

# Seyed Reza Mirbagheri

## Mechanical Engineer

Faculty of Mechanical Engineering,  
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Alborz, Iran

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## Education

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2013 – 2018:

### **BSc in Mechanical Engineering**

**Islamic Azad University, Karaj, Iran**

(Ranked 2<sup>nd</sup> best university in Iran based on [USnews](#))

**Thesis:** Water tank level control using LPV (Linear Parameter Varying)  
implementation with MATLAB

**Supervisor:** Dr. Abolfath Nikranjbar

## Research Interests

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- Intelligent Control and Optimization using AI, Machine Learning
- IOT and Electronic Boards and Devices
- 3D Printing Technology
- Unmanned Systems (UAVs)
- Drones and Quadcopter Control System
- Renewable Energy

## Skills

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- **Programming Language:** MATLAB, Python, C#, C++
- **Web Programming:** HTML, CSS, JavaScript, jQuery, Asp.net MVC, Django (Learning)
- **Software:** Simulink (Learning), PVsyst (Solar Panels) – MESHMIXER (3D printing)
- **Computer-aided Design (CAD):** CATIA
- **Machine Learning:** Python (NumPy – Pandas) (Learning)
- **Microcontroller and Microprocessor:** Arduino (Learning) - Raspberry Pi (Learning)

## Certificates

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- **Machine Learning Summer School: 2021**  
NTU (National Taiwan University)
- **Machine Learning with Python: 2021**  
IBM (Coursera)
- **Speak English Professionally: In Person, Online & On the Phone: 2021**  
Georgia Institute of Technology (Coursera)
- **Getting Started with Essay Writing: 2021**  
UCI (Division of Continuing Education) (Coursera)
- **Photovoltaic Systems Designer (Renewable & Alternative Energies Technology): 07/2019**  
Iran Technical and Vocational Training Organization
- **Complex & Freeform surfaces using CATIA Software (Advanced): 06/2019**  
Iran Technical and Vocational Training Organization
- **Rapid Prototyping with 3D printing method: 01/2019**  
Iran Technical and Vocational Training Organization
- **Hydrodynamic Power Transmission System Repairman: 10/2018**  
Iran Technical and Vocational Training Organization
- **CATIA Operator: 08/2018**  
Iran Technical and Vocational Training Organization
- **NANO Technology General Training: 2013**  
Chamran Nanotechnology Research Center

## Research Projects

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- Design, Analyses, and Prototype rehabilitation instruments by CATIA, MESHMIXER software, and 3D printer to help people who can't use their hands to pick up cups, spoon, fork, cellphone, and variety of different products.
- Design an Off-grid and On-grid solar farm using PVsyst software.

## Work Experience

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09/2019 – 06-2020	<b>As a Teacher in Middle and High School (Grade 7 to 9)</b>
11/2018 – 01/2019	<b>Photovoltaic Systems Designer Intern</b>
09/2018 - 11/2018	<b>Rapid Prototyping with 3D printing method Intern</b>

09/2018 - 11/2018	<b>Complex &amp; Freeform surfaces using CATIA Software Intern</b>
08/2018 – 10/2018	<b>Hydrodynamic Power Transmission System Intern</b>
06/2018 – 08-2018	<b>CATIA Operator Intern</b>
06/2017 – 06/2018:	<b>As an Educational Counselor (sophomore students) at Ghalamchi Cultural Education Center</b>

## Language & Test Scores

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- **English:** IELTS Academic Mock test 5 (L: 5.0; R: 5.0; W: 4.5; S: 6)
- **Persian:** Native
- **Korean:** Pre-Intermediate

## Hobbies

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- Martial arts, Mountaineering, Music, Gardening, Tools making

## References

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Dr. Abolfath Nikranjbar, Associate Professor  
Faculty of Mechanical Engineering,  
Islamic Azad University of Karaj Branch, Iran  
[a.nikranjbar@kiau.ac.ir](mailto:a.nikranjbar@kiau.ac.ir)

Iran Technical and Vocational Training Organization  
[irantvto.ir](http://irantvto.ir)

Ghalamchi Cultural Education Center  
[kanoon.ir](http://kanoon.ir)

Dr. Soheil Porkhial, Associate Professor  
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