# Siavash **Emami**

UNDERGRADUATE STUDENT · MECHANICAL ENGINEERING

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

☐ +98 912-003-9440 | ✉ siaemam@gmail.com | ⌂ siaemam.com | ◎ siavash1999 | ▥ siavash-emami | ⓢ siaemam

I'm a mechanical engineering graduate, currently employed as mechanical designer at 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**
DEPT. INDUSTRIAL DESIGN, IUST
*Tehran, Iran*
*Dec. 2021 - Jun. 2022*

**Modeling and Flight Simulation of a Qaudrotor 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*

## Languages

**Farsi**
Native - Mother Tongue

**English** *IELTS: 7.5*
Moderately Fluent *2022 - present*

## Skills

**Softwares**
Matlab · Simulink · Solidworks · Abaqus · LaTeX

**Programming**
C++ · Python · OOP · Arduino · ROS · git