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Welcome to the 345 issue of the Eletter, available electronically here.
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1. IEEE CSS Headlines

1.1. IEEE CSS Video Clip Contest: Open for Submissions
Contributed by: Magnus Egerstedt, magnus@gatech.edu

The 2017 IEEE Control Systems Society Video Clip Contest is now open for business!

Submissions are now accepted for the 3rd IEEE CSS Video Clip Contest (see http://www.ieeecss.org/video-contest). The purpose of this competition is to promote control theory and automatic control to a broader audience through compelling short video clips. The videos could for example focus on a particular topic or on the field in general, with the only constraint being that the video promotes the field in a visually compelling and effective manner.

The schedule for the video clip contest is:
April 15 - Open for submission
July 1 - Deadline for submitting videos
July 15 - Winners are announced

Instructions for submitting the videos and eligibility information is available at the Video Clip Contest website:
http://www.ieeecss.org/video-contest.

All videos are judged by a jury consisting of IEEE CSS researchers, and the best three videos will receive prizes for contributing to the contest: The 1st, 2nd place, and 3rd places are awarded $1000, $500, and $250, respectively. Moreover, the 1st place winner is invited to participate in the 2017 IEEE Conference on Control Technology and Applications (http://ccta2017.ieeecss.org) on Kohala Coast, Hawaii. The winner, or the Team Leader of the winning team, will be awarded one free conference registration for the CCTA 2017 as well as reimbursement for reasonable travel expenses - to be coordinated with the Video Clip Contest Chair in advance. The best video clips will be presented to the public during an award ceremony at the CCTA 2017.

Looking forward to seeing your video clips!
Magnus Egerstedt (Contest Chair)
Angela Schoellig (Jury Chair)

1.2. IEEE CSS Call for Nominations for 2017 Awards
Contributed by: Joao Hespanha, hespanha@ece.ucsb.edu

IEEE Control Systems Society Call for Nominations for 2017 Awards

Nominations will open April 15 and are due by May 15, for the following IEEE Control Systems Society Awards (see http://www.ieeecss.org/awards for full details).

- George S. Axelby Outstanding Paper Award (for a paper published in 2015 or 2016 in the IEEE Transactions on Automatic Control);
- IEEE Transactions on Control System Technology Outstanding Paper Award (for a paper published in 2015 or 2016 in the IEEE Transactions on Control System Technology);
- IEEE Control Systems Magazine Outstanding Paper Award (for an article published in 2015 or 2016 in the IEEE Control Systems Magazine);

- IEEE Transactions on Control of Network Systems Outstanding Paper Award (for a paper published in 2015 or 2016 in the IEEE Transactions on Control of Network Systems)
- IEEE Control Systems Technology Award (for outstanding individual or team contributions to control systems technology);
- Control Systems Society Transition to Practice Award (for a distinguished contributor to the transition of control and systems theory to practice);
- Antonio Ruberti Outstanding Young Researcher Prize (for a young researcher for innovation and impact on systems and control).
- IEEE Control Systems Society Award for Excellence in Aerospace Control (for a team or individual contribution to Aerospace Control in the previous 36 months)

The IEEE Control Systems Society strongly encourages its members to speak up and reach out to colleagues to initiate award nominations. Each year, many highly qualified individuals, teams, and papers are overlooked for nominations simply because colleagues assumed that a nomination was already being prepared by someone else on the individual's, team's or authors' behalf. You may be surprised to find out that your colleagues would be very pleased to nominate you, if they had just been encouraged to do so.

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1.3. IEEE CSS 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:

- XXVI International Conference on Information, Communication and Automation Technologies (ICAT 2017). Sarajevo, Bosnia and Herzegovina. Oct 26 - Oct 28, 2017. http://icat.etf.unsa.ba/
- 21st International Conference on System Theory, Control and Computing (ICSTCC 2017). Sinaia, Romania. Oct 19 - 21, 2017. http://www.icstcc2017.ac.tuiasi.ro/
- 6th International Conference on Systems and Control (ICSC 2017). Batna, Algeria. May 7 - May 9, 2017. http://lias.labo.univ-poitiers.fr/icsc/icsc2017/
- 2017 International Conference on Unmanned Aircraft Systems (ICUAS'17). Miami (FL), United States. Jun 13 - Jun 16, 2017. http://www.uasconferences.com/

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

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1.4. IEEE CSS Publications Content Digest
Contributed by: Elizabeth Kovacs, ekovacs2@nd.edu

CSS Publications Content Digest The IEEE Control Systems Society Publications Content Digest is a novel and convenient guide that helps readers keep track of the latest published articles. The CSS Publications Content Digest, available at http://ieeecss.org/publications-content-digest provides lists of current tables of contents of the periodicals sponsored by the Control Systems Society.
Each issue offers readers a rapid means to survey and access the latest peer-reviewed papers of the IEEE

Control Systems Society. We also include links to the Society's sponsored Conferences to give readers a preview of upcoming meetings.

1.5. IEEE Transactions on Control Systems Technology

Contributed by: Michelle Colasanti, ieeetcst@osu.edu

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2. Summer Schools

2.1. SIDRA PhD Summer School in Bertinoro - Italy
Contributed by: M. Elena Valcher, meme@dei.unipd.it

2017 PhD Summer School in Bertinoro - Italy

The SIDRA PhD Summer School is a one-week annual event organized by SIDRA (Società Italiana Docenti e Ricercatori in Automatica), the Italian Control Systems Society, that takes place in Bertinoro, Forlì-Cesena, Italy.

The summer school is primarily intended for, but not restricted to, PhD, post-graduate, and researcher candidates in the Control Systems and Automatica fields. Students coming from other disciplines may also benefit from the school depending on the topics discussed.

The school success encountered in these recent years and the distinguished international guests, involved a progressive internationalization of the school that now opens up to receive applications from all European PhD students.

The two themes presented this year are "Formal Methods for the Control of Large-scale Networked Nonlinear Systems with Logic Specifications", coordinated by professors Maria Domenica Di Benedetto and Giordano Pola (University of L'Aquila), and "Port-Hamiltonian modelling and passivity-based control of physical systems. Theory and applications", coordinated by professors Alessandro Macchelli (University of Bologna) and Cristian Secchi (University of Modena and Reggio).

Click on the School web site http://sidra2017.dei.unibo.it/to have information about the program, the venue, the accommodation, the instructions for reaching the school, the instructions for applying to the school and the requested fee.

General informations

• Location: as usual, the SIDRA school will take place in Bertinoro, FC Italy.

• Period: from Monday, July 3rd, 2017 to Saturday, July 8th, 2017.
• Accommodation: the attendees will be hosted in the Centro Universitario di Bertinoro. The accommodations will be assigned according to the booking date. Refer to Mrs. Monica Michelacci for any question.
• Costs: the fee includes the registration to the School and accommodation (half-board, i.e. breakfast and lunch). The fee (arrival on July 2nd, departure on July 8th) is:
- 500,00 Euro (in double room)
- 630,00 Euro (in single room)

You could indicate your roommate in the NOTE field of the registration form.
Although non-encouraged, it is possible to register for only one of the two modules of the School; in this case, the registration fee is 330 Euro (double room) or 430 Euro (single room).

• Registration deadlines:
- June 5, 2017: Fill in the form before this deadline to submit your application to the school.
- June 12, 2017: You will receive a acceptance/rejection communication by email and instructions for the final registration.
- June 23, 2017: deadline for final registration, with the payment of the fee.

• Certified Final Exam: it will be possible to take a certified exam at the end of the school. In case of positive result, the certification can be used by students to obtain the corresponding ECTS from their PhD courses, or to comply with any other requests by their home university.

Contacts:

For questions related to payment, accommodation and logistics:

Mrs. Monica Michelacci mmichelacci@ceub.it

For questions related to the School and the courses:

Prof. Claudio Melchiorri mailto:claudio.melchiorri@unibo.it

Prof. Maria Elena Valcher meme@dei.unipd.it

Link web site: http://sidra2017.dei.unibo.it/

2.2. American Summer School on Model Predictive Control
Contributed by: Sasa V. Rakovic, sasa.v.rakovic@gmail.com

This is an update in regards to the final programme of, and registration for, the American MPC summer school 2017.

First American Summer School on Model Predictive Control (MPC)

July 25, 2017 – July 28, 2017

University of Wisconsin-Madison

http://mpc-summer-school.che.wisc.edu/

Registration opens May 1, 2017, closes May 14, 2017 or when the class is full

The first American summer school on MPC will be held at the University of Wisconsin-Madison from July 25, 2017 to July 28, 2017. The summer school is organized by Sasa V. Rakovic, James B. Rawlings and Ilya V. Kolmanovsky and is supported in part by the National Science Foundation.

The summer school will enable up to 50 participants (university graduate students as well as interested researchers and control practitioners) from a cross-cutting set of disciplines in engineering, science, and applied mathematics to receive advanced education and training in the theory, implementation and applications of MPC. The instructors are international experts and leading researchers with diversity of backgrounds and disciplines in engineering, science and applied mathematics.

The main topics of the summer school are:
- Introduction to MPC and MPC essentials (by William S. Levine).
- Classical MPC: regulation, estimation, and disturbance models (by James B. Rawlings).
- Robust MPC (by Sasa V. Rakovic).
- Stochastic MPC (by Ilya V. Kolmanovsky).
- Economic MPC (by David Angeli).
- Online optimization for MPC (by Lorentz T. Biegler).
- Industrial applications of MPC (by Thomas A. Badgwell).

The summer school will provide a carefully crafted overview of the theoretical fundamentals of MPC and state-of-the-art numerical methods and software for implementing the advanced MPC methods on difficult and challenging examples and industrial applications. The summer school will also feature mini-projects and discussions that will enable all attendees to present, and discuss, problems of direct interest to their research/professional work, and also to receive feedback from a set of instructors with valuable expertise in all areas of MPC research.

Registration:

The registration is a two-stage process. The first stage consists of online registration at http://mpc-summer-school.che.wisc.edu/. The online registration opens on May 01, 2017. Those interested in attending the summer school should register at their earliest convenience. The registration form will require (1) your name, (2) contact information (email, address and telephone), (3) the name of your organization, (4) briefly state your motivation for taking the course in terms of its relevance to your research/professional work and (5) if you are applying for a travel stipend. Because of the anticipated interest and space limitations, we will notify participants about the admission decisions starting May 15, 2017 on an individual basis. If admitted, a participant will be provided with a link to pay with a credit card the registration fee of $250 within one week.

Travel and accommodation support:

We anticipate being able to offer a limited number of travel stipends to graduate students from American universities attending the summer school to partially offset their travel costs. The admitted participants who apply for a stipend will be notified about the travel stipend decision and the amount that will be reimbursed. The stipend will be paid after the completion of the summer school. In terms of accommodation arrangements, an on-campus housing option at about $25 per night will be made available.

Additional information:

Further information about the summer school will be made available at

http://mpc-summer-school.che.wisc.edu/

3. Books

3.1. Feedback Stabilization of Controlled Dynamical Systems: In Honor of Laurent Praly
Contributed by: Yasmin Brookes, yasmin.brookes@springer.com

Feedback Stabilization of Controlled Dynamical Systems: In Honor of Laurent Praly
by Nicolas Petit
ISBN: 978-3-319-51297-6
March 2017, Springer
Paperback, 354 pages, $159.00/euro 119,99

http://www.springer.com/gb/book/9783319512976

This book is a tribute to Professor Laurent Praly and follows on from a workshop celebrating the occasion of his 60th birthday.

It presents new and unified visions of the numerous problems that Laurent Praly has worked on in his prolific career: adaptive control, output feedback and observers, stability and stabilization. His main contributions are the central topic of this book.

The book collects contributions written by prominent international experts in the control community, addressing a rich variety of topics: emerging ideas, advanced applications, and theoretical concepts. Organized in three sections, the first section covers the field of adaptive control, where Laurent Praly started his career. The second section focuses on stabilization and output feedback, which is also the topic of the second half of his career. Lastly, the third section presents the emerging research that will form Laurent Praly's scientific legacy.

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Contributed by: Irena Lasiecka, lasiecka@memphis.edu

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

International Journal of Applied Mathematics and Computer Science (AMCS)

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www.amcs.uz.zgora.pl

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

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- Ehsan Hashemi, Saeid Khosravani, Amir Khajepour, Alireza Kasaiezadeh, Shih-Ken Chen, Bakhtiar Litkouhi, Longitudinal vehicle state estimation using nonlinear and parameter-varying observers, Pages 28-39
- Wiput Tuvayanond, Manukid Parnichkun, Position control of a pneumatic surgical robot using PSO based 2-DOF $H\infty$ loop shaping structured controller, Pages 40-55
- Yijie Guo, Sandipan Mishra, Constrained optimal iterative learning control with mixed-norm cost functions, Pages 56-65
- Jin-hui Fang, Fan Guo, Zheng Chen, Jian-hua Wei, Improved sliding-mode control for servo-solenoid valve with novel switching surface under acceleration and jerk constraints, Pages 66-75
- Chang-Hyuk Lee, Jiwon Choi, Hooman Lee, Joongbae Kim, Kyung-min Lee, Young-bong Bang, Exoskeletal master device for dual arm robot teaching, Pages 76-85
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- Alessandro Beghi, Fabio Marcuzzi, Paolo Martin, Fabio Tinazzi, Mauro Zigliotto, Virtual prototyping of embedded control software in mechatronic systems: A case study, Pages 99-111
- Sunkyum Yoo, Jaeyoul Lee, Jaeyeon Choi, Goobong Chung, Wan Kyun Chung, Development of rotary hydro-elastic actuator with robust internal-loop-compensator-based torque control and cross-parallel connection spring, Pages 112-123

4.10. Contents: Engineering Applications of Artificial Intelligence
Contributed by: John Coca, j.coca@elsevier.com

Engineering Applications of Artificial Intelligence
Volume 61
May 2017

- XiaoHong Han, Long Quan, XiaoYan Xiong, Matt Almeter, Jie Xiang, Yuan Lan, A novel data clustering algorithm based on modified gravitational search algorithm, Pages 1-7
- Ahmad M. El-Nagar, Mohammad El-Bardini, Parallel realization for self-tuning interval type-2 fuzzy controller, Pages 8-20
- Geovanny Osorio, Thibaud Monteiro, Lorraine Trilling, Frédéric Albert, Multi-criteria assignment policies to improve global effectiveness of medico-social service sector, Pages 21-34
- Mehdi Akbari, Hassan Rashidi, Sasan H. Alizadeh, An enhanced genetic algorithm with new operators for task scheduling in heterogeneous computing systems, Pages 35-46
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- Fangwei Zhang, Jianbo Li, Jihong Chen, Jing Sun, Augustine Attey, Hesitant distance set on hesitant fuzzy sets and its application in urban road traffic state identification, Pages 57-64
- Sy Dzung Nguyen, Huu-Vinh Ho, Thoi-Trung Nguyen, Nang Toan Truong, Tae-Il Seo, Novel fuzzy sliding controller for MRD suspensions subjected to uncertainty and disturbance, Pages 65-76
- Arijit De, Sri Krishna Kumar, Angappa Gunasekaran, Manoj Kumar Tiwari, Sustainable maritime inventory routing problem with time window constraints, Pages 77-95
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- Wensheng Gan, Jerry Chun-Wei Lin, Philippe Fournier-Viger, Han-Chieh Chao, Jimmy Ming-Tai Wu, Justin Zhan, Extracting recent weighted-based patterns from uncertain temporal databases, Pages 161-172

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

Journal of Process Control

Volume 52

April 2017

- John Perkins, Thomas McAvoy, Wolfgang Marquardt, Denis Dochain, History and growth of Journal of Process Control, Pages A1-A4
- Xiaoqiang Wang, Vladimir Mahalec, Feng Qian, Globally optimal nonlinear model predictive control based on multi-parametric disaggregation, Pages 1-13
- Mariusz Buciakowski, Marcin Witczak, Vicenç Puig, Damiano Rotondo, Fatiha Nejjari, Józef Korbicz, A bounded-error approach to simultaneous state and actuator fault estimation for a class of nonlinear systems, Pages 14-25
- Qian-Fang Liao, Da Sun, Wen-Jian Cai, Shao-Yuan Li, You-Yi Wang, Type-1 and Type-2 effective Takagi-Sugeno fuzzy models for decentralized control of multi-input-multi-output processes, Pages 26-44
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- Seokho Kang, Pilsung Kang, An intelligent virtual metrology system with adaptive update for semiconductor manufacturing, Pages 66-74
- Afrooz Ebadat, Patricio E. Valenzuela, Cristian R. Rojas, Bo Wahlberg, Model Predictive Control oriented experiment design for system identification: A graph theoretical approach, Pages 75-84

4.12. Contents: Journal of Process Control

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

Journal of Process Control

Volume 53

May 2017

- D.K.M. Kufoalor, G. Frison, L. Imsland, T.A. Johansen, J.B. Jørgensen, Block factorization of step response model predictive control problems, Pages 1-14
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- Michalis Frangos, Uncertainty quantification for cuttings transport process monitoring while drilling by ensemble Kalman filtering, Pages 46-56
- Jaeheum Jung, Won Je Lee, Sangmin Park, Younghun Kim, Chul-Jin Lee, Chonghun Han, Improved control strategy for fixed-speed compressors in parallel system, Pages 57-69
- Long Teng, Youyi Wang, Wenjian Cai, Hua Li, Robust model predictive control of discrete nonlinear systems with time delays and disturbances via T–S fuzzy approach, Pages 70-79
- Norelys Aguila-Camacho, Johan D. Le Roux, Manuel A. Duarte-Mermoud, Marcos E. Orchard, Control of a grinding mill circuit using fractional order controllers, Pages 80-94

- Gheorghe Maria, Mara Crişan, Operation of a mechanically agitated semi-continuous multi-enzymatic reactor by using the Pareto-optimal multiple front method, Pages 95-105

4.13. Contents: IEEE/CAA Journal of Automatica Sinica
Contributed by: YangQuan Chen, yqchen@ieee.org

IEEE/CAA Journal of Automatica Sinica (JAS) published papers on FOSC (fractional order systems and controls) are free to download.

IEEE/CAA Journal of Automatica Sinica (JAS) is a joint publication of the IEEE and the Chinese Association of Automation. The objective of this journal is high quality and rapid publication of articles, with a strong focus on new trends, original theoretical and experimental research and developments, emerging technologies, and industrial standards in automation.

Special Issues on "Fractional Order Systems and Controls (FOSC)", guest co-edited by Prof. YangQuan Chen, University of California, Merced, USA; Prof. Dingyü Xue, Northeastern University, China, and Prof. Antonio Visioli, University of Brescia, Italy, have published 54 papers so far from 2015 to 2017.

It is a great pleasure to announce that, all these published FOSC papers were compiled in a single indexable PDF file (31.8Mb)
http://mechatronics.ucmerced.edu/sites/mechatronics.ucmerced.edu/files/page/documents/ieee_caa_journal_of_automatica_s 2017.pdf
to share in public domain. For individual papers, they are listed with a link to local PDF for your easy reading, and the LaTeX BiBTeX library file) for easy citation
http://mechatronics.ucmerced.edu/sites/mechatronics.ucmerced.edu/files/page/documents/ieee_caa_journal_of_automatica_s 2017.bib_.txt

Visit http://mechatronics.ucmerced.edu/jas-si-fosc for the original call for papers, two editorials, and the single combined PDF file for all published papers, LaTeX BiBTeX file, and a list of all papers with a hyper-link to each paper and its local PDF.

4.14. CFP: IEEE Transactions on Control Systems Technology
Contributed by: Guillaume Mercère, guillaume.mercere@univ-poitiers.fr

CFP: Special Issue on System identification and control in biomedical applications in IEEE Transactions on Control Systems Technology

Contributions are invited for a special issue of the IEEE Transactions on Control Systems Technology devoted to the subject of System Identification and Control in Biomedical Applications. The purpose of this special issue is to document the current status of research in this field through an original collection of diverse, high-quality papers. The emphasis is on the role control systems technology plays in advancing the state of the art in the challenges of applying feedback control in living organisms, with emphasis on biomedicine. Specifically, we aim at (i) pointing out theoretical and practical issues specific to bio-medical systems, (ii) bringing together solutions developed under different settings with specific attention to the validation of these tools in bio-medical settings using real-life datasets and experiments, and (iii) introducing significant case studies. Topics of common interests include (but are not limited to) the following:
- theoretical and implementation challenges which arise in medical systems,
- control engineering tools for solving specific system design problems in medical technology,

- novel data-driven modeling techniques capturing the dynamics of biomedical systems, and accounting for intra- and inter-individual variability,
- evidence of successful projects in biomedicine enabled by system identification and control, such as the artificial pancreas and closed-loop anesthesia.
- application areas in healthcare and medical systems, such as assistive devices and therapeutics in medical rehabilitation, and mathematical models of infectious disease spread.
- prevention and treatment of chronic, relapsing disorders and illnesses such as cancer, diabetes, obesity, and HIV.

Only contributions that include significant results based on analysis of real data or experimental validation will be included. Papers must contain high-quality original contributions and be prepared in accordance with the IEEE Transactions on Control Systems Technology standards. Prospective authors should state in their cover letter and in the notes section of the submission site that their manuscript is intended for the special issue on "system identification and control in biomedical applications." Submitted manuscripts must not have been previously published or be under review for possible publication elsewhere.

Time line:

Manuscripts Due: November 1, 2017

Notification to authors (after the first round of reviews): March 1, 2018

Notification of final decision: June 1, 2018

Publication Date: January 2019

Authors can submit their manuscripts via https://mc.manuscriptcentral.com/tcst

Information for Authors prior to submitting a paper is available via
http://www.ieeecss.org/publications/tcst/information-authors

All inquiries should be directed to G. Mercère you can contact via his email address: guillaume.mercere@univ-poitiers.fr

Guest Editors:

Guillaume Mercere, Universitede Poitiers, France (LEAD)

Bayu Jayawardhana, University of Groningen, The Netherlands

Alexander Medvedev, Uppsala University, Sweden

Daniel E. Rivera, Arizona State University, Tempe, Arizona, USA

Caterina Scoglio, Kansas State University, Manhattan, Kansas, USA

4.15. CFP: Journal of Control Science and Engineering
Contributed by: Tushar Jain, tushar@iitmandi.ac.in

CFP: Special Issue on System Modeling, Control, and Diagnosis for Energy Efficiency in Buildings, Journal of Control Science and Engineering (Deadline Extended)

Energy utilization in buildings relies on numerous factors, such as building structure, energy management systems design, and effective control and maintenance under the varying thermal or cooling load. Their heterogeneous operational characteristics contribute to serious environmental and economic problems due to excessive consumption of energy and other resources.

Consequently, there is a growing interest in high performance buildings where the underlying concept of performance incorporates energy efficiency, thermal performance, and healthy indoor environment.

Achieving this high performance objective is mainly dependent on enhanced control strategies and the continuous commissioning of the building Heating, Ventilation and Air-Conditioning (HVAC) systems under the constraints of economically managing the energy flows within the building to meet the needs of the occupants. The related challenges encompass describing the complex nonlinear dynamics of the building, deriving mathematical models for control, and deploying different control strategies for different weather conditions and occupancy profile.

Even when the building automation system or when advanced controllers are applied to enhance system efficiency, faults can occur during installation, routine operations, or scheduled preventive maintenances, resulting in excessive energy waste. This calls for more sophisticated and tailored algorithms for analysis and control, yielding energy efficient solutions for smart buildings.

The purpose of this special issue is primarily to publish high quality research papers as well as review articles on recent advances on operating buildings in an energy efficient way through building and HVAC modeling, diagnostics, and controls. Original contributions that are not yet published or that are not currently under review in other journals or peer-reviewed conferences are invited, in particular, manuscripts containing novel ideas and algorithms with practical/experimental applications.

Potential topics include, but are not limited to, the following:

Monozone/multizone modeling approaches and HVAC components modeling
Building simulation tools and platforms
Optimal supervisory control and model-based predictive control for building systems
Energy-optimal control for space-conditioning systems
Fault detection and diagnosis of HVAC and building systems
Fault-tolerant control of HVAC systems
Continuous commissioning
Whole-building optimization
Green energy rating systems in buildings
Economic performance analysis of the building

Authors can submit their manuscripts through the Manuscript Tracking System at
http://mts.hindawi.com/submit/journals/jcse/smcd/.

Manuscript Due: Friday, 16 June 2017
First Round of Reviews: Friday, 8 September 2017
Publication Date: Friday, 3 November 2017

Lead Guest Editor:
Tushar Jain, Indian Institute of Technology Mandi, Himachal Pradesh, India
Guest Editors:
Joseph J. Yame, University of Lorraine, Nancy, France
Alessandro Beghi, University of Padova, Padova, Italy
Du Zhimin, Shanghai Jiao Tong University, Shanghai, China

Learn more about this topic at https://www.hindawi.com/journals/jcse/si/368954/cfp/

5. Conferences

5.1. IEEE Global Conference on Signal & Information Processing
Contributed by: Cedric Langbort, langbort@illinois.edu

5th IEEE Global Conference on Signal & Information Processing
Symposium on Control and Information Theoretic Approaches to Privacy and Security
November 14-16, 2017, Montreal, Canada
http://www.ieeeglobalsip.org
http://www.ieeeglobalsip.org/GS17_CfP_ITPS.pdf

The ubiquity of technologies such as wireless communications, biometric identification systems, on-line data repositories, and smart electricity grids, has created new challenges in information security and privacy. Traditional approaches based on cryptography are far from adequate in such complex systems and fundamentally new techniques must be developed. Control and Information theory provide fundamental limits that can guide the development of methods for addressing these challenges. Historically, both Systems and Control and the Information Theory communities have developed independent approaches to deal with the issue of security and privacy. But various emerging applications require tools from both theories to be used in tandem. There has been relatively little effort in bringing the two fields together and have a cohesive discussion on modeling and solution approaches to security and privacy. The symposium aims to serve as such a venue that discusses the perspectives developed by both communities in a timely and productive manner. Topics of interest include but are not limited to:

• Modeling systems under cyber and physical attacks
• Intrusion detection and attack identification
• Secure state estimation and communication
• Game theoretic, supervisory, and robust control approaches to security and privacy
• Secrecy and secret key capacity of wireless channel
• Secure communication under adversarial attack
• Practical code design for physical layer security
• Secure cross-layer design techniques
• Secure communication with an uncertain physical layer • Jamming-assisted secure wireless transmission
• Security and Privacy issues in applications (e.g., Smart Grids, UAVs, etc.)

Paper Submission:
Prospective authors are invited to submit full-length papers (up to 4 pages for technical content including figures and possible references, and with one additional optional 5th page containing only references) and extended abstracts (up to 2 pages, for paper-less industry presentations and Ongoing Work presentations) via the GlobalSIP 2017 conference website. Manuscripts should be original (not submitted/published anywhere else) and written in accordance with the standard IEEE double-column paper template. Accepted full-length papers will be indexed on IEEE Xplore. Accepted abstracts will not be indexed in IEEE Xplore, however the abstracts and/or the presentations will be included in the IEEE SPS SigPort. Accepted papers and abstracts will be scheduled in lecture and poster sessions.

Important Dates:
- May 15, 2017: Paper submission due
- June 30, 2017: Notification of Acceptance
- July 22, 2017: Camera-ready papers due

General Co-Chairs:
Aditya Mahajan, McGill University (aditja.mahajan@mcgill.ca)
Ashish Khisti, University of Toronto (akhisti@ece.utoronto.ca)
Rafael F. Schaefer, Technische Universität Berlin (rafael.schaefer@tu-berlin.de)

Technical Co-Chairs:

Cedric Langbort, University of Illinois at Urbana-Champaign (langbort@illinois.edu)

Holger Boche, Technische Universität München (boche@tum.de)

5.2. IFAC Workshop on Lagrangian and Hamiltonian Methods for Non Linear Control
Contributed by: Juan I. Yuz, juan.yuz@usm.cl

6th IFAC Workshop on Lagrangian and Hamiltonian Methods for Non Linear Control

LHMNLC18, 2-4 May 2018, Valparaíso, Chile

First Announcement and Call for Papers

Hosting Institution: Universidad Técnica Federico Santa María - UTFSM, Valparaíso, Chile

Sponsored by: IFAC International Federation of Automatic Control, IFAC TC Non Linear Control Systems

Co-sponsored by: IFAC TC Distributed Parameter Systems, IFAC TC Control Design, IEEE CSS TC on DPS

Scope: Recent technological progresses in material science, actuators, and sensors as well as in real-time computing have induced the necessity of accounting for nonlinear and distributed parameters phenomena in the design of the nonlinear control, sometimes including the design of the plant. A very efficient design method, based on the Lagrangian and Hamiltonian formulations of physical systems' dynamics, has been increasingly developed and used in the last years. These formulations allow to combine the powerful design methods using passivity-based control with the specific properties of the differential-geometric structure of the Lagrangian and Hamiltonian systems. The application areas include robotics, tele-manipulation and power systems where developments concerning control systems interacting through a communication network are important. Recent developments have shown that generalization of the Hamiltonian and Lagrangian frameworks can be used for distributed parameter systems with applications in fluid systems and fluid-structure interactions, as well as irreversible thermodynamical systems with applications to chemical and biological processes and smart materials.

Topics: This workshop will cover new developments in modelling nonlinear distributed parameters control theory and applications that have been recently developed to take advantage of and to exploit the mathematical structures common to the multi-physical systems. The workshop program will include both regular papers and posters. The format of the workshop will encourage in-depth and fruitful discussion between all the participants.

Location: The workshop will be held at Universidad Técnica Federico Santa Maria (www.usm.cl) in Valparaiso, one of the most prestigious engineering universities of Latin America. Built upon dozens of steep hillsides overlooking the Pacific Ocean, Valparaiso, also known as the Jewel of the Pacific, boasts a labyrinth of graffiti filled streets and cobblestone alleyways, embodying a rich architectural and cultural legacy and hosting one of Pablo Neruda's houses. Valparaiso's historic quarter is an UNESCO World Heritage Site since 2003, thanks to its historical importance, natural beauty and unique architecture.

Important dates:

Submission of draft papers, invited sessions proposal, and abstracts for poster session: October 15, 2017

Author notification: January 14, 2018

Final paper due: February 28, 2018

For more information: www.lhmnlc18.org

International Program Committee (IPC) co-chairs

Yann Le Gorrec, FEMTO-ST, UBFC, France E-mail: legorrec@femto-st.fr

Martin Guay, Queen's University, Canada, E-mail: martin.guay@chee.queensu.ca

National Organizing Committee (NOC) co-chairs

Juan I. Yuz, UTFSM, Valparaiso, Chile, E-mail: juan.yuz@usm.cl

Juan C. Agüero UTFSM, Valparaiso, Chile, E-mail: juan.aguero@usm.cl

5.3. Annual Allerton Conference on Communication, Control, and Computing
Contributed by: Rachel Palmisano, rep2@illinois.edu

FIFTY-FIFTH ANNUAL ALLERTON CONFERENCE ON COMMUNICATION, CONTROL, AND COMPUTING
October 3, 2017 – Opening Tutorials
October 4-6, 2017 – Conference Sessions

CALL FOR PAPERS

The Fifty-Fifth Annual Allerton Conference on Communication, Control, and Computing will kick off with Opening Tutorials being held on Tuesday, October 3, 2017 at the Coordinated Science Laboratory. The conference sessions will start on Wednesday, October 4, 2017 through Friday, October 6, 2017, at the Allerton Park and Retreat Center. The Allerton House is located twenty-six 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 fifteen-hundred acre Robert Allerton Park, a complex of natural and man-made beauty designated as a National natural landmark. Allerton Park has twenty miles of well-maintained trails and a living gallery of formal gardens, studded with sculptures collected from around the world.

Papers presenting original research are solicited in the areas of:
biological information systems
coding techniques and applications
coding theory
data storage
information theory
multiuser detection and estimation
network information theory
sensor networks in communications
wireless communication systems
intrusion/anomaly detection and diagnosis
network coding
network games and algorithms
performance analysis
pricing and congestion control
reliability, security and trust
decentralized control systems
robust and nonlinear control
adaptive control and automation
robotics
distributed and large-scale systems

complex networked systems

optimization

dynamic games

machine learning and learning theory

signal models and representations

signal acquisition, coding, and retrieval

detection and estimation

learning and inference

statistical signal processing

sensor networks

data analytics.

Final versions of papers that are presented at the conference are required to be submitted electronically by October 8, 2017 in order to appear in the Conference Proceedings and IEEE Xplore.

PLENARY LECTURE is scheduled for Friday, October 6, 2017 at the Allerton Park and Retreat Center. (we will add the speaker info when confirmed)

OPENING TUTORIAL LECTURES will be presented on Tuesday, October 3, 2017 at the Coordinated Science Laboratory, University of Illinois at Urbana-Champaign. (we will add the speakers info when confirmed)

INFORMATION FOR AUTHORS: Regular papers suitable for presentation in twenty minutes are solicited. Regular papers will be published in full (subject to a maximum length of eight 8.5" x 11" pages, in two column format) in the Conference Proceedings. Only papers that are actually presented at the conference and uploaded as final manuscripts can be included in the proceedings, which will be available after the conference on IEEE Xplore.

For reviewing purposes of papers, a title and a five to ten page extended abstract, including references and sufficient detail to permit careful reviewing, are required.

Manuscripts can be submitted during June 16-July 10, 2017 with the submission deadline of July 10th being firm. Please follow the instructions at the Conference website: http://www.csl.illinois.edu/allerton/.

Authors will be notified of acceptance via e-mail by August 7, 2017, at which time they will also be sent detailed instructions for the preparation of their papers for the Proceedings.

Important Dates:

Submission Deadline: July 10, 2017

Acceptance Date: August 7, 2017

Registration Opens: after August 7, 2017

Conference Dates: October 3-6, 2017

Final Submission Deadline: October 8, 2017

Conference Co-Chairs: Naira Hovakimyan and Negar Kiyavash

Email: amellis@illinois.edu URL:
http://www.csl.illinois.edu/allerton/

5.4. IEEE Ecuador Technical Chapters Meeting
Contributed by: Alberto Sanchez, aesanchez@ieee.org

CFP: IEEE Ecuador Technical Chapters Meeting (ETCM) 2017

http://sites.ieee.org/etcm-2017

IEEE Ecuador section takes great pleasure in inviting you to the 2017 IEEE ETCM, which will be held for the first time from October 16th-20th in Salinas, Ecuador.

The 2017 IEEE Ecuador Technical Chapters Meeting (ETCM) will be the second edition of the running series of conferences organized by the IEEE Ecuador Section and which intends to provide a highly prestigious venue for researchers, students and practitioners from the IEEE Technical Society Chapters in Ecuador.

The conference covers both theoretical and practical issues related to Communications, Computing, Control Systems, Industrial Electronics, Engineering in Medicine and Biology, Power and Energy, Robotics and Automation. Topics of interest, but not limited to, are:

SYSTEMS AND CONTROL

Adaptive Systems, Signal Processing, Embedded Systems, Fault Tolerant Systems, Identification, Predictive control.

INDUSTRIAL ELECTRONICS

Power Converters, Power semiconductors, Machines and drives, Power electronics in transportation systems, Power electronics applications.

COMMUNICATIONS

Internet of Things, Communications Systems Security, Green Communications, Wireless Communications, Optical Communications, Waveforms and Signal Processing, Access Networks and Systems, Cluster, Grid, P2P Cloud Computing, Satellite and Space Communications, Networking protocols and performance.

COMPUTER

Security and Privacy, Semantic Computing, Real Time Systems, Multimedia Computing, Learning Technologies, Distributed Processing, Human Computer Interaction, Computer Vision, Data Engineering.

COMPUTATIONAL INTELLIGENCE

Neural Networks, Fuzzy Systems, Evolutionary and Swarm Computation, Learning Systems, Data Science.

POWER AND ENERGY

Transmission, Distribution, Power Generation, Power System Control & Operation, Reliability, Stability, Renewables, SmartGrids.

ENGINEERING IN MEDICINE AND BIOLOGY

Clinical Engineering, Telemedicine, and Health Care, Bioinformatics, Biomechanics, Biomaterials, Bioinstrumentation, Signal and Image Processing, Biophysics.

ROBOTICS AND AUTOMATION SYSTEMS

Automation, Automation in Logistics and Supply Chain Management, Sensors, Robotics, Assistive Technologies, System Integration, Sensor/Actuator Networks, Distributed and Cloud Robotics, Autonomous Vehicles, Human/Robot Interaction.

Important Dates

Full Paper Submission: 7 July 2017

Acceptance Notification: 31 July 2017

Final paper Submission: 15 August 2017

Workshops & Tutorials: 16-17 October 2017

Conference Dates: 18-20 October 2017

5.5. Conference on Sustainable Internet and ICT for Sustainability
Contributed by: Nuno Pereira, nap@isep.ipp.pt

The 5th Conference on Sustainable Internet and ICT for Sustainability (SustainIT 2017)

Funchal, Portugal - December 6-7, 2017

https://sustainit2017.m-iti.org

CALL FOR PAPERS

The 5th Conference on Sustainable Internet and ICT for Sustainability (SustainIT 2017) will be held December 6-7, 2017 in Funchal, Portugal. Papers are invited in all aspects of Sustainable Internet and ICT, Sustainability through the application of ICT, and Human-Centered technology for sustainability, including works that report on prototype test best and real-world deployments.

Ultimately, the goal of this conference is to bring together people from different research areas, and provide a forum to exchange ideas, discuss solutions, and share experiences among researchers, professionals, and application developers from both industry and academia. The topics of interest include but are not limited to the following:

*Sustainable Internet and ICT

1. Green Internet (e.g., novel standards and metrics for green communications, measurement and evaluation of the Internet's sustainability)
2. Energy-efficient data centers (e.g., algorithms for reduced power, energy and heat, trade-offs between energy efficiency, Quality of Service, and reliability)
3. Adaptation of computing and communications infrastructure to variable renewable energy supply
4. Emerging computing / storage technologies for energy efficient operation
5. E-waste (e.g. obsolescence of electronic equipment and its disposal issues)

*Sustainability through the application of ICT

1. ICT for energy efficiency in smart homes and buildings
2. ICT for energy efficiency in industrial environments
3. ICT for smart grids and water distribution systems
4. ICT for sustainable transport and logistics
5. ICT for monitoring and conservation of biodiversity (e.g., underwater and fauna monitoring)

*Human-Centered Technology for Sustainability

1. User evaluation of test-bed and prototype implementations
2. Metrics for sustainability and their evaluation
3. Behavior change regarding sustainability choices
4. Human-factors in sustainable ICT systems
5. Novel user interfaces and interaction techniques

PROGRAM CHAIRS

Mario Bergés, Carnegie Mellon University, Pittsburgh, PA, USA

Lucas Pereira, Madeira Interactive Technologies Institute, Funchal, PT

IMPORTANT DATES (TIME IS 23:59 AOE)

* June 23 - title and abstract registration
* July 7 - paper submission
* September 21 - WIP / Demo / PhD Forum submission
* October 8 - notification of acceptance
* October 21 - WIP / Demo / PhD Forum acceptance notification

* November 10 - camera ready version

* December 6 and 7 - conference

TYPES OF SUBMISSIONS (IEEE COMPUTER SOCIETY TEMPLATE)

* Papers - up to 10 pages (8 + 2 additional)

* WIP - up to 4 pages (3 + 1 additional)

* Demo - up to 2 pages

* PhD Forum - up to 3 pages

(additional pages are subject to an extra charge)

5.6. International Conference on Control, Automation and Systems
Contributed by: Hye-Soo Kim, conference@icros.org

2017 17th International Conference on Control, Automation and Systems (ICCAS 2017)

October 18(WED)-21(SAT), 2017

Ramada Plaza, Jeju Island, Korea

http://2017.iccas.org

2ND CALL FOR PAPERS:

http://icros.org/data/download/ICCAS2017/ICCAS2017_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.

Paper Submission: Authors are invited to submit regular papers (3 - 6 pages) or research poster papers (1 - 2 pages) to the website.

Indexed in: IEEE Xplore, EI compendex, SCOPUS

IMPORTANT DATES

Proposal for Invited/Organized Session (Mini-symposium)

- June 10, 2017: Submission deadline

Regular Papers (3 - 6 pages) & Invited/Organized Session Papers (1 - 6 pages)

- June 15, 2017: Submission deadline

- August 1, 2017: Notification of acceptance

- August 31, 2017: Submission of final camera-ready papers

Research Poster Papers (1 - 2 pages)

- August 22, 2017: Submission deadline

- August 31, 2017: Notification of acceptance

- September 7, 2017: Submission of final camera-ready papers

PLENARY SPEAKERS

- Richard D. Braatz (Massachusetts Inst. of Tech., USA)

- Reza Moheimani (Univ. of Texas, USA)

- Antonella Ferrara (Univ. of Pavia, Italy)

- Huijun Gao (Harbin Inst. of Tech., China)

- Atsuo Takanishi (Waseda Univ., Japan)

Organized by Institute of Control, Robotics and Systems (ICROS)

General Chair: Dong-il "Dan" Cho (Seoul Nat'l Univ., Korea / ICROS President)

Organizing Chair: Doyoung Jeon (Sogang Univ., Korea)

Program Chair: Hyosung Ahn (GIST, Korea)

5.7. Workshop on Networks and Control at University of Cambridge
Contributed by: Keith Glover, kg@eng.cam.ac.uk

WORKSHOP ON NETWORKS AND CONTROL, Wednesday 5 July 2017

Gonville and Caius College, University of Cambridge.

A workshop to mark the contributions of Malcolm Smith to the Control field on the occasion of his 60th birthday.

Invited speakers (confirmed):

M.Z.Q. Chen, P. Dewilde, T. Georgiou, S. Hara, T.H. Hughes, J.Z. Jiang, A. Rantzer, M. Vidyasagar, G. Vinnicombe, Y. Yamamoto.

Chair: K. Glover

Website: http://www-control.eng.cam.ac.uk/Main/Workshop9

REGISTRATION DEADLINE: June 12, 2017

5.8. IFAC World Congress Workshop: "Rigidity Theory for Multi-agent Systems Meets Parallel Robots: Towards the Discovery of Common Models and Methods"
Contributed by: Daniel Zelazo, dzelazo@technion.ac.il

Call for participation

IFAC World Congress 2017 Workshop "Rigidity Theory for Multi-agent Systems Meets Parallel Robots: Towards the Discovery of Common Models and Methods"

Sunday, July 9, 2017 in Toulouse, France (full day)

https://parrigidwrkshp.sciencesconf.org/

https://www.ifac2017.org/

Important dates

15 April 2017: Early registration rates expire

9 July 2017: Workshop (full-day)

Overview & Topics

This workshop aims to explore connections and encourage discussion between two historically distinct communities: the parallel robotics community and the multi-robot community. Although these two areas may appear as quite distant, they share a strong common underline theme: understanding how pairwise geometrical constraints (e.g., relative distances or angles) can affect the mobility or state (pose) estimation for robotic systems. Moreover, there is a strong analogy between multi-agent systems and parallel robots: each robot of the system can be seen as a passive joint of a virtual mechanical (parallel) architecture and each measurement between two robots as a rigid connection between them, rigid connection whose dimension can vary thanks to a virtual actuator. So it is possible to find virtual parallel robot architectures associated with multi-agent systems.

Three types of sessions will be organized in order to promote interactivity / exchanges in the audience

- keynote sessions (6 invited speakers for a 35 minutes talk for each of them)

- interactive session

- panel discussion

We invite students and researchers to submit 1-page abstracts to be presented at an interactive session during the workshop. We encourage submissions related to the fields of multi-robot formation control and parallel robotics. Information can be found at the workshop website.

Invited Speakers

Hyo-Sung Ahn (A physical interpretation of the rigidity matrix), GIST Korea

Shiyu Zhao (Bearing-Based distributed control and estimation over robotic networks), University of Sheffield, UK

Daniel Zelazo (Rigidity theory and formation control: A Tutorial), Technion, Israel

Jean-Pierre Merlet (Structural topology, singularity, and kinematic analysis), INRIA-Sophia, France

Marco Carricato (Screw theory and its application to robotics), Univeristy of Bologna, Italy

Sébastien Briot (How theory on parallel robot singularities was used in order to solve sensor-based control problems), LS2N-CNRS, France

Here are the schedule and keynote session abstracts: https://parrigidwrkshp.sciencesconf.org/

Organizers

Antonio Franchi, LAAS-CNRS, France

Daniel Zelazo, Technion, Israel

Sébastien Briot, LS2N-CNRS, France

Paolo Robuffo Giordano, IRISA-CNRS, France

Registration at http://ifac2017.gipco-adns.com/

For more information and for submissions please contact parrigidwrkshp@sciencesconf.org

6. Positions

6.1. PhD: University of Suttgart, Germany
Contributed by: Frank Allgower, allgower@ist.uni-stuttgart.de

PhD: University of Suttgart, Germany

Multiple PhD positions in Intelligent Systems, including Control, at the new International Max Planck Research School for Intelligent Systems in Stuttgart and Tubingen, Germany

The Max Planck Institute for Intelligent Systems and the Universities of Stuttgart and Tubingen are collaborating to offer a new interdisciplinary Ph.D. program, the International Max Planck Research School for Intelligent Systems. This new doctoral program is starting in fall 2017 and will enroll about 100 Ph.D. students over the next six years.

This school is a key element of the state's "Cyber Valley" initiative to accelerate basic research and commercial development in the broad field of artificial intelligence. Students are sought who want to earn a doctorate in the broad area of intelligent systems, including control systems.

The participating faculty are Frank Allgower, Matthias Bethge, Michael J. Black, Andres Bruhn, Peer Fischer, Andreas Geiger, Philipp Hennig, Katherine J. Kuchenbecker, Hendrik Lensch, Georg Martius, Ludovic Righetti, Stefan Schaal, Bernhard Scholkopf, Metin Sitti, Alexander Sprowitz, Ingo Steinwart, Marc Toussaint, Ulrike von Luxburg, and Felix Wichmann.

Intelligent systems that can successfully perceive, act, and learn in complex environments hold great potential for aiding society. To advance human knowledge in this domain, we need doctoral students who are curious, creative, and passionate about research to join our school. Learn more at http://imprs.is.mpg.de

All aspects of the program are in English. You may join our program in late summer or early fall 2017. You will be mentored by our internationally renowned faculty. You will register as a university graduate student and conduct research for approximately three years. You can take part in a wide variety of scientific seminars, advanced training workshops, and social activities. Your doctoral degree will be conferred when you successfully complete your Ph.D. project. Our dedicated coordinator will assist you throughout your time as a doctoral student.

People with a strong academic background and a master's degree in Engineering, Computer Science, Cognitive Science, Mathematics, Control Theory, Neuroscience, Materials Science, Physics, or related fields should apply.

We seek to increase the number of women in areas where they are underrepresented, so we explicitly encourage women to apply. We are committed to employing more handicapped individuals and especially encourage them to apply. We are an equal opportunity employer and value diversity at our institutions.

Admission will be competitive. If selected, you will receive funding via an employment contract, subject to the rules of the Max Planck Society and the two participating universities.

In case of interest, please specify the desired main academic advisor with your application.

You can apply at http://imprs.is.mpg.de before midnight PST on April 17, 2017.

6.2. PhD: Université Laval, Canada
Contributed by: Andre Desbiens, desbiens@gel.ulaval.ca

PhD: Université Laval, Canada
Three PhD positions are available at the LOOP (Laboratoire d'observation et d'optimisation des procédés – Process Observation and Optimization Laboratory), Université Laval, Québec City, Canada. The projects are in collaboration with the multinational biopharmaceutical Pfizer. They address industrial problems and the solutions will have significant impacts for Pfizer.

For pharmaceutical industries, automation and continuous processing is a way to become more competitive, to reduce production time, energy consumption and the amount of waste produced. Towards this objective, the projects are:

Project #1 - Coating of the tablets: development of an in-line vision sensor providing film-coating properties (coating level, distribution across tablets, esthetical defects, etc.).
- Fractional factorial design
- Multivariate Image Analysis
- Partial Least Squares regression
- Validation of the machine vision sensor

Project #2 – Novel continuous drying of the granules (before they are compressed into tablets): safe and robust in-line minimization of the drying time and/or energy consumption while insuring a desired final humidity of the particles and avoiding their overheating.
- First-principles modelling and model calibration
- State estimation
- Model predictive control
- Real-time optimization

Project #3 - Freeze-drying of vials: safe and robust in-line minimization of the primary drying time and/or energy consumption while insuring that sublimation is completed and avoiding to exceed the collapse tem-

perature.

- First-principles modelling and model calibration
- State estimation
- Model predictive control
- Real-time optimization
- Heating policies for various vials arrangements

The final stage of the three projects is to implement and validate the most promising approaches on pilot units.

Candidate profile:
- should have completed, or about to complete, a MSc degree in Electrical or Chemical Eng., or related areas,
- strong background in multivariate statistics and/or first-principles modelling and/or systems and control,
- solid programming skills in Matlab,
- ability to work in multi-disciplinary teams,
- excellent communication skills (oral and written) in English - a plus if knowledge of French (courses are given in French).

Please send a complete CV, a motivation letter and transcripts to Prof. André Desbiens (desbiens@gel.ulaval.ca) with the subject "E-Letter PhD position".

6.3. PhD: University of Agder, Norway
   Contributed by: Jing Zhou, jing.zhou@uia.no

PhD Position at University of Agder, Norway

Supervisor: Prof. Jing Zhou

Project Topic: Coupled Dynamics Between Vessel and Crane

The University of Agder invites applications for a PhD fellowship in Coupled Dynamics Between Vessel and Crane. The position is linked to the Department of Engineering Sciences and the contract is for a period of 3 years. Starting date in September 2017 or negotiated with the faculty. The position will also be linked to work-package 3 in the research centre SFI Offshore Mechatronics.

Deadline for application: 31 May 2017.

Brief Description of the Research Project

With the increased focus on offshore operations to deep water fields, it is important to perform crane operations faster with increased weather operation window. In addition, necessary precautions towards the safety of human lives, environment and property should be taken. To achieve satisfactory control performance, the investigation of coupled dynamics between vessel and crane is very important. The accurate control for the dynamic positioning of the payload in a vessel-mounted crane system is challenging due to the exogenous disturbances such as actuator movement, accidental collisions, the motion of the vessel induced by waves and ocean currents, and so on. The objective is to increase the control performance of the crane and vessel, and ensure the safety of operations.

The applicant should have:
• Strong academic credentials, written and spoken English proficiency
• Strong knowledge in systems and control, mechatronics, mathematics or marine systems
• Good academic record, showing a strong theoretical/mathematical background and a strong interest in

dynamical control systems

• Strong programming skills and years of experience in using numerical tools such as MATLAB

Remuneration

The position is remunerated according to the State salary scale, code 1017 Research Fellow, salary NOK 435 500 gross per year. A 2 % compulsory pension contribution to the Norwegian Public Service Pension Fund is deducted from the pay according to current statutory provisions.

For further information please contact Professor Jing Zhou, tel. +47 37 23 31 91, e-mail: jing.zhou@uia.no.

Detailed information and application procedure:
https://www.jobbnorge.no/ledige-stillinger/stilling/137288/phd-research-fellow-in-instrumentation-and-real-time-control-of-long-reach-light-weight-arm-intended-for-use-offshore

6.4. PostDoc: University of California at San Diego, USA
Contributed by: Miroslav Krstic, krstic@ucsd.edu

Postdoctoral position in control of ELECTRIC MOTOR DRIVES at UNIVERSITY OF CALIFORNIA, SAN DIEGO

A postdoctoral position is open, with the intent of it being filled in/by Fall 2017, at University of California, San Diego, under Professor Miroslav Krstic, on the topic of control of large electric motor drives in collaboration with General Atomics, a major local San Diego company. The research challenges include the achievement of stable operation in the face of significant variations in the sampling rates and delays. The anticipated industrial impact is in oil/gas industry.

The appointment is for one year, with the possibility of extension subject to availability of funds and strong performance. The salary is in accordance with the University of California postdoctoral salary scale, which is anticipated to be in the high-$40K's range for the 2016-2017 academic year.

Eligibility and requirements. Only candidates who are PERMANENT RESIDENTS OF THE UNITED STAES can be appointed for this position. The required background, in addition to strong training in control systems, includes modeling and CONTROL OF ELECTRIC MACHINES and power electronics.

UC San Diego's Cymer Center for Control Systems and Dynamics houses one of the world's premier research groups and training programs in control engineering.

Interested candidates should contact Professor Krstic (krstic@ucsd.edu; http://flyingv.ucsd.edu) and include their detailed CV, information on their current and near-term job status, US immigration/residency status, and a list of references. No response will be sent to applications that do not meet the capitalized REQUIREMENTS mentioned above.

6.5. PostDoc: CNRS – CentraleSupélec – Univ. Paris-Sud – Univ. Paris-Saclay, France
Contributed by: Antoine Girard, antoine.girard@l2s.centralesupelec.fr

Postdoctoral Positions - Towards programmable cyber-physical systems: a symbolic control approach

Supervisors: Antoine Girard (Antoine.Girard@l2s.centralesupelec.fr)
Location: Laboratoire des Signaux et Systèmes - L2S, CNRS – CentraleSupélec – Univ. Paris-Sud – Univ. Paris-Saclay, Gif-sur-Yvette, France
Duration: One year, starting September 2017, with possibility for one additional year

Two postdoctoral positions are opened within the PROCSYS project, funded by an ERC Consolidator Grant.

Context and Objectives:
Cyber-physical systems (CPS) consist of computational elements monitoring and controlling physical entities. The main objective of the PROCSYS project is to propose a general framework for the design of programmable CPS that will allow engineers to develop advanced functionalities using a high-level language for specifying the behaviours of a CPS while abstracting details of the dynamics. Controllers enforcing the specified behaviours will be generated from a high-level program using an automated model-based synthesis tool. Correctness of the controllers will be guaranteed by following the correct by construction synthesis paradigm through the use of symbolic control techniques: the continuous physical dynamics is abstracted by a symbolic model, which is a discrete dynamical system; an interface consisting of low-level controllers is designed such that the physical system and the symbolic model behaves identically; a high-level symbolic controller is then synthesized automatically from the high-level program and the symbolic model.

Work description:
We will develop a high-level language, based on the formalism of hybrid automata, which will enable to specify rich behaviours while enabling the development of efficient controller synthesis algorithms. The project will also tackle two bottlenecks in the area of symbolic control. Firstly, scalability issues will be addressed by the computation of more compact symbolic models and by controller synthesis algorithms that require only partial exploration of the symbolic models. Secondly, robustness will be ensured at all levels of control by developing novel algorithms for the synthesis of robust interfaces and of symbolic controllers.

Background of the candidate:
The candidate must hold a PhD in control theory or computer science with a strong mathematical background. A prior experience in the area of hybrid systems is recommended. Programming skills are also needed. Applications must include a cover letter, a detailed CV, the preprints of the two most significant publications, and two references who may be asked to provide letters of recommendation.
All documents should be sent in a single pdf file to the following email addresses:
Antoine.Girard@l2s.centralesupelec.fr

6.6. PostDoc: Universidad Técnica Federico Santa María, Chile
Contributed by: Juan I. Yuz, juan.yuz@usm.cl

POSTDOCTORAL POSITION at AC3E, UTFSM, CHILE

The Advanced Center for Electrical and Electronic Engineering (AC3E) was created on 2014 to group individual research efforts into multi- and inter-disciplinary teams and re-focus research towards industry related problems to spark innovation. The center is hosted by Universidad Técnica Federico Santa María (UTFSM), in Valparaíso, Chile, one of the top engineering universities of Chile. Additional information about the center can be found at www.ac3e.usm.cl and the university can be found at www.usm.cl

We are looking to hire a highly qualified individual as postdoctoral researcher for the area of Intelligent Transportation systems. In particular, we want to focus on the development of Control and Communications techniques applied to the deployment of platoons and their interaction with different environments. As a consequence, it is desirable that the applicants have a demonstrable background in Control Systems, System Identification and Wireless Communications. Nevertheless, we are also interested in candidates with expertise in other research areas in Electrical and Electronic Engineering, including:
• System Identification,
• Nonlinear Systems modeling and control,

- Fault Diagnosis and Prognosis,
- Networked and Distributed Control Systems,
- Performance Limitations and Control Design,
- Control of Partial Differential Equations.

The researchers associated to the Control and Automation line are:
- Dr. Juan C. Agüero, UTFSM (Line of Research Leader),
- Dr. Juan Yuz, UTFSM,
- Dr. Marcos Orchard, U. de Chile,
- Dr. Alejandro Rojas, U. de Concepción,
- Dr. Eduardo Cerpa, UTFSM,
- Dr. Francisco Vargas, UTFSM.

Required Documents
1. Curriculum Vitae.
2. List of academic productivity (publications, books, patents).
3. Cover letter stating your interests and why you want to become part of AC3E.
4. Documentation accrediting the possession of a PhD or Doctoral degree.
5. Letter of reference or a list of 2 referees that might be contacted.
*Please provide all documents in one PDF file.

General Information
- The duration of the Postdoctoral fellow will be up to 2 years.
- Applications and inquiries should be sent to the following email: ac3e@usm.cl

6.7. PostDoc: Sandia National Laboratories, USA
Contributed by: Chimene Lopez, recruitingads@sandia.gov

Sandia National Laboratories is seeking a POSTDOCTORAL APPOINTEE for our Albuquerque, NM site.

Please review job description below. Apply by completing an online application at:
http://www.sandia.gov/careers
Click on "View all jobs" and enter Job Number "657239" into the Keyword search.

On any given day, you may be called on to:
Postdoctoral researcher (or appointee) in dynamical systems analysis and control systems design. This position requires an active researcher in basic and applied research for marine hydrokinetic (MHK) energy systems. The selected candidate must have the ability to contribute to a diverse research portfolio and also support execution of the program for our primary sponsor. The selected candidate will have the opportunity to actively publish and present his/her research at conferences and workshops and in technical journals. The selected candidate must also be able to interface with the other activities in the department to assist in furthering the development of a cross-cutting research portfolio.

Required:
- Ph.D. in Electronic, Mechanical, Aerospace Engineering or similar engineering
- Experience with dynamic system analysis, state-estimation, and control system design
- Experience in signal processing and data analysis.

Desired:
- Test equipment development experience

- Experience in design and implementation of real time control systems
- Experience in specification, design, construction/implementation of sensor systems for feedback control
- Experience in system identification

Department Description:

Sandia's Water Power Technologies Department performs research and development to improve performance, lower costs, and accelerate the deployment of water power technologies. The primary focus area of the department's work is Marine Hydrokinetics (MHK) research with lower levels of effort in Offshore Wind (OW) and Hydropower. The department is responsible for all aspects of Marine Hydrokinetic device design, performance, system reliability, system integration, and environmental evaluations for the Department of Energy¿s Wind and Water Power Technologies Office and in collaboration with industry partners. Offshore Wind Energy activities currently include Vertical Axis Wind Turbine (VAWT) design and analysis and foundation scour. Hydropower efforts focus on seasonal simulation and optimization. Through partnerships with industry, academia, other National Labs, and public dissemination of results, Sandia serves an important role in energy security for the nation

About Sandia:

Sandia National Laboratories is the nation's premier science and engineering lab for national security and technology innovation, with teams of specialists focused on cutting-edge work in a broad array of areas. Some of the main reasons we love our jobs:

Challenging work with amazing impact that contributes to security, peace, and freedom worldwide

Extraordinary co-workers

Some of the best tools, equipment, and research facilities in the world

Career advancement and enrichment opportunities

Flexible schedules, generous vacations,strongmedical and other benefits, competitive 401k, learning opportunities, relocation assistance and amenities aimed at creating a solid work/life balance*

World-changing technologies. Life-changing careers. Learn more about Sandia at: http://www.sandia.gov

*These benefits vary by job classification.

Security Clearance:

No clearance required.

This position does not currently require a Department of Energy (DOE)-granted security clearance.

Sandia will conduct a pre-employment background review that includes personal reference checks, law enforcement record checks, and employment and education verifications. Further, employees in New Mexico must pass a U.S. Air Force background screen for access to the work site. Substance abuse or illegal drug use, falsification of information, criminal activity, serious misconduct or other indicators of untrustworthiness can cause access to be denied or terminated, rendering the inability to perform the duties assigned and resulting in termination of employment.

If hired without a clearance, and one subsequently becomes required or you bid on positions that require a DOE-granted security clearance, a pre-processing background review that includes personal reference checks, law enforcement record and credit checks, and employment and education verifications may be conducted prior to a required federal background investigation. Applicants for DOE-granted security clearances must be U.S. citizens and be able to obtain and maintain the appropriate DOE security clearance as required for the position.

EEO Statement:

Equal opportunity employer/Disability/Vet/GLBT

6.8. PostDoc: Israel Institute of Technology
Contributed by: Tal Shima, tal.shima@technion.ac.il

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

The research is in the general area of guidance of unmanned vehicles, mainly aerial ones. The scope of the research is broad and possible topics include: 1) Pursuit-evasion guidance; 2) Cooperative guidance; 3) Intertwined guidance and flight control; 4) Intertwined guidance and estimation; 5) Intertwined guidance and task assignment. The research will involve both theoretical and algorithmic aspects. Laboratory experiments on available ground and aerial robots may also be performed.

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

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

The material should be submitted, in pdf, via e-mail, to Prof. Tal Shima, tal.shima@technion.ac.il The position is available immediately and applications will be handled as they arrive until the position is filled.

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

6.9. PostDoc: University of Florida, USA
Contributed by: Michael McCourt, mccourt@ufl.edu

PostDoc: University of Florida, USA
Contributed by: Michael McCourt, mccourt@ufl.edu

Postdoctoral Research Fellowship in Control and Robotics
Location: UF REEF, Shalimar, FL
Department: Mechanical and Aerospace Engineering
Salary rate: $65,000 annual, 1.0 FTE

Position Description:
The University of Florida REEF facility is announcing a post-doctoral fellowship sponsored by the Air Force Research Laboratory, Munitions Directorate (AFRL/RW) at Eglin AFB, Florida in the area of control and estimation. This AFRL/RW sponsored project, "Privileged Sensing Framework", has focused on cooperative control and estimation in human-machine systems. This project has investigated novel approaches in fusing human perceptions with autonomous sensor measurements to reduce estimation error and improve coordination in human-machine teams. Desired skills for this postdoc position include prior experience with Bayesian estimation, classification, novel representations of knowledge, risk-based decision making, control systems, learning in autonomous control, and distributed control architectures. While this position is focused primarily in the development of original theory, some applied demonstrations are encouraged in either simulation or hardware utilizing ground robots and quad rotors in a motion capture lab space.

The UF REEF facility is located in Shalimar, FL. It is a collaborative space with researchers from UF, AFRL, and other institutions. Research projects are in a variety of fields including control and estimation,

communication, coordination in autonomous vehicles, industrial optimization, and materials science. Collaborative work between these groups is highly encouraged. There are opportunities for robotic experiments utilizing ground robots and quad rotors in a motion capture lab space.

Qualifications:

Candidates must hold a Ph.D. in a field closely related to control and estimation and a track record of conducting and publishing quality research at top conferences and in scientific journals. This position requires good communication and collaborative research skills as this research group is made up of both UF and AFRL researchers.

Information:

For more information or to apply, please contact Dr. Michael McCourt, mccourt@ufl.edu

6.10. PostDoc: National Institute of Informatics, Japan
Contributed by: Ichiro Hasuo, i.hasuo@acm.org

PostDoc: National Institute of Informatics, Japan

For our new 5-year research project (ERATO MMSD, Metamathematics for Systems Design) we are looking for senior researchers and postdocs (10+ positions in total and several are still open), together with research assistants (PhD students) and internship students.

This broad project aims to extend the realm of formal methods from software to cyber-physical systems (CPS), with particular emphases both on logical/categorical metatheories and industrial application esp. in automotive industry. The project covers diverse areas that include: control theory, control engineering, formal methods, programming languages, software science, software engineering, machine learning, numerical optimization, user interface, mathematical logic and category theory.

For more about the project please visit http://group-mmm.org/eratommsd

About the open positions
http://group-mmm.org/eratommsd/openpositions.html
has more information (including how to apply/inquire).

6.11. PostDoc: Queen Mary University of London, UK
Contributed by: Guang Li, g.li@qmul.ac.uk

The school of Engineering and Materials Science at Queen Mary University of London has a vacancy for a postdoctoral research assistant to work on an EPSRC funded project "Control of Launch and Recovery in Enhanced Sea-States". This project will be carried out in the Division of Engineering Science.

The practical driver of this project is to extend the range of sea-states in which existing wave limited maritime operations can be safely carried out. Important examples of these operations are launch and recovery (L&R) from a mother-ship of small craft, manned and unmanned air vehicles and submersibles. In this project the research aim is to develop a novel approach to predicting a suitable time instant at which to initiate a L&R operation, together with a confidence measure (provided as advice to a human operator), and then to control the execution of the subsequent lift operation once initiated using a form of Model Predictive Control (MPC). The successful applicant will possess a relevant PhD or equivalent qualification/experience in a related field of study and will have recognised expertise in the areas of system modelling and control and possess in-depth understanding of this specialism to enable the development of new knowledge and

understanding within the field. Applicants will possess proven expertise in the areas of systems modelling and control and highly developed skills in Matlab & Simulink. The successful applicant will 1) develop fast MPC for the L&R process, 2) conduct stability analysis with preview information and varying constraints, 3) conduct co-design to integrate system parameter selection into controller design, 4) present results in project meetings, workshops and conferences, 5) publish high-quality papers.

The post is a full-time, fixed term appointment for 36 months and is available from 1 July 2017. Starting salary will be £36,064 per annum, inclusive of London Allowance. Benefits include 30 days annual leave, defined benefit pension scheme and interest-free season ticket loan.

Informal enquiries should be addressed to Dr Guang Li at g.li@qmul.ac.uk or on +44 (0) 020 7882 6116. Details about the school can be found at www.sems.qmul.ac.uk

6.12. PostDoc: CNRS, France
Contributed by: Hannah Walter, Hannah-Christina.Walter@gipsa-lab.fr

Scale-Free Modelling and Control for Large Scale Complex Networks
Supervisors: Carlos Canudas-de-Wit (DR-CNRS, supervisor), Sandro Zampieri (co-supervisor).
Context: ERC-AdG Scale-FreeBack (see http://scale-freeback.eu)
Application type: Post-doc. Gross salary: 2530-3509(if more than 2 year after PhD) Euros/M
Duration: 12+12 months. Employer: CNRS. Location: Grenoble, France
Applications: http://scale-freeback.eu/openings/

Context. Scale-FreeBack is an ERC Advanced Grant 2015 awarded to Carlos Canudas-de-Wit, Director of Research at the National Center for Scientific Research, (CNRS), during Sept. 2016-2021. The ERC is hosted by the CNRS. The project will be conducted within the NeCS group (which is a joint CNRS (GIPSA-lab)-INRIA team). Scale-FreeBack is a project with ambitious and innovative theoretical goals, which were adopted in view of the new opportunities presented by the latest large-scale sensing technologies. The overall aim is to develop holistic scale-free control methods of controlling complex network systems in the widest sense, and to set the foundations for a new control theory dealing with complex physical networks with an arbitrary size. Scale-FreeBack envisions devising a complete, coherent design approach ensuring the scalability of the whole chain (modelling, observation, and control). It is also expected to find specific breakthrough solutions to the problems involved in managing and monitoring large-scale road traffic networks. Field tests and other realistic simulations to validate the theory will be performed using the equipment available at the Grenoble Traffic Lab center, and a microscopic traffic simulator replicating the full complexity of the Grenoble urban network. The proposed work will be undertaken in the context of this project.

Topic description. This research proposal deals with the problem of setting up a suitable modelling framework for complex systems corresponding to large-scale networks. The original system is assumed to describe a homogenous network in which the node/link distribution is a bell-shaped, exponentially decaying curve. Homogenous networks cover many critical systems of interest (such as road traffic networks, power grids, water distribution systems, etc.), but are inherently complex. Scale-FreeBack is elaborated on the idea that complexity can be broken down by abstracting an aggregated scale-free model (represented by a network with a power law degree distribution), by merging/lumping neighboring nodes in the original network. In that, supper-nodes (nodes with a lot of connections) are created and represented by "aggregated" variables. Controlling only boundary inputs and observing only aggregated variables allows to cut-off the system complexity. The following questions will be addressed:

1) Defining the most suitable level of aggregation for the model. This boils down to defining and sizing the state-vector, the control inputs and outputs. A first question is how to define the right level of aggregation, and investigate new metrics trading quantifiers reflecting an optimal level of scalability (a suited node/link distribution) of the associated network graph, with other performance indexes reflecting the system's closed-loop operation.

2) The second question focuses on how the aggregation process, in addition to the scale-free property, will yield models consistent with the design of control and the observation goals. The aggregation process will have to include observability and controllability properties which are consistent with the evolutionary nature of scale-free aggregated models (aggregation process is evolutionary in the sense that the network changes and so the aggregated modules will change accordingly while preserving the scale-free properties).

3) Finally, innovative concepts such as peripheral controllability (i.e. controlling the boundary flows in a lumped node rather than controlling each single node separately), and energy-weighted controllability metrics (where controllability is qualified by assessing the energy costs as a function of the controllable nodes [Zam-et-al'14]) will be extended in this project to the context of scale-free models. While only open loop metrics have been considered so far, we aim to propose new closed loop metrics also taking inspiration from road traffic networks application. Finally, we will propose and investigate different new weak notions of controllability in which the controllability is determined with respect to a limited subspace (peripheral and/or sparse controllability), and to devise the associated control methods.

Request Background. Control Systems, Applied mathematics.

Applications. Please follow the application procedure indicated at (http://scale-freeback.eu/openings/)

6.13. PostDoc: UT-Dallas, USA
Contributed by: Reza Moheimani, reza.moheimani@utdallas.edu

We are seeking a postdoctoral research fellow to join our multidisciplinary research group, based in the Laboratory for Dynamics and Control of Nanosystems at UT-Dallas. The applicants are expected to have a PhD in a relevant field (or be close to completion), have a strong analytical background and be familiar with advanced control system design techniques. Familiarity with analog electronics design and rapid prototyping systems is a major plus. Familiarity with scanning probe techniques is highly valued.

To be considered, the applicants should send their CVs including a list of publications and names and addresses of three referees to D. Reza Moheimani (contact email: Reza.Moheimani@utdallas.edu).

6.14. Research Fellow/Associate: National University of Singapore, Singapore
Contributed by: Chong Jin Ong, mpeongcj@nus.edu.sg

Applicants are invited for Research Fellow/Associate positions to work on approaches to distributed control/optimization of multi-agent system. In particular, effective approaches are sought that solve the consensus problem for a multi-agent, network system under several settings: the presence of global constraint, time-switching network and/or state and control constraints. The position is with the Department of Mechanical Engineering, National University of Singapore. Applicants should possess at least a Master's degree with at least 2 years' relevant work experience for Research Associate position. Candidate with PhD degree (preferably in Multi-agent Control, distributed optimization) will be considered for Research Fellow position. The applicants should have very good foundation in mathematics and control theory. Those who have recently obtained a PhD degree in general control theory, computer science and mathematics are also

encouraged to apply. Current PhD students who are on the last leg of their candidature (submitting their thesis within the next few months) or waiting for their oral defense may also be considered.

Remuneration will commensurate with experience.

Applications with full CV to be submitted electronically to Assoc Prof Ong Chong Jin at the email: mpeongcj@nus.edu.sg

6.15. Faculty: Sharif University of Technology, Iran
Contributed by: Amin Nobakhti, nobakhti@sharif.edu

Sharif University of Technology is pleased to announce openings for tenure track positions and is inviting highly qualified applicants to join the department of electrical engineering in areas related to control system engineering.

About the university
Sharif University of Technology is Iran's premier technical university with a distinguished track record in scientific research and discovery. The department of Electrical and Electronics is especially renowned nationally and inter-nationally for its outstanding faculty and the extremely talented students. For more information on the university and the department please visit http://www.sharif.ir/web/en.

Who should apply?
We are seeking graduates with a Ph.D. in control systems or related files from a top ranking international university and with a portfolio of fundamental and seminal research contributions to the field. A postdoc is not necessary, but it is clearly preferred. A good experience in student supervision and teaching, together with experience of applied and industrial research are essential. Successful candidates are expected to develop innovative courses in the area of control systems.

Research areas

Applicants are welcome in all areas related to control system, but are especially sought after in the following areas:
-Big Data and machine Learning
-Complex networks
-Systems biology
-Economic systems
-Nonlinear systems
-Robotics
-Discrete-event systems
-Hybrid systems
-Renewable energy systems

What is required in an application pack?
-A covering letter
-A full academic CV
-Statement of Teaching
-Statement of Research
-Personal Statement
-Transcript of grades for B.Sc. , M.Sc., and Ph.D. degrees
-Details of three references

Interested candidates should send their application pack for consideration to nobakhti@sharif.edu. All inquiries should be addressed to nobakhti@sharif.edu

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

Assistant Professor, Electrical & Computer Engineering (Tenure Track)

University of Louisiana at Lafayette, USA

We are seeking candidates with a robust academic record, who will be active educators in their fields. Tenure-track faculty are expected to be excellent teachers and to develop strong funded research programs. In addition, serve as a mentor to students, work with colleagues to assess and improve curricula and demonstrate institutional citizenship through active engagement at the department, college, university, community, and professional levels.

QUALIFICATIONS:

A Ph.D. in Electrical & Computer Engineering or closely related field, preferably with a B.S.E.E. from an ABET accredited program.

Successful candidates must be committed to working effectively with diverse student populations. Applicants are expected to describe their commitment to fostering a diverse educational environment through their research, teaching, and/or service activities.

Please follow the link below for further details:

https://www.higheredjobs.com/institution/details.cfm?JobCode=176446670&Title=Assistant%20Professor%20%28Tenure%

6.17. Faculty: Zhejiang University of Technology, China
Contributed by: Qiu Xiang, qiuxiang@zjut.edu.cn

Faculty Position: Zhejiang University of Technology , Hangzhou, China

http://www.auto.zjut.edu.cn/WebSite/Job/JobList.aspx

Zhejiang Control Science and Engineering First-Class (Class A) Discipline Recruitment Announcement

Zhejiang University of Technology (ZJUT), sitting by the beautiful West Lake, Hangzhou, is a Zhejiang Province and the Ministry of Education co-supported, provincially governed key university, who owns one of the only 14 Collaborative Creation Centers in the first initiative of the state "2011 Program". ZJUT has its beautiful campus covering more than 3000 mu, which accommodates 24 Colleges, more than 37,000 full-time students and more than 3,300 staffs. ZJUT is proudly to have 2 self-owned and 2 sharing Fellows of the Chinese Academy of Engineering, as well as more than 1400 faculties with senior professional titles. ZJUT has State Key Disciplines, State Engineering Research Centers, State University Science Parks, Centers for Postdocs, as well as the power of awarding Doctors, Masters, MBAs and recruiting foreign students and those from Hong Kong, Macao and Taiwan.

The Control Science and Engineering Discipline within the College of Information Engineering was one of the Priority-among-Priorities Disciplines (selected by Zhejiang Provincial Government in 2009), and is now one of the Zhejiang First-Class (Class A) Disciplines in the first initiative of the Program in 2015. The Discipline now has the Doctoral Program at the first-level discipline, the Center for Postdocs, and the Zhejiang Collaborated Key Laboratory of Embedded Systems. The College of Information Engineering where the Discipline

is in has 5 undergraduate programs: Automation, Electrical Engineering and Its Automation, Electronic Information Engineering, Communication Engineering, and Electronic Science and Technology. The Discipline is now recruiting faculties in the following areas at the levels of State and Zhejiang Provincial "1000 Plan" high-level talents, Zhejiang "Qianjiang Scholars", ZJUT "Yunhe Specially-Appointed Professors", "ZJUT Professors",outstanding PhDs and postdocs, etc.

(1) Control Science and Engineering, including advanced control theory, robotics, machine vision, pattern recognition, industrial networked control systems, MES, etc.
(2) Electrical Engineering, including electric drive, power electronics, new energy, etc.
(3) Mechatronic Engineering, including high-precision servo control of mechatronic devices, the modelling and dynamic analysis of robots, etc.
(4) Computer Science and Technology, including smart city, smart healthcare, big data, cloud computing, IoT, industrial control software, etc.

A. Selection criteria
High-level talents (Changjiang Scholars, 1000 Plan Scholars, Qianjiang Scholars, etc.) You have major achievements and influence in your research area that have already been recognized by national and international researchers, or have great potentials of future development; You also meet the criteria of corresponding talents programs. ZJUT Professors /Associate Professors You have a PhD degree obtained from a recognized university or research institutes with at least one year of oversea research experience in a well-known foreign institute; You have research achievements recognized by national and international researchers; Your application also passes the review process at the university level (ZJUT).
Outstanding PhDs/Postdocs You have a PhD degree obtained from a recognized university or research institute; You have high-quality research outputs and the professional skills required by a university lecturer, and great potentials of your future career.

B. Salary and welfare
(1)National-Level Top Tier Talents: Fellows of Chinese Academy of Sciences or Chinese Academy of Engineering, "Special Support Program" Distinguished Talents, Principal Investigators of NSFC Innovative Research Team, or other talents at the equivalent level. Treatment:Negotiation on the case by case basis.

(2) National-Level Top Tier Talents:National "1000 Plan" Scholars (long-term), Changqiang Scholars, NSFC Distinguished Young Scholars, "Special Support Program" Outstanding Talents, winners (rank first) of three major national science awards, or other talents at the equivalent level. Salary (CNY):$\geq$ 700K /Year; Housing Benefit(CNY):3M-5M; Startup Funds(CNY):Case by case.

(3) National-Level Young Talents:"Special Support Program" Outstanding Young Talents, "1000 Plan" Young Scholars, "Changjiang Young Scholars, NSFC Outstanding Young Scholars, 973 Program Young Scholars, "Millions of Talents Program" Scholars, or other talents at the equivalent level. Salary (CNY):$\geq$ 450K /Year; Housing Benefit(CNY):1.5M-2.5M; Startup Funds(CNY):1M-3M.

(4) Provincial-and-Ministry-Level Talents,Yunhe Specially-Appointed Professors:CAS "100 Plan" Scholars, Zhejiang "Qianjiang Scholars", Zhejiang "1000 Plan" (long-term) Scholars, or other talents who have made significant academic contributions with great potentials of development and who are awarded "Yunhe Specially-Appointed Professors" after the review of ZJUT. Salary (CNY):$\geq$ 350K /Year; Housing Benefit(CNY):1.5M; Startup Funds(CNY):0.5M-1M.

(5) ZJUT Professors,ZJUT Associated Professors:You have a PhD degree obtained from a recognized university or research institutes with at least one year of oversea research experience in a well-known foreign institute; You have research achievements recognized by national and international colleges; Your application also passes the review process at the university level. Salary (CNY):Salaries at the appropriate levels;

Housing Benefit(CNY):0.4M-0.5M; Startup Funds(CNY):0.1M-0.2M.

(6) Outstanding PhDs/Postdoctors: You have a PhD degree obtained from a recognized university or research institute; You have high-quality research outputs and the professional skills required by a university lecturer, and great potentials of your future career. Salary (CNY):Salaries at the appropriate levels; Housing Benefit(CNY):0.3M.

(7) Postdocs (leading to a faculty): Besides the basic salary and welfare, 50K/Year subsidy is provided for the first two years, with the possibility of continuing this subsidy plus a one-off 200K housing benefit if you are accepted to ZJUT public institution business unit.

C. Required documents

(1) One self-recommendation letter covering your study and professional records, your teaching and research statements, your achievements, your work plan as well as your possible requirements from us.
(2) A list of your research funds, awards, and publications in the recent five years.

D. Contact us

Dr. Qiu,
Email : qiuxiang@zjut.edu.cn
Mobile: +86-13867469319
Address: Xiaoheshan College Park, College of Information Engineering, Zhejiang University of Technology, 310023

Zhejiang Control Science and Engineering First-Class (Class A) Discipline
Apr 9, 2017

6.18. Faculty: University of Newcastle, Australia
Contributed by: Björn Rüffer, bjorn.ruffer@newcastle.edu.au

The University of Newcastle, Australia is soliciting applications for a new full professor in applied mathematics. Mathematical systems theory and optimization are research areas of particular interest, but other areas of applied mathematics are equally welcome.

Application deadline: May 12, 2017
Location: Newcastle, Australia (about 170km north of Sydney)
University website: http://www.newcastle.edu.au
Position description:
https://hronline.newcastle.edu.au/pls/alesco/WK8127$VAC.QueryView?P_VACANCY_REF_NO=3249