



Linkedin

Ali Safi

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SUMMARY

A Researcher in Both Mechanical and Control Engineering, Also Interested in Mechatronics and Automation, Highly Experienced in MATLAB and Arduino Programming, English as a Second Language, Capable of Designing Electrical Circuits and Applying Control Theories in Real Life.

EDUCATION

Iran University of Science and Technology, Tehran, Iran

- M.Sc. in Mechanical Engineering (Control, Dynamics and Vibrations) Sep 2018 – Feb 2021
 - Thesis: A New Controller Design Technique for Piecewise Affine Hybrid Systems
 - Adviser: Dr. Esmaeel Khanmirza
 - Focus: Hybrid dynamical systems, Hybrid control
 - Graduated with Honors
 - Cumulative GPA: 18.06 / 20

Golpayegan University of Technology, Golpayegan, Esfahan, Iran

- B.Sc. in General Mechanical Engineering Sep 2014 – Jun 2018
 - Adviser: Dr. Mostafa Nasiri
 - Graduated with Honors
 - Cumulative GPA: 18.96 / 20

PUBLICATIONS JOURNALS

- [1] Nasiri, M. and A. Safi, Stability analysis of real-time hybrid simulation in consideration of time delays of actuator and shake table using delay differential equations. *Journal of Mechanical Science and Technology*, 2019. 33(4): p. 1489-1499.
- [2] Nasiri, M. and A. Safi, Stability Analysis of Real-time Hybrid Simulation for a Multi-story Structure Considering Time-delay of Hydraulic Actuator. *Amirkabir Journal of Civil Engineering*, 2019. 51(3): p. 391-400. (Persian)

CONFERENCES

- [3] Safi, A. and E. Khanmirza. A Criticism of Position Control of the Inverted Pendulum with Biased Angle Measurements Using Double-Loop PID. in *2020 Advances in Science and Engineering Technology International Conferences (ASET)*. 2020. Dubai, United Arab Emirates.

HONORS

- 2 Times Winner of The Iran's National Elite Foundation Scholarship Award
Jan 2019, Jan 2020
- 1st Rank, Achieving The Highest GPA Among all Mechanical Engineering (Control, Dynamics and Vibration) Graduate Students 2019
Iran University of Science and Technology, Tehran, Iran.
- 1st Rank, Achieving The Highest GPA Among all University Mechanical Engineering Students 2014 – 2018
Golpayegan University of Technology, Golpayegan, Esfahan, Iran.

- 1st Team Rank, MATLAB Programming Contest
Iran University of Science and Technology, Tehran, Iran. 2019
- Successful Participation in "Exhibition of Research and Technology Achievements and Market Technology" 2018
- Entrance to Iran University of Science and Technology Without Entrance Exam for Master's Degree as a Recognized Student. 2018

EXPERIENCE

Teaching Assistant

- Golpayegan University of Engineering
Engineering Technical Drawing (1) Winter 2016
Engineering Mathematics Fall 2016
Design of Machine Components (1) Winter 2017
Dynamics Fall 2017
Industrial Automation Winter 2018
- Iran University of Science and Technology
Adaptive Control Winter 2020
In cooperation with Iran's National Elites Foundation

Teacher

- English Teacher at Daemi languages institute Summer 2018

Cooperative Education Student

- Iran University of Science and Technology Fall 2019
In cooperation with Iran's National Elites Foundation

Internet of Things Developer

- Pars System Energy Sep 2019 – Mar 2020


Research Assistant

- Iran University of Science and Technology Winter 2020
In cooperation with Iran's National Elites Foundation

Mechatronics Engineer

- Electro Samane Alvand (ELSA) Jan 2021 – Jun 2021

PROJECTS

See LinkedIn Profile, +11 Finished Projects, +4 Ongoing projects
Use The Link Below or Scan The code at The Top of The First Page
<https://www.linkedin.com/in/safi-ali> 

LANGUAGES

- Persian: Native proficiency.
- English: Full professional proficiency.
- Arabic: Elementary proficiency.

SKILLS

- *Type Setting*
L^AT_EX • Microsoft Office
- *Programming Language*
MATLAB • Arduino • C/C++ • Ladder logic
Familiar With: Python • HTML
- *Softwares*
MATLAB • Arduino • Simulink • Catia • SolidWorks • Proteus Design Suite • WPLSoft
Familiar With: Autodesk Inventor • Adams • CodeVisionAVR • Abacus • Altium Designer

- *Toolboxes*
HYSDEL Toolbox • YALMIP Optimisation Toolbox • MATLAB Optimisation Toolbox • MATLAB Identification Toolbox • DDEBiftool Toolbox • Graphical User Interface (GUI) Toolbox
- *Scientific Knowledge*
Convex Optimization • Linear Matrix Inequality (LMI) • Model Predictive Control (MPC) • Hybrid Dynamical Systems • Adaptive Control • Modern Control Theory • Fuzzy Logic • Genetic Algorithms • Dynamic Simulation • System Identification • Electronics • Robotics • Mechatronics
Familiar With: Artificial Intelligent and Neural Networks
- *Industry Knowledge*
Computer-Aided Design (CAD) • Computer-Aided Manufacturing (CAM) • Printed Circuit Board (PCB) Design • Programmable Logic Controller (PLC) • Internet Protocol Suite (TCP/IP) • Internet of Things (IoT) • Web Design • JSON • Serial Communications
- *Other Softwares*
WordPress • Adobe Photoshop • Multimedia Builder • Adobe Premiere

INTERESTS

- Control Theory (MPC, LMI, LQR, LQG, SMC, Fuzzy, Adaptive)
- Hybrid Dynamical Systems
- Delay Effect Analysis
- Mechatronics
- Internet of Things (IoT)
- Automation

REFERENCES

- **Dr. Esmaeel Khanmirza**
Associate Professor in Mechanical Engineering
Iran University of Science and Technology
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- **Dr. Mostafa Nasiri**
Assistant Professor in Mechanical Engineering
Golpayegan University of Technology
✉ Nasiri@gut.ac.ir

[CV compiled on 2022-01-03 for University Application]