

Ali Isapour

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🐙 GitHub
🌐 LinkedIn

EDUCATION

- **Sahand University of Technology** Tabriz, Iran
Bachelor of science in Electrical Engineering (Telecommunication) 2023
 - GPA: 17.58/20 (3.72 out of 4)
 - Thesis: Multi-channel noise reduction methods based on wiener filtering, **Grade: 20/20**
 - Supervisor: Dr.M.Azghani
- **Kharazmi high school** Tehran, Iran
Diploma in mathematics and physics 2018
 - GPA: 19.70/20 (4 out of 4)

PUBLICATIONS

- **Unconventional VAD in Noisy Environments based on Otsu** IET Communications Journal
A.Isapour and A.Ebrahimi submitted: 2024
- **VAD-IED: Voice Activity Detection based on Image Edge Detection Methods** In progress
A.Isapour and A.Ebrahimi
- **Detecting voice activity using Machine Learning** In progress
A.Isapour and M.Azghani

RESEARCH INTERESTS

- Deep learning-based signal processing
- Speech and image processing
- Biomedical Signal Processing
- Mathematics of Data Science
- Wireless Communications
- Machine Learning

EXPERIENCES

- **ICT research center** Sahand University of Technology, Tabriz, Iran
Research Assistant, Under supervision of Prof.A.Ebrahimi 2023 - present
 - Developed innovative algorithms to achieve precise voice activity detection in noisy environments
 - Implemented the methodologies described in research papers using MATLAB and Python for simulation
 - Integrated image processing methods, into speech processing applications
- **Wireless Communications and Signal Processing laboratory** Sahand University of Technology, Tabriz, Iran
Research Assistant, Under supervision of Dr.M.Azghani 2023 - present
 - Designed novel feature extraction techniques employed by machine learning classifiers for voice activity detection
 - Developed a novel method for classifying phonocardiogram (PCG) signals leveraging machine learning techniques
- **Regional Water company of Tehran, Latyan dam** Tehran, Iran
Internship Summer. 2021
 - Collaborated within an electrical engineering industry team, cultivating professional skills, effective communication, and project success
- **Principle of computer programming Class** Sahand University of Technology, Tabriz, Iran
Teaching Assistant, Under supervision of Dr.N.Soltani Fall. 2020
 - Employed problem-solving skills and provided assistance to students encountering challenges in C++ programming, ensuring comprehension and mastery of coding concepts

HONORS AND AWARDS

- Ranked 2nd in the Department of Electrical Engineering among nearly 90 entrants of 2018
- Ranked 1st in the Department of Electrical Engineering major Telecommunication among nearly 20 students
- Ranked 1st in all four years of high school

COURSE PROJECTS

- **Implementing noise reduction techniques for voice signals using MATLAB**
as the final project of Digital Signal Processing course, Under supervision of Prof.Sedaghi
- **Analyzed electrical circuits with PSpice, identifying transistor operating points and coordinates**
as the final project of Electronics I course, Under supervision of Dr.Bahrami
- **Simulation of the distribution of electrical potential across conductor plates using MATLAB**
as the final project of Electromagnetism course, Under supervision of Dr.Habibzadeh
- **Designed a MATLAB communication system integrating coding and decoding for transmission and reception**
as the final project of Digital communication lab course, Under supervision of Dr.M.Azghani

SELECTED COURSES

• Undergraduate Courses

Digital Signal Processing: 4/4

Neural Networks: 4/4

Engineering Probability: 4/4

General Mathematics I & II: 4/4

Computer Programming: 4/4

Digital Communications: 4/4

Telecommunication Networks: 4/4

Filters & Circuit Synthesis: 4/4

Digital Systems I & II: 4/4

Physics of Electronic Devices: 4/4

Electronics I, Electronics II: 4/4

Microprocess Systems Design: 4/4

Electromagnetics: 4/4

Microwave and Antenna: 4/4

Digital Communications Lab.: 4/4

Communication Circuits Lab.: 4/4

• Online Courses

Deep Learning, University of Tehran, Alireza Akhavanpour

Introduction to programming with MATLAB, Coursera

SKILLS AND ABILITIES

- **Programming languages:** MATLAB, Python, C++, C, AVR programming (atmega 32), Assembly
- **Software:** MATLAB, Atmel Studio, VS code, Jupyter, Microsoft Office, L^AT_EX
- **Simulation and Design Software:** MATLAB (Simulink), Proteus
- **Operation Systems:** Windows (7,10), Mac os X (All versions)
- **Abilities:** Self-Motivated and Driven, Teamwork and Collaboration, Research and Analysis, Time Management

LANGUAGES PROFICIENCY

- **English:** Fluent (IELTS Test will be taken in near future)
- **Persian:** Native or bilingual proficiency
- **Azerbaijani:** Native or bilingual proficiency
- **Turkish:** Intermediate
- **Germany:** Elementary

REFERENCES

- **Prof. Afshin Ebrahimi:** aebrahimi@sut.ac.ir *Professor*
Electrical Engineering Department, Sahand University of Technology, Tabriz, Iran *Scholar*
- **Prof. Esmaeil Najafiaghdam:** najafiaghdam@sut.ac.ir *Professor*
Electrical Engineering Department, Sahand University of Technology, Tabriz, Iran *Scholar*
- **Dr.Masoumeh Azghani:** mazghani@sut.ac.ir *Associate Professor*
Electrical Engineering Department, Sahand University of Technology, Tabriz, Iran *Scholar*