Curriculum Vitae

Mohammad Hossein Alizadeh Roknabadi

Tehran, Iran

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Data of birth: 06.07.1995

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Language knowledge

- **Persian**: Native
- **English:** Full professional
- **Arabic**: working professional
- **French**: working professional

Research Interest

- Simulation and Modeling with MATLAB and COMSOLE
- Renewable energy
- Designing Controller for power systems
- Programming in Python and C++
- Artificial intelligence
- Experimental and numerical aerodynamics
- Electromagnetics
- Robotics
- Spacecraft and Launcher
- PID Controller
- Adaptive Controller
- Satellite

Skills

- MATLAB
- AVR CodeVision
- COMSOL Multiphysics
- Pspice
- Energy plus
- Open studio
- C#
- System tool kits STK
- Auto cad
- SolidWorks
- Microsoft office products
- Arduino
- Python
- Leadership

Summary

A self-motivated, confident and well-presented graduate in Control Engineering and master student in aerospace engineering who has the extensive knowledge of analyzing and studying electrical systems and modeling and developing them. Having good technical experience modeling and control of systems and System engineering..

Education

- Amir Kabir University of Technology, Tehran, Iran ,2020 – Present
  - **Master of Science in, Aerospace Engineering**
- Shahed University, Tehran, Iran ,2013 – 2018
  - **Bachelor of Science in, Electrical and Control engineering**
    GPA: 15.34/20
- Javad al-Aemeh Highschool, Yazd, Iran ,2009 – 2013
  - **Diploma in Math and Physics**
    GPA: 19.29/20

Research Experience

- Research and information gathering for the **Model order reduction of building energy model** under supervision of Prof. Benoit Delinchant at Grenoble INP university
- Research and information gathering for the **design and construction of a vertical wind turbine (Helix)** under the supervision of Dr. Mohammad Reza Besmi at Shahed university for 4 months .
- Research and information gathering for **the design and construction of hybrid vehicles** at sharif university of technology for 3 months.
- Research and information gathering in the field of **oil extraction and production at** Pars Oil and Gas Company in Iran for 4 months.
- **Design and implementation Controller for Stabilization of the rotation of Quadrotor** engines by Arduino and matlab software under the supervision of Dr. Mohammad Hossein Kazemi at Shahed University.

Work Experience

- **Aerospace research institute of Amirkabir university of technology May 2021 – Present**
I am working in rasam satellite project as an expert in system engineering team. This satellite is an EO satellite.

- **French National Center for Scientific Research (CNRS), February 2019 – November 2019**
I was working on the " Exploration of real-time correction methods for compensation of magnetic field fluctuation " as internship.

- Teamworking
- web design
- Accounting
- Sketchup
- HFSS

References

1- Steffen Kramer
Professor at the department of Control Engineering , LNCMI laboratory of CNRS of France
steffen.kramer@lncmi.cnrs.fr

2- Saeed Seyedtabaii
Associate Professor at the department of Electrical Engineering , Shahed university,
stabaii@shahed.ac.ir

3- Mohammad Hossein Kazemi
Assistant Professor at the department of Electrical Engineering , Shahed university,
kazemi@shahed.ac.ir

4- Mahmoud Mani
Professor at the department of Aerospace Engineering , Amirkabir university of technology,
Mani@aut.ac.ir

5- Mohammad Reza Besmi
Assistant Professor at the department of Electrical Engineering , Shahed university,
besmi@shahed.ac.ir

6- Mohammad Pooyan
Associate Professor at the department of Electrical Engineering , Shahed university,
Pooyan@shahed.ac.ir

7- Kamran Raissi Charmcani
Assistant Professor at the department of aerospace Engineering , Amirkabir university of technology,
k_raissi@aut.ac.ir

- **Pars Oil and Gas Company (POGC), April 2017 – September 2017**
I have accomplished successfully a six month internship at POGC which a subsidiary of National Iranian Oil Company (NIOC(.Notably, I acquired great experience in installing control panels and solving electrical problems including instrumentation, industrial maintenance, wiring and control, etc.
- **Tehran Urban & Suburban Railway Operation Company, June 2015 – September 2015**
I have accomplished successfully a four months voluntary internship at Tehran Metro which is a rapid transit system serving Tehran, the capital of Iran. The system consists of seven operational metro lines.
- **Shahed University, May 2014 – Agust 2018**
I am giving private lessons for undergraduate electrical and control engineering students.

Practical Projects completed during the education

- Design and Implementation of quadrotor as my graduation project at shahed university
- Controling DC motor like: BLDC motor, Stepper motor, etc.
- Design and Implementation of Photoplethysmograph sensor (PPG sensor) .
- Working with sensors such as: humidity, gas and liquid flowmeter, ultrasonic, thermocouple, barometer, etc.
- Installation of instrumentation lab at Shahed university.
- Work on the team designing and building a CubeSat for competitions as a system engineer at Amirkabir University of Technology in Iran, in 2021
- Activity in holding summer schools in the field of aerospace, electricity and computers at Amirkabir University of Technology in Iran, in 2021
- Activity in the international CanSat team at Amir Kabir University of technology , in 2021

Honors and Awards

- One of the higher 5% in the nationwide university **entrance exam** among 220,000 participants in Iran, in 2012
- Accepted in the first phase of two state science **Olympiad tournaments** in Iran, in 2010
- Accepted in master of power electronic at Tehran university in Iran, in 2018
- Accepted in master of Electrical engineering at Grenoble-alpes university in France, in 2018
- Accepted in master of smart aerospace engineering at Paris-saclay university in France, in 2019
- Accepted in master of electrical engineering at Tehran university in Iran, in 2020

Publication

- M.H Alizadeh Roknabadi, Kamran raissi, ''Conceptual design of earth observation cubesat'' ,5th conference on technology development of mechanics and aerospace engineering, 2021.

- M.H Alizadeh Roknabadi, Reza Esmaealzadeh aval, ' Analysis of Falcon launchers and statistical design and simulation of a 3-Stages medium launcher for LEO orbit' ,5th conference on technology development of mechanics and aerospace engineering, 2021