

# Zahra Rajaei

*Birthday: 6 February 1994*

 *Isfahan, Iran*  
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## Education

2018-2021 **Master of Science**, *Bu-Ali Sina University, Iran, Advisor: Dr. Alireza Shooshtari.*

Mechanical Engineering, Thesis Title: Modeling, analysis and optimization of a combined absorber and energy harvesting from linear structural vibration using magneto-electro-elastic- materials.

GPA: 17.41/20

2012-2017 **Bachelor of Science**, *Hamedan University of technology, Iran, Advisor: Engineer. Kaveh Darabi.*

Robotic Engineering, Thesis Title: Improved design of vibration absorber for vehicle suspension system.

GPA: 15.09/20

## Research Interests

- Intelligent Materials
- MEMS
- Harvesting Energy
- Robotics
- Control for Dynamic Systems
- Vibration of Continuous Systems
- Optimization

## Honors

- Ranked 2/30 in the class MSc Bu-Ali Sina University, 2021

## Academic Experience

- Online Teaching MATLAB to Students in the time of Corona epidemic.
- Advisor to bachelor's students for design PID and Nonlinear PID controller.

## Relevant Courses

- Modern Control Systems (20/20)
- Continuum Mechanics (20/20)
- Optimization Design of Mechanical components (20/20)
- Continuous Vibration (17.5/20)
- Random Vibration (17/20)
- Finite Element Analysis (17.5/20)
- Robot Control (16/20)
- Advanced Numerical Analysis by Gholamhossein Majzoubi (17.25/20)

## Selected Journal Papers

- Rajaei Z. Shooshtari A. Modeling, analysis and optimization of a combined absorber and energy harvesting from linear structural vibration using magneto-electro-elastic- materials. Amirkabir Journal of Mechanical Engineering. Under review.

## Language Skills











○ Persian



○ English

## Software Skills

-  ○ MATLAB
-  ○ Simulink
-  ○ Microsoft Office
-  ○ ANSYS
-  ○ Solidworks
-  ○ Comsol
-  ○ Python
-  ○ Autocad

## Personal Statement

I am so interested in Research and Development in the field of Mechanic Especially Vibration. Because as Nikola Tesla said, if you want to find the secrets of the universe, think in terms of energy, frequency and vibration. I think this world has enough intelligent engineers, and from now on it needs engineers to lead humans to a deeper understanding of existence.

## Reference

**Alireza Shooshtari** (*shooshta@basu.ac.ir*)

Professor, Department of Mechanical Engineering, Bu-Ali Sina University, Hamedan, Iran.

**Gholamhossein Majzoobi** (*gh\_majzoobi@basu.ac.ir*)

Professor, Department of Mechanical Engineering, Bu-Ali Sina University, Hamedan, Iran.