

Education

B.Sc. in Computer Engineering

Sep 2016 – Aug 2021

University of Sistan and Baluchestan, Iran

- **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

- **A wearable device for simultaneous monitoring of vital signs from the ear with the capability of saving data and sending emergency messages** Submitted
University of Sistan and Baluchestan, Iran
Ali Abbasi, Dr. Mohammad Hossein Sargolzaei

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

- **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 (C#)**
Genetic-based solution for Traveling Salesman Problem (TSP)
A* algorithm for a modified version of the n-queen problem
- **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# Impelementation of the CPU scheduling algorithms

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

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

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

- **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
- Playing basketball
- Playing 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
mehrjoo@ece.usb.ac.ir
- **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
f.mohanna@ece.usb.ac.ir