Iman Nodozi

Graduate Research Assistant
University of California, Santa Cruz (UCSC),
Department of Electrical and Computer Engineering

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Research Interests

Broad area
Systems, control, learning, optimization, and hybrid systems
Theory focus
-Stochastic uncertainty propagation and nonlinear estimation
-Learning theory
-Density control

Education

Ph.D.
ECE, University of California, Santa Cruz (UCSC), California, USA. (2019-Now)

Master of Science (M.Sc.)
ECE, University of California, Santa Cruz (UCSC), California, USA. (2019-2021)
Master of Science, Electrical Engineering

Master of Science (M.Sc.)
Imam Khomeini International University (IKIU), Qazvin, Iran.(2013-2016)
Master of Science, Electrical Engineering, Control

Bachelor of Science (B.Sc.)
Hamedan University of Technology, Hamedan, Iran. (2008-2013)
Bachelor of Science, Electrical Engineering, Control

Dissertation

Ph.D. Project: "Measure-valued Proximal Recursions for Learning and Control

M.Sc. Thesis: "Nonlinear Hybrid Systems Control via Linear Matrix Inequalities"

Profesional Software and Skills

Programing Language
Python, Matlab, HTML, SQL, Programmable logic controller (PLC)
Deep Learning Framework
TensorFlow, PyTorch, Keras

Reviewer Service

American Control Conference (ACC 2022)

Award

Regents Fellowships, University of California, Santa Cruz, 2019.

Publication

Iman Nodozi, and Abhishek Halder. "Wasserstein Consensus ADMM." in progress.

Iman Nodozi, and Abhishek Halder. "Schrödinger Meets Kuramoto via Feynman-Kac: Minimum Effort Distribution Steering for Noisy Nonuniform Kuramoto Oscillators." in progress.

Iman Nodozi, and Ricardo Sanfelice. "A Mixed Integer Model Predictive Control framework for Discretized Hybrid System." in progress.

Alexis Teter, **Iman Nodozi**, Shadi Hadad, and Abhishek Halder. "Computational mean field learning ." in progress.

Iman Nodozi, and Mehdi Rahmani. "LMI-based mixed-integer model predictive control for Hybrid systems." International Journal of Control (2020): 2336-2345. online paper: here.

Iman Nodozi, and Mehdi Rahmani. "LMI-based model predictive control for switched nonlinear systems"."Journal of Process Control" 59 (2017) 49-58. online paper: here.

Mehdi Rahmani, and **Iman Nodozi**. "Phase-locked loops redesign by the Lyapunov theory." Electronics Letters 51.21 (2015): 1664-1666. online paper: here.

Academic Experience

Teaching Assistant for Signals and Systems, Spring 2021, Dr. Rezki , UCSC.
Teaching Assistant for Analog Electronics, Winter 2020, Dr. Pedrotti, UCSC.
Teaching Assistant for Robot Automation, Fall 2020, Dr. Sanfelice, UCSC.
Teaching Assistant for Linear Control Course, Fall 2014, Dr. Rahmani, IKIU.

Industrial Experience

Electrical Engineer at SOKHT AMA co: (2016-2018)

Aluminum Die Cast machine:
Project manager and engineer for reconstruction and automation of Russian Die Cast machine: 400, 250, and 160 tons.

Auxiliary equipment of Aluminum Die Cast machine:
Project manager and engineer for reconstruction and automation of Die Cast lube spraying system for Agrati 1200 tons, Idra 1100 and 320 tons, and Ardi 420 tons Die Cast. You can find a video of these spraying systems that added to Agrati 1200 tons Die Cast here. (SOKHT AMA.co 2016 and 2017)

Project manager and engineer for reconstruction and automation of Die Cast ladle systems for Buhler 400 tons, Idra 1100, 320 tons Die Cast. You can find a video of these Ladle systems that added to Buhler 400 tons Die Cast here. (SOKHT AMA.co 2016 and 2017)

Project manager and engineer for designing of shot monitoring system for Ardi 420 tons Die Cast. (SOKHT AMA.co 2017)

Industrial Test Machine:
Project manager and engineer for designing, constructing of leakage test machine for oil support and water pump of tu5, tu3, and xu7 engine of Peugeot cars manufactured by Iran Khodro.co . (SOKHT AMA.co 2016 and 2017)

Project manager and engineer for designing, constructing of performance test machine for oil pump of tu5 engine Peugeot cars manufactured by Iran Khodro.co. (SOKHT AMA.co 2017) You can find the video of this testing machine here.

Industrial course:
Academy of DQS excellence Certification of training Course for Requirements of ISO/TS 16949:2009 and IATF 16949:2016 (International Automotive Task Force) courses in winter and fall 2017, respectively, Certificate here.

References

Abhishek Halder
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Ricardo Sanfelice
Professor of Department of Electrical and, Computer Engineering,
University of California, Santa Cruz (UCSC) ,
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Imam-Khomeini International University,
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