AmirAli Basiri

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Education

Sharif University of Technology, Tehran, Iran

M.Sc. Mechanical Engineering, Applied Design

GPA:17.54/20 (4/4)

09/2021- 09/2023 (expected)

Thesis: "Analysis and optimization of plug slips for water supply network"

Advisor: Dr. Jamal Arghavani University of Tehran, Iran

B.Sc. Mechanical Engineering

GPA:17.28/20 (3.64/4) 09/2016- 02/2021

Thesis: "Designing and Manufacturing a composite grain spout"

Advisor: Dr. Mojtaba Haghighi Yazdi

Salam Zeynoddin high school, Tehran, Iran

Diploma in Mathematics and Physics

2012-2016

GPA:19.67/20 (4/4)

Fields of Interest

- Optimum Design
- Composite Materials
- Finite Element Methods

Work Experience

Teaching Assistant

January 2020- May 2020

Mechanical Engineering Design 1, School of Mechanical Engineering, University of Tehran Instructor: Dr. Masoud Shariat Panahi.

- o Corrected students' homework and quizzes.
- Assisted the instructor in educating over 30 students.
- Teaching Assistant

September 2019 - January 2020

Mechanical Engineering Design 2, School of Mechanical Engineering, University of Tehran Instructor: Dr. Masoud Shariat Panahi.

- o Organized the course projects which were designing a transmission system for an elevator.
- Assisted the instructor in educating over 30 students.

Selected Academic Activities

- FEM
 - o Analyzed a truss in Abagus, and wrote MATLAB codes for it.
 - o Wrote MATLAB codes for CST and LST elements to analyze a beam.
- Composite Materials
 - Wrote MATLAB codes for macro mechanical analysis of lamina, micromechanical analysis of lamina, and macro mechanical analysis of laminates; it is considered user-friendly that anyone can use.
 - o Designed a simple composite table.

Mechanical Engineering Design

- o Designed a complete gearbox consisting of shafts, angular contact ball bearings, helical gears, couplings, belt and pulley.
- Wrote MATLAB codes to design a shaft; considered to be user-friendly, and can consider all types of bearings and gears.

Honors and Qualifications

- Ranked 7th (1st percentile) in the applied design field in the nationwide university entrance exam (Konkur) for the master's degree in 2021
- Ranked 245 (1st percentile) in the nationwide university entrance exam (Konkur) in 2016
- Semi-finalist of Iran's 10th and 11th National Chemical Olympiad in 2014, 2015
- Semi-finalist of Iran's 11th National Astronomy Olympiad in 2015
- The first place in the 4th Salam Cup in the Chemical field in 2015

Skills

Software Skill

SolidWorks	Abaqus	MATLAB	
Autodesk AutoCAD	AutoCAD Mechanical	Autodesk Simulation Composite Analysis	
Microsoft Office	ANSYS Fluent	EES	

Language Skills

IEI TC	Overall	Listening	Reading	Speaking	Writing
IELIS	7 8	7.5	6.5	6	

GRE general	Verbal Reasoning	Quantitative Reasoning	Analytical Writing	
	146	167	3	

References

Dr. Jamal Arghavani

Associate Professor, School of Mechanical Engineering, Sharif University of Technology, Tehran, Iran

Phone +98 21-66165597 Email: <u>arghavani@sharif.edu</u> **Dr. Mojtaba Haghighi Yazdi**

Associate Professor, School of Mechanical Engineering, University of Tehran, Iran,

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Dr. Masoud Shariat Panahi

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