

Hossein Khodavirdi

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Undergraduate mechanical engineer completing the final year of a bachelor's degree in Iran University of Science and Technology. Passionate about science, with strong technical, and interpersonal skills for working in a team and successfully completing a project.

Education

Academic Qualifications.....

- **Iran University of Science and Technology** **Tehran, Iran**
school of Mechanical Engineering, *Sep. 2014–Present*
GPA: (3.41/4) – (16.44 / 20) (Current GPA)
Thesis topic: Acoustic Handling of Spherical Active Carriers .
Iran University of Science and Technology is one of the best universities of Iran based on international rankings such as US news, QS, and Times Higher Education.
- **Rahyar Educational Complex** **Tehran, Iran**
High School Diploma, *Sep. 2010–Jun. 2014*
GPA:19.79 / 20

Notable selected courses.....

- *Engineering Mathematics (4/4) (1st mark of the class)*
- *Ordinary Differential Equation (4/4) (3rd mark of class)*
- *Mechanical Vibrations (4/4) (1st mark of the class)*
- *Computer Programming (4/4)*
- *Dynamics of Discrete Systems (4/4) (2nd mark of the class)*
- *Calculus 1 (4/4)*
- *Mechanics of Material II (4/4) (1st mark of class)*
- *Dynamics of Machinery (4/4)*
- *Mechanical Vibration (4/4) (3rd mark of class)*
- *General physics 1 (4/4)*

Publications.....

- *Rajabi M, **Khodavirdi H.**, "Acoustic Radiation Torque on a Spherical Active Carrier" (In Preparation), (Can be approved by the supervisor: majid_rajabi@iust.ac.ir)*
- *Rajabi M, **Khodavirdi H.**, "Self-Rotary of an Active spherical Carrier" (In Preparation), (Can be approved by the supervisor: majid_rajabi@iust.ac.ir)*

Experiences

Teaching Experiences.....

- **Teaching Assistant:** “Mechanical Vibrations” for **B.Sc. students** (Responsible for tutorial, marking and had weekly office hours), Prof. Roohollah Talebi Tooti Iran University of Science and Technology, Tehran, Iran(**Sept 2017 – January 2018**)
- **Teaching Assistant:** “Mechanical Vibrations” for **B.Sc. students** (Responsible for tutorial, marking and had weekly office hours), Prof. Majid Rajabi, Iran University of Science and Technology, Tehran, Iran(Feb – May2017)
- **Teaching Assistant:** “General Physics 1” for **B.Sc. students** (Responsible for tutorial, marking and had weekly office hours), Prof. Babamoradi, Iran University of Science and Technology, Tehran, Iran(Feb – May2016)
- **Teaching Assistant:** “Mechanical Vibrations” for **B.Sc. students** (Responsible for tutorial, marking and had weekly office hours), Prof. Majid Rajabi, Iran University of Science and Technology, Tehran, Iran(Feb – Jun 2018)
- **Teaching Assistant:** “Mechanical Vibrations” for **B.Sc. students** (Responsible for tutorial, marking and had weekly office hours), Prof. Roohollah Talebi Tooti , Iran University of Science and Technology, Tehran, Iran(Sep2018 – January 2019-Will be)
- **Teaching Assistant:** “Dynamics” for **B.Sc. students** (Responsible for tutorial, marking and had weekly office hours), Prof. Davood Younesian , Iran University of Science and Technology, Tehran, Iran(Sep2018 – January 2019-Will be)
- **Teaching Assistant:** “Dynamics” for **B.Sc. students** (Responsible for tutorial, marking and had weekly office hours), Prof. Davood Younesian , Iran University of Science and Technology, Tehran, Iran(Feb – May2016)
- **Teaching Assistant:** “Condition Monitoring” for **M.Sc. students** (Responsible for tutorial, marking , had weekly office hours and laboratory supervisor), Prof. Majid Rajabi, Iran University of Science and Technology, Tehran, Iran(Feb2018 – Jun 2018)
- **Teaching Assistant:** “Machine Component Design II” for **B.Sc. students** (Responsible for tutorial, marking and had weekly office hours), Prof. Roohollah Talebi Tooti Iran University of Science and Technology, Tehran, Iran(Feb – Jun 2018)

Work Experiences.....

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| ○ Arman Behine Pardazesh | Tehran, Iran |
| ○ <i>Job internship, Vibration analysis,</i> | <i>Summer 2016</i> |
| ○ School counselor | Tehran, Iran |
| ○ <i>Rahyar Educational Complex,</i> | <i>Summer 2014- present</i> |

Skills

Computer.....

- Microsoft Office(Word, Excel, PowerPoint etc.)
- Matlab
- Catia
- SolidWorks
- Abaqus
- Programming in C++ & PYTHON

Language.....

- **Persian**
- *native,*

- **English**
Fluent - IELTS Band Score: 7.5,
- **Arabic**
familiar,

2018

Vibration Equipment.....

- Capable of working with:
 - Piezoelectric Accelerometer
 - Non-Contact Displacement Sensor
 - Reflective Tachometer
 - Vibration Analyzer
- Capable of creating:
 - Experimental setup for Balancing
 - Experimental setup for observing the effect of flexible and Rigid coupling
 - Experimental setup for observing the critical speeds of a flexible shaft in an unbalanced system

Professional.....

- Signal Processing
- Fault Diagnosis in Bearings with Experimental setups
- Balancing
- Fault Diagnosis in Rotating Machinery
- Drawing Bode, Nyquist and Orbit Figures of a Rotating Shaft by using eddy Current Sensors
- Designing and building a Measurement Sys. For height in a Tank by using a Resistive Pressure sensor
- Finding Natural Frequencies of Structures and mode shapes

Future Skills Planned.....

- GRE exam will be taken on October 29, 2018

Honors and Awards

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| ○ Iran University of Science and Technology
<i>Rank 23rd among 115 Mechanical Engineering students,</i> | Tehran, Iran
<i>Jun 2017</i> |
| ○ Iran University of Science and Technology
<i>School of Mechanical Engineering,</i>
My overall GPA is approximately 2(out of 20) points above the average GPA of mechanical engineering students | Tehran, Iran
<i>Jul 2017</i> |
| ○ Entrance Exam
<i>Rank 537 in region and 912 in whole country,</i> | Tehran, Iran
<i>Jul 2014</i> |
| ○ Rahyar Educational Complex
<i>Rank 3rd,</i> | Tehran, Iran
<i>Jun 2014</i> |
| ○ <i>Exempt from Msc. University Entrance Exam as an Exceptional Talented Students,</i> | Tehran, Iran
<i>Jun 2017</i> |

Congress/workshop participation and presentation

Academic Qualifications.....

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| ○ Iran University of Science and Technology
1st Rotating Machineries Fault Diagnosis conference,
Executive committee member | Tehran, Iran
<i>Fall 2016</i> |
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- **Iran University of Science and Technology** **Tehran, Iran**
1st conference of solar panels (Installation & Maintenance), *Summer 2016*
Executive committee member
- **Voluntary participation in the Biennial**
International Conference on Experimental Solid Mechanics, *X-mech-2016*
- **Nedaye Omid Mo'oud,** **Tehran, Iran**
Teaching Physics to Orphans *May.2017- Present*
- **Imam Ali Society,** **Tehran, Iran**
Teaching Physics to Orphans *September 2017-present*

Fields of Interest

- Acoustic Radiation Force
- Acoustic Radiation Torque
- Acoustic Steering
- Vibrations
- Drug Delivery
- Fault diagnosis
- Rotor Dynamics
- instrumentation

References

- **Dr. Majid Rajabi**, Assistant Professor at Iran University of Science and Technology
Email: majid_rajabi@iust.ac.ir
Webpage: http://webpages.iust.ac.ir/majid_rajabi
- **Dr. .S.Kazemirad**, Assistant professor at Iran University of Science and Technology
Email: skazemirad@iust.ac.ir
Webpage: <http://idea.iust.ac.ir/find.php?item=16.18170.52258.fa>
- **Dr. Roohollah Talebitooti**, Associate Professor at Iran University of Science and Technology
Email: rtalebi@iust.ac.ir
Webpage: http://www.iust.ac.ir/page.php?slct_pg_id=13544&sid=16&slc_lang=en
- **Dr. Davood Younesian**, Full Professor at Iran University of Science and Technology
Email: younesian@iust.ac.ir
Webpage: <http://www.iust.ac.ir/find.php?item=18.2767.3004.en>