Siavash **Emami**

UNDERGRADUATE STUDENT · MECHANICAL ENGINEERING

Iran University of Science and Technology, Tehran, Iran

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I'm a mechanical engineering graduate, currently employed as mechanical designer in ISENSE Co., a corporation specialized in health monitoring of structures with use of system identification and modal analysis. I'm interested in robotics, control theory and mechatronics. I believe learning is best combined with doing projects and through making use of 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.

Research Interests

Control Theory

System Identification · Intelligent Systems · State Estimation

Robotics

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

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
- CGPA: 3.39
- last 60 credits GPA: 3.49

Nokhbegan High School   *Tehran, Iran*

HIGH SCHOOL DIPLOMA   *2013 - 2016*

Experience

2022 - present	**Mechanical Designer**, ISENSE CO.
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

Awards & Certificates

April 2020	**Supervised Machine Learning: Regression and Classification**, Coursera
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	*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

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 Qaudrotor 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*

Languages

Farsi
NATIVE - MOTHER TONGUE

English   *IELTS: 7.5*
MODERATELY FLUENT   *2022 - present*

Skills

Softwares | **Programming**
MATLAB · SIMULINK · SOLIDWORKS · ABAQUS · LaTeX | C++ · PYTHON · OOP · ARDUINO · ROS · GIT