Sidney N. Givigi and Shahram Yousefi
5. Adaptive Iterative Learning Boundary Control of a Flexible Manipulator with Guaranteed Transient
Performance (Pages: 1027-1038), Zhijie Liu and Jinkun Liu
6. Improved D-Type Anticipatory Iterative Learning Control for a Class of Inhomogeneous Heat Equations
(Pages: 1039-1046), Deqing Huang and Xuefang Li
7. Improving Robustness Filter Bandwidth in Repetitive Control by Considering Model Mismatch (Pages:
1047-1057), Arnfinn A. Eielsen, Yik R. Teo and Andrew J. Fleming
8. Quantized Iterative Learning Control Design For Linear Systems Based On A 2-D Roesser Model (Pages: 1058-1066), Yin Yanling, Bu Xuhui and Liang Jiaqi
9. Estimation of Road Friction Coefficient and Vehicle States by 3-DOF Dynamic Model and HSRI Model
Based on Information Fusion (Pages: 1067-1076), Ying Xu, Biyun Chen and Cheng Chi
10. Networked Iterative Learning Control Design for Nonlinear Systems with Stochastic Output Packet
Dropouts (Pages: 1077-1087), Jian Liu and Xiaoe Ruan
11. Event-Triggered Iterative Learning Control for Multi-Agent Systems with Quantization (Pages: 1088-
1101), Ting Zhang and Junmin Li
12. Intermittent and Successive ILC for Stochastic Nonlinear Systems with Random Data Dropouts (Pages: 
1102-1114), Dong Shen Chao and Zhang Yun Xu
13. Adaptive Controller Based Unified Power Flow Control for Low Power Oscillation Damping (Pages: 
1115-1124), Nadia Zeb, Bilal Khan, Sahibzada Muhammad Ali, Chaudhry Arshad Mehmood, Rabia Sajjad, 
Umar Farid and Ayesha Bibi
14. Distributed Control Design for Spatially Interconnected Markovian Jump Systems With Time-Varying
Delays (Pages: 1125-1134), Hongyan Feng, Huiling Xu, Shengyuan Xu and Weimin Chen
15. An E-HOIM Based Data-Driven Adaptive TILC of Nonlinear Discrete-Time Systems for Non-Repetitive 
Terminal Point Tracking (Pages: 1135-1144), Na Lin Ronghu, Chi Biao Huang, Chiang-Ju Chien and Yuan-
jing Feng
16. State Space Constrained Iterative Learning Control for Robotic Manipulators (Pages: 1145-1150), 
Kaloyan Yovchev, Kamen Delchev and Evgeniy Krastev

[Regular Paper]
1. Adaptive Output-Feedback Control of Nonlinear Systems with Multiple Uncertainties (Pages: 1151-1160),
Yaxin Huang and Yungang Liu
2. $L_2$ Gain Estimation and Visualization of A Control Parameter Set in 3D Space Using Plant Response
Data (Pages: 1161-1170)
Author: Masami Saeki
3. Decentralized Sliding Mode Control for Multi-Input Complex Interconnected Systems Subject to non-
smooth Nonlinearities (Pages: 1171-1181)
Author: Wen-Jeng Liu
4. Robust Double-integral T-S Fuzzy Output Regulation for Nonlinear Systems (Pages: 1182-1193), Kuang-
Yow Lian, Chien-Hung Liu and Chian-Song Chiu
5. Sliding Mode Disturbance Observer-based Motion Control for a Piezoelectric Actuator-based Surgical 
Device (Pages: 1194-1203)
Author: Jun Yik Lau, Wenyu Liangm, Hwee Choo Liaw and Kok Kiong Tan
6. Globally Stable Adaptive Dynamic Surface Control for Cooperative Path Following of Multiple Underactuated Autonomous Underwater Vehicles (Pages: 1204-1220), Hao Wang, Yiping Li and Kaizhou Liu
7. Adaptive Fractional Order PI Controller Design for a Flexible Swing arm System Via Enhanced Virtual Reference Feedback Tuning (Pages: 1221-1240), Yuanlong Xie, Xiaoqi Tang, Shiqi Zheng, Wenjun Qiao and Bao Song
8. Adaptive Terminal Sliding Mode Control for Motion Tracking of a Micropositioning System (Pages: 1241-1252), Guangwei Wang and Qingsong Xu
10. Stabilization of Uncertain Multi-Order Fractional Systems Based on the Extended State Observer (Pages: 1263-1273), Liping Chen, Gang Chen, Ranchao Wu, J.A. Tenreiro Machado, António M. Lopes and Suoliang Ge
11. EID-Estimation-Based Periodic Disturbance Rejection for Sintering Ignition Process with Input Time Delay (Pages: 1274-1287), Xin Chen, Wei Jiao, Min Wu and Weihua Cao

[Brief Paper]
1. Backstepping and Sliding-Mode Techniques Applied to Distributed Secondary Control of Islanded Microgrids (Pages: 1288-1295), Jian Li and Dezhen Zhang
2. Robust $H_{\infty}$ Control of Discrete-time Singular Systems via Integral Sliding Surface (Pages: 1296-1302), Jianjun Bai, Renquan Lu, Zhengguang Wu, Ridong Zhang, Xiaodong Zhao and Anke Xue

Author: Yazdan Batmani

4.7. **Contents: International Journal of Applied Mathematics and Computer Science**

Contributed by: AMCS, amcs@uz.zgora.pl

International Journal of Applied Mathematics and Computer Science (AMCS)
2018, Volume 28, Number 2 (June)
Special section on "Advanced Diagnosis and Fault-Tolerant Control Methods" (Vicenç Puig, Dominique Sauter, Christophe Aubrun, Horst Schulte, Eds.)

www.amcs.uz.zgora.pl

CONTENTS

Special section
- Pröll S., Lunze J. and Jarmolowitz F. From structural analysis to observer-based residual generation for fault detection 233
- Simani S., Farsoni S. and Castaldi P. Data-driven techniques for the fault diagnosis of a wind turbine benchmark 247
- Li B., Khliif-Bouassida M. and Toguyén A. On-the-fly diagnosability analysis of bounded and unbounded labeled Petri nets using verifier nets 269
- Quiñones-Grueiro M., Verde C., Prieto-Moreno A. and Llanes-Santiago O. An unsupervised approach to leak detection and location in water distribution networks 283
- Pazera M., Buciakowski M. and Witczak M. Robust multiple sensor fault-tolerant control for dynamic non-linear systems: Application to the aerodynamical twin-rotor system 297
- Falconi G.P., Angelov J. and Holzapfel F. Adaptive fault-tolerant position control of a hexacopter subject to an unknown motor failure 309
- Harrabi N., Kharrat M., Aitouche A. and Souissi M. Control strategies for the grid side converter in a wind generation system based on a fuzzy approach 323
Regular section
- Kaczorek T. Analysis of positive linear continuous-time systems using the conformable derivative 335
- Gugat M. and Wintergerst D. Transient flow in gas networks: Traveling waves 341
- Liu H., Zhong M. and Yang R. Simultaneous disturbance compensation and Hi/H∞ optimization in fault detection of UAVs 349
- Jiang T., Ammar S.I., Chang B. and Liu L. Analysis of an N-policy GI/M/1 queue in a multi-phase service environment with disasters 375
- Baran M. Closest paths in graph drawings under an elastic metric 387
- Ahmed F. and Kabir M.H. Facial expression recognition under difficult conditions: A comprehensive study on edge directional texture patterns 399
- Kartal S., Oral M. and Ozyildirim B.M. Pattern layer reduction for a generalized regression neural network by using a self-organizing map 411

4.8. Contents: International Journal of Control
Contributed by: Bing Chu, b.chu@soton.ac.uk

International Journal of Control
Volume 91, Issue 7, 2018
http://www.tandfonline.com/toc/tcon20/current
- Robust fault-tolerant control using an accurate emulator-based identification technique, Rajamani Doraivaswami & Lahouari Cheded, pages: 1473-1488
- Control of a class of patterned systems, Adam C. Sniderman, Mireille E. Broucke & Gabriele M. T. D’Eleuterio, pages: 1489-1507
- Simultaneous identification of damping coefficient and initial value for PDEs from boundary measurement, Zhi-Xue Zhao, Mapundi K. Banda & Bao-Zhu Guo, pages: 1508-1521
- Iterative learning in optimal control of linear dynamic processes, Ewaryst Rafajlowicz & Wojciech Rafajlowicz, pages: 1522-1540
- Identification of EIV models by compensated PEM, Masoud Moravej Khorasani & Mohammad Haeri, pages: 1541-1553
- Controllability and observability of 2D thermal flow in bulk storage facilities using sensitivity fields, Nik L.M. Grubben & Karel J. Keesman, pages: 1554-1566
- Tuning and robustness analysis of event-based PID controllers under different event-generation strategies, Julio Ariel Romero Pérez & Roberto Sanchis Llopis, pages: 1567-1587
- Structurally constrained controller synthesis for general proper plants with application to vehicle platooning, Yung-Shan Chou & Yun-Lun Chang, pages: 1588-1608
- Stabilisation of discrete-time systems via Schur stability region, T. Büyükköroğlu, G. Çelebi & V. Dzhafarov, pages: 1620-1629
- A stable control for second-order nonholonomic planar underactuated mechanical system: energy attenuation approach, Peiyin Xiong, Xuzhi Lai & Min Wu, pages: 1630-1639
- Global regulation for a class of stochastic high-order nonlinear systems with multiple unknown control directions, Jian Zhang, Xiaowu Mu & Yungang Liu, pages: 1640-1651
- Small-world architecture of networked control systems, Jan Lunze, pages: 1652-1668
- Stability and performance analysis of linear positive systems with delays using input–output methods, Corentin Briat, pages: 1669-1692
- On privacy vs. cooperation in multi-agent systems, Vaibhav Katewa, Fabio Pasqualetti & Vijay Gupta, pages: 1693-1707
- Command-filter-based distributed containment control of nonlinear multi-agent systems with actuator failures, Guozeng Cui, Shengyuan Xu, Qian Ma, Ze Li & Yuming Chu, pages: 1708-1719
- Hybrid control design for limit cycle stabilisation of planar switched systems, Mohammed Benmiloud, Atallah Benalia, Mohamed Djemai & Michael Defoort, pages: 1720-1729

Contributed by: IAM, proceedings.iam@gmail.com

Proceedings of the Institute of Applied Mathematics, V.7, N.1, 2018
ISSN 2225-0530
CONTENTS
- H.S. Akhundov, M.A.Sadygov, J. J. Mamedova, Extremal problem for the Goursat-Darboux type inclusion in infinite domain
- M. Çakmak and M. Tunç, Hadamard type inequalities for s-geo-convex functions
- J. Rashidinia, M. Mahdavi, A Sobhani, Local collocation method for solving time dependent convection-diffusion equation
- H. K. Musaev, Coercive estimation of the solutions of infinite system of Integro-differential equations in weighted spaces
- Bhavana Deshpande, Employing generalized Meir-Keeler contraction for coincidence point results on ordered metric spaces with application
- S.I. Hamidov, On an equilibrium state in two-sector model of economic dynamics
- Sh.I.Mustafayev, K.G. Gasimova, Depth pump with viscous-plastic fluid
- R. Mojarad, A. Shariatinia, J. Asadpour, Some energies of regular fuzzy graphs
BOOK REVIEW
- Rigid optimal stabilization and observation nonlinear systems under un-certain conditions. Part 1, Onishchenko S.M., Reviewed by F.A. Aliev, V.B. Larin

4.10. Contents: IET Control Theory & Applications
Contributed by: Alexandria Lipka, alipka@theiet.org

IET Control Theory & Applications
Volume 12
July 2018
http://digital-library.theiet.org/content/journals/iet-cta/12/10
- Zhaoxu Yu, Huaicheng Yan, Shugang Li, Yan Dong, Adaptive quantised control of switched stochastic strict-feedback non-linear systems with asymmetric input saturation, Pages 1367 –1375
- Yu-Chi Chiang and Chih-Chiang Cheng, Terminal adaptive output feedback variable structure control Pages 1376 –1383
- Luca Cavanini, Gionata Cimini, Gianluca Ippoliti, Computationally efficient model predictive control for a class of linear parameter-varying systems, Pages 1384 –1392
- Jinwei Yu, Jinchen Ji, Zhonghua Miao, Jin Zhou, Formation control with collision avoidance for uncertain networked Lagrangian systems via adaptive gain techniques, Pages 1393 –1401
- Debasish Biswas, Kaushik Das Sharma, Gautam Sarkar, Stable adaptive NSOF domain FOPID controller for a class of non-linear systems, Pages 1402 –1413
- Hsiu-Ming Wu and Reza Tafreshi, Air–fuel ratio control of lean-burn SI engines using the LPV-based fuzzy technique, Pages 1414 –1420
- Laura Celentano and Michael Basin, New results on robust stability analysis and synthesis for MIMO uncertain systems, Pages 1421 –1430
- Boubekeur Targui, Omar Hernández-González, Carlos-Manuel Astorga-Zaragoza, Maria Eusebia Guerrero-Sánchez, Chain observer for Lipschitz non-linear systems with long time-varying delayed measurements, Pages 1431 –1439
- Xin Huang; Ding Zhai, Jiuxiang Dong, Adaptive integral sliding-mode control strategy of data-driven cyber-physical systems against a class of actuator attacks, Pages 1440 –1447
- Linghuan Kong, Wei He, Chenguang Yang, Guang Li, Zhengqiang Zhang, Adaptive fuzzy control for a marine vessel with time-varying constraints, Pages 1448 –1455
- Raj Deshmukh, Omanshu Thapliyal, Cheolhyeon Kwon, Inseok Hwang, Distributed state estimation for a stochastic linear hybrid system over a sensor network, Pages 1456 –1464
- Xianqiang Yang, Xin Liu, Boxuan Han, LPV model identification with an unknown scheduling variable in the presence of missing observations – a robust global approach, Pages 1465 –1473
- Sapna Gupta, Rajeev Gupta, Subhransu Padhee, Parametric system identification and robust controller design for liquid–liquid heat exchanger system, Pages 1474 –1482
- Bo Pang and Qingling Zhang, Sliding mode control for polynomial fuzzy singular systems with time delay, Pages 1483 –1490
- Sanbo Ding, Zhanshan Wang, Huaguang Zhang, Event-triggered control for a class of non-linear systems: an exponential approximation method, Pages 1491 –1496
- Qiao Zhu, Jun-Jun Ding, Ming-Liang Yang, LQG control based lateral active secondary and primary suspensions of high-speed train for ride quality and hunting stability, Pages 1497 –1504
- Kongwei Zhu, Dan Ma, Jun Zhao, Event triggered control for a switched LPV system with applications to aircraft engines, Pages 1505 –1514
- Yang Liu, Zidong Wang, Donghua Zhou, State estimation and fault reconstruction with integral measurements under partially decoupled disturbances, Pages 1520 –1526
- Yilin Ma and Ruizhu Han, Algorithms for set stabilisation of Boolean control networks, Pages 1527 –1532

4.11. Contents: Control Engineering Practice
Contributed by: John Coca, j.coca@elsevier.com

Control Engineering Practice
4.12. Contents: Mechatronics

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

Mechatronics
Vol. 52
June 2018

- Jessivaldo Santos, André Conceição, Tito Santos, Humberto Araújo, Remote control of an omnidirectional mobile robot with time-varying delay and noise attenuation, Pages 7-21
- Minh Nhat Nguyen, Duc Thien Tran, Kyoung Kwan Ahn, Robust position and vibration control of an electrohydraulic series elastic manipulator against disturbance generated by a variable stiffness actuator, Pages 22-35
- Kun Yang, Lelai Zhou, Xuewen Rong, Yibin Li, Onboard hydraulic system controller design for quadruped robot driven by gasoline engine, Pages 36-48
- Sheng-Long Xie, Hai-Tao Liu, Jiang-Ping Mei, Guo-Ying Gu, Modeling and compensation of asymmetric hysteresis for pneumatic artificial muscles with a modified generalized Prandtl-Ishlinskii model, Pages 49-57
- Anil Kumar, Pinhas Ben-Tzvi, Novel wireless sensing platform for experimental mapping and validation of ship air wake, Pages 58-69
- Alessio Merola, Domenico Colacino, Carlo Cosentino, Francesco Amato, Model-based tracking control design, implementation of embedded digital controller and testing of a biomechatronic device for robotic rehabilitation, Pages 70-77
- Maarten Verbandt, Laurens Jacobs, Dora Turk, Taranjitsingh Singh, Jan Swevers, Goele Pipeleers, Linear Control Toolbox - supporting B-splines in LPV control, Pages 78-89
- Hyein Lee, Sangjoon J. Kim, Handdeut Chang, Jung Kim, Development of a compact optical torque sensor with decoupling axial-interference effects for pHRI, Pages 90-101
- Yangming Zhang, Peng Yan, An adaptive integral sliding mode control approach for piezoelectric nanomanipulation with optimal transient performance, Pages 119-126
- Yongping Pan, Xiang Li, Huiming Wang, Haoyong Yu, Continuous sliding mode control of compliant robot arms: A singularly perturbed approach, Pages 127-134
- T.Q. Dinh, J. Marco, J.I. Yoon, K.K. Ahn, Robust predictive tracking control for a class of nonlinear systems, Pages 135-149

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

Journal of Process Control
Vol. 67
July 2018
- Yining Dong, S. Joe Qin, A novel dynamic PCA algorithm for dynamic data modeling and process monitoring, Pages 1-11
- Qiang Liu, Qin Qin Zhu, S. Joe Qin, Tianyou Chai, Dynamic concurrent kernel CCA for strip-thickness relevant fault diagnosis of continuous annealing processes, Pages 12-22
- Bo Lu, Leo Chiang, Semi-supervised online soft sensor maintenance experiences in the chemical industry, Pages 23-34
- Q. Peter He, Jin Wang, Statistical process monitoring as a big data analytics tool for smart manufacturing, Pages 35-43
- Jing Yu, Victor M. Zavala, Mihai Anitescu, A scalable design of experiments framework for optimal sensor placement, Pages 44-55
- Bo Lu, John Stuber, Thomas F. Edgar, Data-driven adaptive multiple model system utilizing growing self-organizing maps, Pages 56-68
- Gang Li, S. Joe Qin, Comparative study on monitoring schemes for non-Gaussian distributed processes, Pages 69-82
- Shu Xu, Bo Lu, Michael Baldea, Thomas F. Edgar, Mark Nixon, An improved variable selection method for support vector regression in NIR spectral modeling, Pages 83-93
- A. Sadeghian, O. Wu, B. Huang, Robust probabilistic principal component analysis based process modeling: Dealing with simultaneous contamination of both input and output data, Pages 94-111
- Shriram Gajjar, Murat Kulahci, Ahmet Palazoglu, Real-time fault detection and diagnosis using sparse principal component analysis, Pages 112-128
- José Daniel A. Santos, Guilherme A. Barreto, Novel sparse LSSVR models in primal weight space for robust system identification with outliers, Pages 129-140
- G.M. Stanley, Big Data Approximating Control (BDAC)—A new model-free estimation and control paradigm based on pattern matching and approximation, Pages 141-159
- Michael C. Thomas, Wenbo Zhu, Jose A. Romagnoli, Data mining and clustering in chemical process databases for monitoring and knowledge discovery, Pages 160-175
- Chihang Wei, Junghui Chen, Zhihuan Song, Multilevel MVU models with localized construction for monitoring processes with large scale data, Pages 176-196
- Ray Wang, Thomas F. Edgar, Michael Baldea, Mark Nixon, Willy Wojsznis, Ricardo Dunia, A geometric method for batch data visualization, process monitoring and fault detection, Pages 197-205

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

Engineering Applications of Artificial Intelligence
Vol. 73
August 2018
- Marie Lachaize, Sylvie Le Hégarat-Mascle, Emanuel Aldea, Aude Maitrot, Roger Reynaud, Evidential framework for Error Correcting Output Code classification, Pages 10-21
- Hatice Çataloluk, Fatih Vehbi Çelebi, A novel hybrid model for two-phase image segmentation: GSA based Chan–Vese algorithm, Pages 22-30
- Fernando Gamino-Sánchez, Isabel V. Hernández-Gutiérrez, Alberto J. Rosales-Silva, Francisco J. Gallegos-Funes, Dante Mújica-Vargas, Eduardo Ramos-Díaz, Blanca E. Carvajal-Gámez, Jean Marie V. Kinani, Block-Matching Fuzzy C-Means clustering algorithm for segmentation of color images degraded with Gaussian noise, Pages 31-49
- Erdem Okur, Mehmet Turkan, A survey on automated melanoma detection, Pages 50-67
- Claude Delpha, Demba Diallo, Hanane Al Samrout, Nazih Moubayed, Multiple incipient fault diagnosis in three-phase electrical systems using multivariate statistical signal processing, Pages 68-79
- Debasmits Das, C.S. George Lee, Sample-to-sample correspondence for unsupervised domain adaptation, Pages 80-91
- Jinyin Chen, Haibin Zheng, Xiang Lin, Yangyang Wu, Mengmeng Su, A novel image segmentation method based on fast density clustering algorithm, Pages 92-110
- Laith Mohammad Abualigah, Ahamad Tajudin Khader, Essam Said Hanandeh, A combination of objective functions and hybrid Krill herd algorithm for text document clustering analysis, Pages 111-125
- Mohammed Alswaitti, Mohamad Khairi Ishak, Nor Ashidi Mat Isa, Optimized gravitational-based data clustering algorithm, Pages 126-148
- W.M. Wang, Z. Li, Z.G. Tian, J.W. Wang, M.N. Cheng, Extracting and summarizing affective features and responses from online product descriptions and reviews: A Kansei text mining approach, Pages 149-162

Back to the contents
4.15. Contents: Annual Reviews in Control
Contributed by: John Coca, j.coca@elsevier.com

Annual Reviews in Control
Vol. 45
2018

- Pramod P. Khargonekar, Munther A. Dahleh, Advancing systems and control research in the era of ML and AI, Pages 1-4
- Domitilla Del Vecchio, Yili Qian, Richard M. Murray, Eduardo D. Sontag, Future systems and control research in synthetic biology, Pages 5-17
- Jacopo Guanetti, Yeojun Kim, Francesco Borrelli, Control of connected and automated vehicles: State of the art and future challenges, Pages 18-40
- Ali Zolghadri, On flight operational issues management: Past, present and future, Pages 41-51
- Marija D. Ilić, Rupamathi Jaddiva, Multi-layered interactive energy space modeling for near-optimal electrification of terrestrial, shipboard and aircraft systems, Pages 52-75
- Shilp Dixit, Saber Fallah, Umberto Montanaro, Mehrdad Dianati, Alan Stevens, Francis Mcculough, Alexandros Mouzakitis, Trajectory planning and tracking for autonomous overtaking: State-of-the-art and future prospects, Pages 76-86
- James Riehl, Pouria Ramazi, Ming Cao, A survey on the analysis and control of evolutionary matrix games, Pages 87-106
- Ali Mesbah, Stochastic model predictive control with active uncertainty learning: A Survey on dual control, Pages 107-117
- Sachidananda Sen, Vishal Kumar, Microgrid control: A comprehensive survey, Pages 118-151
- P.P. Singh, B.K. Roy, Comparative performances of synchronisation between different classes of chaotic systems using three control techniques, Pages 152-165
- Anton V. Proskurnikov, Roberto Tempo, A tutorial on modeling and analysis of dynamic social networks. Part II, Pages 166-190
- Filiberto Fele, Antonio De Paola, David Angeli, Goran Strbac, A framework for receding-horizon control in infinite-horizon aggregative games, Pages 191-204
-Tryphon T. Georgiou, Rudolf E. Kalman’s quest for algebraic characterizations of positivity, Pages 205-206
- Pramod P. Khargonekar, Professor R.E. Kalman–Reflections on his way of thinking, Pages 207-210
- Manuel Silva, Special section on the history of Discrete Event Systems, Pages 211-212
- Manuel Silva, On the history of Discrete Event Systems, Pages 213-222
- Alessandro Giua, Manuel Silva, Petri nets and Automatic Control: A historical perspective, Pages 223-239
- J. Komenda, S. Lahaye, J.-L. Boimond, T. van den Boom, Max-plus algebra in the history of discrete event systems, Pages 240-249
- W.M. Wonham, Kai Cai, Karen Rudie, Supervisory control of discrete-event systems: A brief history, Pages 250-256
- Stéphane Lafortune, Feng Lin, Christoforos N. Hadjicostis, On the history of diagnosability and opacity in discrete event systems, Pages 257-266
- Y. Wardi, C.G. Cassandras, X.R. Cao, Perturbation analysis: A framework for data-driven control and optimization of discrete event and hybrid systems, Pages 267-280

Back to the contents

4.16. Contents: European Journal of Control
Contributed by: John Coca, j.coca@elsevier.com
European Journal of Control
Vol. 42
July 2018

- Kwassi H. Degue, Denis Efimov, Jean-Pierre Richard, Stabilization of linear impulsive systems under dwell-time constraints: Interval observer-based framework, Pages 1-14
- Frédéric Mazenc, Michael Malisoff, Laurent Burlion, Jerome Weston, Bounded backstepping control and robustness analysis for time-varying systems under converging-input-converging-state conditions, Pages 15-24
- John Coletsos, A relaxation approach to optimal control of Volterra integral equations, Pages 25-31
- Jinghao Zhu, Singular optimal control by minimizer flows, Pages 32-37
- Xiang Wu, Qiaodan Liu, Kanjian Zhang, Ming Cheng, Xin Xin, Optimal switching control for drug therapy process in cancer chemotherapy, Pages 49-58
- Aradhana Nayak, Ravi N. Banavar, Diogu Hennedige Sanjeeva Maithripala, Almost-global tracking for a rigid body with internal rotors, Pages 59-66
- Yuliang Bai, James D. Biggs, Xiaogang Wang, Naigang Cui, Attitude tracking with an adaptive sliding mode response to reaction wheel failure, Pages 67-76
- Brahim Brahmi, Maarouf Saad, Jacqueline Tu Anh Thu Lam, Cristobal Ochoa Luna, Philippe S. Archambault, Mohammad H. Rahman, Adaptive control of a 7-DOF exoskeleton robot with uncertainties on kinematics and dynamics, Pages 77-87

Back to the contents

4.17. Contents: ISA Transactions
Contributed by: John Coca, j.coca@elsevier.com

ISA Transactions
Vol. 77
June 2018

- Mohamed Boukattaya, Neila Mezghani, Tarak Damak, Adaptive nonsingular fast terminal sliding-mode control for the tracking problem of uncertain dynamical systems, Pages 1-19
- Zongyi Guo, Jing Chang, Jianguo Guo, Jun Zhou, Adaptive twisting sliding mode algorithm for hypersonic reentry vehicle attitude control based on finite-time observer, Pages 20-29
- Kai Chen, Rongnian Tang, Chuang Li, Junguo Lu, Fractional order $\pi\lambda$ controller synthesis for steam turbine speed governing systems, Pages 49-57
- Deepika, Sandeep Kaur, Shiv Narayan, Fractional order uncertainty estimator based hierarchical sliding mode design for a class of fractional order non-holonomic chained system, Pages 58-70
- Huijuan Li, Anping Liu, Linli Zhang, Input-to-state stability of time-varying nonlinear discrete-time systems via indefinite difference Lyapunov functions, Pages 71-76
- Yun Ho Choi, Sung Jin Yoo, Event-triggered decentralized adaptive fault-tolerant control of uncertain interconnected nonlinear systems with actuator failures, Pages 77-89
- Abbas Dideban, Hashem Zeraatkar, Petri Net controller synthesis based on decomposed manufacturing models, Pages 90-99
- Saleh Mobayen, Chaos synchronization of uncertain chaotic systems using composite nonlinear feedback based integral sliding mode control, Pages 100-111
- Xiaoqing Xiao, Ju H. Park, Lei Zhou, Event-triggered $H_\infty$ filtering of discrete-time switched linear systems, Pages 112-121
- Alireza Safa, Reza Yazdanpanah Abdolmalaki, Saeed Shafiee, Behzad Sadeghi, Adaptive nonsingular terminal sliding mode controller for micro/nanopositioning systems driven by linear piezoelectric ceramic motors, Pages 122-132
- Salim Refoufi, Khier Benmahammed, Control of a manipulator robot by neuro-fuzzy subsets form approach control optimized by the genetic algorithms, Pages 133-145
- I. Santín, M. Barbu, C. Pedret, R. Vilanova, Fuzzy logic for plant-wide control of biological wastewater treatment process including greenhouse gas emissions, Pages 146-166
- Han Liu, Jianzhong Zhou, Yang Zheng, Wei Jiang, Yuncheng Zhang, Fault diagnosis of rolling bearings with recurrent neural network-based autoencoders, Pages 167-178
- Jiayuan Zhang, Wei Zhan, Mehrdad Ehsani, On-line diagnosis of inter-turn short circuit fault for DC brushed motor, Pages 179-187
- Igor Afonso Acampora Prado, Mateus de Freitas Virgílio Pereira, Davi Ferreira de Castro, Davi Antônio dos Santos, Jose Manoel Balthazar, Experimental evaluation of HJB optimal controllers for the attitude dynamics of a multirotor aerial vehicle, Pages 188-200
- Jinsong Zhao, Zhipeng Wang, Chuambi Zhang, Chifu Yang, Wenjie Bai, Zining Zhao, Modal space three-state feedback control for electro-hydraulic servo plane redundant driving mechanism with eccentric load decoupling, Pages 201-221
- Mohamed Mankour, Mounir Khiat, Leila Ghomri, Abdellkader Chaker, Mourad Bessalah, Modeling and real time simulation of an HVDC inverter feeding a weak AC system based on commutation failure study, Pages 222-230

ISA Transactions
Vol. 78
July 2018
- Ying Yang, Li Linlin, Steven X. Ding, Jianbin Qiu, Kaixiang Peng, Fault detection for piecewise affine systems with application to ship propulsion systems, Pages 3-9
- Alessandro Baldini, Lucio Ciabattoni, Riccardo Felicetti, Francesco Ferracuti, Alessandro Freddi, Andrea Monteriù, Dynamic surface fault tolerant control for underwater remotely operated vehicles, Pages 10-20
- Kun You, Lijiang Wei, Kai Jiang, A fuzzy logic urea dosage controller design for two-cell selective catalytic reduction systems, Pages 21-30
- Zhixiong Zhong, Yanzheng Zhu, Choon Ki Ahn, Reachable set estimation for Takagi-Sugeno fuzzy systems against unknown output delays with application to tracking control of AUVs, Pages 31-38
- Huaifeng Wu, Xiaojun Mei, Xinqiang Chen, Junjun Li, Jun Wang, Prasant Mohapatra, A novel cooperative localization algorithm using enhanced particle filter technique in maritime search and rescue wireless sensor
network, Pages 39-46
- Yaohong Qu, Bing Xiao, Zhenzhou Fu, Dongli Yuan, Trajectory exponential tracking control of unmanned surface ships with external disturbance and system uncertainties, Pages 47-55
- Defeng Wu, Fengkun Ren, Lei Qiao, Weidong Zhang, Active disturbance rejection controller design for dynamically positioned vessels based on adaptive hybrid biogeography-based optimization and differential evolution, Pages 56-65
- Yuanhui Wang, Yulong Tuo, Simon X. Yang, Mohammad Biglarbegian, Mingyu Fu, Reliability-based robust dynamic positioning for a turret-moored floating production storage and offloading vessel with unknown time-varying disturbances and input saturation, Pages 66-79
- Peijuan Li, Guoliang Sheng, Xiaofei Zhang, Jingqiu Wu, Baochun Xu, Xing Liu, Yao Zhang, Underwater terrain-aided navigation system based on combination matching algorithm, Pages 80-87
- Penghao Jiao, Zhijun Li, Qiang Li, Wen Zhang, Li He, Yue Wu, Simulation of low temperature combustion mechanism of different combustion-supporting agents in close-coupled DOC and DPF system, Pages 88-97
- Yangde Gao, Mohammad Karimi, Aleksey A. Kudreyko, Wanqing Song, Spare optimistic based on improved ADMM and the minimum entropy de-convolution for the early weak fault diagnosis of bearings in marine systems, Pages 98-104
- Andre A. Silva, Shalabh Gupta, Ali M. Bazzi, Arthur Ulatowski, Wavelet-based information filtering for fault diagnosis of electric drive systems in electric ships, Pages 105-115
- Wei Shen, Yu Pang, Jihai Jiang, Robust controller design of the integrated direct drive volume control architecture for steering systems, Pages 116-129
- Zhijia Zhao, Yu Liu, Fang Guo, Robust output feedback stabilization for a flexible marine riser system, Pages 130-140

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

Journal of the Franklin Institute
Vol. 355, Iss. 11
July 2018
- Zheng Wang, Bo Zhang, Jianping Yuan, Decentralized adaptive fault tolerant control for a class of interconnected systems with nonlinear multisource disturbances, Pages 4493-4514
- Sung Jin Yoo, Tae-Hyoung Kim, Decentralized low-complexity tracking of uncertain interconnected high-order nonlinear systems with unknown high powers, Pages 4515-4532
- Xiaohua Li, Xiaoping Liu, Backstepping-based decentralized adaptive neural $H_\infty$ tracking control for a class of large-scale nonlinear interconnected systems, Pages 4533-4552
- J. Preetha Roselyn, D. Devaraj, Adaptive multi objective differential evolution with fuzzy decision making in preventive and corrective control approaches for voltage security enhancement, Pages 4553-4582
- Yogendra Arya, AGC of two-area electric power systems using optimized fuzzy PID with filter plus double integral controller, Pages 4583-4617
- Aijuan Wang, Xiaofeng Liao, Tao Dong, Fractional-order follower observer design for tracking consensus in second-order leader multi-agent systems: Periodic sampled-based event-triggered control, Pages 4618-4628
- Yirui Cong, Zhiguang Feng, Hongwei Song, Shimin Wang, Containment control of singular heterogeneous multi-agent systems, Pages 4629-4643
- Xiaozheng Jin, Xianfeng Zhao, Jiahu Qin, Wei Xing Zheng, Yu Kang, Adaptive finite-time consensus of a class of disturbed multi-agent systems, Pages 4644-4664

Back to the contents
- Gaojian Ji, Cheng Hu, Juan Yu, Haijun Jiang, Finite-time and fixed-time synchronization of discontinuous complex networks: A unified control framework design, Pages 4665-4685
- Dan Liu, Yurong Liu, Fuad E. Alsaadi, Recursive state estimation based-on the outputs of partial nodes for discrete-time stochastic complex networks with switched topology, Pages 4686-4707
- Jinling Wang, Haijun Jiang, Tianlong Ma, Cheng Hu, A new approach based on discrete-time high-order neural networks with delays and impulses, Pages 4708-4726
- C. Maharajan, R. Raja, Jinde Cao, G. Rajchakit, Novel global robust exponential stability criterion for uncertain inertial-type BAM neural networks with discrete and distributed time-varying delays via Lagrange sense, Pages 4727-4754
- Mohammad Heggo, Xu Zhu, Sumei Sun, Yi Huang, A cognitive TV white space-broadband power line MIMO system for indoor communication networks, Pages 4755-4770

4.19. Contents: IFAC Journal of Systems and Control
Contributed by: John Coca, j.coca@elsevier.com

IFAC Journal of Systems and Control
Vol. 4
June 2018
- Cristi Guevara, Hugo Leiva, Approximated controllability of the strongly damped impulsive semilinear wave equation with memory and delay, Pages 1-6
- Sudin Kadam, Ravi Banavar, Geometry of locomotion of the generalized Purcell's swimmer: Modelling, controllability and motion primitives, Pages 7-16
- Hoai-Nam Nguyen, Per-Olof Gutman, On the modified Minkowski functional minimization controller for uncertain systems with input and state constraints, Pages 17-24

Contributed by: Fikret Aliev, chief_ed@acmij.az

Applied and Computational Mathematics an International Journal
Vol.17, No.2, July 2018
www.acmij.az
CONTENTS
- Ali Karci, A3-Artificial Atom Algorithm: A New Meta-Heuristic Computational Intelligence Algorithm Inspired by Chemical Processes, pages: 119-140
- Shaher Momani, Omar Abu Arqub, Banan Maayah, Feras Yousef, Ahmed Alsaeedi, A Reliable Algorithm for Solving Linear and Nonlinear Schrodinger Equations, pages: 151-160
- B. Sun, A. Dudin, S. Dudin, Queueing System With Impatient Customers, Visible Queue and Replenishable Inventory, pages: 161-174
- Minjia Shi, Hongwei Zh., Patrick Sole, Optimal Three-Weight Cubic Codes, pages: 175-184
Contributed by: Yongping Pan, yongppan@gmail.com

[CFP] International Journal of Adaptive Control and Signal Processing
International Journal of Adaptive Control and Signal Processing invites authors to submit original articles on learning from adaptive control under relaxed excitation conditions rather than the classical condition of persistent excitation (PE).

The capacity to learn is one of the fundamental features of autonomous intelligent behaviour which is reflected by parameter convergence in adaptive control [1]. Learning is desirable as it enhances stability and robustness properties of adaptive control systems such as superior trajectory tracking, accurate online modelling, and robustness against various perturbations. However, the classical PE condition that guarantees to learn from adaptive control is too stringent and usually infeasible in practice [2]. Even when PE exists, the learning speed in adaptive control heavily depends on the PE strength resulting in a generally slow learning process. The exploitation of online historical data provides a promising way to achieve learning from adaptive control without PE and has attracted great attention in recent years, where typical emerging techniques include concurrent learning [3] and composite learning [4]. In these emerging learning techniques, online historical data are exploited together with instantaneous data to construct special prediction errors that are available from measurable signals, and both prediction and tracking errors are employed to update parameter estimates so that learning can be achieved under weaker excitation conditions.

This special issue aims to provide state-of-the-art developments about learning from adaptive control, with a special focus on online historical data-driven adaptive control and parameter estimation as well as their applications to various real-world problems. However, other contributions that also aim to relax the classical PE condition for parameter convergence are also warmly welcome. Interested topics include but are not limited to:

- Composite learning for adaptive control and parameter estimation
- Concurrent learning for adaptive control and parameter estimation
- Learning from adaptive control under functional uncertainties
- Learning from adaptive control under time-varying uncertainties
- Learning from adaptive control under various perturbations
- Other learning techniques for parameter convergence without PE
- Real-world applications of all above emerging learning techniques

Authors are requested to submit their manuscripts online at the journal submission website: https://mc.manuscriptcentral.com/acsp-wiley. When submitting, please choose manuscript type “Learning From Adaptive Control Under Relaxed Excitation Conditions” and answer “Yes” to “Is this submission for a Special Issue?” The schedule of the Special Issue is shown as follows, but submissions will follow the first-come first-review policy.

Time Table:
Deadline for first submissions: 31 Aug 2018
Decision of first submissions: 31 Nov 2018
Deadline for second submissions: 30 Jan 2019
Final decision notification: 31 Mar 2019
Expected publication: Summer 2019
Guest Editors:

Dr Yongping Pan (Lead) Email: biepany@nus.edu.sg; yongppan@gmail.com
Department of Biomedical Engineering, National University of Singapore, Singapore

Prof Alexey Bobtsov Email: bobtsov@mail.ru
Department of Control Systems and Informatics, ITMO University, Russia

Prof Mohamed Darouach Email: modar@pt.lu
Research Center for Automatic Control of Nancy, University of Lorraine, France

Prof Young-Hoon Joo Email: yhjoo@kunsan.ac.kr
Department of Control and Robotics Engineering, Kunsan National University, Korea

For online information, please visit the homepage of the journal:
https://onlinelibrary.wiley.com/journal/10991115

Welcome to contact the Leading Guest Editor for further information.


5. Conferences

5.1. American Control Conference
Contributed by: Sergio Pequito, sergio.pequito@gmail.com

Dear Colleagues,

it is a great pleasure to present you the call for papers for the upcoming 2019 American Control Conference taking place in Philadelphia between July 10-12, 2019. Please consider submitting your outstanding works. The deadline is September 17, 2018. More information can be found on the website http://acc2019.a2c2.org.

Looking forward to seeing you in Philadelphia.

Best regards,
Sergio Pequito
Rensselaer Polytechnic Institute
Publicity Chair, ACC’19

5.2. Allerton Conference on Communication, Control, and Computing
Contributed by: Peggy Wells, pwells@illinois.edu

56th Allerton Conference on Communication, Control, and Computing – October 2-5, 2018
CONFERENCE CO-CHAIRS — Negar Kiyavash & Daniel Liberzon
Call for Papers: Submission Deadline: July 9, 2018
Manuscripts can be submitted from June 15-July 9, 2018 with the submission deadline of July 9th being firm. Please follow the instructions at allerton.csl.illinois.edu.
PLENARY SPEAKER — A. Stephen Morse, Dudley Professor of Electrical Engineering at Yale University

IMPORTANT DATES
JULY 9 — Submission Deadline
NOTE: AUGUST 3 — Acceptance Date Authors will be notified of acceptance via email by August 6, 2018, at which time they will also be sent detailed instructions for the preparation of their papers for the Conference Proceedings.
AFTER AUGUST 6 — Registration Opens
OCTOBER 2 — Opening Tutorial Lectures given by Paulo Tabuada and Joao Hespanha at the Coordinated Science Lab, University of Illinois at Urbana-Champaign
OCTOBER 3-5 — Conference Sessions at the University of Illinois Allerton Park & Retreat Center. The Allerton House is located 26 miles southwest of the Urbana-Champaign campus of the University of Illinois in a wooded area on the Sangamon River. It is part of the 1,500 acre Robert Allerton Park, a complex of natural and man-made beauty designated as a National natural landmark. Allerton Park has 20 miles of well-maintained trails and a living gallery of formal gardens, studded with sculptures collected from around the world.
OCTOBER 7 — Final Paper Deadline Final versions of papers that are presented at the conference must be submitted electronically in order to appear in the Conference Proceedings and IEEE Xplore.

5.3. International Conference on Control, Automation and Systems
Contributed by: Zee Yeon Lee, conference@icros.org

2018 18th International Conference on Control, Automation and Systems (ICCAS 2018)October 17 20, 2018YongPyong Resort, PyeongChang, GangWon Province, Korea
http://2018.iccas.org
Call for Papers: http://icros.org/data/download/ICCAS2018/ICCAS2018_CFP.pdf
The aim of the ICCAS is to bring together researchers and engineers worldwide to present their latest works, and disseminate the state-of-the-art technologies related to control, automation, robotics, and systems.

IMPORTANT DATES
- June 17, 2018 : Submission of Regular Papers (3 6 pages)(Extended)
- July 13, 2018 : Submission of Organized Session/Mini-symposium Proposal with Papers and Research Poster Papers (1 2 pages)
- July 31, 2018 : Notification of Acceptance
- August 31, 2018 : Submission of Final Camera-ready Papers

PAPER SUBMISSION:
To submit papers, go "Online Paper Submission" on the website:
http://sigongji.2018.iccas.org/
PAPER SUBMISSION GUIDELINE: http://2018.iccas.org/?page_id=81
Indexed in: IEEE Xplore, EI compendex, and SCOPUS
PLENARY SPEAKERS- Edwin K. P. Chong (Colorado State Univ., USA)
- Matthew W. Smuck (Stanford Univ., USA)
- Janan Zaytoon (Univ. of Reims, France)
- Xiaoyan Zhu (Tsinghua Univ., China)
- Hideaki Ishii (Tokyo Inst. of Tech., Japan)

– Welcome to PyeongChang, 2018 Winter Olympics Venue –
PyeongChang is a county in Gangwon Province, South Korea. It’s known for Odaesan National Park, with trails crisscrossing the Taebaek Mountains. The park is also home to several Buddhist temples, including Woljeongsa Temple, with its 9-story octagonal pagoda. Lee Hyo-seok Culture Village explores the life of early-20th-century poet Lee Hyo-seok. On the Heungjeong Valley bank are the 7 themed gardens of Herbnara Farm.

General Chair: Chul Joo Hwang (President of ICROS; Jusung Engineering, Korea)
Organizing Chair: Sungwan Kim (Seoul Nat’l Univ., Korea)
Program Chair: Jung Kim (KAIST, Korea)
Organized by Institute of Control, Robotics and Systems (ICROS)
Technically Co-sponsored by: IEEE CSS; IEEE RAS; IEEE IES; SICE; ACA; ISA; CACS; TCCT, CAA; ECTI; CAAI

6. Positions

6.1. PhD: Delft University of Technology, The Netherlands
Contributed by: Bart De Schutter, b.deschutter@tudelft.nl

PhD position on "AI-networking: control and network science" at Delft University of Technology, The Netherlands

Delft University of Technology and KPN, the leading fixed and mobile telecom operator in The Netherlands, have started a collaboration, called NExTWORKx. The goals of this collaboration include excellent academic research into both fundamental properties and implementation of the next generation telecommunication networks.

In this context we are announcing a PhD position in the field of AI-networking: control and network science. The aim is to identify the dynamic processes in the communication network based on network state information (e.g. in routers) using system theory and to develop and integrate new learning methods in order to control and manage the telecommunication network.

We are looking for excellent candidates with a background in systems and control, network science, systems theory, telecommunications, stochastic processes.

For more information and how to apply, please see https://www.nas.ewi.tudelft.nl/index.php/work-with-us and/or contact prof. Piet Van Mieghem at p.f.a.vanmieghem [at] tudelft.nl

6.2. PhD: Delft University of Technology, The Netherlands
Contributed by: S Hassan HoseinNia, s.h.hosseinniakani@tudelft.nl

This is a four year PhD position. You will develop and conduct research on precision motion control for high-tech mechatronics applications. The next big step in the industrial revolution, of which control is a
vital part, requires higher speed and increased precision. Classical control is not capable of achieving the increasing demands on performance, robustness and efficiency. Existing advanced controllers are complicated and heavily incompatible with industry standards in terms of design and implementation. This project aims to introduce a new control paradigm that overcomes these challenges.

You will be engaged in the development of novel complex order controllers using nonlinear approaches. The tasks to be performed include:

- Develop complex order nonlinear reset controllers
- Develop frequency domain analysis for nonlinear controllers with reset
- Develop stability theories for complex order controllers in frequency domain
- Loop-shaping guidelines for designed controllers
- The supervision of MSc student projects related to your own,
- Being an inspiring member for the PME department by proactive participation,
- Engaging in the writing of scientific articles and proposals to secure funding for further work on the topic.

Applicants should have the following qualifications:

- Masters and background within the fields of (but not restricted to) Mechanical Engineering, Mechatronics, Electrical Engineering and Control Engineering
- Experience with:
  - Nonlinear Control theories
  - Robust Control theory
  - Loopshaping methods
  - Frequency domain control design
- Experience or high interest (not mandatory but preferred) with
  - Hands on experimental work (control implementation and prototypings)
  - Fractional order control
  - Reset Control
- A good publication record.
- Good skill in writing scientific articles
- High motivation for teamwork and good communication skills.

For more information please contact Dr. Hassan HosseinNia, email: s.h.hosseinniakani@tudelft.nl.

To apply, please send an detailed cv, a list of publications and your letter of motivation by July 31, 2018 to s.h.hosseinniakani@tudelft.nl.

---

6.3. PhD: Delft University of Technology, The Netherlands

Contributed by: Sander Wahls, s.wahls@tudelft.nl

PhD: Delft University of Technology, The Netherlands

Topic: Identification of Lax-integrable Systems

Job description: Lax-integrable systems are (typically nonlinear) partial differential equations that can be expressed though a compatibility condition between two linear operators, the so-called Lax pair. This special structure provides them with many desirable properties. However, given an arbitrary partial differential equation, it is not trivial to decide whether it is Lax-integrable. Furthermore, it is even harder to find
suitable Lax pairs. The process usually involves human intervention, a lot of expertise, and, finally, some luck.

The goal of this Ph.D. project is to investigate automatic methods for finding Lax pairs. While there are semi-automatic methods for finding Lax pairs from given partial differential equations based on symbolic computations, the focus in this Ph.D. project will be on numerical methods that identify Lax pairs from given input-output data. The successful candidate will join a team of Ph.D. students that are investigating the exploitation of Lax integrability in engineering applications.

Requirements: We are looking for a candidate with a strong academic background, who has or is close to obtaining a Master of Science degree in systems and control, applied mathematics, physics, electrical engineering, or another related discipline. Experience with classic system identification, nonlinear systems, or numerical methods is a plus.

Conditions of employment: TU Delft offers a customisable compensation package, a discount for health insurance and sport memberships, and a monthly work costs contribution. Flexible work schedules can be arranged. An International Children’s Centre offers childcare and an international primary school. Dual Career Services offers support to accompanying partners. Salary and benefits are in accordance with the Collective Labour Agreement for Dutch Universities.

As a PhD candidate you will be enrolled in the TU Delft Graduate School. TU Delft Graduate School provides an inspiring research environment; an excellent team of supervisors, academic staff and a mentor; and a Doctoral Education Programme aimed at developing your transferable, discipline-related and research skills. Please visit www.tudelft.nl/phd for more information.

Information and application: For information about this vacancy, you can contact Dr.-Ing. Sander Wahls, Assistant Professor, email: s.wahls@tudelft.nl. For information about the selection procedure, please contact Irina Bruckner, HR advisor, email: application-3mE@tudelft.nl.

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

Please email your application to Irina Bruckner, email: application-3mE@tudelft.nl. When applying for this position, please refer to vacancy number 3mE18-34. The start date is flexible. Applications will be considered on a rolling basis until the position is filled.

6.4. PhD: Johannes Kepler University Linz, Austria
Contributed by: Luigi del Re, luigi.delre@jku.at

PhD: Johannes Kepler University Linz, Austria

We welcome applications for a doctoral position on development and testing of advanced driver assistance systems (ADAS) and autonomous driving functions in cooperation with industrial partners in presence of real traffic environment. Their development and assessment of performances and safety is strongly dependent on a realistic traffic environment model, as ADAS must account both the behaviour of traffic participants but also the level of uncertainty on that knowledge.
The candidate to this project will focus on some aspects among the following ones: the analysis of the behaviour of real traffic participants, the development of numerical simulations able to describe those behaviours in a stochastic framework, development and testing of ADAS control algorithms embedding behaviour prediction and model based or learning safety assessment.

The Institute for Design and Control of Mechatronical Systems (DESREG Institute) at the JKU Linz, Austria, has a long research tradition in control engineering and identification of dynamical systems with a main focus on automotive and biomedical applications. The institute is currently involved in the development control algorithms for ADAS and in particular for their verification under general conditions (traffic conditions, sensor failures, etc.). The position presents ample opportunities to work in close collaboration with the DESRED institute academic and industrial partners. For further information see: https://desreg.jku.at/concrete5/index.php/research

Beside the tasks associated with this position, depending on the candidate’s skills and preferences, he/she might be involved also in project management and teaching activities.

The successful candidate must hold a Master degree in mechatronics, mechanical engineering, electrical engineering, computer science, physics or mathematics and be interested in the field of intelligent transport systems. Team player qualities are essential.

The minimum gross salary for the position is 2,794.60 EURO/month (in line with the University collective agreement, KV classification B1). The doctoral contract is initially limited to one year and will be extended up to 4 years in case of successful cooperation.

The position will begin at a flexible date starting from August 1st 2018, please send all relevant information (curriculum and supporting documents) to luigi.delre@jku.at

---

6.5. PhD: University of Grenoble-Alpes, France

Contributed by: Oded Maler, oded.maler@imag.fr

PhD Proposal: Data Mining Dynamic Behaviors using Signal Temporal Logic

Tempo group
VERIMAG,
University of Grenoble-Alpes
France

Supervisors: Oded Maler and Nicolas Basset

The major goal of the project is to develop new techniques for extracting information from temporal behaviors (signals, wave-forms, sequences), and come up with succinct representation that captures their properties. These behaviors, can be a result of running simulations or measuring actual systems in various domains. In some application domains temporal data mining is handled by techniques coming from machine learning (recurrent neural networks (RNN), automaton learning), statistics and control (system identification). The project will explore the applicability of Signal Temporal Logic (STL) for inferring classifiers and for clustering of such behaviors.

STL is a simple extension of temporal logic used to specify properties of real-valued signals defined over continuous time. It can express, for example constraints on the temporal distance between events such as threshold crossings of various variables. Its major use is to monitor behaviors (simulation traces, measurement from a real system during operation) and detect violations of temporal properties. Since its introduction in 2004, STL has been adopted by researchers in many application domains to specify and monitor behaviors.
of diverse systems such as robots, medical devices (artificial pancreas, anaesthesia machine), analog circuits, biochemical models of cellular pathways, and cyber-physical control systems, mostly within the automotive domain. An introduction to can be found in http://www-verimag.imag.fr/~maler/Papers/checking.pdf and a recent survey appears in http://www-verimag.imag.fr/~maler/Papers/monitor-RV-chapter.pdf

The starting point of the thesis will be the work on parametric identification of temporal properties which solves the following problem: given a behavior and a parametric STL (PSTL) formula, a formula where some threshold and timing constants have been replaced by parameters, find the set of parameters that makes the behavior satisfy the property. More details can be found in http://www-verimag.imag.fr/ maler/Papers/identify-tl.pdf and http://www-verimag.imag.fr/~maler/Papers/parametric-hscc18.pdf

From the point of view of machine learning, the formula can be viewed as a feature extractor which reduces the signal into a low-dimensional set in the parameter space that can be used for classification and clustering.

The goal of the thesis is to develop these ideas further, theoretically and practically, to the point of being applicable to real-life case-studies. The actual evolution of the thesis will depend, of course, on intermediate results but also on the qualifications and tendencies of the student. Among the topics to be investigated we find:

1) A comparison with other approaches to learn from temporal behaviors such as RNN and automata;
2) Fundamental and algorithmic studies on the quantitative semantics of STL which reflects the robustness of satisfaction in space and time;
3) An implementation of different approaches (search, quantifier elimination, backward computation) to solve the parametric identification problem, exactly or approximately;
4) Handling the fact that while observing system behaviors we have only positive examples;
5) Developing efficient algorithms for sub-problems encountered during the development of the classification and clustering algorithms, e.g., computing the Hausdorff distance between unions of polyhedra, or approximating monotone functions;
6) Applying the resulting algorithms to case-studies coming from cyber-physical systems and mostly from systems biology.
7) Integrating the results in the AMT toolbox.

All in all, the thesis offers an opportunity to participate in a leading-edge research in a new and timely domain that combines clean and decent theory, real-life applicability and international collaboration. The thesis is part of the SYMER multi-disciplinary project of the Grenoble university, in collaboration with biologists working on cellular metabolism and epigenetics and the project results will be applied to models developed within the project.

We are looking for motivated candidates with a Masters degree in Computer Science, Electrical Engineering, Mathematics or even Physics, and a solid background in a non-empty subset of computer science (algorithms, automata, logic), control, optimization, formal methods, machine learning, signal processing and statistical reasoning. Such candidates who are ready to learn new things and complete their background, are kindly requested to send e-mail (with “PhD-candidate” in the title) a CV and a motivation letter to Oded.Maler@univ-grenoble-alpes.fr and nicolas.basset1@univ-grenoble-alpes.fr

The Grenoble area, in addition to being surrounded skiable mountains is easily accessible: Lyon (1 hour),
Geneva (1.5 hours), Torino (2 hours), Paris (3 hours by train) and Barcelona (6 hours). It features one of Europe’s largest concentrations of academic/industrial research and development with a lot of students, a cosmopolite atmosphere and work opportunities.

VERIMAG, http://www-verimag.imag.fr is a leading academic lab in verification and model-based design of embedded cyber-physical systems. Its past contributions include model checking (J. Sifakis, Turing Award 2007), the data-flow language Lustre (P. Caspi, N. Halbwachs) underlying the SCADE programming environment for safety-critical systems. The Tempo group at VERIMAG has made pioneering contributions to the study of hybrid cyber-physical systems and its applications, and in particular the development of STL. Group alumni have proceeded to post-doc abroad (Berkeley, Carnegie-Mellon, Cornell, Boston University, IST Austria) or integrate in industry (Mathworks, Intel, local start-ups) or R&D organization (Austrian Institute of Technology).

6.6. PhD: University of Grenoble-Alpes, France
Contributed by: Alina Voda, alina.voda@gipsa-lab.grenoble-inp.fr

PHD Position, fully funded by university grant, at GIPSA-lab, University Grenoble Alpes, Grenoble, France.

Title: ”Fractional order modeling and identification for phantom EEG enhancement”.
Starting: 1/10/2018.
Details at:

6.7. PhD: George Washington University, USA
Contributed by: Taeyoung Lee, tylee@gwu.edu

Flight dynamics and control lab (http://fdcl.seas.gwu.edu) of the George Washington University at Washington DC is looking for new doctoral students. There are two open positions for each of the following projects.

1. Uncertainty Propagation for Hybrid Systems
This project is to construct comprehensive computational techniques for stochastic analysis of hybrid systems evolving on a nonlinear configuration manifold, including uncertainty propagation, Bayesian estimation, and stochastic optimal control schemes.
In particular, backgrounds in the following topics are desired.
   a. Stochastic analysis
   b. Hybrid systems
   c. Estimation
   d. Geometric mechanics
This position will be funded by AFOSR, starting from Fall 2018.

2. Dynamics and Control of Flapping Wing Unmanned Aerial Vehicle
This project aims to uncover the biomechanics of Monarch butterflies exhibiting the longest flight range among insects, and to utilize it to develop bio-inspired control schemes for long-range flapping-wing micro aerial vehicles. Backgrounds in the following topics are desired.
   a. Nonlinear dynamics
   b. Nonlinear control theory
   c. Aerodynamics
   d. Geometric mechanics
This position will be funded by NSF, starting from summer 2018.

For both positions, it is expected that the candidates have expertise in structured programming.
To apply, or to request more information, please contact Prof. Taeyoung Lee at tylee@gwu.edu. The application should include CV, a list of publications, and a list of reference, and it should be submitted as a single PDF file.

6.8. PhD: University of New South Wales, Australia
Contributed by: Daoyi Dong, daoyidong@gmail.com

Scientia PhD Scholarship at UNSW: Machine learning for quantum estimation and control
This project aims to develop effective estimation and control methods using machine learning for quantum systems. Benchmarking and controlling quantum systems have been an important task in next generation technology. However, efficient methods for the estimation and control of complex quantum systems are lacking. The project will advance key knowledge and provide effective methods to enable us to identify and control complex quantum systems for wide applications arising in this emerging technological revolution. The research outcomes will make an important contribution to accelerating practical applications of future quantum technology. The scholarship provides the following support:
• Work on high quality research projects with the best supervisory teams in world class environments
• $40K a year stipend for four years
• Tuition fees covered for the full 4 year period
• Coaching and mentoring will form a critical part of your highly personalised leadership development plan
• Up to $10k each year to build your career and support your international research collaborations

More application information could be found at:
http://www.2025.unsw.edu.au/apply/

If you are interested in applying for the scholarship, please submit your application online, or contact A/Prof Daoyi Dong (d.dong@unsw.edu.au), Dr Hidehiro Yonezawa (h.yonezawa@unsw.edu.au) or Prof Valeri Ougrinovski (v.ougrinovski@adfa.edu.au) by 20 July 2018.

6.9. PhD: University of New South Wales, Australia
Contributed by: Hendra Nurdin, h.nurdin@unsw.edu.au

A new UNSW Scientia PhD Scholarship is available to work on the topic "Quantum parameter estimation and system identification for quantum technologies".

The Scientia scholarship (https://research.unsw.edu.au/unsw-scientia-phd-scholarship-scheme) is a generous scholarship scheme that provides a stipend of AUD$40,000 for 4 years (tax-free) together with a support package of up to AUD$10,000 per annum to provide financial support for career development activities such as conference travel and research collaboration. The scholarship’s purpose is to attract the best potential talents from around the world to work on important contemporary research problems.

Information about the Scientia PhD project:
Quantum systems promise capabilities in sensing, communications and computing that significantly surpass those of current systems that are based on classical rather than quantum physics. The project will develop new data-driven methods for quantum parameter estimation and system identification for quantum systems that are of interest in quantum technological applications. The new methods will be applied to construct
mathematical models for linear Gaussian systems that describe quantum optical and optomechanical systems for Gaussian continuous-variable quantum information processing, and for quantum noise spectroscopy, that is, the identification of the quantum noise acting on a quantum system.

The ideal candidate will have a degree in engineering, physics and/or statistics with knowledge of quantum mechanics and control theory. The candidate is expected to have strong analytical skills and a strong interest in the application of ideas and methods from control theory and statistics to quantum technological applications. A dual undergraduate degree in engineering and science (physics or mathematics/statistics) or an undergraduate and a master’s degree in related fields would be advantageous but not strictly required.

For further information, please contact Dr Hendra Nurdin at h.nurdin@unsw.edu.au and to apply please go to:

6.10. PhD: University of Sannio in Benevento, Italy
Contributed by: Davide Liuzza, davide.liuzza@unisannio.it

PhD Position available at the Department of Engineering of the University of Sannio in Benevento, Italy. Contacts: Prof. Luigi Glielmo (email glielmo@unisannio.it), Prof. Luigi Iannelli (email luigi.iannelli@unisannio.it), Dr. Davide Liuzza (email davide.liuzza@unisannio.it), Giuseppe Silano (email giuseppe.silano@unisannio.it).

The GRACE (Group for Research on Automatic Control Engineering) at the University of Sannio offers two PhD positions for an incoming European Project on CPS for farming scenarios to be started in October 2018.

The successful candidates will conduct original research on drone navigation and control in unknown environments (with special emphasis on woods and orchard) based on visual odometry information. Our ideal candidates have a sound knowledge in robotics and computer vision from their Bachelor and Master degrees, experience in drone navigation, SLAM, computer vision algorithms and virtual reality environments for robotic applications (such as Gazebo, V-Rep, Webots, AirSim, etc.). Furthermore, a basic knowledge of ROS is desirable.

The candidates will also have to demonstrate experience in object programming (C++, Java), general skills in computer programming (Python, C, XML, and so on) an excellent academic track record, well developed problem solving skills and a strongly motivated personality. Familiarity with open source OS (Ubuntu) and version control systems (Git and Mercurial) is a plus. Interests in both theoretical robotic research and mobile robotic applications as well as the ability of working independently complete the candidate profiles.

The candidates will be selected according to applicant fulfilment of the above qualifications. Interested candidates must send detailed CV, two contacts to whom we can ask reference letters, and any other useful documentation to the email address:
luigi.iannelli@unisannio.it, davide.liuzza@unisannio.it and giuseppe.silano@unisannio.it (please, include all the addresses).
Answers will be given at the beginning of September, 2018.

The selected candidate will join the control system group at the University of Sannio in Benevento, Italy. The project involves an academic and industrial panel of roughly 50 European partners.
6.11. PhD: Illinois Institute of Technology, USA  
Contributed by: Qing-Chang Zhong, zhongqc@ieee.org

PhD in Control and Stability of Future Power Systems: Illinois Institute of Technology, Chicago, USA
An exciting opportunity is coming up for talented and committed researchers to apply for a fully-funded PhD studentship at Illinois Institute of Technology. This is to continue the work presented at a semi-plenary talk delivered at the 20th IFAC World Congress on Synchronized and Democratized (SYNDEM) Smart Grids (https://www.youtube.com/channel/UCY8lgFAlBxP6j6haMqh4WLQ). We plan to investigate the stability of SYNDEM smart grids with millions of power electronic converters by adopting passivity and port-Hamiltonian systems theory. We are particularly looking for candidates who have strong mathematical background in control theory as well as versatile practical skills in power electronics and power systems.
If you are interested in this, please send your CV, transcripts and two representative publications to Qing-Chang Zhong (zhongqc@ieee.org).

Contributed by: Johan Suykens, johan.suykens@esat.kuleuven.be

PhD and Postdoc positions KU Leuven (ERC Advanced grant E-DUALITY)
The research group KU Leuven ESAT-STADIUS is currently offering 3 PhD and 3 Postdoc (1 year, extendable) positions within the framework of the ERC (European Research Council) Advanced Grant E-DUALITY http://www.esat.kuleuven.be/stadius/E (PI: Johan Suykens) on Exploring Duality for Future Data-driven Modelling.
Within this ERC project E-DUALITY we aim at realizing a powerful and unifying framework (including e.g. kernel methods, support vector machines, deep learning, multilayer networks, tensor-based models and others) for handling different system complexity levels, obtaining optimal model representations and designing efficient algorithms.
The research positions relate to the following possible topics:
-1- Duality principles
-2- Multiple data sources and coupling schemes
-3- Manifold learning and semi-supervised schemes
-4- Optimal prediction schemes
-5- Scalability, on-line updating, interpretation and visualization
-6- Mathematical foundations
-7- Matching model to system characteristics
For further information and on-line applying, see https://www.kuleuven.be/personeel/jobsite/jobs/54681979” (PhD positions) and https://www.kuleuven.be/personeel/jobsite/jobs/54681807” (Postdoc positions) (click EN for English version).
The research group ESAT-STADIUS http://www.esat.kuleuven.be/stadius at the university KU Leuven Belgium provides an excellent research environment being active in the broad area of mathematical engineering, including data-driven modelling, neural networks and machine learning, nonlinear systems and complex networks, optimization, systems and control, signal processing, bioinformatics and biomedicine.
6.13. PostDoc: Delft University of Technology, The Netherlands
Contributed by: Rudy Negenborn, r.r.negenborn@tudelft.nl

Post-doc: "Coordination & control for logistics on modular floating transport hubs"
available at Delft University of Technology, Dept. of Maritime & Transport Technology
Within the framework of the EU H2020 funded program Space@Sea we seek a talented and ambitious post-doctoral researcher for research on control and optimization of logistics for floating transport hubs. The Space@Sea program aims to provide sustainable and affordable workspace at sea by developing a standardised and cost efficient modular (floating) island with low ecological impact. The Space@Sea program aims at four application areas on such an island: Transport and Logistics hub, Energy hub, Farming and Living at sea. The current post-doc vacancy focuses on the Transport and Logistics hub application.
We seek a post-doctoral researcher that will focus on real-time process control and coordination methods of transport and logistic tasks on and around the platform, and with other (land-based) hubs. Specific challenges include developing methods that take into account limited operational windows due to sea states, formal mathematical modelling, developing simulation cases, and determining and assessing alternative routing strategies for vessels and land-based vehicles while keeping environmental impact at a minimum.
You will work closely together with TU Delft staff and the (international) project partners on many aspects of the transport and logistics hub.
Requirements
We are seeking a researcher who has expertise and interest in one or more of the following areas:
• Automatic (distributed) control, operations research, simulation;
• Vehicle routing, logistics, terminal / port design.
You have obtained a PhD or an equivalent degree or expect to obtain such a degree very soon related to these areas (control, optimization, logistics). Good spoken and written English and the ability to work in a team are mandatory.
For more information about this position, please contact Prof. R.R. Negenborn, e-mail: r.r.negenborn@tudelft.nl.
To apply, please e-mail an up-to-date, detailed curriculum vitae, a letter of application, and the names and contact information (telephone number and e-mail address) of two references by 7 July, 2018 to: application-3mE@tudelft.nl.

Contributed by: S Hassan HoseinNia, s.h.hosseinniakani@tudelft.nl
This is a postdoctoral research position, with a limited 12-month duration. You will develop, conduct and supervise research on soft magnetic actuators for mechatronics. You will be engaged in the development of novel systems aimed at creating a demonstrator as a proof of principle, based on tuneable electromagnetic with applications in precision mechatronics applications.
The tasks to be performed include:
• The design of a soft material actuator suitable to the mechatronic and biomechanical applications,
• The development of a suitable fabrication process for the manufacturing of the system,
• The characterization and testing of the device’s functionality, stability and reliability,
• The supervision of MSc student projects related to your own,
• Being an inspiring member for the PME department by proactive participation,
• Engaging in the writing of scientific articles and proposals to secure funding for further work on the topic.

Back to the contents
Applicants should have the following qualifications:

- **PhD and multidisciplinary background within the fields of (but not restricted to) Mechanical Engineering, Mechatronics, Applied Physics**
- Experience with:
  - Softmatter actuators (polymeric, magnetic, electrical, pneumatic, etc)
  - Magnetic actuator
  - Modelling and control of such systems
- Experience or high interest (not mandatory but preferred) with
  - Hands on experimental work and fabrication
  - Compliant mechanisms or robotics applications
- A good publication record.
- Interest in educational tasks such as teaching and supervision of Master and PhD students.
- Good skill in writing scientific articles and funding proposals
- High motivation for teamwork and good communication skills.

Applicants should have the following qualifications:

- **PhD and multidisciplinary background within the fields of (but not restricted to) Mechanical Engineering, Mechatronics, Applied Physics, Material Science, or Chemical Engineering**
- Experience with:
  - Softmatter actuators (polymeric, magnetic, electrical, pneumatic, etc)
  - Magnetic actuator
  - Modelling and control of such systems
- Experience or high interest (not mandatory but preferred) with
  - Hands on experimental work and fabrication
  - Compliant mechanisms or robotics applications
- A good publication record.
- Interest in educational tasks such as teaching and supervision of Master and PhD students.
- Good skill in writing scientific articles and funding proposals
- High motivation for teamwork and good communication skills.

For more information please contact Dr. Hassan HosseinNia, email: s.h.hosseinniakani@tudelft.nl.

To apply, please send an detailed cv, a list of publications and your letter of motivation by July 15th, 2018 to s.h.hosseinniakani@tudelft.nl.

### 6.15. PostDoc: INRIA Grenoble, France

Contributed by: Vincent Acary, vincent.acary@inria.fr

Post-doc position INRIA Grenoble, France. Structural analysis of nonsmooth DAE systems.

A two-year post-doc position is open at INRIA Rhone-Alpes in structural analysis of nonsmooth DAE systems.

A complete description and how to apply is available here:


### 6.16. PostDoc: USP, Brazil

Contributed by: OSWALDO LUIZ DO VALLE COSTA, oswaldo@lac.usp.br
Systems and Control: Post-Doctoral Fellowship in Brazil

A Post-Doctorate Fellowship is opened for researchers who have completed his/her PhD less than seven years ago to develop research in Brazil. Candidates must hold a PhD-Doctorate degree related to at least one of the next topics: Control and Systems Engineering; Automation; Robotics; Electrical Engineering; Electronics; Mechatronics; Mathematics (pure or applied); Statistics. Candidates holding a PhD in any of the aforementioned topics are invited to apply. The successful applicant will be required to live in the city of São Paulo, Brazil, during the fellowship period. Our research facilities are located at the Universidade de São Paulo, São Paulo, Brazil.

The selected candidate will receive a Post-Doctorate Fellowship from FAPESP, Brazil (R$ 7,174.80 per month, which is approximately equivalent to US$ 1,800.00). The fellowship is awarded for 12 (twelve) months and can be renewed for another 12 months. The position requires a good-level of written and oral communication skills in English.

The aim of the project is to advance the knowledge on control problems for Markov jump linear systems (MJLS. Problems related to the so-called hidden Makov case will also be investigated, as well as real practical application on fault tolerant control problems. The appointed candidate is expect to build a bridge between theory and applications. The selected candidates will work under the supervision of Prof. Oswaldo Luiz do Valle Costa (USP, Brazil).

The selection process will consist of the candidate’s CV analysis (first step) and an interview via Skype with the selected candidates (second step). The result of the first step of the selection process will be informed by email. The interview will be arranged with the candidates by email. Candidates should submit their documentation by email at "oswaldo@lac.usp.br". The required documentation for application are a cover letter in which the applicant justifies his or her interest in the proposed topics and an updated academic Curriculum Vitae. The deadline for applications is August 31, 2018, but applications will be accepted until the position is filled.

Starting time (tentative): November 01, 2018.

6.17. **PostDoc: University of Sydney, Australia**

Contributed by: Ian Manchester, ian.manchester@sydney.edu.au

A post-doctoral research associate/fellow position is now open at the University of Sydney.

We are seeking applicants with a strong background and publication record in nonlinear control theory, control of robotic systems, nonlinear predictive control, stability verification, and/or learning control to contribute to a project funded by the Australian Research Council and led by A/Prof Ian Manchester.

This is a 2 Year Full time Fixed Term role with Base Salary: $90K-102K p.a, depending on experience, plus superannuation.

For full details and application go to
https://sydney.nga.net.au
and do a "Job search" for "Job reference" 1124/0618F

Closing date for applications is 22nd of July.
6.18. Research Associate: Paderborn University, Germany
Contributed by: Daniel Quevedo, dquevedo@ieee.org

The Automatic Control Group (Prof. Daniel Quevedo) in the Department of Electrical Engineering at Paderborn University is seeking a Research Associate (Wissenschaftliche/r Mitarbeiter/in)
This is a full-time position, which is to be filled as soon as possible. We will welcome doctoral students and postdocs. The position is limited to the duration of the qualification procedure in the field of Automatic Control, depending on the previous qualification, for a period of usually 3 years with possible extensions (according to WissZeitVG).

Your duties and responsibilities:
The appointee will be actively involved in our research activities in the area of networked control, support the group’s teaching activities (4 SWS) and also assist in the supervision of final-year students.

For further information, see http://control.upb.de

Your profile:
- A Master’s or a doctoral degree in control theory from an excellent University.
- Postdoctoral applicants must have a proven capacity for high-quality research in our areas of interest and publications in leading international journals in systems control.
- Fluency in English is required, knowledge of German is a strong advantage.

We offer a stimulating work environment in an international team and an attractive remuneration package according to pay scale TV-L EG 13 of the German public service (approx. EURO 3,600-4,000 per month).

Applications from women are particularly welcome and, in case of equal qualifications and experience, will receive preferential treatment according to state law (LGG). Qualified disabled people (in the sense of the German social law SGB IX) are also encouraged to apply. The applicant may choose to have the staff council (WPR) involved in his/her appointment.

Please send your application (including a cover letter, your CV, list of publications, and contact details of at least two referees) to Ines Kaiser, ines.kaiser@upb.de by 15 August 2018 (reference no. 3391).

6.19. Faculty: Aalborg University, Denmark
Contributed by: Department of Electronic Systems, Aalborg University, ach@adm.aau.dk

Professor in Robotics and Control
At the Technical Faculty of IT and Design, Department of Electronic Systems, a position as Professor in Robotics and Control is open for appointment from September 1, 2018 or soon hereafter. The Department of Electronic Systems is one of the largest departments at Aalborg University with a total of more than 250 employees. The department is internationally recognized in particular for its contributions within Information and Communication Technology (ICT). The research and teaching of the Department of Electronic Systems focus on electronic engineering and the activity areas are organized in the sections: Antennas, Propagation and Millimetre-wave Systems section (APMS), Automation Control section (Control), Connectivity section (CNT), Signal and Information Processing section (SIP), Wireless Communication Networks section (WCN) and Communication, Media and Information technologies (CMI). The department focuses on maintaining a close interplay with the university’s surroundings - locally, nationally and internationally – as well as producing unique basic research and educating talented and creative engineers. The department collaborates with leading ICT researchers all over the world.

Job description
We seek to appoint a Professor to lead research and knowledge exchange at the intersection of the disciplines of robotics and control. The successful candidate will join a team of academics in control and robotics with a comprehensive robotics research and teaching portfolio (including a new graduate programme in Robotics). The group focuses on novel robotics application areas.

The position requires internationally recognized research experience in one or more of the following areas:
- Collaborative robotics
- Shared autonomy
- Physical human-robot interaction
- Autonomous systems
- Synthesis for closed loop robotic systems (w. uncertainty and dynamic environments)

The main duties and responsibilities include:
- Leadership and strategic direction and focus of a research programme within robotics.
- Research, including publication of results and supervision of research students.
- Teaching and assessment of primarily graduate students.
- Generation of research funding applications and management of successful projects and programmes.
- Leverage of reputation, knowledge and experience to strengthen our relationship with private industry partners in the field of robotics.

Teaching will be within the BSc/MSc study program in Robotics, and within the PhD School in Electronics and Electrical Engineering. It includes preparation and lecturing of internal and external courses at undergraduate, graduate, and postgraduate levels, as well as supervision of student projects at all these levels.

You may obtain further professional information from Professor Thomas Bak, phone no. 9940 8701, Email tba@es.aau.dk.

Qualification requirements:
- The successful applicant can demonstrate a documented high level of original scientific production at an international level, including proven further development of the research area in question. An assessment of the candidate’s undertaking of research management and/or other possible management functions will also be taken into account. In addition the applicant is expected to have the qualifications required for undertaking teaching responsibilities. Special contributions to and development of educational and teaching related areas will be considered in the overall assessment.

The application must contain the following:
- A motivated text wherein the reasons for applying, qualifications in relation to the position, and intentions and visions for the position are stated.
- A current curriculum vitae.
- Copies of relevant diplomas (Master of Science and PhD). On request you could be asked for an official English translation.
- Scientific qualifications. A complete list of publications must be attached with an indication of the works the applicant wishes to be considered. You may attach up to 10 publications. A link to your unique research identifier (Google Scholar or Web of Science ResearcherID or Scopus Author ID) which allows your publication and citation record to be analyzed.
- Teaching qualifications described in the teaching portfolio. If this is not enclosed the applicant must include an explanation for its absence.
- Dissemination qualifications, including participation on committees or boards, participation in organisations and the like.
- Additional qualifications in relation to the position.
Possibly contact information for 2-3 references
Personal data.
The applications are only to be submitted online by using the "Apply online" button below.
We wish to reflect the diversity of society and welcome applications from all qualified candidates regardless of personal background.
An assessment committee will assess all candidates.
For further information concerning the application procedure please contact Anne Christoffersen by mail ach@adm.aau.dk or phone (+45) 9940 9680.
Information regarding guidelines, ministerial circular in force, teaching portfolio and procedures can be seen here (http://www.tech.aau.dk/ansatte/hr-personaleafladning/).
Agreement
Appointment and salary acc. to the agreement between the Ministry of Finance and the Danish Confederation of professional Associations (AC) on Academics in the State. Employment as Professor is in accordance with a classified position on scale 37. In addition, a pensionable increment will be given.
Vacancy number
60240
Deadline
01/08/2018
Apply online
6.20. Department Head: French German Research Institute of Saint-Louis, France
Contributed by: Mrs. Borchert, humanresources@isl.eu
The French German Research Institute of Saint-Louis (ISL), a leader in Europe in research on guided projectiles, is urgently looking for the head of its department "guidance, navigation, control, and System analysis". This department belongs to the division "Flight Techniques for Projectiles", comprising also aerodynamics, real flight experiments and sensors & communication systems departments. Their research is applied to all kinds of guided projectiles, mostly gun-launched. The position is challenging as the division's roadmap schedules ambitious deadlines for demonstrating the feasibility of an innovative long-range guided projectile concept.
We are currently looking for a
Research scientist (m/f),
Head of the department "guidance, navigation, control, and system analysis".
Your tasks
- Develop and maintain, at the highest level, research capabilities in innovative solutions on guidance, navigation and control systems for the needs in guided projectiles, in synergy with the other departments of the division.
- Develop and maintain, at the highest level, evaluation capabilities of performances of guided projectiles concepts.
- Leverage the expertise of academic partners, other research institutes and industry to the benefit of the objectives of the department.
- Engage proactively with industry, so as to anticipate best their needs in terms of research output.
- Establish the research department program in accordance with the strategy and priorities of the Division
and with the needs of the French and German Ministries of Defence.
- Manage, plan and evaluate the research carried out in the department.
- Monitor closely the research work of the scientists, engineers and PhD students of the department.

The incumbent is expected to carry out personally research, in addition to the management of the department.

The department possesses recognised skills and has developed so far quite innovative solutions.

Other duties
- Manage the department’s human and financial resources as well as scientific equipment.
- Optimise the use of the department’s capabilities for the proper execution of the research program.
- Involve strongly in the department’s life, cohesion and development.
- Involve strongly in a synergetic approach in particular with the other departments of the division as key for success.
- Increase the scientific reputation of our Institute through high-level publications, involvement in conferences, external communication, etc.

Your profile
- PhD in automatic control applied to flight mechanics.
- At least 10 years of experience in high-level research (with a demonstrated prominence in your scientific community), including the effective management of a research team of 10 collaborators at least.
- Skills in guidance, navigation and control, and in system analysis for flying vehicles; additionally, skills in flight mechanics, aeroballistics, aerodynamics, mechatronics would be highly desirable.
- Knowledge in projectile and missile technologies.
- Organisational skills, ability to work effectively as the leader of the team, communication skills.
- An effective work experience in a multinational context and experience in managing multi-partners Projects would be valued.
- Excellent command of English; understanding or even ability to express yourself efficiently in one or both of the French and German languages would be of course a very desirable plus.

The ISL offers an attractive salary, flexible work arrangements and a very friendly work environment.

If these challenges appeal to you and you feel you have the right profile, we are looking forward to receive your complete application mentioning the following keyword "GNC-S".

French-German Research Institute of Saint-Louis
Mrs. Isabel BORCHERT
5 rue du Général Cassagnou
BP 70034
68301 SAINT LOUIS CEDEX, France
Phone: +33 (0)3 89 69 51 31
humanresources@isl.eu
For more information please visit www.isl.eu.

6.21. Research Scientist: Optikom, China
Contributed by: Yueqing Jiang, dcha@optikom.cn

A research scientist available at Optikom, Xiamen China
Responsibilities
* Algorithm Development
* Matlab Programming
* On-site Commissioning
* Be involved in the whole cycle of the software development: design, documentation, testing, alpha trial, beta trial, release, etc
* Customer support
* Publication and fund application

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

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