Iman Nodozi

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

E-mail: inodozi@ucsc.edu
Google Scholar: Here.
Website: https://inodozi.github.io

Research Interests

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

Profesional Software and Skills

Programing Language
Python, Matlab, HTML, Programmable logic controller (PLC)
Framework
TensorFlow, PyTorch, Keras, PINN, DeepXDE, PYMC3

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."

Award

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

Reviewer Service

Conference

American Control Conference (ACC 2022)(1)
International Conference on Machine Learning (ICML 2022)(5)
Mathematical Theory of Networks and Systems (MTNS 2022)(1)

Journal

Nonlinear Analysis: Hybrid Systems (1)

Publication

Iman Nodozi, Abhishek Halder, Jared O'Leary, George Makrygiorgos, and Ali Mesbah. "Learning and Distributional Feedback Control for Fabrication of Advanced Materials." in progress.

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

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

Iman Nodozi, and Ricardo Sanfelice. "A Mixed Integer Approach for the Solution of Hybrid Model Predictive Control Problems."Submitted to CDC 2022. Online paper: here.

Iman Nodozi, and Abhishek Halder. "Schrödinger Meets Kuramoto via Feynman-Kac: Minimum Effort Distribution Steering for Noisy Nonuniform Kuramoto Oscillators." Submitted to CDC 2022. Online paper: here.

Iman Nodozi, and Abhishek Halder. "A Distributed Algorithm for Measure-valued Optimization with Additive Objective." Submitted to MTNS 2022. Online paper: here.

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.

References

Abhishek Halder
Assistant Professor of Department of Applied Mathematics,
University of California, Santa Cruz (UCSC)
ahalder@ucsc.edu

Ricardo Sanfelice
Professor of Department of Electrical and, Computer Engineering,
University of California, Santa Cruz (UCSC) ,
ricardo@ucsc.edu

Mehdi Rahmani
Assistant Professor of Department of Electrical Engineering,
Imam-Khomeini International University,
mrahmani@eng.ikiu.ac.ir