Ali Abbasi

aliabbasi.engr@gmail.com
aliabbasi-engr.github.io
linkedin.com/in/aliabbasi-engr

Education

B.Sc. in Computer Engineering
University of Sistan and Baluchestan, Iran
Zahedan, Iran
Sep 2016 – Aug 2021

- **GPA:** 17.8/20 (3.57/4 on WES scale) - Last two years 19.59/20 (**4/4 on WES scale**)
- **Thesis:** Design of a wearable healthcare monitoring device for patients (Grade 20/20)
  Supervisor: Dr. Mohammad Hossein Sargolzaei
- **Selected Courses:** Signals and Systems Analysis (20/20) – Electrical and Electronic Circuits (20/20) – Computer-aided Digital System Design (20/20) – Embedded and Real-time Systems (20/20) – Artificial Intelligence and Expert Systems (20/20) – Principles of Computational Intelligence (19.39/20) – Data Transmission (20/20) – Microprocessor and Assembly Language (20/20) –Logic Circuits (20/20) – Computer Networks (20/20) – Graph Theory (19.54/20)

Research Interests

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

Patents

Design and implementation of a wearable healthcare device for remote monitoring of patients suffering from chronic diseases.
University of Sistan and Baluchestan, Iran
Dr. Mohammad Hossein Sargolzaei, Ali Abbasi
Expected to be submitted mid-Sep 2021

Academic Experience

Teaching Assistant — *Sep 2018 – Jul 2020*
University of Sistan and Baluchestan, Iran
- Teaching assistant in various courses including Logic Circuits, Computer Architecture, Computer-aided Digital System Design, Digital Systems 2, 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.

Extracurricular Activities

Xilinx ISE Design Suite Tutorial (Software Simulation + PDF) — *July 2021*
University of Sistan and Baluchestan, Iran

iSpring Suite Tutorial (Video) — *July 2021*
University of Sistan and Baluchestan, Iran

Selected Projects

Signal Processing:
- 8-tap 16-bit FIR Filter (VHDL), 4-point DCT (Verilog), …

Cryptography:
- 128-bit AES (Verilog), Triple DES (Verilog), DES (Verilog), …

Artificial Intelligence:
- C# Genetic-based solution for Traveling Salesman Problem (TSP), C# Implementation of the A* algorithm for solving a modified version of the n-queen problem, …

Miscellaneous:
- VHDL Implementation of an 8-channel 12-bit logic analyzer running on a Xilinx Spartan-6 FPGA using ADC128S102 analog-to-digital converter

Certificates

Introduction to FPGA Design for Embedded Systems *University of Colorado Boulder, Coursera* *Part of MSc in Electrical Engineering degree at the University of Colorado Boulder*	*Certificate not available due to the US sanctions*
Hardware Description Languages for FPGA Design *University of Colorado Boulder, Coursera* *Part of MSc in Electrical Engineering degree at the University of Colorado Boulder*	*Certificate not available due to the US sanctions*
FPGA Softcore Processors and IP Acquisition *University of Colorado Boulder, Coursera* *Part of MSc in Electrical Engineering degree at the University of Colorado Boulder*	*Certificate not available due to the US sanctions*
MRI Fundamentals *Korea Advanced Institute of Science and Technology (KAIST), Coursera* A course covering the mathematics and physics behind Magnetic Resonance Imaging (MRI)	*Certificate not available due to the US sanctions*
Certificate of Participation: "Approaches to Scientific Reporting and Proposal Writing" *University of Sistan and Baluchestan, Iran*	*Dec 2019*
Certificate of Participation: "Wireless Networks Monitoring" *University of Sistan and Baluchestan, Iran*	*Dec 2019*
Certificate of Participation: "Fiber Optics" *University of Sistan and Baluchestan, Iran*	*Dec 2019*
Certificate of Participation in (English) Teacher Training Course (TTC) *Silkroad Innovators Institute, Iran*	*Jun 2017*

Skills and Hobbies

- **Principal:** VHDL, Verilog, Assembly x86, Digital Circuit Design and Analysis, Object-orientation, C++, C#, LaTeX
- **Software:** ModelSim, Altera Quartus Prime, Xilinx Vivado, Xilinx ISE Design Suite, Proteus, CodeVisionAVR, Arduino, Microsoft Visual Studio, Microsoft Office
- **Social Skills:** Teaching, Public Speaking, Presentation, Team Working
- **Hobbies:** Playing electric guitar, playing badminton, watching movies and animation

Honors and Awards

- Ranked top 7% among all students in computer engineering 2016 bachelor's program	*July 2021*
- Ranked top 6% in the Iranian university entrance exam (Konkoor) among more than 150,000 participants	*Aug 2016*

Languages

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

References

- **Dr. Mohammad Hossein Sargolzaei**
  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**
  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**
  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