Marzia Cescon

Curriculum Vitae

University of Houston, Dept. of Mechanical Engineering
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Research interests

My general interests are strongly interdisciplinary and extend to the areas of modeling, system identification, model-based control, data-driven control, machine learning and reinforcement learning, motion planning, with applications in diabetes therapy, epidemics, neuroscience, autonomous aerial vehicles.

Academic Research Experience

Aug 2019 **David C. Zimmerman Assistant Professor**, *The University of Houston*, Houston, TX.

2018–2019 **Postdoctoral research fellow**, *Harvard John A. Paulson School of Engineering and Applied Sciences, Harvard University*, Cambridge, MA.
Faculty advisor: Prof. Francis Doyle III. Project: Development and translation to human clinical trials of novel control algorithms to improve glucose regulation in people with type 1 diabetes.

2018–2019 **Adjunct Investigator**, *Sansum Diabetes Research Institute*, Santa Barbara, CA.

2015–2017 **Research fellow**, *The University of Melbourne*, Melbourne, Australia.
Faculty advisor: Prof. Erik Weyer. Project: Development of methods for improving the operation of water distribution networks through automation.

2014–2015 **Research specialist**, *University of California Santa Barbara*, Santa Barbara, CA.
Faculty advisor: Prof. Francis Doyle III. Project: Development of algorithms for the detection and mitigation of actuators and sensors failures in a closed-loop insulin delivery system for people with type 1 diabetes.

2012 **Visiting lecturer**, *Zhejiang University*, Hangzhou, P.R. China.

2007–2008 **Visiting undergraduate student researcher**, *Lund University*, Lund, Sweden.
Faculty advisors: prof. Anders Robertsson and prof. Rolf Johansson. Project: Modeling and system identification of robot dynamics.

Industry Research Experience

2020–present **Data Science Advisor**, *Diatech Diabetes, Inc.*, Memphis, TN, USA.

2017 **Lead Technologist and Data Scientist**, *Dianovator AB*, Malmö, Sweden.

Education

2014 **Ph.D. Automatic Control**, *Lund University*, Lund, Sweden.
Advisor: Prof. Rolf Johansson. Thesis: "Modeling and Prediction in Diabetes Physiology"

2011 **Tech. Lic. Automatic Control**, *Lund University*, Lund, Sweden.
Advisor: Prof. Rolf Johansson. Thesis: "Linear Modeling and Prediction in Diabetes Physiology"

2007-2008 **Erasmus Exchange Student**, *Lund University*, Lund, Sweden.

2008 **M.Sc. Automation Engineering**, *University of Padova*, Padova, Italy.
Advisor: Prof. Giorgio Picci. Thesis: "Subspace-based Model Identification of Parallel Kinematic Manipulator Dynamics"

2005 **B.Sc. Information Engineering**, *University of Padova*, Padova, Italy.

Other training

2018 **Social and Behavioral Research Investigators**, *Collaborative Institutional Training Initiative (CITI Program)*, Harvard University, Cambridge, MA.

2018 **Medical Device Development**, *Harvard Catalyst*, Harvard University, Cambridge, MA.
Education Program Manager: Lisa Riva.

2011 **Teaching and Learning Through English**, *Center for Educational Development (CED)*, Lund University, Lund, Sweden.
Educational developer: Sara Håkansson.

Awards and Grants

Awards

2019-2024 **David C. Zimmerman Faculty Fellowship**, *University of Houston*.

2020 **Diabetes Technology Society Student Research Award**, *Silver prize winner with the work* ***Predicting Blood Glucose Levels with CNN-LSTM Neural Networks*** *(as an advisor)*.

2018 **Diabetes Technology Society Student Research Award**, *Gold prize winner with the work* ***Activity Detection and Activity Level Categorization in Free-Living Subjects with Type 1 Diabetes*** *(as an advisor)*.

2017 **The IFAC Foundation Award**, *Nomination for significant advances in the broad area of "sustainable development" of the paper* ***Modeling and Identification of Irrigation Channel Dynamics Affected by Wind***.

2014 **Lund Technical University best PhD dissertation award**, *Nomination*.

2012 **Best paper in session award at the ASME Dynamic Systems and Control Conference – Biochemical Systems**, *Winner with the paper* ***Impulsive predictive control of T1DM glycemia: an in-silico study***.

Grants

2014 **The Foundation Blanceflor Boncompagni Ludovisi, nee Bildt**, *Research Scholarship. Supported my research activities at the University of California, Santa Barbara*.

2007 **The Erasmus Program (EuRopen community Action Scheme for the Mobility of University Students)**, *Undergraduate Student Exchange Scholarship funded by the European Union*, Supported my visit at Lund University as an undergraduate student.

Monographs

[1] ***Marzia Cescon***. *Modeling and Prediction in Diabetes Physiology*. Doctoral Thesis 1099--SE, Department of Automatic Control, Lund University, Sweden, November 2013. **Nominated for best thesis award at Lund University of Technology**.

[2] ***Marzia Cescon***. *Linear Modeling and Prediction in Diabetes Physiology*. Licentiate Thesis 3250--SE, Department of Automatic Control, Lund University, Sweden, June 2011.

[3] ***Marzia Cescon***. *Subspace-based Identification of a Parallel Kinematic Manipulator Dynamics*. Master's Thesis 5814--SE, Department of Automatic Control, Lund University, Sweden, May 2008.

Journal Publications

[1] ***Marzia Cescon***, D. Choudhary, J.E. Pinsker, V. Dadlani, M. M. Church, Y.C. Kudva, F. J. III Doyle, and E. Dassau. Activity detection and classification from wristband accelerometer data collected on people with type 1 diabetes in free-living conditions. *Computers in Biology Medicine*, *Under Review*.

[2] W.C. II Lewis, ***Marzia Cescon***, and L.E. Kavraki. Piecewise-affine reinforcement learning for certifiably stable control. *Robotics and Automation Letters (RA-L)*, *Under Review*.

[3] M. Jaloli and ***Marzia Cescon***. Long-term prediction of blood glucose levels in type 1 diabetes

using a cnn-lstm-based deep neural network. *Sensors, Special Issue "Sensor Technologies: Artificial Intelligence for Diabetes Management"*, *Under Review*.

[4] ***Marzia Cescon***, S. Deshpande, R. Nimri, F. J. III Doyle, and E. Dassau. Using iterative learning for insulin dosage optimization in multiple-daily-injections therapy for people with type 1 diabetes. *IEEE Trans. Biomed. Eng.*, 68(2):482 – 491, 2021.

[5] A. Keow, A. Mayhall, ***Marzia Cescon***, and Z. Chen. Active disturbance rejection control of metal hydride hydrogen storage. *Int. J. of Hydrogen Energy*, 46(1):837–851, 2021.

[6] ***Marzia Cescon***, D. DeSalvo, T.T. Ly, D.M. Maahs, L.H. Messer, B.A. Buckingham, F.J. Doyle III, and E. Dassau. Early detection of infusion set failure during pump therapy in type 1 diabetes. *Journal of Diabetes Science and Technology*, 10:1268–1276, 2016.

[7] ***Marzia Cescon***, Rolf Johansson, and Eric Renard. Subspace-based linear multi-step predictors in type 1 diabetes mellitus. *Biomedical Signal Processing and Control*, 22:99–110, 2015.

[8] ***Marzia Cescon***, Rolf Johansson, Eric Renard, and Alberto Maran. Identification of individualized empirical models of carbohydrate and insulin effects on T1DM blood glucose dynamics. *International Journal of Control. Special Issue on Applications of Continuous-Time Model Identification and Estimation*, 87(7):1438–1453, 2014.

Book Chapters

[1] ***Marzia Cescon***, Rolf Johansson, and Renard Eric. *Predicting Glycemia in Type 1 Diabetes Mellitus with Subspace-based Linear Multi-step Predictors*, chapter in Prediction Methods for Blood Glucose Concentration: Design, Use and Evaluation. H. Kirchsteiger, J.B. Jorgensen, E. Renard, L. del Re (Eds.), Springer, 2016.

[2] ***Marzia Cescon*** and Rolf Johansson. *Subspace-based multi-step predictors for predictive control*, chapter in Control-oriented modelling and identification: theory and practice. Lovera, M. (Ed), The institution of engineering and technology (IET), 2015.

[3] ***Marzia Cescon*** and Rolf Johansson. *Linear Modeling and Prediction in Diabetes Physiology*, chapter in Data-driven Modeling for Diagnosis and Treatment of Diabetes. Marmarelis, V. and Mitsis, G. (Eds.), Springer, 2014.

Peer-reviewed Conference Proceedings

[1] T. Kaaya, S Wang, ***Marzia Cescon***, and Z. Chen. Physics-based and control-oriented modeling of dielectric elastomer tubular actuator. In *Proc. American Control Conference (ACC2021)*, *Accepted for presentation*, 2021.

[2] M. Jaloli, D Choudhary, and ***Marzia Cescon***. Neurological status classification using convolutional neural network. In *Proc. IFAC Conf. on Cyberphysical and Human Systems (CPHS2020)*, Beijing, China, December 2020.

[3] D Choudhary and ***Marzia Cescon***. EDA-sense : Dynamic feedback control of sympathetic arousal. In *Proc. IFAC Conf. on Cyberphysical and Human Systems (CPHS2020)*, Beijing, China, December 2020.

[4] ***Marzia Cescon***, S. Deshpande, F.J. Doyle, and E. Dassau. Iterative learning control with sparse measurements for long-acting insulin injections in people with type 1 diabetes. In *Proc. American Control Conference (ACC2019)*, Philadelphia, PA, July 2019.

[5] ***Marzia Cescon*** and Erik Weyer. Modeling and identification of irrigation channel dynamics affected by wind. **Nominated for the IFAC foundation award**. In *Proc. 20th IFAC World Congress (IFAC2017)*, pages 5386 – 5391, Toulouse, France, 2017.

[6] ***Marzia Cescon*** and Erik Weyer. Control of irrigation channels affected by wind stress. In *Proc. IEEE 56th Annual Conference on Decision and Control (CDC2017)*, pages 3425–3430, Melbourne, Australia, 2017.

[7] Aivar Sootla and ***Marzia Cescon***. Modelling type 1 diabetes mellitus blood glucose dynamics as a monotone system. In *Proc. 22nd International Symposium on Mathematical Theory of Networks and Systems (MTNS2016)*, Minneapolis, MN, USA, 2016.

[8] ***Marzia Cescon*** and Erik Weyer. Characterization of the wind impact on the Torrumbarry irrigation district and its implications for control. **Selected for oral presentation**. In *Proc. Australian Control Conference (AuCC2016)*, pages 294–298, Newcastle, NSW, 2016.

[9] Rolf Johansson, ***Marzia Cescon***, and Fredrik Ståhl. Continuous-time model identification using non-uniformly sampled data. In *11th IEEE AFRICON 2013 Conference*, pages 1–6, Mauritius, 2013.

[10] ***Marzia Cescon***, Rolf Johansson, and Eric Renard. Low-complexity MISO models of T1DM glucose metabolism. In *9th Asian Control Conference (ASCC2013)*, pages 1–6, Istanbul, Turkey, 2013.

[11] ***Marzia Cescon***, Rolf Johansson, and Eric Renard. Individualized empirical models of carbohydrate and insulin effects on T1DM blood glucose dynamics. In *7th IEEE Multi-Conference on Systems and Control (MSC2013)*, pages 258–263, Hyderabad, India, 2013.

[12] ***Marzia Cescon***, Meike Stemmann, and Rolf Johansson. Impulsive predictive control of T1DM glycemia: an in-silico study. **Best paper in session award winner**. In *ASME 5th Annual Dynamic Systems and Control Conference (DSCC2012)*, pages 319–326, Fort Lauderdale, FL, USA, 2012.

[13] ***Marzia Cescon*** and Eric Renard. Adaptive subspace-based prediction of T1DM glycemia. In *Proc. 50th IEEE Conference on Decision and Control and European Control Conference (CDC-ECC2011)*, pages 5164–5169, Orlando, FL, 2011.

[14] ***Marzia Cescon*** and Rolf Johansson. On data-driven multistep subspace-based linear predictors. In *Proc. 18th IFAC World Congress (IFAC2011)*, pages 11447–11452, Milano, Italy, 2011.

[15] ***Marzia Cescon*** and Rolf Johansson. Multi-step-ahead multivariate predictors: a comparative analysis. In *Proc. 49th IEEE Conference on Decision and Control (CDC2010)*, pages 2837–2842, Atlanta, USA, 2010.

[16] ***Marzia Cescon***, Fredrik Ståhl, Mona Landin-Olsson, and Rolf Johansson. Subspace-based model identification of diabetic blood glucose dynamics. In *Proc. 15th IFAC Symposium on System Identification (SYSID2009)*, pages 233–238, Saint-Malo, France, 2009.

[17] ***Marzia Cescon*** and Rolf Johansson. Glycemic trend prediction using empirical model identification. In *Proc. 48th IEEE Conference on Decision and Control (CDC2009)*, pages 3501–3506, Shanghai, P.R.China, 2009.

[18] ***Marzia Cescon***, Isolde Dressler, Rolf Johansson, and Anders Robertsson. Subspace-based identification of compliance dynamics of parallel kinematic manipulator. In *Proc. 2009 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM2009)*, pages 1028–1033, Singapore, 2009.

Peer-reviewed Abstracts

[1] M. Jaloli and ***Marzia Cescon***. Predicting blood glucose levels using CNN-LSTM neural networks. **Diabetes Technology Society Student Research Award Silver Prize Winner and Selected**

for oral presentation. In *Proc. 20th Diabetes Technology Meeting (DTM2020)*, Bethesda, MD, 2020.

[2] Divya Choudhary and ***Marzia Cescon***. Characterising the effect of physical activity for blood glucose management in people with type 1 diabetes (T1D). In *Proc. 20th Diabetes Technology Meeting (DTM2020)*, Bethesda, MD, 2020.

[3] D. Choudhary, M. Jaloli, and ***Marzia Cescon***. Characterising sympathetic response with power spectral density analysis. In *Proc. 42nd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EBMC2020)*, Montreal, Canada, 2020.

[4] V. Dadlani, J.E. Pinsker, K. Kumari, R. J. Kaur, C.C Andre, ***Marzia Cescon***, S.K. McCrady-Spitzer, M. M. Church, C. Reid, D. Choudhary, F.J. Doyle III, E. Dassau, and Y.C. Kudva. Self-reported acute psychological stress is associated with CGM based hyperglycemia in type 1 diabetes. In *Proc. 79th American Diabetes Association Scientific Sessions (ADA2019)*, San Francisco, CA, USA, 2019.

[5] C.C. Andre, Y.C. Kudva, V. Dadlani, ***Marzia Cescon***, S.K. McCrady-Spitzer, M. M. Church, C. Reid, K. Kumari, D. Choudhary, F.J. Doyle III, E. Dassau, and J.E. Pinsker. Perceived barriers to physical activity in people with type 1 diabetes using CGM. In *Proc. 79th American Diabetes Association Scientific Sessions (ADA2019)*, San Francisco, CA, USA, 2019.

[6] Divya Choudhary, ***Marzia Cescon***, J.E. Pinsker, V. Dadlani, K. Kumari, C. Reid, C. Andre, M.M. Church, Y.C. Kudva, F.J. Doyle, and E. Dassau. Activity detection and activity level categorization in free-living subjects with type 1 diabetes. **Diabetes Technology Society Student Research Award Gold Prize Winner and Selected for oral presentation**. In *Proc. 18th Diabetes Technology Meeting (DTM2018)*, Bethesda, MD, 2018.

[7] ***Marzia Cescon***, E. Dassau, D. DeSalvo, T.T. Ly, D.M. Maahs, L.H. Messer, B.A. Buckingham, and F.J. Doyle III. Early detection of infusion set failure during pump therapy in type 1 diabetes. In *Proc. 75th American Diabetes Association Scientific Sessions (ADA2015)*, Boston, MA, USA, 2015.

[8] ***Marzia Cescon*** and Rolf Johansson. Meal and insulin effects on blood glucose dynamic modeling. In *13th Diabetes Technology Meeting (DTM2013)*, San Francisco, CA, USA, 2013.

[9] ***Marzia Cescon***, Rolf Johansson, Eric Renard, and Jerome Place. Modeling the impact of a standardized breakfast on T1DM fasting blood glucose. In *12th Diabetes Technology Meeting (DTM2012)*, Bethesda, MD, USA, 2012.

[10] ***Marzia Cescon***, Rolf Johansson, and Eric Renard. Personalized short-term blood glucose prediction in T1DM. In *Proc. 5th International Conference on Advanced Technologies and Treatments for Diabetes (ATTD2012)*, Barcelona, Spain, 2012.

[11] ***Marzia Cescon*** and Rolf Johansson. Patient-specific glucose metabolism models for model predictive control of T1DM glycemia. In *Proc. 5th International Conference on Advanced Technologies and Treatments for Diabetes (ATTD2012)*, Barcelona, Spain, 2012.

[12] Fredrik Ståhl, ***Marzia Cescon***, Rolf Johansson, and Eric Renard. Infinite horizon prediction of postprandial breakfast plasma glucose excursion. In *Proc. 9th Diabetes Technology Meeting (DTM2009)*, San Francisco, CA, 2009.

[13] ***Marzia Cescon***, Fredrik Ståhl, Rolf Johansson, and Mona Landin-Olsson. Short-term diabetes blood glucose prediction based on blood glucose measurements. In *Proc. 2nd International Conference on Advanced Technologies and Treatments for Diabetes (ATTD2009)*, Athens, Greece, 2009.

Patents

[1] WO/2021/007391. Iterative learning control with sparse measurements for insulin injections in people with type 1 diabetes. Inventors: ***Marzia Cescon***, E. Dassau and F. J. III Doyle, January 14 2021.

Invited Talks

Mar 2020 **Medically Inspired Learning-Based Automated Glucose Control Systems for People with Diabetes**, *Houston Methodist Research Institute*, Houston.

Dec 2019 **Learning to Predict and Control in the Next Generation of Automated Insulin Delivery Systems for People with Diabetes**, *University of Pavia*, Pavia, Italy.

Dec 2019 **Iterative Learning for Automated Glucose Control Systems in People with Type 1 Diabetes**, *Rice University*, Houston, Sweden.

Oct 2019 **Toward Medically Inspired Internet-of-Things Automated Glucose Control Systems for People with Diabetes**, *Technical University of Delft*, Delft, the Netherlands.

Oct 2019 **Toward Medically Inspired Internet-of-Things Automated Glucose Control Systems for People with Diabetes**, *University of Houston - Electrical and Computer Engineering Dept.*, Houston, USA.

Sept 2019 **Toward Medically Inspired Internet-of-Things Automated Glucose Control Systems for People with Diabetes**, *University of Houston - Mechanical Engineering Dept.*, Houston, USA.

Jan 2019 **Decision Support Systems for Insulin Therapy in Type 1 Diabetes**, *Lund University*, Lund, Sweden.

Jan 2019 **Decision Support Systems for Insulin Therapy in Type 1 Diabetes**, *Danish Technical University*, Lyngby, Denmark.

Dec 2018 **Dynamics and Control for Decision Support Systems in Type 1 Diabetes**, *The University of Houston*, Houston, USA.

Feb 2018 **Modeling and control of irrigation networks affected by wind stress - The australian experience**, *Technical University of Berlin*, Berlin, Germany.

Mar 2015 **Modeling and prediction in diabetes physiology**, *The University of Melbourne*, Melbourne, Australia.

Dec 2015 **Modeling and prediction in diabetes physiology**, *Medtronic Technical Forum Meeting*, Northridge, Los Angeles, CA, USA.

Jun 2014 **Subspace-based glucose prediction algorithms**, *Workshop: Design, use and evaluation of prediction methods for blood glucose concentration, Johannes Kepler University*, Linz, Austria.

Nov 2013 **Modeling and prediction in diabetes physiology**, *Caltech*, Pasadena, USA.

May 2012 **Linear modeling and prediction in diabetes physiology**, *Linkoping University*, Linkoping, Sweden.

2009 **Parallel kinematic manipulator dynamics**, *Wissenschaftskolloquium, Hochschule Heilbronn*, Kuenzeslau, Germany.

Teaching and Advising Experience

Teaching and laboratory assistant

2008–2013 **Teaching assistant**, *Lund University*, Responsabilities included weekly exercise sessions, student tutoring, projects supervision, exam preparation and grading.

- Predictive Control. *Course Instructor: Prof. R. Johansson*
- System Identification. *Course Instructor: Prof. R. Johansson*
- Control Theory. *Course Instructor: Prof. P. Hagander*
- Foundations of Automatic Control. *Course Instructor: Prof. T. Hägglund*

2008–2013 **Laboratory assistant**, *Lund University*, Set-up the equipment and held laboratory sessions.
- Predictive Control. *Course Instructor: Prof. R. Johansson*
- System Identification. *Course Instructor: Prof. R. Johansson*
- Foundations of Automatic Control. *Course Instructor: Prof. T. Hägglund*
- Process Control. *Course Instructor: Prof. C. Jönsson*
- Market Driven Systems. *Course Instructor: Prof. C. Jönsson*

Lecturer

2020–2021 **Instructor**, *University of Houston*, Developed the graduate level course.
- Learning Meets Systems and Controls.

2019–2020 **Instructor**, *University of Houston*, Responsible of the course.
- Mechanics II: Dynamics.

2015 **Guest Lecturer**, *The University of Melbourne*, Gave lectures on digital filters.
- Signal Processing. *Course instructor: Prof. E. Weyer*

2012 **Visiting Lecturer**, *Zhejiang University in Hangzhou, China*, Co-responsible of the course with prof. Kristian Soltesz (Lund University).
- Foundations of Automatic control.

Advisor

ongoing **Advisor**, *American Institute of Aeronautics and Astronautics (AIAA), Space City Student Chapter*, Space City Rocketry and Space City UAV Engineering teams, University of Houston.
My role within the student organization is to help students develop meaningful programs consistent with the organization's purpose and goals, encourage students to develop initiative, responsibility, and positive group interactions, mediate conflicts within the group and assist with resolving problems as they arise, be aware and knowledgeable of the organization's programs, activities, and events

ongoing **Supervisor of graduate and undergraduate students**, University of Houston, Mechanical Engineering Department.

2020-2021 **Co-Supervisor of Master Thesis**, University of Houston, Mechanical Engineering Department.
Supervised Max van Wilsum, Delft University of Technology, toward his master of engineering thesis entitled "Self-triggered approach to multiple daily injections treatment for type 1 diabetic patients".

2018-2019 **Supervisor of undergraduate students**, Harvard University.
Supervised one Harvard College student and one visitor working in the group of prof. Doyle. In particular, I supervised summer intern Divya Choudhary who was awarded the Gold Prize of the Diabetes Technology Society 2018 Student Research Award.

2009 **Supervisor of Master Thesis**, Lund University.
Supervised Julia Herget toward her master of engineering thesis entitled "Predictive control of insulin in diabetic patients".

Professional service and other activities

ongoing **Reviewer**.
IEEE Transactions on Automatic Control; IEEE Control Systems Letters; IEEE Transactions on Control System Technology; IEEE Transactions on Automation Science and Engineering; IEEE Transactions on Biomedical Engineering; Automatica; International Journal of Control; International Journal of Adaptive Control and Signal Processing; Biomedical Signal Processing and Control; Medical and Biological Engineering and Computing; Mathematical Biosciences; International Journal of Adaptive control and Signal Processing; Journal of Applied Mathematics; Journal of Biomedical and Health Informatics; Journal of Computer Methods and Programs in Biomedicine, Engineering Applications of Artificial Intelligence as well as several international conferences in systems, controls and engineering in medicine and biology.

ongoing **Topic Editor**, *Frontiers in Endocrinology*.
Recent Advances in Computer Simulation for Diabetes Treatment and Care.

ongoing **Review Editor**, *Frontiers in Clinical Diabetes and Healthcare*.
Diabetes Innovative Devices.

ongoing **Member**.
IFAC Newsletter Task Force

ongoing **International Program Committee Member**.
11th IFAC Symposium on Biological and Medical Systems

ongoing **Publicity/ Promotion Chair**.
1st IEEE Control System Society (CSS) Young Professionals (YP) Conference

2021 **Member**, *Hamdi Mnasri Doctoral defense committee*, Automated Model-Based Optimization Design of Subsea Field Layout under Production and Flow Assurance Constraints, University of Houston, Houston, TX, USA.

2019 **Invited Researcher**, *Delft Mechanical Engineering Talent Event*, TU Delft, The Netherlands, One of 45 researchers from outside TU Delft invited to participate.
The event, which consisted in a 2-days of inspirational talks, VIP backstage labtours and interactive workshops, facilitated conversations, networking, and new initiatives for cooperation and collaboration between the participants

2019 **Invited sessions co-organizer**, *2019 American Control Conference*, Philadelphia, PA, Topic: Design and evaluation of automated insulin delivery and decision support systems for diabetes suitable and accessible to a larger population of patients.
Twelve contributed papers were distributed in two sessions

2018-2019 **Invited Mentor**, *Grand Hack*, MIT Hacking Medicine, Massachussets Institute of Technology, Cambridge, MA, USA.
Helped teams create innovative solutions by giving focused advice and guidance

2017 **Independent Expert**, *Finpiemonte Spa for the European Union*.
Evaluator and reviewer for projects in the Information and Communication Technology area, specifically Internet-of-Things and Big Data, pertaining research and development to be carried out by Italian institutions and industries.

2017 **Deputy member**, *Yang Xu Doctoral defense committee*, LQG-Based Real-Time Scheduling and Control Codesign, Lund University, Lund, Sweden.

2013 **Student representative**, *Graduate student hiring committee*, Lund University, Lund, Sweden.
Attended presentations, interviewed candidates, provided feedback on candidates

2012 **Co-organizer**, *Department kick-off meeting*, Lund University, Lund, Sweden.
Planned the annual kick-off meeting for faculty, students and staff of the department of Automatic Control. Duties included location and catering arrangement, program and activities arrangement and being co-chair of the information sessions for the day