Ali Abbasi

Curriculum Vitae

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Education

B.Sc. in Computer Engineering

Sep 2016 - Aug 2021

University of Sistan and Baluchestan, Iran

- **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) • Data Transmission (20/20) • Fundamentals of Computational Intelligence (19.39/20)

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 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) 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 (View on Coursera) University of Colorado Boulder, Coursera	Jul 2021
-	MRI Fundamentals (<u>View on Coursera</u>) Korea Advanced Institute of Science and Technology (KAIST), Coursera	Jul 2021
-	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: "(English) Teacher Training Course (TTC)" Silkroad Innovators Institute, Iran	Jun 2017

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

- 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 mehrioo@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