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

The next Eletter will be mailed out in the beginning of January 2016.

A (not so) Brief Editorial

After three years as editor of the electronic publications of the Control Systems Society, it is time for me to step down, and this is my last Eletter.

I’d like to thank the people that trusted me and decided that I was the right person to take over this role in 2013. In particular, Magnus Egerstedt (my predecessor), Christos Cassandras (CSS president in 2012), and Yutaka Yamamoto (CSS president in 2013). Wish they would say “I guessed it right” if ever asked for.

It was a great pleasure and honor for me editing this newsletter and supporting our society with the website supervision. Responsibilities and tasks of the CSS e-editor have been growing, and, fortunately, during this last year I was supported by Luca Zaccarian and Steffen Waldherr in their newly established roles of associate editors for Conference Information and the Life Science Technical Community, respectively.

Some projects were accomplished during my three years as e-editor, including setting up websites with the same style for all CSS Technical Committees, re-structuring some sections of the website, and editing a pdf version of the Eletter. This was actually a team work, which involved Frank Allgöwer (past VP Technical Activities), Anuradha Annaswamy (current VP Conference activities), Jay Farrell (past president), Richard Middleton (awards chair), Maria Elena Valcher (current president), Luca Zaccarian (AE for Conference Information), and Ernestina Parente (editorial assistant to the Eletter), besides the operative support of Conference Catalysts.

I take this editorial as my opportunity to thank all of them, sincerely.

I’m sure that my replacement will do even a better job, and will continue to improve on the Eletter and website in the years to come.

I wish my successor a good work and all my best to the Eletter readers!

Maria
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1. IEEE CSS Headlines

1.1. IEEE Control Systems Society Publications Content Digest

Contributed by: Elizabeth Kovacs, ekovacs2@nd.edu


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.

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IEEE Transactions on Automatic Control
Contributed by: Elizabeth Kovacs, ekovacs2@nd.edu

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2. Awards

2.1. Mechatronic Systems
   Contributed by: Reza Moheimani, reza.moheimani@utdallas.edu

   Call for nominations: IFAC Technical Committee on Mechatronic Systems Awards
   The IFAC Technical Committee on Mechatronic Systems, TC4.2, invites nominations for the following TC Awards:
   - Lifetime Achievement Award
   - Mechatronic Systems Award
   - Young Researcher Award

   The awards will be presented at the 7th IFAC Symposium on Mechatronic Systems, to be held in Loughborough, UK, 5th-8th September 2016. http://www.mechatronics2016.lboro.ac.uk
   The deadline for submitting nominations is May 1, 2016. Further details and nomination forms are available on the TC4.2 page at: http://tc.ifac-control.org/4/2/tc-awards

2.2. IFAC Major Awards
   Contributed by: Paul Van den Hof, p.m.j.vandenhof@tue.nl

   Call for nominations: IFAC Major Awards
   IFAC is seeking nominations for the 2017 Major IFAC Awards: Quazza Medal, Nichols Medal, Thoma Medal, Industrial Achievement Award, and High Impact Paper Award.
   A description of each award, as well as the nomination information, is available on the IFAC website at http://www.ifac-control.org/news/2017-major-medals-call-for-nominations
   The list of awards includes the newly installed Thoma Medal that recognizes outstanding contributions of a young researcher and/or engineer under the age of 40 to the field of systems and control in its widest sense. It will be awarded for the first time in 2017.
   Deadline for submitting nominations is 15 Feb 2016.

2.3. IFAC Fellows
   Contributed by: Paul Van den Hof, p.m.j.vandenhof@tue.nl

   Call for nominations: IFAC Fellow
   IFAC is seeking nominations for the 2017 IFAC Fellowship Awards. Nominations have to be supported by 3-5 references.
   The call with all details and forms are available on the IFAC website at http://www.ifac-control.org/awards/fellow-nominations-2017.
3. Misc

3.1. “Out of Control” cartoons
Contributed by: S. M. Joshi, sj.systemtheory@gmail.com

Following a number of requests, the “Out of Control” cartoons - many of which appeared in the IEEE Control Systems Magazine during 1985-94 - are now available at the website: http://controlcartoons.com. So far about 60% of the old ones have been uploaded; the plan is to also add new ones.

In addition, a short pdf book “A Cartoon Tour of Control Theory” is also available at the website. This book contains a light introduction to basic classical control theory in a cartoon format. The downloads are free for personal non-commercial use, as stated at the website.

3.2. IEEE Computational Intelligence Society Winter School
Contributed by: Zhen Ni, zhen.ni@sdstate.edu

Call for Participation: 2016 IEEE Computational Intelligence Society Winter School
Big Data in Computational Intelligence: From Fundamental Principles to Complex System Applications
February 19-21, 2016, Washington, D. C.
Link: http://www.udc.edu/winter_school/IEEE_Cis_winter_school.htm

Big data is being generated by everything around us, and is creating a culture in which government authorities, academia and industrial leaders must join forces to realize the value from all data. Decision making process is moving from the elite few to the empowered many. With the recent development of modern technologies, computational intelligence (CI) has demonstrated tremendous successful results in big data era, and the potential capacities for complex real-world applications.

The ultimate objective for this winter school is to deliver the state-of-the-art technique of new computational intelligence methodologies for the big data issues from fundamental principles to complex applications. It includes deep learning, evolutionary computation, self-organizing swarm robots, ensemble learning, imbalance learning and many others. The lectures will not only bring the essential concepts of learning, adaptation and optimization for the engineering students, but also introduce the cutting-edge techniques and applications for the young researchers. The round table discussion between the invited speakers and students will focus on the education development and career planning related issues for the students as well.

The 2016 IEEE CIS Winter School will invite many IEEE CIS distinguished lecturers and world-renowned university experts to give plenary talks, lectures and courses. It also features student oral and poster presentations from the D.C. Metropolitan area, lab tours, and demo. In addition, this winter school will be planned in conjunction with UDC SEAS’s annual Discover Innovation Day event.

The winter school is free to anyone who is interested to attend.

Nian Zhang nzhang@udc.edu and Zhen Ni zhen.ni@sdstate.edu
On behalf of organization committee

4. Journals

Contributed by: Young Hoon Joo, journal@ijcas.com
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Vol. 13, No. 6, December 2015
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Contributed by: Tobias Glück, cep@acin.tuwien.ac.at

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Adaptive Motion/Force Tracking Control for a Class of Mobile Manipulators. Wei Sun and Yuqiang Wu

Repetitive Learning Control Design and Period Uncertainties. C. M. Verrelli


Real-Time Results for High Order Neural Identification and Block Control Transformation Form Using High Order Sliding Modes. Sergio Alvarez Rodríguez, Carlos E. Castañeda Hdez, Onofre A. Morfin G., Francisco Jurado and P. Esquivel Prado

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Reset Control Systems With Time-Varying Delay: Delay-Dependent Stability And $\mathcal{L}_2$ Gain Performance Improvement. Guanglei Zhao and Jingcheng Wang

4.4. Contents: Automatica
Contributed by: Elisa Capello, automatica@polito.it

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http://www.sciencedirect.com/science/journal/00051098/62

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4.5. CFP: Asian Journal of Control

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

Call for papers for two special issues

http://www.ajc.org.tw

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

As different from traditional sensor networks which are deemed as open-loop information gathering systems, the emerging wireless sensor and actuator networks (WSANs) are closed-loop systems of wireless-capable sensors and actuators which can facilitate intimate interactions between human and the physical world. For their low cost, ease of maintenance, convenient upgrading and the ability to enhance system intelligence, WSANs have found promising applications in a variety of fields such as environment monitoring and control, building automation, industrial control, smart grid management, and intelligent transportation. WSANs are an integrated technology of control and communication. However, control engineers and network experts often work separately to design control algorithms and communication protocols without closely examining their intimate interactions and interdependencies in WSANs, resulting in system overall performance underexplored.

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

This special issue seeks original contributions which address recent emerging issues of control and optimization over WSANs. We solicit on (but not limited to) the following topics: Sensor-actuator and actuator-actuator coordination in WSANs, Estimation and control over wireless networks, Distributed and collaborative control over WSANs, Control and communication co-design in WSANs, Cross-layer optimization and resource allocation for WSANs, Wireless sensor/robot networks and mobile WSANs, Energy efficiency, security and privacy issues of WSANs, Emerging applications, simulation tools, experiments, test-beds and prototyping systems.

Guest Editors:
Xianghui Cao. School of Automation, Southeast University, China. xhcao@seu.edu.cn
Enrico Natalizio. Heudisyc Lab, Université de Technologie de Compiègne, France. enrico.natalizio@hds.utc.fr
Jiming Chen. College of Control Science and Engineering, Zhejiang University, China. jmchen@iipc.zju.edu.cn
Special issue on “Theoretical and Practical Challenges in Learning Control”

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

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

Robust design methods, Performance improvement, New stability/convergence analysis tools, Novel applications

Guest Editors:
Ying Tan. Department of Electrical and Electronic Engineering University of Melbourne, VIC 3010, Australia. Email: yingt@unimelb.edu.au
Chris Freeman. Electronics and Electrical Engineering School of Electronics and Computer Science University of Southampton, Southampton, SO17 1BJ, UK. Email: cf@ecs.soton.ac.uk
Kira Barton. Department of Mechanical Engineering University of Michigan, United States. Email: bartonk1@umich.edu

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

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

5. Conferences

5.1. International Conference on Swarm Intelligence
Contributed by: Carlo Pincirola, ilpincy+ants@gmail.com

ANTS 2016
Tenth International Conference on Swarm Intelligence
September 7-9, 2016. Brussels, Belgium

Call for papers prepared on October 5, 2015
More details and up-to-date information at http://iridia.ulb.ac.be/ants2016

Scope of the Conference:
Swarm intelligence is the discipline that deals with the study of self-organizing processes both in nature and in artificial systems.
Researchers in ethology and animal behavior have proposed a number of models to explain interesting aspects
of social insect behavior such as self-organization and shape-formation. Recently, algorithms and methods inspired by these models have been proposed to solve difficult problems in many domains.

An example of a particularly successful research direction in swarm intelligence is ant colony optimization, the main focus of which is on discrete optimization problems. Ant colony optimization has been applied successfully to a large number of difficult discrete optimization problems including the traveling salesman problem, the quadratic assignment problem, scheduling, vehicle routing, etc., as well as to routing in telecommunication networks. Another interesting approach is that of particle swarm optimization, that mainly focuses on continuous optimization problems. Here too, a number of successful applications can be found in the recent literature. Swarm robotics is another relevant field. Here, the focus is on applying swarm intelligence techniques to the control of large groups of cooperating autonomous robots.

ANTS 2016 will give researchers in swarm intelligence the opportunity to meet, to present their latest research, and to discuss current developments and applications.

The three-day conference will be held in Brussels, Belgium, on September 7-9, 2016.

Relevant Research Areas:
ANTS 2016 solicits contributions dealing with any aspect of swarm intelligence. Typical, but not exclusive, topics of interest are:

- Behavioral models of social insects or other animal societies that can stimulate new algorithmic approaches.
- Empirical and theoretical research in swarm intelligence.
- Application of swarm intelligence methods, such as ant colony optimization or particle swarm optimization, to real-world problems.
- Theoretical and experimental research in swarm robotics systems.

Publication Details:
Conference proceedings will be published by Springer in the LNCS series.
The journal Swarm Intelligence will publish a special issue dedicated to ANTS 2016 that will contain extended versions of the best research works presented at the conference. Further details will soon be published on the web site.

Conference Location: Auditorium R42.4.502, Solvay Brussels School of Economics and Management, Campus du Solbosch, Université Libre de Bruxelles, Av. F.D. Roosevelt 42, 1050 Brussels, Belgium.

Best Paper Award: A best paper award will be presented at the conference.

Further Information: Up-to-date information will be published on the web site http://iridia.ulb.ac.be/ants2016/.
For information about local arrangements, registration forms, etc., please refer to the above-mentioned web site or contact the local organizers at the address below.

Conference Address:
ANTS 2016
IRIDIA CP 194/6 Tel +32-2-6502729
Université Libre de Bruxelles Fax +32-2-6502715
1050 Bruxelles, Belgium email: ants@iridia.ulb.ac.be

Important Dates:
Submission deadline March 2, 2016
Notification of acceptance May 4, 2016
The 2016 IEEE International Conference on Advanced Intelligent Mechatronics (IEEE AIM 2016) will be held on July 12-15, 2016, in Banff, Alberta Canada.

This conference brings together an international community of experts to discuss the state-of-the-art for new research results, perspectives of future developments, and innovative applications relevant to mechatronics, robotics, control, and automation.

The sponsors and organizers invite submission of high quality research papers in all relevant fields. Proposals are also invited for half-day or full-day tutorials and workshops, as well as invited and special sessions focusing on specific themes or problems. All accepted peer-reviewed manuscripts will be published in the conference proceedings, submitted for inclusion in IEEEXplore, and considered for Best Conference Paper and Best Student Paper Awards.

Important deadlines include:
Feb. 13, 2016 - Submission of Special & Invited Session Proposals
Feb. 20, 2016 - Submission of Tutorials & Workshop Proposal
Feb. 20, 2016 - Submission of Contributed & Invited Papers
Apr. 20, 2016 - Notification of Paper Status
May 20, 2016 - Submission of Final Paper

Additional information may be found at aim2016.net.
Scope:
The aim of ICONS is to serve as a platform for scientists, researchers, and practitioners to discuss their forefront research results and findings, to shape their future directions and development, and to exchange their knowledge and perspectives in the field of intelligent control, automation science, engineering, and integration into the industry and society. It constitutes the primary forum for cross-industry, multidisciplinary research, and provides an opportunity to have a unique and rich cultural experience with excellent technical and social programs.

ICONS 2016 welcomes contributions related to Intelligent Control and Automation Sciences, covering all aspects from theory to applications. Contributors are invited to submit papers that, if accepted, will be scheduled for oral or poster presentation. All accepted papers will appear in the proceedings of the meeting, will be hosted on-line on ScienceDirect (http://www.sciencedirect.com) through the IFACPapersOnLine series and will be indexed in SCOPUS and EI/Compendex.

5.4. Mediterranean Conference on Control and Automation
Contributed by: Didier Theilliol, didier.theilliol@univ-lorraine.fr

24th Mediterranean Conference on Control and Automation - MED’16
Athens, Greece
June 21-24, 2016
http://www.med2016.org

The theme of MED’16 centers on control and automation challenges and opportunities in the 21st century and on control of autonomous systems. MED’16 spans four full days. June 21 is devoted to Tutorials and Workshops, followed by the three day technical conference on June 22-24. The conference, through its technical program and keynote presentations, will provide a unique opportunity for the academic, research and industrial community to address new challenges, share solutions and discuss future research directions. A broad range of topics is proposed, following current trends of combining control and systems theory with hardware/software and communication technologies, as well as new developments in robotics and mechatronics, autonomous systems, unmanned systems, cyber physical systems, network controlled systems, with the goal of strengthening cooperation of control and automation scientists with industry.

For topics of interest please visit the conference website.

Paper Submission:
The Program Chairs are soliciting contributed technical papers for presentation at the Conference and publication in the Conference Digital Proceedings. All papers must be submitted and uploaded electronically. Go to https://controls.papercept.net. Click on the link “Submit a Contribution to MED’16” and follow the steps. The paper format must follow IEEE paper submission rules, two-column format using 12 point fonts, Times New Roman. The maximum number of pages per submitted paper is 6. Up to two additional pages will be permitted for a charge of 100 Euros per additional page. Illustrations and references are included in the page count.

Invited and Special Sessions:
Proposals for invited and special sessions by topic of interest must be submitted and uploaded electronically. A Summary Statement describing the motivation and relevance of the proposed session, invited paper titles and author names must be uploaded electronically by February 1, 2016. In addition, authors must submit full versions of invited papers electronically, through https://controls.papercept.net. Each such paper must be marked as ‘Invited Session Paper’.
Workshops - Tutorials:
Proposals for workshops - tutorials should contain the title of the session, the list of speakers, and extended summaries (2000 words) of their presentations. Proposals must be sent by e-mail to the Tutorial and Workshop Chair by February 1, 2016.

Paper Review Process:
All submitted papers will undergo a peer review process coordinated by the Program Chairs, Advisory Committee Members, IPC members and qualified reviewers. Authors are encouraged to accompany their presentations with multimedia material (i.e., videos), which will be included in the Conference Digital Proceedings. Conference Proceedings will be acquired by IEEE and they appear in IEEE Xplore.

For information and details about the Conference, contact by e-mail the General or Program Chairs.

Important Dates/Deadlines:
Full Papers / Invited Sessions / Tutorial Proposals: February 1, 2016
Acceptance / Rejection Notification: April 15, 2016
Upload Final, Camera Ready Papers: May 6, 2016
Early Registration: April 15 - May 6, 2016

5.5. World Congress: Mathematical Problems in Engineering, Aerospace and Sciences
Contributed by: Seenith Sivasundaram, seenithi@gmail.com
World Congress: Mathematical Problems in Engineering, Aerospace and Sciences
5-8 July 2016
La Rochelle, France, University of La Rochelle
Website: http://www.icnpaa.com
http://www.internationalmathematics.com/icnpaa/
ICNPAA’s aim
Mathematical Problems in Engineering, Aerospace and Science have stimulated cooperation among scientists from a variety of disciplines. Developments in computer technology have additionally allowed for solutions of mathematical problems. This international forum will extend scholarly cooperation and collaboration, encouraging the dissemination of ideas and information.
The conference will have a pool of active researchers, with a proper balance between academia and industry, as well as between senior and junior researchers, including graduate students and post-doctoral fellows. It is anticipated that such a balance will provide both senior and junior researchers an opportunity to interact and to have a wider picture of recent advances in their respective fields. The conference, especially, enables the setting up of new interdisciplinary research directions among its participants by establishing links with world renowned researchers, making possible joint international projects that will no doubt bring about fresh and innovative ideas and technologies in engineering, aerospace and sciences
The proceedings will be published by the American Institute of Physics.

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

The keynote speakers for 2016 conference will include Prof Thomas Kailath (Stanford University), Prof Brain Anderson (Australian National University), Dr James Hughes (Trinity College, Hartford, Connecticut), Prof Mathukumalli Vidyasagar (University of Texas at Dallas).

We invite paper submissions that consider Wiener’s work from perspectives across applied, hard, and social sciences, as well as the humanities, fine arts, and professional/industry practice. Conference topics include: cognitive computing in theory and practice; Wiener’s fields of work (cybernetics, information theory, philosophy, life sciences, interval computation, fuzzy sets, Brownian motion, analysis under uncertainty...); Wiener’s societal concerns (information ethics, innovation and economic development, robots and work, cyber warfare and crime, science fiction as social commentary, cybernetics and literature, art and design...).

Key dates:

- 14 February 2016: Deadline for special session proposals (New deadline).
- 14 February 2016: Deadline for full papers for peer review (6 pages, IEEE format) and Abstracts (2 pages).
- 30 Apr 2016: Deadline for final camera-ready copy of full papers.

For more details, please visit http://21stcenturywiener.org. To download the call for papers, please follow the link http://21stcenturywiener.org/instructions-to-authors-and-students-2/.

To submit a paper, follow http://controls.papercept.net/

6. Positions

6.1. PhD: Wallenberg Autonomous Systems Program, Sweden

Contributed by: Fredrik Heintz, fredrik.heintz@liu.se; Karl-Erik Arzen, karlerik@control.lth.se

Wallenberg Autonomous Systems Program (WASP) offers 26 PhD student positions

Wallenberg Autonomous Systems Program (WASP) is Sweden’s largest individual research program ever, and provides a platform for academic research and education, fostering interaction with Sweden’s leading technology companies. The program addresses research on autonomous systems acting in collaboration with humans, adapting to their environment through sensors, information and knowledge, and forming intelligent systems of systems. Software is the main enabler in autonomous systems, and is an integrated research theme of the program.

The graduate within WASP is dedicated to providing the skills needed to analyze, develop and contribute to the interdisciplinary area of autonomous systems and software. Through an ambitious program the graduate school actively supports forming a strong multi-disciplinary and international professional network between PhD students, researchers and industry.

The graduate school provides unique opportunities for students who are dedicated to achieving international research excellence with industrial relevance.
We are now offering up to 26 PhD student positions at the coordinating universities Chalmers University of Technology, Linköping University, Lund University, KTH Royal Institute of Technology and Umeå University. For more information on the positions: http://wasp-sweden.se

For general information on WASP, please contact
Lars Nielsen, Director of WASP
lars.nielsen@liu.se
+46 13 281307

For information about WASP Graduate School, please contact
Fredrik Heintz, Director of WASP Graduate School
fredrik.heintz@liu.se
+46 13 282428

6.2. PhD: University of California at Irvine, USA

Contributed by: Solmaz Kia, solmaz@uci.edu

There are two immediate open positions in Professor Solmaz Kia’s research group (visit solmaz.eng.uci.edu) in the Mechanical and Aerospace Engineering Department of UC Irvine. The successful applicants will work in the area of distributed algorithm design for multi-agent systems. One of the positions is focused on design and analysis of coordination algorithms for multi-agent systems with nonlinear dynamics and the second position is on cooperative localization and map building algorithm design and implementation for robotic networks. Students from all majors relevant to Control Systems and Robotics are encouraged to apply including, but not limited to, Mechanical Engineering, Electrical and Computer Engineering and Aerospace Engineering.

Qualifications:
- M.S. degree in mechanical engineering, electrical and computer engineering, aerospace engineering or a closely related area.
- Excellent mathematical background.
- Good programming skills with Matlab/Simulink.
- Excellent English communication skills (written and oral).
- Ability to conduct independent research.

Desired Experience:
- Experience in advanced control of nonlinear dynamic systems (for the first position).
- Hands on experience with ROS and programming skill in C++/C (for the second position).
- Publication track record.

To Apply: Please email, as a single .pdf document: (i) a cover letter (clearly indicating available start date, relevant experience and motivation); (ii) detailed cv; and (iii) copies of relevant publications (if any) to solmaz@uci.edu. The successful applicant will be directed to apply to the Department of Mechanical and Aerospace Engineering department of UC Irvine, and so must meet all requirements of the graduate school. Review of submissions will begin immediately. The successful candidate can start as early as winter 2016 quarter.
15 PhD positions are available in the Horizon 2020 Marie Skłodowska-Curie Innovative Training Networks and European Training Networks (ITN-ETN) program oCPS (Platform-aware Model-driven Optimization of Cyber-Physical Systems) in a multidisciplinary doctoral program.

Many modern industrial systems fall in the realm of Cyber-Physical Systems (CPS) because of the tight interaction between computation, communication and control elements (the cyber part), and physical processes such as motion, heating/cooling, vibration, wear and tear (the physical part) within these systems. The key scientific objective of the oCPS program is to enable the design of a new generation of cost-effective, quality-driven and reliable CPS by developing model-driven design methods that capture the interaction between different models at various design layers, that take into account physical constraints and processes, and that introduce awareness of the hardware/software implementation platform at all levels. The program aims to train a generation of young researchers in cross-disciplinary thinking and deliver industrially validated engineering tool chains. We bring together the state of the practice through key industrial players, including SMEs (Small and Medium Enterprises), and the state of the art through top universities and research institutes across Europe: Intel (NL), Philips Medical Systems bv (NL), Technolution (NL), INCHRON GmbH (DE), Imsys AB (SE), ODYS S.r.l. (IT), TNO (NL), Ericsson (SE), Scania (SE), Siemens (DE), Eindhoven University of Technology (NL), Technische Universität München (DE), Technische Universität Dortmund (DE), Royal Institute of Technology (SE), University of Ulm (DE), IMT Institute for Advanced Studies Lucca (IT), Vienna Institute of Technology (AT), Fortiss GmbH (DE).

oCPS will offer an excellent multidisciplinary training program through personal career development plans for each PhD student to train scientific, personal and transferable skills. Quality of supervision will be ensured by a co-supervision system. Each PhD student will do two secondments at other oCPS participants; at least one of these will be industrial. The graduates will become the architects of CPS application domains such as robotics, healthcare systems, automotive systems, energy systems, low-power imaging and industrial automation. 15 different PhD projects are available:

- (ESR1) Co-design of Control and Streaming Applications Considering Tradeoffs between Quality-of-Control (QoC) and Quality-of-Service (QoS)
- (ESR2) Resource-aware control: An Approximate Dynamic Programming Approach
- (ESR3) Model-based Engineering of Supervisory Control for Cyber-Physical Systems (CPS)
- (ESR4) Low-power Imaging
- (ESR5) Model-based Management of Evolvable Execution Architectures
- (ESR6) Platform-aware Multilanguage Environments for Specification and Analysis of Control Applications
- (ESR7) Memory Architecture-aware Embedded Control Systems Design
- (ESR8) Large-scale Cyber-Physical Systems (CPS) with Resource Constraints
- (ESR9) Timing Analysis for Cyber-Physical Systems (CPS)
- (ESR10) Model-based Synthesis of Adaptive and Trustworthy Control Software
- (ESR11) Cyber-Physical Systems (CPS) design using partial models of different scope and level of detail
- (ESR12) Distributed Control of Cyber-Physical Systems (CPS) with Platooning Applications
- (ESR13) Model-based Architecting and tool support for concurrent engineering of Cyber-Physical Systems (CPS)
We are looking for highly motivated candidates with good English proficiency. Candidates need to have obtained a relevant master degree with excellent grades. The candidates can be of any nationality and are required to undertake transnational mobility according to Marie Skłodowska-Curie mobility conditions. That is, the candidates must not have resided or carried out their main activity (work, studies, etc.) in the country of their host organisation for more than 12 months in the last 3 years.

The selected candidates will be employed by the organisations hosting the fifteen PhD projects within the oCPS European Training Network and receive salary and benefits, for three years, at the rates stipulated by the European Commission for Marie Curie researchers. The selected candidates will be employed via full employment contracts with the respective organisations, carrying social benefits such as pension and social security, but also subject to normal taxes. Their income will consist of a living allowance, mobility allowance and family allowance (only if applicable).

Concise applications including letter of motivation, cv, copy of relevant certificates and names and contact details of two referees should be addressed per e-mail in one pdf file to: pdm@tu-dortmund.de

The deadline for application is December 10th 2015.

Please note that applications to up to three projects are allowed. Please list the projects in order of interest in your application. Applications from women, who are currently under-represented in this area, will be particularly welcome.

Further information and detailed project descriptions can be found here:
http://www.tu-dortmund.de/cms/eu-buero/Medienpool/Ausschreibung-oCPS/oCPS_advert_PhDs

6.4. PhD: Eindhoven University of Technology, The Netherlands
Contributed by: Sergio Grammatico, s.grammatico@tue.nl

PhD position: Aggregative control of large-scale multi-agent systems.
Eindhoven University of Technology, Control Systems group, The Netherlands.

Within this PhD project, the candidate will develop novel control and optimization methodologies for large-scale multi-agent systems, specifically for large populations of strategic agents with local control capability, interacting through physical and information networks. A key challenge in regulating such large populations is that the dynamical behavior of the overall system is highly complex, in the sense that it includes the dynamical evolution of a large number of subsystems, each depending on the local variables (e.g. states and inputs), the coupling with non-local variables, the networked information, the local and global utility functions, besides uncertain variables and inputs.

The candidate will model and analyze the decision-making processes of the subsystems and develop scalable control and optimization methods to steer their aggregate emerging behavior toward desirable equilibrium states.

Application domains include future smarter grids and user-centric intelligent mobility, e.g. focusing on the matching between distributed demand and supply in the presence of uncertain factors.

We are looking for a candidate with a master degree (or close to completion) in systems and control, applied mathematics, electrical or mechanical engineering, or a related field, and with a strong background or interest in dynamical systems, automatic control, optimization, game theory. The candidate is expected to work at the interface of several disciplines.
A good command of the English language is required (knowledge of Dutch is not required). We offer the opportunity to accomplish scientifically challenging research in a multi-disciplinary research group. The appointment will be for up to 4 years. The PhD student will be able to participate in the training and research activities of the Dutch Institute of Systems and Control (DISC). As an employee of the Eindhoven University of Technology, the PhD student will receive a competitive salary, as well as excellent secondary benefits. Assistance with accommodation can be arranged.

More information about the vacancy and the PhD program can be obtained from Sergio Grammatico (s.grammatico@tue.nl).

Candidates should include the following documents in their application: cv, short statement of motivation and research interests (one page), transcripts of all exams taken and obtained degrees (in English), names and contact information of up to three references (e.g. project/thesis supervisors), up to two research documents (e.g. thesis, conference/journal publication). Candidates shall email their application to Sergio Grammatico (s.grammatico@tue.nl).

The call for applications opens in December 2015, and will remain open until the ideal candidate is found. The starting date is flexible, but ideally would be within February 2016.

6.5. PhD: Luleå University of Technology, Sweden
Contributed by: George Nikolakopoulos, geonik@ltu.se

PhD student in Automatic Control
Luleå University of Technology, Luleå Sweden
Ref: 2989-2015

The Control Engineering Group (CEG) at the Department of Computer Science and Electrical and Space Engineering is now looking for a PhD student contributing to our growing activities in the area of inspection robotics in aerospace applications, as part of the H2020 FET Research project “An Advanced Methodology for the Inspection and Quantification of Damage on Aerospace Composites and Metals using an Innovative Approach - COMPINNOVA”, which considers the topic of design, development and control of a vortex climbing robot for damage inspection in the hull of airplanes.

Research topic:
The research topic is in the area of Robotics and Automatic Control. More specifically, the research will focus on novel techniques for designing, developing and controlling heavy-duty vortex robots. The research task involves mathematical modeling of the robot, CAD design of the proposed mechanical structure, electromechanical implementation and extensive evaluation, control design and extended experimental evaluation of the robot in small and large scale setups. Advanced knowledge of automatic control and fundamental principles in robotics is a must, while significant experience in CAD software and pneumatic circuits/negative pressure mechanical concepts is also considered as a plus.

Tasks:
The candidate will perform research with substantial experimental components that should be published in peer-reviewed international journals and at major conferences. The position will include supervision of MSc students, Teaching Assistant tasks and support in acquire funding for future research projects from research funding agencies/councils, EU framework program or industry. The candidate will need to represent the group in different occasions, both in Sweden and abroad, to have an excellence in speaking English.
Qualifications:
General eligibility as specified in Section 39 of Chapter 9 of the Higher Education Ordinance along with a M.Sc degree with specialization and excellent grades in automatic control. We look for candidates with a strong interest and preferably experience in the specific research areas. Candidates should be good team players with a good mastering of the English language both orally and in writing.

Information:
For further information please contact Associate Prof. George Nikolakopoulos +46 920 491298, geonik@ltu.se
Application Portal here

6.6. Post-Doc: Luleå University of Technology, Sweden
Contributed by: George Nikolakopoulos, geonik@ltu.se

Post Doctor in Automatic Control and Robotics
Luleå University of Technology, Luleå, Sweden
Ref: 3018-2015
The Control Engineering Group (CEG) at the department of Computer Science and Electrical and Space Engineering in now looking for a Post Doctor contributing to our growing activities in Robotics for a 1+1 year funded position. The CEG group is heavily involved in a large amount of National and European research grants in this area spanning from UAVs, UGVs to Biologically inspired Robotics and Bioprosthetics.

Research topic:
The research topic is in the area of Robotics and Automatic Control. More specifically, the position will involve dense research activities in the area of designing, experimenting and theoretical control development in the area of UAVs and UGVs. Specific research topics include: Design, development and control of collaborative aerial and ground agents, Collaborative formation and scenario accomplishment, Collaborative vision for robotics, Decentralized task execution and overall mission planning, Visual Servoing, Quaternion control design, Aerial Manipulation with extensions to aerial co-manipulation, Aerial Vision for manipulation, Networked Control, Switching Reconfigurable Control, Collaborative mapping and exploration, Field Robotics.

Tasks:
The candidate will perform research with a substantial theoretical and experimental components that should be published in peer-reviewed major international journals and at major conferences. The position will include supervision of MSc and PhD students, and to acquire funding for future research projects from research funding agencies/councils, EU framework program or industry. The candidate will need to represent the group in different occasions both in Sweden and abroad. Perfect scientific skills with excellence in real life experimentation, former experience in Basic Research funded grants and successful track record in fund raising, as well as perfect communication and management skills are considered as a strong plus. Finally, a former PhD in aerial robotics or related area with the presented research topics is also considered as a plus. The position might also involve teaching, seminars and presentations. As a Post Doctor, you work actively and independent in relation to ongoing research projects. We are looking for a candidate who can contribute to activities at the CEG and work in close collaboration with the senior researchers at the research group.

Qualifications:
To qualify for employment as a Post Doctor, you must have a PhD, or doctoral degree or a foreign degree equivalent to a doctorate or doctoral degree. Priority will be given to candidates who have completed their PhD within three years prior to the application deadline. If there are special circumstances, the PhD can
have been completed earlier. Special circumstances mean leave due to illness, parental leave, clinical practice, trade union duties or other similar circumstances. Applicants who are very close to finish a PhD are also encouraged to apply.

To be eligible for the position a doctoral degree in Automatic Control or equivalent is a must.

Information: For further information please contact Associate Prof. George Nikolakopoulos +46 920-491298, geonik@ltu.se

Union representatives: SACO-S Daina Dagis, +46 920-493880, daina.dagis@ltu.se or OFR-S Lars Frisk, +46 920-491792 lars.frisk@ltu.se

Application:
The application should include a cv, personal letter and copies of verified diplomas from high school and universities. Your application, including diplomas, must be written in English or Swedish. Mark your application with the provided reference. The application link is located at the bottom of the url linked here

The application should include:

- A detailed cv with list of publication and full description of all the scientific merits of the candidate
- A Research Statement with respect to the described research topics
- List of successful grant applications or participation in research projects (if applicable)
- List of 2 persons that could provide recommendation for the candidate

Reference number: 3018-2015
Application deadline: 2015-12-20

6.7. Post-Doc: Katholieke Universiteit Leuven, Belgium

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

Postdoc positions ERC Advanced Grant A-DATADRIVE-B

The research group KU Leuven ESAT-STADIUS is currently offering 2 Postdoc positions (1-year) within the framework of the ERC (European Research Council) Advanced Grant A-DATADRIVE-B (PI: Johan Suykens) http://www.esat.kuleuven.be/stadius/ADB on Advanced Data-Driven Black-box modelling.

The research positions relate to the following possible topics: Prior knowledge incorporation; Kernels and tensors; Modelling structured dynamical systems; Sparsity; Optimization algorithms; Core models and mathematical foundations; Next generation software tool.

The research group ESAT-STADIUS http://www.esat.kuleuven.be/stadius at the university KU Leuven Belgium provides an excellent research environment being active in the broad area of mathematical engineering, including systems and control theory, neural networks and machine learning, nonlinear systems and complex networks, optimization, signal processing, bioinformatics and biomedicine.

The research will be conducted under the supervision of Prof. Johan Suykens. Interested candidates having a solid mathematical background and PhD degree can on-line apply by following the submission guidelines given at the website http://www.esat.kuleuven.be/stadius/ADB/vacancies.php by including cv and motivation letter.

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6.8. Post-Doc: Northeastern University, USA
Contributed by: Rifat Sipahi, rifat@coe.neu.edu

A Postdoctoral Research Associate position is available for joining an interdisciplinary research team established by the Laboratory of Neurobiology (PI: Professor Gánter K.H. Zupanc; Department of Biology) and the Complex Dynamical Systems & Control Laboratory (PI: Professor Rifat Sipahi; Department of Mechanical and Industrial Engineering) at Northeastern University, Boston, Massachusetts, USA. Funded by the National Science Foundation, the postdoctoral researcher will work on a project at the intersection of neuroscience, regenerative biology, applied mathematics, and system dynamics, involving computational and mathematical modeling of regeneration after spinal cord injury in regeneration-competent organisms. The successful candidate will have genuine interest in biological systems, and will hold a Ph.D. in a relevant discipline with strong background in modeling of dynamical systems, e.g., using agent-based modeling, partial differential equations, and/or a mix of similar techniques.

The appointed candidate will also have the opportunity to become involved in the writing of manuscripts, preparing grant proposals, supervising graduate and undergraduate students, and participating in outreach activities.

This position is available immediately for one year, with the possibility of extension for two more years. A competitive salary and fringe-benefits package will be offered. Please submit your application via the link provided on the job advertisement website of Human Resources Management of Northeastern University (https://neu.peopleadmin.com/postings/38566) and include the following documents:

* Motivation letter (no more than 2 pages)
* Curriculum vitae (as detailed as possible; please present your journal publications separately from conference publication)
* Names of at least three references, including contact details (one of which must be the Ph.D. advisor of the candidate)
* pdfs of possible publications

6.9. Post-Doc: The University of Texas at Dallas, USA
Contributed by: Reza Moheimani, Reza.Moheimani@utdallas.edu

A Postdoctoral Research Position is available within the Laboratory for Dynamics and Control of Nanosystems at The University of Texas at Dallas. We are seeking talented and committed individuals with the ability to work well in a multi-disciplinary research environment. The project is a collaborative effort with Zyvex Labs and is aimed at improving the performance of Zyvex Lab’s atomically-precise manufacturing system by developing innovative estimation and control design methods for STM-based lithography.

The position is available immediately. The applicants must have a Ph.D. (or be close to completion) in a relevant field of engineering. They are expected to have a sound analytical background and be able to work in a laboratory environment and on projects that combine high-level theoretical research with experimental investigations. They are expected to have excellent oral and communication skills.

The successful applicant will join a multidisciplinary research team and will be expected to collaborate with other researchers in the group. The position is associated with the Laboratory for Dynamics and Control of Nanosystems in the Department of Mechanical Engineering, The University of Texas at Dallas. Research facilities of the laboratory are of the highest standard. The laboratory provides a stimulating and vibrant environment for research activities with excellent national and international collaborations.
Interested applicants should send their cv, including a list of publications, names and addresses of three references, and their availability to start to Dr. Reza Moheimani Reza.Moheimani@utdallas.edu to be considered. The position is open until filled and can be extended up to three years.

6.10. Post-Doc: Technische Universitaet Chemnitz, Germany
Contributed by: Stefan Streif, stefan.streif@etit.tu-chemnitz.de

Post-doctoral positions in control and optimization at the Technische Universitaet Chemnitz, Germany.

We are currently building up a new lab and offer full-time positions in various research and application areas:

1. human-machine cooperation in robotics and manufacturing;
2. cyber-physical networking in energy systems and networks;
3. big data and smart automation in agriculture.

These research activities are part of interdisciplinary research consortia and are supported by national grants. The contribution of our group will be the development of advanced methods for optimization, control and diagnosis, in particular adaptive and robust model predictive control for uncertain systems as well as scheduling.

We are looking for outstanding applicants who have

* a strong background and publication record in optimization, control theory, and signal processing;
* excellent writing and communication skills;
* teaching experience;
* basic knowledge of German is an advantage, but not a strict requirement.

You will have the opportunity to make an impact with your excellent ideas and implementations in the above mentioned research and application areas. Furthermore, you are given the chance to actively strengthen and shape the above activities by supervision of doctoral students and interaction with industrial and academic partners.

Besides a long-term perspective for your career, we offer a young and dynamical research environment with a new and well-equipped research laboratory. Your postdoc salary will depend on your experience.

To apply or to request more information, please contact Prof. Stefan Streif (stefan.streif@etit.tu-chemnitz.de) as soon as possible. Application documents (all combined in a single pdf) should include

* cv;
* relevant certificates;
* contact details of references;
* short description of your professional experiences and objectives;
* few selected publications related to the topics mentioned above (if available).

Application deadline: 31 January 2016
6.11. Post-Doc: Lund University, Sweden
Contributed by: Anders Rantzer, rantzer@control.lth.se

Positions as LCCC Linnaeus Postdoctor at Automatic Control LTH, Lund University, Sweden. This is an opportunity for excellent young researchers to develop their own line of research in synergy with a strong environment. LCCC - Lund Center for Control of Complex engineering systems - has been created with support from a ten year Linnaeus grant by the Swedish Research Council. The positions will be announced in January 2016 with application deadline in the end of February. See www.lccc.lth.se.

6.12. Faculty: King Abdullah University of Science and Technology, Kingdom of Saudi Arabia
Contributed by: Jeff Shamma, jeff.shamma@kaust.edu.sa

KAUST has announced several open faculty positions—both junior or senior—in both Electrical Engineering (EE) and Applied Math and Computational Sciences (AMCS). Specific areas of interest are:


Appointments to these positions include significant resources to support research activities. Please see the full announcements at:

- EE: https://ee.kaust.edu.sa/employment/Pages/default.aspx
- AMCS: https://amcs.kaust.edu.sa/employment/Pages/default.aspx

Also, more about community life at KAUST may be found at: http://www.kaust.edu.sa/live-work-amenities-careers.html

For inquiries, please contact Jeff Shamma (jeff.shamma@kaust.edu.sa)

6.13. Faculty: Harbin Institute of Technology, Shenzhen Graduate School, China
Contributed by: Ms. Zhao, scc.hitsz@gmail.com

Faculty Positions in Systems and Control
Organization/Institution: Harbin Institute of Technology, Shenzhen Graduate School, Shenzhen, China
Department: School of Mechanical Engineering and Automation

The Division of Control and Mechatronics Engineering at Harbin Institute of Technology, Shenzhen Graduate School (HITSGS) invites applications for several faculty positions at all ranks. We are seeking candidates with excellent credentials in the areas of systems and control, wind energy, power systems and smart grids. Applicants must have a Ph.D. or equivalent in electrical, mechanical and power systems engineering and need to show strong research record and potential.

Successful candidates will be received a joint appointment in the Center of Systems and Control. The Division currently has 11 full-time faculty members, and is expected to grow to 20 faculties in the next few years.

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

Ms. Zhao
6.14. Faculty: Colorado School of Mines, USA
Contributed by: Tyrone Vincent, tvincent@mines.edu

The Electrical Engineering and Computer Science Department (EECS) at Colorado School of Mines (Mines) invites applications for a faculty position, anticipated at the assistant professor rank. Multiple appointments or appointment at a more senior level may be considered for exceptional candidates. We seek candidates excited to share in our mission to address the challenges of a sustainable global society by educating the next generation of leading engineers and scientists and by expanding the frontiers of knowledge through research. The department has active research in antennas and wireless communications, applied algorithms and data structure, energy systems and power electronics, high performance computing, machine learning and human centered robotics, signal processing and control systems, and networking and security.

Responsibilities: The successful candidate will be expected to teach undergraduate and graduate courses in their area of specialty, to mentor graduate students, and to develop and sustain a strong, externally-funded research program. Further, the successful candidate will be expected to work effectively in a collaborative, interdisciplinary environment within the Department and across the Mines campus.

Qualifications: Applicants must demonstrate, or show evidence of, excellent written, oral communication and interpersonal skills.

We invite candidates whose research specialization and teaching interests are synergistic with ongoing research efforts in the department to apply as follows:

- Electrical engineering candidates, especially candidates in power and energy systems, should apply for Search#: 16-CECTL5
- Computer science applicants, especially candidates in in large-scale data management and cloud computing, should apply for Search#: 16-CECTL4.

- At the rank of Assistant Professor, applicants must possess a PhD degree in a relevant discipline and the demonstrated potential for success in teaching, scholarship and service.
- At the rank of Associate Professor, applicants must possess a PhD degree in a relevant discipline; demonstrated success in teaching, scholarship and service; and the potential for national and international professional recognition.
- At the rank of Professor, applicants must possess a PhD degree in a relevant discipline, and possess demonstrated excellence in teaching, scholarship and service; and national and international professional recognition.
- Applicants must specify in the application package to which rank and specialty area (computer science or electrical engineering) they are applying.

How to Apply: See http://eecs.mines.edu/eecs.php/people/positions. Applicants must submit a (1) letter of application that identifies rank applying for and specialty area (computer science 16-CECTL4 or electrical engineering) they are applying.
engineering 16-CECTL5), (2) a statement of teaching interests, (3) a statement of research interests, (4) a curriculum vitae, and (5) a list of at least three professional references to: Colorado School of Mines, Human Resources Office, 1500 Illinois Street, Golden, CO 80401, Fax: (303) 384-2025.

Electronic applications are encouraged and will be accepted at fsearch@mines.edu. If using this method of application, please put the search number as indicated above in the subject line to ensure that your materials are properly forwarded to the search committee.

Review of applications will begin January 11, 2016.

Colorado School of Mines, Colorado’s oldest public university is located in Golden, Colorado, in the foothills of the Rockies, 13 miles west of Denver and 21 miles south of Boulder. Mines has approximately 4500 undergraduate students and 1200 graduate students in a broad range of applied science and engineering disciplines. Research expenditures in FY2014 were $54.4M. The 2015 edition of U.S. News and World Report’s America’s Best Colleges ranks CSM 75th in the category of Best National Universities, both public and private. The School’s proximity to Denver and Boulder provides opportunities for significant collaboration with government labs and industry as well as other universities. EECS currently has 28 faculty (12 CS and 16 EE). There are about 500 undergraduate and 100 graduate students in Electrical Engineering and Computer Science. The department offers a BS, MS, and PhD in either Electrical Engineering or Computer Science. More information about the university and EECS, including active research areas, can be found at http://mines.edu and http://eecs.mines.edu.

6.15. Faculty: Tel Aviv University, Israel
Contributed by: Michael Margaliot, michaelm@eng.tau.ac.il

The Department of Systems, School of Electrical Engineering at Tel Aviv University is looking for excellent candidates with outstanding academic credentials for tenure-track positions at all levels.

Faculty members in the department specialize in systems and control theory, information theory, signal processing, networking, computer vision, machine learning, power electronics, systems biology, communications, cryptography, the theory of algorithms, and more.

Evaluation of candidates will be based primarily on originality, the potential for performing ground-breaking research, and high commitment for teaching. Nominees must either have or be entitled to Israeli Citizenship.

For more information, please contact the Dept. Chair: Prof. Michael Margaliot, michaelm@eng.tau.ac.il

6.16. Faculty: University of Detroit Mercy College of Engineering and Science, USA
Contributed by: Rick Hill, hillrc@udmercy.edu

The Mechanical Engineering Department at the University of Detroit Mercy College of Engineering and Science invites applications for a tenure-track faculty position in systems engineering. The appointment will begin August 15, 2016 and will be at the Assistant Professor level; for exceptional candidates appointment at a higher level may also be considered.

The faculty member will spend the majority of their time working with automotive applications. UDM has a favorable and long standing relationship with Original Equipment Manufacturers (OEMs) and with many tier 1 supplier companies. Demonstrated areas of technical expertise of interest include: energy conversion and storage, ground vehicle systems and their control, internal combustion engines and alternative powertrains, vehicle-to-vehicle connectivity, vehicle-infrastructure integration, system architecture and other subsystems and their controls. An engineering doctoral degree is required in Mechanical Engineering, Mechatronics,
The expectations include teaching, research (both at the undergraduate and graduate levels), mentoring students, liaison with industry professionals and supporting the existing entrepreneurial engineering culture. Teaching duties include undergraduate and/or graduate courses. The faculty member will also have the opportunity to teach for short periods of time at overseas locations. Apart from engineering degrees at the bachelor’s, master’s and doctoral level, the College offers special programs for engineers in the automotive industry such as the Masters of Product Development and the Master’s-level Certificate program in Advanced Electric Vehicles. Research duties require the ideal candidate to have or be able to generate a funded research track record in the broad area of systems engineering or in the focused area of automotive systems. Liaison duties will require the faculty member to collaborate with existing automotive partners and build new relationships as opportunities arise.

Interested candidates should apply by emailing a single portable document file (pdf) containing a Curriculum Vitae and cover letter, a one-page statement of research goals, a one-page statement of teaching philosophy, and contact information for four references to Mark Schumack at schumamr@udmercy.edu. Review of applications begins on October 1 and continues through December 15, 2015.

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6.17. Faculty: Boston University, USA
Contributed by: John Baillieul, johnb@bu.edu

The Department of Mechanical Engineering (ME) and the Division of Systems Engineering (SE) are collaborating to fill two tenure track positions, both at the Assistant Professor level, beginning Fall 2016. The positions are tentatively called “Mechatronics” and “Cyber-physical Systems”, although the distinction is not sharp, and candidates applying to either one will automatically be considered for the other.

The successful candidate filling the Mechatronics position will broaden the University’s rapidly growing activity in machine autonomy, multiagent systems, and mechatronics. The position will be especially attractive to candidates interested in applications such as aerial robotics, agricultural and environmental robotics, autonomy and vision, manufacturing, and medical and assistive robotics. It is anticipated that the primary departmental affiliation of the Mechatronics position will be Mechanical Engineering. The Cyber-physical Systems position will emphasize cooperative and distributed control of multi-agent systems, control and optimization of networked systems, and advanced approaches to control of the built environment. Application areas for this position will include smart cities, smart grid and other advanced energy systems, health, and manufacturing. The successful Cyber-physical System candidate will have a departmental appointment in either ME or Electrical and Computer Engineering (ECE). For either candidate, additional appointments with other BU Departments and the Division of Materials Science and Engineering are possible depending on experience and interest.

The ME Department is highly multi-disciplinary with 45 faculty members (35 tenured or tenure-track) having expertise in nanotechnology, materials, systems and control, fluid dynamics, and computational methods in engineering. Current application areas of interest include health, energy and sustainability, manufacturing, and soft materials and coatings. The SE Division has 14 faculty members from the ECE and ME Departments, along with 17 affiliated faculty members from the College of Engineering, the College of Arts and Sciences, the Questrom School of Business, and the Medical School. The multidisciplinary expertise
of the SE Division includes systems and control, information, computational biology, and production, service and energy systems. Both the ME Department and SE Division are further strengthened by their affiliation with the Center for Information and Systems Engineering (CISE). In collaboration with the College of Engineering, ME and SE are both implementing ambitious ten-year plans, in line with Boston University’s commitment as a top tier research university engaged in substantial growth in the coming years. As part of this commitment, the College of Engineering and ME department has recently constructed a collaborative laboratory space for ground-based and flying robots. The College has also added a Robotics Specialization to its Master’s Degree portfolio.

Candidates interested in either position should have a Ph.D. degree in Mechanical Engineering or other relevant field of engineering or applied science, and they should be able to show strong potential for attracting external research funding. For more information and to apply for either of the positions, please visit https://academicjobsonline.org/ajo/jobs/6240

6.18. Faculty: George Mason University, USA
Contributed by: Kc Chang, kchang@gmu.edu

Tenured or Tenure Track Faculty Position at George Mason University

George Mason University’s Department of Systems Engineering and Operations Research in the Volgenau School of Engineering is seeking tenure/tenure-track faculty positions at all levels for Fall 2016. Exceptional candidates in all areas of systems engineering and operations research are encouraged to apply. Particular areas of interest include data analytics, optimization, systems architecting, or model-based systems engineering; with a focus in emerging areas of applications such as health care, energy, sustainability, risk, cybersecurity, and unmanned air systems. Candidates must have completed a Ph.D. in systems engineering, operations research, or a related field by initial appointment in Fall 2016; and must demonstrate a strong commitment to high-quality research, and evidence of teaching potential. Applicants must apply for position number at http://jobs.gmu.edu/.

6.19. Faculty: United States Naval Academy, USA
Contributed by: Kiriakos Kiriakidis, kiriakid@usna.edu

Position description:
The Naval Academy’s Weapons and Systems Engineering Department (http://www.usna.edu/WSE/) invites applications for multiple tenure track faculty positions. Appointments at all ranks will be considered, but the preference is for junior faculty at the rank of Assistant Professor. These positions may begin as early as August 1, 2016.

The successful candidate is expected to teach and, eventually, develop course material; to advise student projects; and to maintain a research program and a sustained technical publication record. The Systems Engineering curriculum (accredited by ABET) is laboratory intensive and emphasizes design for autonomy. Class sizes are small and laboratories are state-of-the-art.

Minimum qualifications:
A Ph.D. in electrical, mechanical, or closely related engineering field is required (anticipated completion of Ph.D. no later than July 2016 is acceptable).
The Department seeks candidates for the Systems Engineering major that can contribute to broad fields of
study including: dynamics and control; robotics; computer programming; mechatronics; embedded computers.

Please, visit http://www.usna.edu/HRO/jobinfo/WSE-TenureTrack.php for further details.

How to apply:
We will begin reviewing applications on December 1, 2015 and continue until the position is filled. For instructions, please visit http://www.usna.edu/HRO/jobinfo/WSE-TenureTrack.php

6.20. Faculty: Concordia University, Canada
Contributed by: Luis Rodrigues, luisrod@encs.concordia.ca

Tenure-track Position in Avionics at Concordia University

The Department of Electrical and Computer Engineering seeks outstanding candidates for one tenure-track position in the area of Avionics. The appointment is at the rank of Assistant Professor, but exceptional candidates at the Associate Professor level may also be considered.

The Department of Electrical and Computer Engineering has a faculty complement of 39 professors active in the various areas of computer engineering and electrical engineering. It has particular strength in areas related to avionics and on board processing because of the large presence of the aerospace industry in Montreal. The Department offers PhD and Master’s (course and thesis) degrees as well as undergraduate degrees in aerospace engineering (joint with the Department of Mechanical and Industrial Engineering), computer engineering and electrical engineering. Learn more about the Department.

Applicants must hold a PhD in of Computer Engineering, Electrical Engineering, or a related discipline with a demonstrated the ability to work in collaborative multidisciplinary settings. A strong commitment to the supervision of graduate student research and to excellence in teaching are essential. A successful candidate is expected to provide academic leadership, to establish a strong externally-funded research program. A strong emphasis is placed on fundamental and applied research, research partnerships, and the ability to establish and develop industrial collaborations as well as international collaborations. Membership or eligibility for membership in a Canadian professional engineering association, preferably in the province of Quebec, is required. The language of instruction at Concordia is English; however, knowledge of French is an asset.

Detailed applications must include a cv, teaching and research statements, and names of three referees. Electronics applications are preferred. Applications will be reviewed on an ongoing basis until a suitable candidate has been identified, but should be submitted by December 31, 2015. Only shortlisted candidates will be notified. The appointment is expected to commence in August 2016.

Kindly forward your applications to:
Dr. William Lynch, Chair, Electrical and Computer Engineering, Concordia University
1455 de Maisonneuve Blvd. West,
Montreal, Quebec H3G 1M8 CANADA
blynch@ece.concordia.ca

All qualified candidates are encouraged to apply for these positions; however, Canadians and Permanent Residents will be given priority.

6.21. Faculty: University of Texas at Dallas, USA
Contributed by: Reza Moheimani, Reza.Moheimani@utdallas.edu
The Erik Jonsson School of Engineering and Computer Science at The University of Texas at Dallas (UTD) invites applications for faculty positions in Mechanical Engineering at the rank of Assistant, Associate, or Full Professor. Endowed Chairs and Professorships are available for highly qualified applicants. Candidates must have a strong commitment to undergraduate and graduate education and strong potential to develop an externally funded research program. Candidates for the positions at the associate or full professor levels must have a strong record of scholarly and professional achievements.

Applications will be considered in dynamic systems & control, manufacturing & design innovation, mechanics & materials, and thermal & fluid sciences. Application domains of interest include: energy conversion and harvesting (e.g., wind energy); emerging paradigms and technologies for design and manufacturing with application to healthcare and nanotechnology, mechatronics and robotics with applications to healthcare, nano- and bio-mechanics, and thermal transport and management across length scales and various applications.

The Department of Mechanical Engineering is among the fastest growing programs at UTD. The department was established in 2008, and currently has nearly 800 students enrolled, including 150 graduate students. The department currently has 18 tenured-system faculty members, and 5 senior lecturers. The department offers ABET-accredited BS, as well as MS and PhD degree programs in mechanical engineering. The department is home to WindSTAR, the NSF I/UCRC for wind energy research.

In addition to Mechanical Engineering, the Erik Jonsson School is home to the Departments of Biomedical Engineering, Electrical Engineering, Computer Science, Materials Science & Engineering, and Systems Engineering, and has interdisciplinary programs in Computer Engineering, Telecommunications Engineering, and Software Engineering. Opportunities for interdisciplinary research are outstanding. The School's 10-year strategic plan is on line at http://ecs.utdallas.edu/about/major-initiatives.html.

Review of applications will begin immediately and will continue until the positions are filled. Indication of gender and ethnicity for affirmative action statistical purposes is requested as part of the application. For additional information, please send email to mefsearch@utdallas.edu.

To apply online, follow this link: http://provost.utdallas.edu/facultyjobs/welcome/jobdetail/pct141009

6.22. Faculty: Washington University in St. Louis, USA
Contributed by: Hiro Mukai, facsearch@ese.wustl.edu

Washington University in St. Louis invites applications for Faculty positions. The details of the application process and necessary documents are found at http://ese.wustl.edu/aboutthedepartment/Pages/faculty-openings.aspx.

* Tenured/Tenure-Track Faculty

The Preston M. Green Department of Electrical & Systems Engineering at Washington University in St. Louis invites applications for faculty positions at all levels, for fall 2016. The Electrical & Systems Engineering department moved to a new building, Preston M. Green Hall, with state-of-the-art facilities. Candidates should be exceptionally strong, possess novel and creative visions of research, and commit gladly to teaching at both the undergraduate and graduate levels. They should have an earned doctorate in Electrical Engineering, Computer Engineering, Computer Science, Applied Physics, Systems Engineering, Mathematics, Statistics, Operations Research or related fields.
Technical areas of interest include, but are not limited to, signal processing, machine learning, imaging, information theory, network science, applied physics, electronics, control systems, operations research, optimization, applied mathematics, and applied statistics. Applications include biomedicine, energy, the environment, robotics, financial engineering, and modeling of physical and complex systems. Successful candidates are expected to conduct high-quality research and teaching, publish in peer-reviewed journals, and participate in department and university service.

Applications will be accepted immediately, and interviews will begin after January 1, 2016.

* Lecturer in Electrical Engineering

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

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

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

6.23. Faculty: Michigan State University, USA

Contributed by: Xiaobo Tan, xbtan@egr.msu.edu

Faculty Position in Robotics and Control at Michigan State University

The Department of Electrical and Computer Engineering in the College of Engineering at Michigan State University (MSU) invites applications for a tenure-system faculty position in the areas of robotics and control. Candidates must have an earned PhD in Electrical Engineering or related field. Of particular interest are candidates who demonstrate strong background in controls and apply such to emerging fields in robotics, including, but not limited to, autonomy, bio-inspired robotics, biomedical robotics, novel mobility, agricultural inspection and automation, multi-agent cooperation, human-robot interaction, and additive manufacturing. The candidate is expected to make significant contributions to research, participate in teaching and mentor undergraduate and graduate students.

This position is targeted at the junior faculty level, but senior candidates with outstanding credentials may be considered. Successful candidates are expected to leverage existing programs and facilities, and build on inter- and cross-disciplinary research strengths at MSU. Senior-level candidates should have a distinguished track record of research, innovation and sustained external funding from diverse sources.

The Electrical and Computer Engineering department has strong interdisciplinary research and educational programs on a foundation of core electrical and computer engineering disciplines and provides first-class education while engaging in research at the frontiers of knowledge. The Department has 49 faculty members, including two National Academy of Engineering members, 18 IEEE Fellows, and 13 NSF CAREER awardees. The Department has strong research programs in all major areas of electrical and computer engineering, with annual research expenditure of about $18M. Faculty in the Department are leading several federal and
industry-supported centers, including the NSF Science and Technology Center BEACON, and the Fraunhofer Center for Coatings and Laser Applications. The Department has accredited B.S. degree programs in both Electrical Engineering and Computer Engineering. The current enrollment is approximately 260 full-time graduate students and 770 undergraduate students.

Michigan State University is pro-active in exploring opportunities for employment for dual career couples, both inside and outside the University. Information about MSU’s dual career support can be found at http://miwin.msu.edu/. Information about WorkLife at MSU and the College of Engineering can be found at http://www.egr.msu.edu/WE.

Interested individuals should submit an application for this position through: http://jobs.msu.edu/ and refer to position #2416. Applicants must submit a detailed resume, a cover letter summarizing their qualifications, vision statements for teaching and research, and the names and contact information for five references. Applications will be reviewed on a continuing basis until the position is filled.

For full consideration, applications should be received before February 15, 2016. Nominations or questions are welcome by contacting the search committee chair through email at ece-robotics-facultysearch@egr.msu.edu. The position is available on August 16, 2016.

6.24. Faculty: University of Michigan-Dearborn, USA

Contributed by: Taehyun Shim, tshim@umich.edu

Control System Faculty Position Advertisement

The Department of Mechanical Engineering (ME) at the University of Michigan-Dearborn seeks applications for a full-time tenure-track faculty position in the broad area of controls. We are primarily interested in applicants at the assistant professor rank, although individuals at senior ranks with exceptional credentials may be considered.

Applicants must have a Ph.D. in mechanical engineering (or a closely related field) with a strong emphasis on controls and dynamic systems. Candidates in the areas of nonlinear control, optimal control, adaptive control, predictive control, and estimation theory, and with experience in control applications in the fields of automotive systems, autonomous vehicles, robotics, automated manufacturing, energy systems, or multi-agent systems will be well-suited to apply for this position.

Experience in mechatronics, instrumentation, and measurement systems will be a plus. The successful candidate is expected to develop and teach undergraduate and graduate level courses in controls and related areas and to establish a strong, externally funded research program.

The position will be open until filled, but full consideration will be given to applications received by December 31, 2015. The anticipated start date for the position is Fall of 2016.

Candidates should submit a cover letter, complete curriculum vitae, research and teaching statements, and the names of four references. All application materials must be submitted to our faculty search email address: me-control-search@umich.edu