

Education

B.Sc. in Computer Engineering

University of Sistan and Baluchestan, Iran

Sep 2016 – Aug 2021

- **Last two years GPA:** 19.59/20 (**4/4** on the WES scale) – Overall **GPA:** 17.8/20 (3.57/4)
- **Final Project:** Design and implementation of a wearable healthcare monitoring device for patients suffering from chronic lung diseases (Grade 20/20)
Supervisor: Dr. Mohammad Hossein Sargolzaei
- **Selected Courses:** • Computer-aided Digital System Design (20/20) • Embedded and Real-time Systems (20/20) • Signals and Systems (20/20) • Data Transmission (20/20) • Fundamentals of Computational Intelligence (19.39/20) • Graph Theory and Algorithms (19.54/20)

Research Interests

- Reconfigurable Architectures
- Hardware Accelerators and High-performance Computing
- DSP Architectures
- Embedded Systems
- Computer Architecture
- Healthcare Devices

Patents

- Abbasi, Ali. Sargolzaei, Mohammad Hossein. 2021. A wearable device for simultaneous monitoring of vital signs from the ear with the capability of saving data and sending emergency messages. Iran Patent Application 140050140003005312, filed September 2021. Patent Pending.

Experience

- **Teaching Assistant** Sep 2018 – Jul 2020
University of Sistan and Baluchestan, Iran
TA in: • Computer-aided Digital System Design • Logic Circuits • Digital Systems 2 • Computer Architecture
• Microprocessor and Assembly Language • Theory of Languages and Automata
- **Intern at the Center of Electronic Learning** Feb 2020 – Apr 2020
University of Sistan and Baluchestan, Iran
Helped facilitate online learning for students at the beginning of the COVID-19 pandemic on the Moodle platform
- **Private German Language Tutor** Jan 2018 – Aug 2018
Mashhad, Iran
Taught the German language at the elementary level as a private tutor
- **Private English Language Tutor** Sep 2016 – Jan 2018
Mashhad, Iran
Taught the English language at the intermediate level as a private tutor

Extracurricular Activities

- **Xilinx ISE Design Suite Tutorial ([Online Software Simulation](#) + [PDF](#))** Mar 2020
University of Sistan and Baluchestan, Iran
Developed an online simulation environment and a document for learning ISE Design Suite
- **iSpring Suite Tutorial (Video)** Mar 2020
University of Sistan and Baluchestan, Iran
Recorded several tutorial videos about making SCORM packages using iSpring Suite for online teaching during the COVID-19 pandemic

Selected Projects

- **Signal Processing**
FIR Filter Unit (VHDL) DCT Unit (Verilog)
- **Cryptography**
AES Encryption Unit (Verilog) DES Encryption Unit (Verilog)
Triple-DES Encryption Unit (Verilog)
- **Artificial Intelligence**
FPGA Implementation of an artificial neural network (VHDL)
Genetic-based solution for Traveling Salesman Problem (C#)
A* algorithm for a modified version of the n-queen problem (C#)
- **Miscellaneous**
FPGA Implementation of a voltmeter using ADC128S102 IC (VHDL)
UART Module (VHDL)
Practical measurement of the impulse response and step response of an LTI guitar amplifier
C# Implementation of the CPU scheduling algorithms

Honors and Awards

- Ranked **top 5%** among the graduating class *Jul 2021*
- **Received tuition waiver** for the bachelor's program *Sep 2016*
- Ranked **top 6%** in the **Iranian university entrance exam** (Konkoor) among more than 150,000 participants *Aug 2016*

Certificates

- **FPGA Softcore Processors and IP Acquisition ([View on Coursera](#))** *Aug 2021*
University of Colorado Boulder, Coursera
- **Hardware Description Languages for FPGA Design ([View on Coursera](#))** *Aug 2021*
University of Colorado Boulder, Coursera
- **Introduction to FPGA Design for Embedded Systems ([View on Coursera](#))** *Jul 2021*
University of Colorado Boulder, Coursera
- **MRI Fundamentals ([View on Coursera](#))** *Jul 2021*
Korea Advanced Institute of Science and Technology (KAIST), Coursera
- **Certificate of Participation: "Approaches to Scientific Reporting and Proposal Writing"** *Dec 2019*
University of Sistan and Baluchestan, Iran
- **Certificate of Participation: "Wireless Networks Monitoring"** *Dec 2019*
University of Sistan and Baluchestan, Iran
- **Certificate of Participation: "Fiber Optics"** *Dec 2019*
University of Sistan and Baluchestan, Iran
- **Certificate of Participation: "(English) Teacher Training Course (TTC)"** *Jun 2017*
Silkroad Innovators Institute, Iran

Languages

- **English:** Full Proficiency (*IELTS Academic 7.5*) - **Persian:** Native Proficiency
- **German:** Limited Working Proficiency

Skills

- **Programming Languages:** Verilog, VHDL, C++, C#, Assembly Language, Arduino
- **Engineering Software:** ModelSim, Altera Quartus Prime, Xilinx Vivado, Xilinx ISE Design Suite, CodeVisionAVR, Proteus, Packet Tracer, Microsoft Visual Studio
- **Social Skills:** Teaching, Presentation, Team Working, Public Speaking

Hobbies

- Playing electric guitar
- Watching movies
- Basketball
- Badminton

References

- **Dr. Mohammad Hossein Sargolzaei ([Google Scholar](#))**
Ph.D. in Computer Hardware Engineering, University of Tehran, Iran, 2018
Assistant Professor, Faculty of Electrical and Computer Engineering, University of Sistan and Baluchestan, Iran
mh.sargolzaei@ece.usb.ac.ir
- **Dr. Mehri Mehrjoo ([Google Scholar](#))**
Ph.D. in Electrical Engineering (Telecommunications), University of Waterloo, Canada, 2008
Associate Professor, Faculty of Electrical and Computer Engineering, University of Sistan and Baluchestan, Iran
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- **Dr. Farahnaz Mohanna ([Google Scholar](#))**
Ph.D. in Electrical Engineering (Data Processing), University of Surrey, The United Kingdom, 2002
Associate Professor, Faculty of Electrical and Computer Engineering, University of Sistan and Baluchestan, Iran
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