

# Siavash Emami

UNDERGRADUATE STUDENT · MECHANICAL ENGINEERING

*Iran University of Science and Technology, Tehran, Iran*

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I'm an engineering graduate, having passion for solving problems methodically and learning how the world around us obeys laws of calculus and physics, and how we interpret them with science. My goal in life is to reach the cutting-edge of science and contribute to pushing the boundaries of it as much as I can. Through my bachelor studies control theory, robotics and dynamic systems engineering gained my interest. I also have hands on experience in electronics and designing mechatronic systems. I like taking on the challenge to do things I am unfamiliar with and learn through process, and done many side projects which taught me valuable lessons and experience. I am keen to pursue my education and research in any relevant field to robotics or dynamic systems.

## Education

### **Iran University of Science and Technology (IUST)**

BS MECHANICAL ENGINEERING

- Advisor: Dr. Esmaeel Khanmirza
- Thesis: Path Planning Quadrotor UAVs Using ROS

*Tehran, Iran*

*2017 - 2022*

### **Nokhbegan High School**

HIGH SCHOOL DIPLOMA

*Tehran, Iran*

*2013 - 2016*

## Experience

2018 - 2022 **Voluntary Member**, Student Scientific Society (SSS) of Mechanical Engineering at IUST

2018 - 2022 **Member of Editorial Board**, Takane Magazine

2018 - 2020 **Official Member**, Language Institute and Cultural Center at IUST

## Languages

### **Farsi**

NATIVE - MOTHER TONGUE

### **English**

MODERATELY FLUENT

*IELTS: 6.5*

*2022 - present*

## Research Interests

### **Control Theory**

System Identification · Intelligent Systems ·  
State Estimation

### **Robotics**

Mobile Robots · SLAM · Localization ·  
Autonomous Navigation · Motion Planning ·  
Computer Vision

## Skills

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### Softwares

MATLAB · SIMULINK · SOLIDWORKS · ABAQUS · L<sup>A</sup>T<sub>E</sub>X

### Programming

C++ · PYTHON · OOP · ARDUINO · ROS · GIT

## Awards & Certificates

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- April 2020 **Advanced Python Programming and Object-Oriented Thinking Course**, Quera College
- March 2020 **Task-Oriented Course in Fundamentals of Python Programming and Algorithmic Thinking**, Quera College
- February 2020 **Bayesian Signal and Image Processing with Application on Vibration and Acoustics**, Iranian Society of Acoustics and Vibration
- May 2019 **Abaqus Course**, Student Scientific Society of Mechanical Engineering at IUST
- August 2018 **Beginner Matlab Course**, Student Scientific Society of Mechanical Engineering at IUST
- August 2018 **Beginner Solidworks Course**, Student Scientific Society of Mechanical Engineering at IUST
- March 2018 **Electrotechnic Course**, Tehran Institute of Technology

## Teaching Experience

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- Spring 2022 **Simulink Workshop**, Tutor *SSS of Mechanical Engineering at IUST*
- August 2021 **Control Theory**, Private Teacher
- Fall 2020 **Dynamics Course**, Teaching Assistant *Dept. Mechanical Engineering, IUST*
- Winter 2020 **Vibration Course**, Teaching Assistant *Dept. Mechanical Engineering, IUST*

## Projects

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- Design and Building an Embedded Control Circuit for an Exercise Alarm Box** *Tehran, Iran*  
DEPT. INDUSTRIAL DESIGN, IUST *Dec. 2021 - Jun. 2022*
- Modeling and Flight Simulation of a Quadrotor UAV Using Matlab and Simulink** *Tehran, Iran*  
THESIS FOR BACHELOR DEGREE, DEPT. MECHANICAL ENGINEERING *Feb. 2020 - Mar. 2022*
- Numerical Analysis of Flow in Cavity Using Matlab** *Tehran, Iran*  
INTRODUCTION TO CFD, DEPT. MECHANICAL ENGINEERING *Sept. 2021 - Jan. 2022*
- Design and Building a Solenoid Engine** *Tehran, Iran*  
INTRODUCTION TO MECHATRONICS COURSE, DEPT. MECHANICAL ENGINEERING *Feb. 2020 - Mar. 2020*
- Modal Analysis of a Cantilever Beam with Vibration Absorber Using Abaqus** *Tehran, Iran*  
VIBRATION COURSE, IUST *Feb. 2019 - Mar. 2019*