

# Waleed Akram

## Personal Information:

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Home Address: Lane #12 Lala Rukh Colony Chakri Road Rawalpindi.  
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## OBJECTIVE

My objective is to excel by doing research in the area of smart grid, energy management, renewable energy resources and related application areas and become an international researcher and educator with excellent research and publication record.

## EDUCATION

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<b>Islamabad, Pakistan</b>	<b>COMSATS Institute of information Technology</b>	<b>2014-2019</b>
<ul style="list-style-type: none"><li>B.S. Electrical (Telecommunication) Engineering <b>CGPA 3.08/4.00</b></li><li>Graduate Coursework: Applied Physics, Calculus, Software Foundations, Signal Processing, Electric Circuit Analysis, Power Electronics, Power distribution &amp; Utilization, Electric Machines Microprocessor Systems, Control System Engineering, Analog &amp; Digital Communication Systems.</li></ul>		
<b>Rawalpindi, Pakistan</b>	<b>Fauji Foundation College Lala Zar, Rawalpindi</b>	<b>2010-2012</b>
<ul style="list-style-type: none"><li>H.S.S.C (Pre-Engineering),</li></ul>	Marks: <b>762/1100</b>	
<b>Rawalpindi, Pakistan</b>	<b>Standard High School, Rawalpindi</b>	<b>2008-2010</b>
<ul style="list-style-type: none"><li>S.S.C (Science Group),</li></ul>	Marks: <b>876/1050</b>	

## RESEARCH EXPERIENCE

### Projects

- Designed Electronic Load Controller for Micro hydro power plant. (FYP)**  
Most of the Mini and Micro hydropower systems are based on run-off-river type. Due to high cost, storage system is not installed. As in run-off-river system, the generator generates nearly constant power, but the consumer load may vary at any instant, at full consumer load, almost all the generated power is consumed but when the consumer load is less than the generated power, the speed of the generator increases (hence frequency increase) which causes serious problems in the appliances used by the consumer and other system components such as transformer and generator. To overwhelm these problems an Electronic Load Controller (ELC) is used. The ELC is an electronic device, which sense the frequency and based on that frequency, divert power to the dump load which is not used by the consumers. ELC is designed using local available components such as Arduino, IGBTs, TRIAC, Opto-coupler, Voltage regulators, Transformer and LCD.
- Designed a basic traffic light controller.**  
A basic prototype of four-way traffic controller is designed as a semester project. First, the design of the controller is tested on software; Proteus after that P.C.B. is designed. It was designed with the help of ATmega 16, transistors and LEDs. Project report covering all the aspects of the project is submitted to the project supervisor.
- Designed and implemented basic fire alarm.**  
I designed a basic fire alarm prototype as semester project. I designed it with the help of Sensors, 555 timer and transistors. A comprehensive project report is submitted to the project supervisor.

## Technical Skills

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- C, C++, JAVA, Verilog, Assembly, Arduino, Embedded system.
- Visual Studio, AutoCAD, Proteus, MATLAB, Simulink, HFSS, ModelSim, MS office.

## Work Experience

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- **Join Beacon Light School as Physics teacher.** **Feb2017- Mar2018**
  - Practically used my teaching skills in highly professional environment.
  - Design course breakdown structure for the institute.
- **Join Superior College as Physics teacher.** **Jun2018- Present**
  - Used my teaching skills in more professional environment.

## Achievements and Rewards

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- Awarded Laptop from PM scheme due to remarkable CGPA.
- Achieved 2<sup>nd</sup> position in 1<sup>st</sup> semester in a batch of more than 100 students.
- Achieved 3<sup>rd</sup> position in 3<sup>rd</sup> semester in a group of more than 100 students.

## Languages

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English: Proficient

Urdu: Native

## References

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### **Dr. Qadeer-ul-Hasan**

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### **Khurram Saleem Alimgeer, PhD.**

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### **Dr. Tariq Mahmood Khan**

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