

Curriculum Vitae

Hamid Manouchehri

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Education:

- **Master of Science in Mechatronics Engineering**
University of Tehran
Thesis title: *A Model-Based Control System for Bi-Manual Object Manipulation* ([link](#))
Related Passed Courses: Advanced Math, Mechatronics, Dynamics, Advanced Robotics, Nonlinear & Fuzzy Control, Machine Vision (audited), Bio-inspired Computing
Tehran, Iran
2019 - Feb 2023
- **Bachelor of Science in Electrical Engineering (Control Engineering)**
University of Kashan
Project title: *Design and Manufacturing of Pneumatics Table of Instrumentation Lab* ([link](#))
Related Passed Courses: Calculus, Computer Programming (C), Circuit Theory, Electronics & Microprocessor, Digital Signal Processing, Communication Systems, Linear, Advanced & Digital Control, Linear Algebra, Industrial Control, Instrumentation, Industrial Automation
Kashan, Iran
2015 - 2019

Research Interests:

- Legged Locomotion
- Machine Vision
- Manipulators
- Mechanical Design & Modeling
- Rehabilitation Robotics
- BMS & IOT

Teaching Experience:

- **Teacher Assistant**
Instructor: [Dr. Farzan Rezaei](#)
Course: Digital Logic and Computer Design
Responsibilities: Teaching applications of 'Proteus Design Suite' in digital circuit analysis and design, and mentoring the students.
Spring 2017

Project and Research Experiences:

- Implementation of **Ant Colony Optimization (ACO)** in **Vehicle Routing Problem** and **Genetic Algorithm** in a **Decision-Making Problem**. ([link](#))
Instructor: [Dr. Masoud AsadPour](#)
Course: Bio-inspired Computing
Apr 2021
- Implementation of a **PID Controller** by **Fuzzy Logic** (Self-organizing Fuzzy PID Controller)
Instructor: [Prof. Aghil Yousefi Koma](#)
Course: Fuzzy Systems: Theory and Control
Jan 2021
- Simulation of a **Wheeled Inverted Pendulum** by **Partial Feedback Linearization** ([link](#))
Instructor: [Dr. Khalil Alipour](#)
Course: Nonlinear Control Systems Design
Feb 2021
- Design and Manufacturing of a **3-DOF Robotic Manipulator (MeArm)** ([link](#))
Instructor: [Dr. Mohammad Dehghani](#)
Course: Advanced Robotics
Mar 2020
- Design and Simulation of a **Mechanical Mechanism** in SolidWorks
Instructor: [Dr. Alireza Hadi Hosseinabadi](#)
Course: Mechatronics 2
Feb 2020

➤ **Fanavard Competition of Sharif University of Technology**

→ As a team, we were planning to run an E-Commerce **startup** to provide online repairing services.

Skills:

- **Robotic Softwares / Middlewares:** Robot Operating System (ROS 1), RBDL toolkit, RViz, MOVEit, OpenCV (familiar), RoboDK (familiar)
- **Programming Languages:** C (Professional), Python, C++, C#, bash script, XML, Lua
- **Technical Softwares:** MATLAB (Script, Simulink, GUI), Proteus, Altium Designer, Docker
- **Mechanical Softwares:** SolidWorks, FreeCad (familiar), MCS Adams
- **Embedded Systems:** MPLAB X IDE (PIC MCUs), Keil (ARM MCUs), CodeVision (AVR MCUs), Raspberry Pi Pico MCU, Arduino IDE, Raspberry Pi (Raspbian OS), NodeMCU, SIM800L GSM
- **Version Control Tools:** Git, GitHub, GitLab
- **Linux:** LPIC-1 (Linux Professional Institute)

Working Experience:

- **Electronics Engineer, Part-time** ([link](#))
Employer: Parmis Smart Home Isfahan, Iran
Business: Design of smart devices for BMS (Building Management System) Mar – Dec 2021
Responsibilities: Embedded system designer, Firmware developer of PIC MCUs
- **Electronics Engineer, CAD Designer, Part-time** ([link](#))
Employer: Kanda Idea Company Tehran, Iran
Responsibilities: Research and Development, Designing a box for some electrical devices with SolidWorks Feb – Nov 2020
- **Control & Instrumentation Laboratory, Internship** Isfahan, Iran
Employer: University of Kashan. Jun – Aug 2017
Responsibilities: Design & Manufacturing a pneumatic table with fluidsims

Certificate:

Robot Operating System (**ROS**): Basic, offered by [PISHROBOT](#), approved by **ROBOTIS** Sep 2021
Covered topics: Basic concepts of ROS 1 (melodic), navigation of TurtleBot in RViz as final project.

Language Proficiency:

Exam	Overall Score	Scores
TOEFL iBT (Mar 12, 2023)	-	-
GRE General (Apr 17, 2023)	-	-

References:

Dr. Mohammad Shahbazi	M.Sc. Supervisor	Assistant Professor School of Mechanical Engineering Iran University of Science and Technology Email: shahbazi@iust.ac.ir , HomePage , Google Scholar
Dr. Bahrām Tarvirdizadeh	M.Sc. Supervisor	Associate Professor Faculty of New Science and Technology University of Tehran Email: bahram@ut.ac.ir , HomePage , Google Scholar
Dr. Alireza Hadi Hosseinabadi	M.Sc. Advisor	Associate Professor Faculty of New Science and Technology University of Tehran Email: hrhadi@ut.ac.ir , HomePage , Google Scholar