


# 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](#))  
**GPA:** 3.22 / 4 (15.91 / 20.00)  
**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](#))  
**GPA:** 3.09 / 4 (15.74 / 20.00) - last two years  
**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**

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### Research Interests:

- Legged Locomotion
- Machine Vision
- Robotic Manipulators
- Autonomous Mobile Manipulators
- Underactuated Robotics
- AI, particularly for robotics applications

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### 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**

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### 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 **Pipe-inspection Robot** in SolidWorks ([link](#))  
**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  
**Business:** Design of smart devices for BMS (Building Management System)  
**Responsibilities:** Embedded system designer, Firmware developer of PIC MCUs  
Isfahan, Iran  
Mar – Dec 2021
- **Electronics Engineer, CAD Designer, Part-time** ([link](#))  
**Employer:** Kanda Idea Company  
**Responsibilities:** Research and Development, Designing a box for some electrical devices with SolidWorks  
Tehran, Iran  
Feb – Nov 2020
- **Windows Software Developer, C# programmer, Internship**  
**Employer:** Behyar Sanaat Sepahan Co.  
**Responsibilities:** Development of windows softwares in VisualStudio (WPF), C# programming  
Isfahan, Iran  
Jun – Aug 2017

### Certificate:

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

Sep 2021

### 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: <a href="mailto:shahbazi@iust.ac.ir">shahbazi@iust.ac.ir</a> , <a href="#">HomePage</a> , <a href="#">Google Scholar</a>
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