Ali Khoddoum

CONTACT INFORMATION	+98 (921)148-6151 Iran, Tehran	a.khoddoum@gmail.com Linkedin: alikhoddoum

Sex: male | Date of birth: 2001

EDUCATION

Amirkabir University of Technology - Tehran Polytechnic (AUT), Iran, Tehran

Master, Mechanical Engineering - Applied Design, Sep 2023 - Present

403 QS World University Rankings in 2025.

Isfahan University of Technology (IUT), Iran, Isfahan

B.Sc, Mechanical Engineering,(Highest Ranking Student), Sep 2019 - Sep 2023
GPA: 3.83 out 4

489 QS Ranking By Subject in 2025.

National Organization for Development of Exceptional Talents (NODET) (SAMPAD), Iran, Kerman, Sirjan

High School Diploma, Mathematics, Aug 2013 - Jul 2019
GPA: 4 out 4

SUMMARY

Ali Khoddoum was born in Kerman, Iran, in 2001. He completed his middle and high school education at National Organization for Development of Exceptional Talents (NODET) schools from 2013 to 2019. He earned his Bachelor's degree in Mechanical Engineering from Isfahan University of Technology (IUT) in 2023. Currently, he is pursuing a Master of Science in Mechanical Engineering at AmirKabir University of Technology (AUT), where he has been accepted as a highly talented undergraduate student at the Master's program. A dedicated and experienced Mechanical Engineer, Ali has extensive knowledge in various engineering disciplines. His skill set includes expertise in CAE, Matlab, AutoDesk Inventor, Simulink and in Electrical Engineering (Control field). These technical skills, combined with his educational background, position him for diverse career opportunities in mechanical engineering and automation. Potential career paths include roles in industrial automation, control systems engineering, and product development using AutoDesk Inventor. Ali is also open to exploring opportunities in manufacturing, robotics, energy, and research and development.

FIELDS OF INTERESTS

- Vibrations (Continuous Systems, Non-linear, Based Condition Health Monitoring)
- System Dynamics
- Control systems (Linear, Non-Linear, Advanced, Optimal, Digital)
- Electrical Engineering minor (Control field)
- Mechatronic (Sensors and Actuators, MEMS, NEMS)
- Robotics and Automation
- Mechanism Design
- Finite Element Analysis
- Medical Instruments
- Orthopedic Biomechanics

Seminars

1. Two-Day Winter School Course on Industry 4.0 Held at Isfahan University of Technology
(IUT)   3rd,4th January 2023

CURRENT RESEARCH	• Non-Linear Vibrations Systems
	• Stick-Slip Piezoelectric Motors

RESEARCH EXPERIENCE

Self-Study Research

- Control field (Electrical Engineering minor)
- Automatic contorl
- Mechatronic systems
- Robotics and Automation
- Simulate by simulink

Research Assistant of Supervisor Dr.Hamed Ghafarirad
Amirkabir University of Technology
Sensors and Actuators Lab (Research Laboratory)   Tel.: (+98) 21 6454 3422

- Construction and Manufacturing   Oct 2023 to Present
  Mechatronic
  Robotics and Automation
  Instrumentation
  Smart Materials
  Vibrations
  Control Systems

Research Assistant of Supervisor Dr.Mohsen Bahrami
Amirkabir University of Technology   Tel.: (+98) 21 6454 3400

- Space Policy   Oct 2023 to present
  Robotics
  Space Dynamics/Control
  MEMS/NEMS

Research Assistant of Supervisor Dr.Mohammad Reza Forouzan
Isfahan University of Technology   Tel.: (+98) 31 3391 5235

- Mechanical Engineering   Jun 2023 - Sep 2023
  Fracture and Forming of Metals
  Rolling Process

THESIS

Master

Modeling and Analysis of Non-Linear Behavior of Stick-Slip Piezoelectric Motors,
Amirkabir University of Technology
Supervisors: Mohsen Bahrami, Ph.D - Hamed Ghafarirad, Ph.D

B.S.

Ring Rolling Finite Element Analysis in The Presence of the Guide Rolls,
Isfahan University of Technology
Supervisor: Mohammad Reza Forouzan, Ph.D
mark: 19.75

PERSONAL SKILLS **Language**
- Native Language: Persian
- Second Language: English

Softwares and Skills

- SolidWorks
- Autodesk Inventor
- MATLAB
- Simulink
- ADAMS
- ANSYS Mechanical
- Abaqus
- COMSOL multiphysics
- Ladder Programming
- HMI
- SAM
- Python

CERTIFICATES
- Introduction to Ansys Workbench
  Conducted by the student Scientific Association   May 2024

- Motion Study in SolidWorks
  Vocational and Technical Education in Isfahan Province   May 2022

- Industrial drawing with SolidWorks
  Vocational and Technical Education in Isfahan Province   Des 2021

TEACHING
EXPERIENCE

Amirkabir University of Technology
Iran, Tehran
Teaching Assistant

Instructor: Dr. Hamed Ghafarirad
Course: Automatic Control   Fall 2025

Amirkabir University of Technology
Iran, Tehran
Teaching Assistant

Instructor: Dr. Hamed Ghafarirad
Course: Mechanical Vibrations   Spring 2025

Amirkabir University of Technology
Iran, Tehran
Teaching Assistant

Instructor: Dr. Hamed Ghafarirad
Course: Fundamentals of Electrical and Electronics Engineering   Fall 2024

Isfahan University of Technology
Iran, Isfahan
Teaching Assistant

Instructor: Dr. Mohammad Reza Forouzan
Course: Machine Element Design 1 and 2   Fall 2022 and Spring 2023

Isfahan University of Technology
Iran, Isfahan
Teaching Assistant

Instructor: Dr. Saeed Behbahani
Course: Automatic Control   Fall 2022

WORK EXPERIENCE	**Industry Office of Amirkabir University of Technology**
	Iran, Tehran
	Research and Development

Feasibility Study of Fuel Supply and Control Systems	April 2024 - June 2025

Golgohar Mining and Industrial Co
Iran, Kerman, Sirjan
Intership

Technical Office - Condition Monitoring Office - CCR	Jun 2022 - Sep 2022

HONORS-AWARDS

- Merit-based admission to graduate master's program in Mechanical Engineering

- Ranked top 15 percent of Mechanical Engineering in B.Sc students

- Directly accepted to graduate master program as a highly talented undergraduate student

REFERENCE

Dr.Hamed Ghafarirad
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Amirkabir University of Technology

Dr.Mohsen Bahrami
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