

Siavash Emami

UNDERGRADUATE STUDENT · MECHANICAL ENGINEERING

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I'm a mechanical engineering graduate and I am interested in robotics, control theory and mechatronics. I believe learning is best combined with doing projects and through applying received knowledge in application, that's why I tried my best to gain as much hands-on experience as I could during my bachelor studies. I like to pursue my passion in robotics and control theory by doing research in an academic environment. Particularly I'm interested in mobile robots, navigation and simultaneous localization and mapping (SLAM), and my thesis for my undergraduate degree was path planning of quadrotor UAVs.

Education

Iran University of Science and Technology (IUST)

Tehran, Iran

BS MECHANICAL ENGINEERING

2017 - 2022

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

Nokhbegan High School

Tehran, Iran

HIGH SCHOOL DIPLOMA

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: 7.0

2022 - present

Research Interests

Control Theory

System Identification · Intelligent Systems · State Estimation

Robotics

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

Skills

Softwares

MATLAB · SIMULINK · SOLIDWORKS · ABAQUS · L^AT_EX

Programming

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

Awards & Certificates

- 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

- Spring 2022 **Simulink Workshop**, Tutor
- August 2021 **Control Theory**, Private Teacher
- Fall 2020 **Dynamics Course**, Teaching Assistant
- Winter 2020 **Vibration Course**, Teaching Assistant

SSS of Mechanical Engineering at IUST

Dept. Mechanical Engineering, IUST

Dept. Mechanical Engineering, IUST

Projects

Design and Building an Embedded Control Circuit for an Exercise Alarm Box
DEPT. INDUSTRIAL DESIGN, IUST

*Tehran, Iran
Dec. 2021 - Jun. 2022*

Modeling and Flight Simulation of a Quadrotor UAV Using Matlab and Simulink
THESIS FOR BACHELOR DEGREE, DEPT. MECHANICAL ENGINEERING

*Tehran, Iran
Feb. 2020 - Mar. 2022*

Numerical Analysis of Flow in Cavity Using Matlab
INTRODUCTION TO CFD, DEPT. MECHANICAL ENGINEERING

*Tehran, Iran
Sept. 2021 - Jan. 2022*

Design and Building a Solenoid Engine
INTRODUCTION TO MECHATRONICS COURSE, DEPT. MECHANICAL ENGINEERING

*Tehran, Iran
Feb. 2020 - Mar. 2020*

Modal Analysis of a Cantilever Beam with Vibration Absorber Using Abaqus
VIBRATION COURSE, IUST

*Tehran, Iran
Feb. 2019 - Mar. 2019*