

# MILAD ALIPOUR SHAHRAKI

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Email: alipourshahraki.m@northeastern.edu

Website: <https://miladalipourshahraki.github.io/>

ORCID:  <https://orcid.org/0000-0001-6528-505X>

Address: 70 Forsyth Street, Boston, MA 02115

## RESEARCH INTERESTS

- Control Theory and Applications
- Adaptive Learning Control and Optimization
- Safety-Critical Control and Stability Analysis
- Artificial Intelligence and Machine Learning

## EDUCATION

09/2022 - Present

**Ph.D. in Electrical Engineering** | Northeastern University, Boston, MA

- **Faculty Advisor:** Dr. Laurent Lessard
- **Current GPA:** 4.00/4.00

09/2017 - 01/2020

**M.Sc. in Mechanical Engineering** | University of Isfahan, Iran

- **Thesis Title:** Active Fractional-Order Sliding Mode Control of Flexible Spacecraft Considering Actuators' Saturation
- **Faculty Advisors:** Dr. Maryam Malekzadeh and Dr. Alireza Ariaei
- **Honors:** Ranked 1<sup>st</sup> in the class of Mechanical Engineering
- **CGPA:** 3.88/4.00

09/2013 - 07/2017

**B.Sc. in Mechanical Engineering** | Fasa University, Fars, Iran

- **Thesis Title:** Control Under External Disturbance Using Disturbance Observers
- **Faculty Advisor:** Dr. Mohamadreza Homayounzade
- **Honors:** Ranked 1<sup>st</sup> in the class of Mechanical Engineering
- **CGPA:** 3.59/4.00

09/2009 - 06/2013

**Diploma in Mathematics and Physics** | Sadi High School, Isfahan, Iran

- **Honors:** Ranked 1<sup>st</sup> in the class of Mathematics and Physics
- **CGPA:** 19.30/20

## PUBLICATIONS

### Journal Papers:

- **Milad Alipour**, Maryam Malekzadeh, and Alireza Ariaei, "Active fractional-order sliding mode control of flexible spacecraft under actuators saturation," *Journal of Sound and Vibration*, 2022. DOI: <https://doi.org/10.1016/j.jsv.2022.117110> (4 Citations)
- **Milad Alipour**, Maryam Malekzadeh, and Alireza Ariaei, "Practical fractional-order nonsingular terminal sliding mode control of spacecraft," *ISA Transactions*, 2022. DOI: <https://doi.org/10.1016/j.isatra.2021.10.022> (7 Citations)
- Mohamadreza Homayounzade, and **Milad Alipour**, "Output feedback adaptive control of dynamically positioned surface vessels: a disturbance observer-based control approach," *International Journal of Robotics and Automation*, vol. 34, no. 4, 2019. DOI: <http://dx.doi.org/10.2316/J.2019.206-5572> (2 Citations)

## PROFESSIONAL EXPERIENCE AND SERVICE

### Journal Peer Reviewer:

- IEEE Transactions on Systems, Man, and Cybernetics: Systems (Q1 - Impact Factor: 8.7) (1)
- IEEE/ASME Transactions on Mechatronics (Q1 - Impact Factor: 6.4) (4)
- ISA Transactions (Q1 - Impact Factor: 7.3) (5)
- Automatica (Q1 - Impact Factor: 6.4) (1)

## AWARDS AND HONORS

- University of Isfahan**
- Faculty of Engineering scholarship as an **Exceptional Talent Student** for all semesters
  - Ranked **1<sup>st</sup>** in the class of Mechanical Engineering
  - Exempted from the National Ph.D. Entrance Exam (**Exceptional Talents Ph.D. Admission Offer**: This type of admission is offered to the top 3 M.Sc. students with the highest GPAs)
- Fasa University**
- Faculty of Engineering scholarship as an **Exceptional Talent Student** for all semesters
  - Ranked **1<sup>st</sup>** in the class of Mechanical Engineering
  - Exempted from the National M.Sc. Entrance Exam (**Exceptional Talents M.Sc. Admission Offer**: This type of admission is offered to the top 3 B.Sc. students with the highest GPAs)
- Sadi High School**
- High School scholarship as an **Exceptional Talent Student** for all years
  - Ranked **1<sup>st</sup>** in the class of Mathematics and Physics

## LANGUAGES AND SKILLS

- Languages** English (Fluent) (TOEFL iBT: **104** - R: 27, L: 30, S: 27, W: 20) - Persian (Native)
- Software Skills** Python - MATLAB and Simulink - L<sup>A</sup>T<sub>E</sub>X - C++ - Microsoft Office - LabVIEW - SolidWorks - AutoCAD - Adobe Photoshop
- Operating Systems** MacOS - Microsoft Windows - IOS - Android
- Hardware Skills** PC Hardware Assembly - Electromechanical Systems' Repair and Upgrade

## RESEARCH EXPERIENCE

- Research Assistant** Lessard's Research Group, Northeastern University, Boston, MA  
Instructor: Dr. Laurent Lessard
- Research Assistant** Mechatronics Lab, University of Isfahan, Iran  
Instructor: Dr. Maryam Malekzadeh

## TEACHING EXPERIENCE

- Teaching Assistant** Industrial Drawing - Statics  
Instructor: Dr. Reza Vaghefi
- Private Tutor** Physics - Mathematics - Algebra - Geometry - English Language

## ADDITIONAL ACTIVITIES AND HOBBIES

- Watching Documentaries, Series, and Movies
- Playing Billiard, Snooker, and Chess

FURTHER INFORMATION AND REFERENCES ARE AVAILABLE UPON REQUEST.