Amirmohammad Radmehr

Personal Data

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Education

2016 - 2021 B.Sc. in Electrical Engineering (Control)
University of Tehran, *(ranked 1st top university in Iran according to 2020 US news ranking)*

- Overall GPA: 3.1/4.0 | Major GPA: 3.64/4.0
- B.Sc. Thesis Title : Animatronic Eye Mechanism and Face Pose Imitation of a Humanoid Robot using the Agile Eye Mark: 20/20
- B.Sc. Thesis Supervisor: Dr. Mehdi Tale Masouleh

Publications

2021 Radmehr, A., Asgari, M., & Masouleh, M. T. (2021). Experimental Study on the Imitation of the Human Neck-and-Eye Pose Using the 3-DOF Agile Eye Parallel robot Based on a Deep Neural Network Approach 2021 International Conference on Robotics and Mechatronics, Tehran, Iran. (ICROM). (**submitted**)

Honors and Awards

2016 Ranked within the top 0.2% among more than 160000 participants in Iranian university entrance exam in the Mathematics and Physics discipline
2016 Received national undergraduate full scholarships

Research Interests

- Machine Learning
- Robot Motion
- Automation
- Internet of Things
- Adaptive Control
- Signal/Image Processing

Academic Projects

- **Frame Prediction** - *Artificial Neural Network*
  Created a pendulum clip and then, using LSTM architecture, predicted and constructed the frame after a given sequence
  Python Tensorflow Keras
- **Stock Prediction** - *Artificial Neural Network*
  using yahoo finance utilized models like LSTM, GRU and RNN to predict prices of a particular stock
  Python Tensorflow Keras
- **Ball and Plate** - *Mechatronics*
  Fabricated a robot that stabilizes a nimble ball in center of a plate
  ROS, Python-OpenCV, MATLAB-SimMechanics, SolidWorks, Vision, PID
- **Automating Production Process** - *Industrial Automation*
  Implemented a production line and Then programmed it to automate the process
  TIA Portal, PLCSim, FactoryIO, Automation
- **Route Optimization** - *Operation Research*
  Implemented a set of locations in map and used Python prgramming to find the least time consuming path
  Python, Google Map, Linear Algebra
- **Clapper Switch** - *Microcontroler*
  Fabricated a switch that responds to different way of clapping
  CodeVision, ATmega16, Altium Designer, Smart Home,
- **Tachometer** - *Electrical Machines I Lab*

Designed a tachometer using Arduino Uno, DC motor and other eletrical components
Arduino Uno, Arduino IDE

- **Line Following Robot** - *General Workshop*
  Fabricated an automated guided robot to follow a line with various disturbance
  Altium Designer, CodeVision, ATmega32

Selected Courses

- Artificial Neural Network **17/20**
- Mechatronics **20/20**
- Modern Control **15.5/20**
- Linear Algebra **17.4/20**
- Robotics **17/20**
- Linear Control Systems **16.1/20**
- Industrial Automation **17.5/20**
- Operation Research **18/20**
- Digital Control Systems **18.75/20**
- Instrumentation **17/20**
- Microprocessor **20/20**

Work Experience

July-September 2019 | **Intern at Electrical Machine Labratory, University of Tehran**
Microgrid Implementation
Designed a PID controller for a coupled motor-generator which was an element of a bigger power network

Teaching Experience

FALL 2021 | **Artificial Neural Network** Dr. Ahmad Kalhor
Responsibilities: Home Work, Project developer/grader, Content Creator

SPRING 2020 | **Mechatronics** Dr. Mehdi Tale Masouleh
Responsibilities: Home work developer/grader

FALL 2020 | **Modern Control** Dr. Hamed Kebriaei
Responsibilities: Homework developer/grader

FALL 2020 | **Industrial Control** Dr. Ahmad Kalhor
Responsibilities: Content creator, Homework developer/grader

FALL 2020 | **Instrumentation** Dr. Mohammadreza Nayeri
Responsibilities: Homework grader

FALL 2020 | **Operation Research** Dr. Mohammad Shokri
Responsibilities: Content Creator, Home work developer/grader

Professional Skills

Programming Language	• Python	• MATLAB	• C/C++
Hardware	• AVR	• PLC	
Software	• ROS • Altium Designer	• SolidWorks • Ubuntu	• Simulink • LaTeX

Languages

English: Fluent | **TOEFL iBT: 106** R28,L30,S24,W24 | **GRE**: VR 142, QR 167, AW 4.0 | Farsi: Native | German: Basic knowledge