# MILAD ALIPOUR SHAHRAKI

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## 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)

#### 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 - LATEX - 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

# **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

### 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)

#### ADDITIONAL ACTIVITIES AND HOBBIES

Watching Documentaries, Series, and Movies

Playing Billiard, Snooker, and Chess

FURTHER INFORMATION AND REFERENCES ARE AVAILABLE UPON REQUEST.