Amirhossein Chavoshi

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Summery

Technical skills can be converted into technical knowledge when appropriate academic science is acquired. It was the beginning of a path to the birth of a power electronic researcher. A strong background due to 3 years of membership in research and development teams has helped me achieve technical capabilities such as prototyping based on ST, Xilinx, Intel FPGAs, and purposeful research on befitting solutions. An intense desire to produce advanced products has brought me on the path of gaining science at the best possible universities.

Education

University of Tehran (Department of Electrical and Computer Engineering) *Tehran, Iran*

M.S.c in Electrical Power System Engineering — Started on Sep. 2022

University of Tehran (Department of Electrical and Computer Engineering) *Tehran, Iran*

B.S.c in Electrical Engineering — Sep. 2017 - Feb. 2022

Power System Engineering was my major field which was consisting of several courses including: Protection Relays, High Voltage and Insulators, Substation Design, Transmission Line Design, Electrical Machinery and Power System Analysis. Subject of my thesis was Design and Construction of Supplementary Module for Automatic Testing of Current Transformers(under supervision of Dr.Davarpanah). GPA of my last year of bachelor is 2.93/4 or 15.54 out of 20.

Alborz High School *Tehran, Iran*

High School Diploma in Mathematics and Physics — Sep. 2013 - Sep. 2017

GPA = 4

Recent Research

Wireless Power Transfer (WPT)

Switching Power Supplies

Current Transformer Testing Solutions, Based on IEC 61869 Standard

Research Interests

Wireless Power Transfer (WPT)

Electric Vehicles

Fast Chargers

Power System Equipment Testing Solutions

Wave Energy Converter (WEC)

Renewable Energy

DC/DC, DC/AC and AC/AC Power Converters

Photovoltaic Inverters

Awards and Honors

Ranked 23rd among more than 10000 candidates in the nationwide universities entrance exam for a Master's degree in electrical engineering.

Issued by National Organization for Educational Testing(Sanjesh) — Jun. 2022

Best Undergraduate Project Award

Issued by University of Tehran — Feb. 2022

The subject of the project: Design and Construction of Supplementary Module for Automatic Testing of Current Transformers

Ranked 286th among more than 140000 candidates in the nationwide universities entrance exam for a Bachelor's degree in electrical engineering.

Issued by National Organization for Educational Testing(Sanjesh) — Sep. 2017

Work Experiences

Electronic Engineer at Innowatt *Tehran, Iran*

Part-time Jul. 2022 - Present

Member of a research and development team whose main focus is on design of different types of electric vehicles including a motorcycle which is currently the most notable product of our company.Furthermore, I became the head of quality check department as I designed and built an electronic tester device which is being utilized for testing the ECU in the middle of production process.

Electronic Engineer at ESFA group *Tehran, Iran*

Full-time Dec. 2020 - Jul. 2022

Designed and created 2 layer printed circuit boards in diverse projects as a member of a research and development team, whose main focus is on producing products in power system industry such as digital protection relays and high voltage substation equipment testers.

Research Intern at Electrical Machines and Micro-grid Laboratory of University of Tehran *Tehran, Iran*

Part-time Jul. 2020 - Dec. 2020

Studied and gain an absolutely deep knowledge in diverse types of electrical machines and generators. I design and constructed my first industrial product which was a digital data recorder that was built to measure the speed of an electric motorcycle and display that on large seven-segments, while recording the data simultaneously on USB.

Research Assistant at High Voltage Laboratory of University of Tehran *Tehran, Iran*

Part-time Jun. 2019 - Jan. 2020

Built and completed several micro projects which were mainly dedicated in order to increase my basic knowledge of electronics and prepare myself to become an innovative assistant in primary projects which were defined to carry out the needed high voltage and high current tests.

Teaching Experiences

Teaching Assistant at University of Tehran (Department of Electrical and Computer Engineering) *Tehran, Iran*

Electrical Machines 1 Course , Dr.Abedini Sep. 2020 - Aug. 2021

Responsible for preparing tutorials for and evaluating the final projects in the end of the semester and grading the submitted homework all over the semester.

Teaching Assistant at University of Tehran (Department of Electrical and Computer Engineering) *Tehran, Iran*

Introduction to Electrical Engineering Course , Dr.Samimi Sep. 2019 - Jan. 2020

Responsible for preparing tutorials for junior students before attending fabrication laboratory sessions which were being held every week of the semester.

Instructor at Pejvak Institute *Tehran, Iran*

Programmable Logic Controller Course Mar. 2019 - Jun. 2019

This institute's focus is on teaching a wide range of fields in electrical engineering such as PLC and electronic board repairing. I completed some of important ,practical ,industrial automation projects using PLC S7-300 and gained the experience of operating induction motors. I spent 3 months on teaching ladder programming in this institute.

English Teacher at Iranmehrcollege *Tehran, Iran*

Full-time May. 2018 - Nov. 2018

After receiving the teacher training course(TTC) certificate, this experience of teaching began and gave me valuable soft skills.

Technical Skills

Programming	Matlab, C, Python, VHDL, Verilog
Professional Softwares	Altium Designer, Simulink, LTspice, Multisim, ModelSim, PSCAD, DIgSILENT, CYME, ETAP, SIMPOW, PSpice, Keil, STM32cubeIDE, CodeVisionAVR, Proteus Design Suite, Intel Quartus Prime, Xilinx ISE, Xilinx Vivado, Siemens TIA Portal, Factory I/O
Drawing & Typesetting	Photoshop, CorelDraw, Office, LaTeX
Languages	Persian(Native) English(Full Professional Proficiency) Recent Mock Test Result at Irsafam Institute held on September 9, 2022: Overall Band Score: 7 , Reading: 8, Listening: 7.5, Speaking: 6.5, Writing: 6

Projects

Electric Motor-Cycle Drive Tester

An electronic device designed and built to perform quality-check tests on an electric motor-cycle drive. Aug. 2022 - Sep. 2022

Kavosh Current Transformer Switch Box

This product makes it possible to perform ”Current Transformer” tests automatically and wiring is only done once. May 2021 - Nov. 2021

Kavosh Current Transformer Burden Box

A resistor box providing rated burdens for testing new current transformers in the manufacturing process Jul. 2021

Digital Data Recorder

Voltage and speed of a generator which is coupled to an electric motorcycle captured and displayed on large seven-segments , recording the data simultaneously on USB. Jul. 2020 - Sep. 2020

2 layer PCB design of blue pill board

Self-defined project Jun. 2022

3 Phase Inverter Simulation

A 5 kVA inverter designed and simulated using Simulink as the final project of Industrial Electronics course. Jun. 2021

High Voltage Substation Ground Grid Design

A ground grid for an area size of 3500 square meters designed using Cymgrd software. Jun. 2021

Power Flow Study and Short Circuit Simulations

Implementing power flow study and diverse short circuit events on a power system using both PSCAD and DigSILENT. Jun.2020

FIR Filter Design with FPGA

Implementing FIR filter on an Altera Cyclone II starter development kit via RS232 serial communication protocol. Nov. 2021

Audio Player Design with FPGA

This NiosII-based project included the following items: VGA driver, mouse driver, voice recorder, FIR filter and many more. Dec. 2021

Noteworthy Courses

Electrical Machines I & II
High Voltage Substation Design
Industrial Electronics
Power System Analysis I & II
Transmission Line Design
High Voltage and Insulators
Relay and Protection
Introduction to Computing Systems and Programming
Python 3 Tutorial (Sololearn)
Industrial Automation
Digital Logic Design
Computer Architecture
Embedded System Design Based On FPGA
FPGA tutorial-primary (Maktabkhooneh)
Teacher Training Course (Iranmehrcollege)

Volunteer Services

Atmel AVR Workshop

High Voltage Laboratory at University of Tehran

My Role: Conductor and Instructor Aug. 2019

References

Available on request