# 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) • Artificial Intelligence and Expert Systems (20/20) • Fundamentals of Computational Intelligence (20/20)

## 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 • Theory of Languages and Automata • Microprocessor and Assembly Language

- **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 7%** among all students in computer engineering **2016 bachelor's program**        *Jul 2021*

- **Received tuition waiver** for 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](#))**        *Sep 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: "Fiber Optics"**        *Dec 2019*
  *University of Sistan and Baluchestan, Iran*

- **Certificate of Participation:  "(English) Teacher Training Course (TTC)"**        *Jun 2017*
  *Silkroad Innovators Institute, Iran*

## Skills

- **Principal:** Verilog, VHDL, Digital Circuit Design, Signal Processing, Arduino, C++, Assembly Language, C#, Object Oriented Programming

- **Software:** ModelSim, Altera Quartus Prime, Xilinx Vivado, Xilinx ISE Design Suite, MATLAB (Elementry), Proteus Design Suite, CodeVisionAVR, Microsoft Visual Studio, Microsoft Office

- **Social Skills:** Teaching, Presentation, Team Working, Public Speaking

## Hobbies

- Playing electric guitar
- Watching movies

- Playing basketball
- Playing badminton

## Languages

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