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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 1st 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 1st 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 1st in the class of Mathematics and Physics
 - **CGPA:** 19.30/20

PUBLICATIONS

Journal Papers:

- **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>
- **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>
- 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>

Conference Papers:

- **Milad Alipour Shahraki** and Laurent Lessard, "Spacecraft Attitude Control Under Reaction Wheel Constraints Using Control Lyapunov and Control Barrier Functions," *2025 American Control Conference (ACC)*, pp. 947-952. IEEE, 2025. DOI: <https://doi.org/10.23919/ACC63710.2025.11108025>

PROFESSIONAL ACTIVITIES AND SERVICE

Journal Reviewer:

- IEEE Transactions on Automatic Control
- IEEE Transactions on Systems, Man, and Cybernetics: Systems
- IEEE/ASME Transactions on Mechatronics

- Automatica
- ISA Transactions
- Aerospace Science and Technology
- Control Engineering Practice

Conference Reviewer:

- L4DC 2025: 7th Annual Learning for Dynamics and Control Conference
- CDC 2025: 64th IEEE Conference on Decision and Control

AWARDS AND HONORS

University of Isfahan	<ul style="list-style-type: none"> ▪ Faculty of Engineering scholarship as an Exceptional Talent Student for all semesters ▪ Ranked 1st 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	<ul style="list-style-type: none"> ▪ Faculty of Engineering scholarship as an Exceptional Talent Student for all semesters ▪ Ranked 1st 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	<ul style="list-style-type: none"> ▪ High School scholarship as an Exceptional Talent Student for all years ▪ Ranked 1st 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 - Julia - 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 <ul style="list-style-type: none"> ▪ Instructor: Dr. Laurent Lessard
Research Assistant	Mechatronics Lab University of Isfahan, Iran <ul style="list-style-type: none"> ▪ Instructor: Dr. Maryam Malekzadeh

TEACHING EXPERIENCE

Teaching Assistant	Industrial Drawing - Statics <ul style="list-style-type: none"> ▪ 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.