

Curriculum Vitae

1 Personal Details

- Last name: Samii
- First names: Amirhossein
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2 Degrees

- 2022-2025, Doctor of Science, Electrical and Computer Engineering-Control, Technical University of Crete, Chania, Greece. Supervisor: Associate Professor Nikolaos Bekiaris-Liberis.
- 2018-2021, Master of Science, Electrical and Computer Engineering-Control, K. N. Toosi University of Technology, Tehran, Iran. Supervisor: Professor Hamidreza Taghirad.
- 2014-2018, Bachelor of Science, Electrical and Computer Engineering-Control, Isfahan University of Technology, Isfahan, Iran.

4 Language Skills

- Native language: Farsi (Persian)
- English

5 Research Interests

- Control Theory (Delay Systems, Nonlinear Control, Adaptive Control and Learning Systems)
- Applications (Control of Connected and Automated Vehicles, Vehicle Control, Traffic Flow Control)

6 Publications

Journals

- A. Samii and N. Bekiaris-Liberis, "Exact predictor-feedback CACC of heterogeneous vehicular platoons with distinct actuation delays", *IEEE Transactions on Intelligent Transportation Systems*, under review, 2025.
- A. Samii and N. Bekiaris-Liberis, "Predictor-based CACC design for heterogeneous vehicles with distinct input delays", *IEEE Open Journal of Intelligent Transportation Systems*, vol. 5, pp. 783-796, 2024.
- A. Samii and N. Bekiaris-Liberis, "Simultaneous compensation of actuation and communication delays for heterogeneous platoons via predictor-feedback CACC with integral action", *IEEE Transactions on Intelligent Vehicles*, to appear, 2024.
- M.A. Labbaf Khaniki, A. Samii, M. Tavakoli-Kakhki, "Adaptive PID controller using deep deterministic policy gradient for a 6D hyperchaotic system", *Transactions of the Institute of Measurement and Control*, vol. 47, pp. 572-584, 2024.
- A. Samii, H. Karami, H. Ghazvinian, A. Safari, Y. Dadrasajirlou, "Comparison of DEEP-LSTM and MLP Models in Estimation of Evaporation Pan for Arid Regions", *Journal of Soft Computing in Civil Engineering*, vol. 7, pp. 155-175, 2023.

Conferences

- A. Samii, R. de Haan, and N. Bekiaris-Liberis, "Experimental implementation and validation of predictor-based CACC for vehicular platoons with distinct actuation delays", *IEEE Conference*

on *Decision and Control*, submitted, 2025.

- A. Samii and N. Bekiaris-Liberis, "On Compensation of Distinct Input Delays in Heterogeneous Vehicular Platoons via Exact Predictor-Feedback CACC", *IFAC Workshop on Time Delay Systems*, Paris, 2025.
- A. Samii and N. Bekiaris-Liberis, "Compensation of distinct actuator delays for heterogeneous vehicular platoons via predictor-based CACC", *European Control Conference*, Thessaloniki, 2025.
- A. Samii and N. Bekiaris-Liberis, "Simultaneous compensation of actuation and communication delays for heterogeneous platoons via predictor-feedback CACC with integral action", *European Control Conference*, Stockholm, 2024.
- A. Samii, P. Karafotis, and N. Bekiaris-Liberis, "Numerical Investigation of Head-to-Tail String Stability and Performance of Predictor-Based ACC in a Mixed Traffic Scenario", *Mediterranean Conference on Control and Automation*, Chania, Greece, 2024.
- A. Samii and N. Bekiaris-Liberis, "Robustness of string stability of linear predictor-feedback CACC to communication delay", *IEEE International Conference on Intelligent Transportation Systems*, Bilbao, Spain, 2023.
- M. A. Labbaf Khaniki, M. Mirzaeibonehkhater, A. Samii and M. Manthouri, "Adaptive Control of Spur Gear Systems via Proximal Policy Optimization and Attention-Based Learning", *IEEE International Conference on Control, Instrumentation and Automation*, Tehran, 2023.
- A. Samii, A. Akram and H. Ardiny, "Comparison of PI and Adaptive Fuzzy Controllers for Position Tracking of Servo System with Variable Loaded BLDC Motor", *IEEE International Conference on Robotics and Mechatronics*, Tehran, 2022.
- A. Samii, F. Lotfi and H. D. Taghirad, "Optimization of Battery Life and State of the Charge in an Electric Motorcycle Braking System", *IEEE International Conference on Robotics and Mechatronics*, Tehran, 2021.

7 Honors & Awards

- Winner – 15th Khwarizmi Award Competition, 2014
Awarded for outstanding achievements in Mathematics
- Member of Elite Graduates, K. N. Toosi University of Technology, 2021.

8 Programming Experience

- MATLAB, Simulink
- C
- Python

9 Selected Academic and Industrial Projects

- Position control of Puma560 robotic arm with feedback linearization and sliding mode controller (MATLAB, Simulink)
- Position control of the ball and beam system with PID controller (MATLAB, Microcontroller)
- Design and implementation of an adaptive fuzzy controller for BLDC and stepper servo motors (MATLAB, Microcontroller)
- Design and implementation of an absolute encoder, stepper servo motor, and flyback converter (MATLAB, Microcontroller)

10 Peer-review Experience

Journals

- Automatica, 2025
- IEEE Transactions on Intelligent Transportation Systems, 2023–2025

- IEEE Transactions on Intelligent Vehicles, 2024–2025
- International Journal of Robust and Nonlinear Control, 2025

Conferences

- European Control Conference, 2024–2025.
- IFAC Workshop on Time Delay Systems, 2024–2025.

11 Industry Experience

- 2019–2022, Design and implementation of controllers in autonomous vehicles: Electric vehicles, remotely operated vehicles, and autonomous underwater vehicles, Intern, Andishe Company, Tehran, Iran.

12 Teaching Experience

- Teaching Assistant: Nonlinear Control; Instructor: Prof. Hamidreza Taghirad, 2019