

# Ehsan Akbarzadeh

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## Education

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### M.Sc. in Electrical Engineering

📅 2023 Sep | Present

🎓 Politecnico Di Milano University

📍 Milan, Lombardia

### B.Sc. in Electrical Power Engineering

📅 2013 Sep | 2017 Nov

🎓 Hakim Sabzevari University

📍 Sabzevar, Khorasan Province

**GPA: 16.24(out of 20)**

**Thesis Title:** Power Electronic, Designing and Implementation of Forward Switching

Supervisor: DR Reza Roshanfekar

Thesis Result (20/20)

**Thesis summary:** Forward switching power supply is type of DC-DC convertor like flyback and half-bridge convertors. It can be supply output generally up to 200W. Select switching element (MOSFET, IGBT), design transformer, coil and PWM control is the most important things that would be considered in design.

In fact, in this project I was planning to connect real power supply to my lessons which I had learnt. So I drew a real forward switching power supply schematic in Altium designer, I find and gather formula from handbooks and power Electronic books, then categorized each part and listed formula next to each other. Each electronic and power section was developed and checked in laboratory and compared with real sample. Finally I wrote a report for formula and my observation.

## Research Interests

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- Electric Cars
- Electric machine design
- Robotic Arms and programming
- Electrical transportation systems
- Industrial Automation
- Clean Energy

## Work Experience

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- 2020 - present**

■ **Electronic and Robotic Instructor**  
 Sarayeh Mahaleh institute (under the supervision of Iran TVTO)  
 Primary and Secondary Student is prepared for participate in various competitions like (IRAN OPEN , Jaber Ebn Haayan , National competitions , WorldSkills and ...)
- Sep-Oct2017**

■ **Automation Engineering - Internship**  
 South Pars Gas Complex (SPGC)  
 Observation and checking the process and automation of Gas refinery and industrial sensors in Asaluyeh Gas complex.
- 2015-2016**

■ **Research assistant**  
 Hakim Sabzevari University  
 Collaboration with head of department of electrical engineering in developing and designing automatic resistive load for an asynchronous generator.

## Training Courses & Certificates

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- **Design and Develop Warehouse Robot for “Worldskills” Competition**  
 Iran TVTO(Technical and Vocational training organization)  
 “Worldskills” is international competition which is held every two years. In order to the major participants compete each other for International Stage.
- **Principle of Robotic**  
 Iran TVTO – 136 Hours
- **AVR**  
 Iran TVTO – 96 Hours

## Technical & Research Experience

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- Design induction water heater (based on principle of transformer and coil)
- Smart & Remote irrigation project for Electrical Faculty Garden
- Smart flowerpot irrigation with AVR

## Technical Skills

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### Programming

- Expert in AVR & Arduino (based on C++)
- Familiar with WordPress, HTML , CSS , PHP

### Software

- Professional at Proteus, Altium Designer
- Good at Power Point, Word

## **Hobbies**

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- Mini Electronic project for my home
- Build RC Cars and Airplane
- Playing traditional Instrument
- Hiking