

MOHADESEH AZARI

✉ mohadesehazari1998
in mohadesehazari

🌐 mohadesehazari1998
🏠 mohadesehazari98

☎ +98 936 317 16 29
📧 mohadesehazari1998

EDUCATION

B.Sc.

Electrical Engineering – Overall GPA : 3.54/4.0 (16.72/20.0)

📅 September 2017 – December 2021 📍 University of Tehran

Minor

Physics – Overall GPA : 3.75/4.0 (16.79/20.0)

📅 September 2018 – December 2021 📍 University of Tehran

Diploma

Mathematics and Physics Discipline – Overall GPA : 4.0/4.0 (19.98/20.0)


📅 September 2013 – June 2017 📍 NODET high school

RESEARCH EXP AND INTERNSHIP

Quantum Communication

Quantum Error Correction for Quantum Memory



📅 November 2020 – (ongoing project) 📍 University of Tehran

- Supervisor: Dr.Zahra Shaterzadeh Yazdi  (Faculty of Engineering Sciences)
- Evaluating different aspects of ATS and EIT protocols
- Comparing ATS and EIT protocols practically
- Simulating different Error Correction Code for the best result

Quantum Communication

Long Distance Quantum Communication and Quantum Repeaters


📅 January 2021 – September 2021 📍 University of Tehran

- Supervisors: Dr.Leila Yousefi  (Faculty of Electrical and Computer Engineering)
- Dr.Saleh RahimiKeshari  (Faculty of Physics)
- Accessing Long Distance Quantum Communication trough Focusing on Quantum Repeaters
- Implementing Quantum Repeaters via Quantum Gates
- Applying Software Tools to Implement Quantum Gates
- See on Github

Brain Network

The Correlation between Brain and Digital Networking Methods

📅 June 2020 – October 2020 📍 University of Tehran

- Supervisor: Dr. Maryam Sabaghiyan  (Faculty of Electrical and Computer Engineering)
- Neural Communication vs. Communication Engineering
- The application of communication engineering methods in Neural Diseases
- Model Neuro Abnormalities as Noises and Represent Mathematical Solutions for Noisy Network
- See on Github

INTERESTS

Quantum Communication

Quantum Memory and Repeaters








Cryptography

Network Security

Photonics

Information Theory

TEACHING EXPERIENCES

- Digital Signal Processing – Fall 2020
– Dr.Zainalabedin Navabi Shirazi – 
- Digital Logic Design Lab – Fall 2020
– Dr.Zainalabedin Navabi Shirazi – 
- Physics II – Spring 2020
– Dr.Zahra Shaterzadeh Yazdi – 
- Introduction to Computing Systems and Programming – Spring 2020
– Dr.Manouchehr MoradiSabzevar – 
- Digital Logic Design – Spring 2020
– Dr.Zainalabedin Navabi Shirazi – 
- Electrical Engineering General Workshop – Fall 2019
– Dr.Mahmoud Shahabadi – 
- Digital Logic Design – Fall 2019
– Dr.Zainalabedin Navabi Shirazi – 

CERTIFICATES

IELTS : International English Language Testing System

Overall : 7.5

Listening 8 / Writing 6 / Reading 8 / Speaking 7

📅 July 2021

Matlab

IEEE university of Tehran

📅 July 2017

Arduino

IEEE university of Tehran

📅 July 2017

PROJECTS

Electrical Engineering

Academic Projects

 September 2017 – December 2021  University of Tehran

- Signal Processing

- Shazam demo – This project aims to get a short song sample; first, it will recognize the song and then search for it on a table. Finally, it will return the necessary data about that song – Matlab
- Steganography – This project aims to decode a given message in Moneliza's Picture by encoding every letter in the color code of the picture's pixels – Matlab
- Face Detection – This project aims to detect a person's identity by its picture. for doing that, at first, the project receives up to 10 images of that person in a different gesture – Matlab
- Complete OFDM Modulation – This project aims to model a complete OFDM modulation. It seeks to model both sender and receiver sides with complete decoding modules. The final purpose of this project is to compare the effects of different channels with response to OFDM protocol – Matlab
- Voice and Image Processing – One of the voice processing projects was detecting a specific person's talk in a group of people. That conversation could be a background voice, but as long as having a sample of that person's voice, it can detect the conversation – C

- Network Security

- Email Security – This project aims to send an email with certification. The messages are encrypted as well. One can buy public and private pairs online – Python
- RSA Protocol – This project aims to implement a complete RSA protocol using python. All the messages are encrypted with specific pairs– Python
 - Chatroom – Python
- Email Spoofing – This project aims to use libraries in Linux to spoof an email. we were a team, and we chose one of our email address to attack – Ubuntu

- Computer Architecture

- Function Generator – Quartus + Modelsim
- Frequency Synchronizer – Quartus + Modelsim
- MIPS Processor – Quartus + Modelsim
- Pipe lining – Quartus + Modelsim

- Games

- PAC-Man Game – C
- Inverted Pendulum – Matlab + Physical Design

WORKSHOPS AND CONFERENCES

International Conferences

Quantum Communication

 January 2020 – August 2021

- QCALL Conference On Quantum Repeaters And Quantum Memory – 2021
- Qiskit Seminar, Error Mitigation For Universal Gates On Encoded Qubits – 2021
- Dr.Erhan Saglamyurek's Lecture On ATS BEC Memory – 2021
- Qiskit Online Summer School – 2020

HONORS

- Top 0.25 of the Electrical Engineering Student at University of Tehran – 2021
- Top 0.003 of the Nationwide Iranian Entrance University Exam – 2017
- Semi-Finalist of National Physics Olympiad – 2016

TECHNICAL SKILL

Python
Verilog/System Verilog
Matlab/Mathematica
latex
Qiskit
Wire-Shark
linux
Auto CAD
Arduino microcontroller
Pyquil
C/C++
HTML
R
Spice
LC3



ONLINE COURSES

- Quantum Cryptography (Edx)
- Quantum Optics (Coursera)
- Machine Learning (Maktabkhooneh)
- HTML (Faradars)
- Advanced Programming (Maktabkhooneh)
- Neuro Science I,II (Edx)

LANGUAGES

English
Arabic
Persian

