# Ali Abbasi

Curriculum Vitae

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# **Education**

### **B.Sc. in Computer Engineering**

University of Sistan and Baluchestan, Iran

Sep 2016 - Aug 2021

- GPA: 17.8/20 (3.57/4 on WES scale) Last two years GPA: 19.59/20 (4/4 on WES scale)
- **Thesis:** Design and implementation of a wearable healthcare monitoring device for patients (Grade 20/20) Supervisor: Dr. Mohammad Hossein Sargolzaei
- **Selected Courses:** Computer-aided Digital System Design (20/20) Logic Circuits (20/20) Embedded and Real-time Systems (20/20) Signals and Systems (20/20) Artificial Intelligence and Expert Systems (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**

- Design and implementation of a wearable healthcare monitoring device for patients suffering from chronic lung diseases

Expected to be submitted late-Sep 2021

University of Sistan and Baluchestan, Iran Dr. Mohammad Hossein Sargolzaei, Ali Abbasi

# **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 Desing 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 (C#)

Genetic-based solution for Traveling Salesman Problem (TSP)

A\* algorithm for a modified version of 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

# **Honors and Awards**

-	Ranked top 5 among all students in computer engineering 2016 bachelor's program	Jul 2021
-	Received tuition waiver for bachelor's program	Sep 2016
-	Ranked <b>top 6%</b> in the <b>Iranian university entrance exam</b> (Konkoor) among more than 150,000 participants	Aug 2016
Certificates		
-	FPGA Softcore Processors and IP Acquisition (View on Coursera) University of Colorado Boulder, Coursera	Aug 2021
-	Hardware Description Languages for FPGA Design (View on Coursera) University of Colorado Boulder, Coursera	Aug 2021
-	Introduction to FPGA Design for Embedded Systems ( <u>View on Coursera</u> )  University of Colorado Boulder, Coursera	Jul 2021
-	MRI Fundamentals (View on Coursera) Korea Advanced Institute of Science and Technology (KAIST), Coursera	Jul 2021

Certificate of Participation: "Approaches to Scientific Reporting and Proposal Writing" Dec 2019 University of Sistan and Baluchestan, Iran

Certificate of Participation: "Fiber Optics"

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*)

**German:** Limited Working Proficiency

Persian: Native 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, Microsoft Visual Studio
- Social Skills: Teaching, Presentation, Team Working, Public Speaking

#### **Hobbies**

Playing electric guitar Playing basketball

Watching movies Playing badminton Dec 2019

# **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 mehrioo@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 <a href="mohanna@ece.usb.ac.ir">mohanna@ece.usb.ac.ir</a>