Curriculum Vitae

Hamid Manouchehri

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Education:

➢ **Master of Science in Mechatronics Engineering** — **Tehran, Iran**
University of Tehran — **2019 - Dec 2022**
Thesis title: A Model-based Control System for Bi-manual Manipulation (In progress)
GPA: 3.07 / 4 (15.91 / 20.00)

➢ **Bachelor of Science in Electrical Engineering (Control Engineering)** — **Kashan, Iran**
University of Kashan — **2015 - 2019**
Project title: Design and Manufacturing of Pneumatics Table of Control Laboratory
GPA: 3.09 / 4 (15.74 / 20.00) - last two years

Research Interests:

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

Teaching Experience:

➢ **Teacher Assistant** — **Spring 2017**
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.

Project and Research Experiences:

➢ Implementation of **Ant Colony Optimization (ACO)** in **Vehicle Routing Problem** and **Genetic Algorithm** in a **Decision Making Problem**. — **Apr 2021**
Instructor: Dr. Masoud AsadPour
Course: Bio-inspired Computing

➢ Implementation of a **PID Controller** by **Fuzzy Logic** (Self-organizing Fuzzy PID Controller) — **Jan 2021**
Instructor: Prof. Aghil Yousefi Koma
Course: Fuzzy Systems: Theory and Control

➢ Simulation of a **Wheeled Inverted Pendulum** by **Partial Feedback Linearization** — **Feb 2021**
Instructor: Dr. Khalil Alipour
Course: Nonlinear Control Systems Design

➢ Design and Manufacturing of a **3-DOF Robotic Manipulator (MeArm)** — **Mar 2020**
Instructor: Dr. Mohammad Dehghani
Course: Advanced Robotics

➢ Design and Simulation of a **Pipe-inspection Robot** in SolidWorks — **Feb 2020**
Instructor: Dr. Alireza Hadi Hosseinabadi
Course: Mechatronics 2

➢ **Fanavard Competition of Sharif University of Technology** — **Summer 2017**
→ 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 (familiar), 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** — **Isfahan, Iran** — **Mar – Dec 2021**
  Employer: Parmis Smart Home
  Business: Design of smart devices for BMS (Building Management System)
  Responsibilities: Embedded system designer, Firmware developer of PIC MCUs
- **Electronics Engineer, CAD Designer, Part-time** — **Tehran, Iran** — **Feb – Nov 2020**
  Employer: Kanda Idea Company
  Responsibilities: Research and Development, Designing a box for some electrical devices with SolidWorks
- **Windows Software Developer, C# programmer, Internship** — **Isfahan, Iran** — **Jun – Aug 2017**
  Employer: Behyar Sanaat Sepahan Co.
  Responsibilities: Development of windows softwares in VisualStudio (WPF), C# programming

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:

Level	Overall Score	Scores	Exam	Date
Advanced	-	-	IELTS (Academic)	September 2022

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. Bahram 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