

Farshad Rahimi

PERSONAL DETAILS

Name: Farshad Rahimi
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EDUCATION

Master's Degree

Sahand University of Technology, Tabriz, Iran. 2015 – 2018
M.Sc. Electrical Engineering with specialization in control systems
Thesis: Predictive controller design for networked mobile robots.

Bachelor's Degree

Hamedan University of Technology, Hamedan, Iran. 2010 – 2015
B.Sc. Robotic Engineering.
Final Project: Control of 2-DOF underwater planar manipulator.

Pre-university

Rasoul Akram pre-university center, Kermanshah Province, Iran 2009 – 2010
Field: Mathematical Sciences
Education Department-Nowsud 3524, Code: 66104602.

High School

Valfajr High School, Kermanshah Province, Iran. 2006 – 2009
Field: Mathematics and Physics.
Education Department-Nowsud 3524, Code: 66102101.

PUBLICATION

Journals

1. **Rahimi, Farshad**. "Adaptive dynamic programming-based fault tolerant control for nonlinear time-delay systems." *Chaos, Solitons & Fractals* 188 (2024): 115544.
DOI: <https://www.sciencedirect.com/science/article/abs/pii/S0960077924010968>
2. **Rahimi, Farshad**, and H. Rezaei. "A Distributed Fault Estimation Approach for a Class of Continuous-time Nonlinear Networked Systems Subject to Communication Delays." *IEEE Control Systems Letters*, 6 (2021): 295-300.
DOI: <https://ieeexplore.ieee.org/abstract/document/9397783>
3. **Rahimi, Farshad**, and H. Rezaei. "An event-triggered recursive state estimation approach for time-varying nonlinear complex networks with quantization effects." *Neurocomputing*, 426 (2021): 104-113.
DOI: <https://www.sciencedirect.com/science/article/abs/pii/S0925231220316088>

4. **Rahimi, Farshad**, and Shirin Ahmadpour. "Neighborhood-based distributed robust unknown input observer for fault estimation in nonlinear networked systems." *IET Control Theory & Applications* 16.10 (2022): 972-984.
DOI: <https://ietresearch.onlinelibrary.wiley.com/doi/full/10.1049/cth2.12278>
5. Rezaei, H., Farnam, A., **Rahimi, Farshad**, and Guillaume. C. "A Scalable Distributed State estimation for a Class of State-Saturated Systems Subject to Quantization Effects." *IEEE Access*, 9 (2021): 138724-138733.
DOI: <https://ieeexplore.ieee.org/abstract/document/9562519>
6. **Rahimi, Farshad**, and Hero Shahi. "Neighborhood-Based Event-Triggered Distributed Fault Estimation Observer for Multi-Agent Systems." *AUT Journal of Electrical Engineering* 54.2 (2022): 281-294.
DOI: https://eej.aut.ac.ir/article_4854.html
7. **Rahimi, Farshad**. "A Distributed Optimization Approach for Multi-Agent Systems over Delaying Networks." *International Journal of Information and Communication Technology Research* 13.4 (2021): 18-27.
DOI: <http://ijict.itrc.ac.ir/article-1-495-en.html>
8. **Rahimi, Farshad**, and Reza Mahboobi Esfanjani. "Estimating tolerable communication delays for distributed optimization problems in control of heterogeneous multi-agent systems." *IET Control Theory & Applications* 18.5 (2024): 626-639.
DOI: <https://ietresearch.onlinelibrary.wiley.com/doi/full/10.1049/cth2.12595>

Conferences

1. **Rahimi, Farshad**, Sepideh Ziaei, and Reza Mahboobi Esfanjani. "A reinforcement learning-based control approach for tracking problem of a class of nonlinear systems: applied to a single-link manipulator." *2023 31st International Conference on Electrical Engineering (ICEE)*. IEEE, 2023.
DOI: <https://ieeexplore.ieee.org/abstract/document/10334874>
2. **Rahimi, Farshad**, and Reza Mahboobi Esfanjani. "A distributed dual decomposition optimization approach for coordination of networked mobile robots with communication delay." *2021 9th RSI International Conference on Robotics and Mechatronics (ICRoM)*. IEEE, 2021.
DOI: <https://ieeexplore.ieee.org/abstract/document/9663474>
3. **Rahimi, Farshad**, and Reza Mahboobi Esfanjani. "Distributed predictive control for formation of networked mobile robots." *2018 6th RSI International Conference on Robotics and Mechatronics (ICRoM)*. IEEE, 2018.
DOI: <https://ieeexplore.ieee.org/abstract/document/8657625>

PROFESSIONAL EXPERIENCE

Research Consultant in Control Projects

2019 – 2024

Freelancer and Research Consultant

- Collaborated with online platforms, including Tehran Trainer Website
- Provided expert consultation on various control projects and topics

Reviewer for ISI Journals

2020 – Pre

Web of Science (My profile ID: ABA-1505-2020)

- IEEE Transactions on Systems, Man, and Cybernetics
- International Journal of Robust and Nonlinear Control
- IEEE Control Systems Letters (L-CSS)

Assistant Researcher

2020 – 2023

Sahand University of Technology, Iran

- Field: Control Engineering
- Conducted cutting-edge research in control systems

Laboratory Assistant

2018 – 2020

Sahand University of Technology, Iran

- Lab: Modern Control Systems
- Assisted in setting up and conducting experiments

Teaching Assistant

2016 – 2019

Sahand University of Technology, Iran

- Courses: Adaptive Control, Optimal Control
- Supported professors and students in control systems courses

EXTRA COURSES TAKEN

Course: Diagnosis and Fault-Tolerant Control at Sahand University of Technology, Grade Achieved : 19.91/20.

Course: Model Predictive Control at Sahand University of Technology, Grade Achieved : 19.25/20.

Online Course: Control of Mobile Robots, <https://www.coursera.org/learn/mobile-robot>.

Online Course: Autonomous Navigation for Flying Robots, <https://www.edx.org>.

Online Course: Introduction to Programming Using Python, <https://www.edx.org>.

SKILLS

<i>Software</i>	MATLAB, Julia, Webots, L ^A T _E X, SolidWorks, V-Rep, Python My Sample codes : Julia programming and Matlab codes (Link)
<i>Languages</i>	English (TOEFL Certificate 89), Persian, Kurdish

REFERENCES

1. Hossein Rezaei, PhD. Associated Researcher, Department of Electrical Engineering, Sahand University of Technology, Tabriz, Iran.

Email: h.rezaei@sut.ac.ir , Profile Link: [Google Scholar Profile](#)

2. Arash Farnam, PhD. Assistant Professor, Department of Electrical Energy, Systems and Automation, Ghent University, Belgium.

Email: Arash.Farnam@UGent.be , Profile Link: [Google Scholar Profile](#)

3. Ahmad Akbari, PhD. Associate Professor, Department of Electrical Engineering, Sahand University of Technology, Tabriz, Iran.

Email: a.akbari@sut.ac.ir , Profile Link: [Google Scholar Profile](#)