

# Muhammad Hasnain

## PERSONAL INFORMATION



Muhammad Hasnain

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Sex Male | Date of birth 16/06/1996 | Nationality Pakistani

## WORK EXPERIENCE

### 01/06/2016–31/05/2017 Electrical Trainee

DCO Sargodha, Sargodha, Punjab (Pakistan).

Work and responsibilities:

Prepare load management.  
Maintain operation and maintainance.  
Install and replace equipment.  
Troubleshooting hardware and software.  
Prepares product reports by collecting, analyzing and summarizing..

### 14/03/2018–14/06/2018 Electrical TraineeEngineer

Office of the Divisional Mechanical Engineering Pakistan Railway Kundian, Kundian (Pakistan).

Work and responsibilities:

Diesel Engine spares parts and their working / performance.  
Air compress or types and working /performance of HBU-20 & GMCU-15 D.E Locomotives.  
Traction Motors, Starting Motors and their Working / Performance.  
Soft water, treated water and chemical used in treated water.  
Introduction of steam boiler and it's accessories and it's working

## SIEMENS - SI Training

Power Monitoring with SENTRON  
PLCs for beginners  
Basics of Drives - Converters  
3VA molded case circuit breaker  
Process control engineering for beginner PROFIBUS in process automation  
SIMOGear Geared Motors - Portfolio and fields of application  
Basics of Drives - Motors  
Protection systems in low-voltage power distribution

## IEEE Conferences & Event CERTIFICATE

Conductive charging of electrified vehicles: challenges and opportunities

IEEE Guide to Autonomous Vehicle Technology Virtual Event

Energy Storage and Electric Vehicle Technology

## ACADEMIC QUALIFICATION

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**01/10/2018-01/07/2020**

### **M.Phil Electronics**

Electronics Department, Quad-i-Azam University, Islamabad

Research Area: Renewable Energy Resources

The absence of clean cooking facilities and electricity means billions of rural people are deprived of much needed socioeconomic development. Livestock residues (dung) and solar radiation are two renewable energy resources that are abundantly available in rural areas of developing countries. Although it is not feasible for these two resources separately to meet both thermal (cooking) and electricity demands, hybrid applications have not been given due attention. To facilitate integrating these two resources in rural energy planning, and to promote their dissemination through hybrid applications, it is necessary to evaluate their economic merits, and assess their ability to deal with the demands. In this paper, we examine the techno-economic performance of hybrid applications of these two resources by applying a simulation technique using the HOMER tool and MATLAB Simulation and by giving derived cost-saving equations.

**01/11/2014–28/08/2018**

### **BS Electrical Engineering Technology**

College of Engineering and Technology University of Sargodha (CETUOS), Sargodha (Pakistan)

**Final Year Project:**

Efficient Algorithm for Load Management prepaid Theft Control Smart Energy Meter.

**01/09/2011–11/10/2014**

### **DAE Electrical Three Years**

Punjab Board of Technical Education Lahore (PBTE), Sargodha (Pakistan)

Electrical Machines, Power Electronics, Power Distribution and Utilization, Power Transmission

## RESEARCH PAPERS

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Certificate for Presenting research paper 5<sup>th</sup> Multi Disciplinary Student Research Conference (MDSRIC -2019) organized at University of Wah.

### **Evolution**

Hybrid system of Solar power and Bio gas optimization in rural areas along with special security system.

## CERTIFICATE OF ACHIEVEMENT

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- An introduction to design engineering: The open University
- Green Investments: Renewable Energy: ADBI Institute
- Achieving Sustainable Development Goals on Water and Sanitation: ADBI Institute
- Advancing the Digital Economy for Sustainable Growth in Asia : ADBI Institute
- Standard precautions: Waste management: Health emergencies program
- Digital skills: Artificial Intelligence
- Basic English 2: Pre-Intermediate from KING'S COLLEGE LONDON
- Future energy demand and supply: The open university
- Energy resources: Solar energy: The open university

## JOB-RELATED SKILLS

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- design, develop and build renewable energy technologies
- Combine renewable energy production with existing power systems
- Arrange new supplies and negotiate tariffs with fuel providers
- Carry out site inspections and energy surveys
- Use mathematical and computer models to complete design and specification calculations
- carry out lab experiments and adapt them to large-scale industrial processes

## HONOURS AND AWARDS

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- National workshop on “Optics of An-Isotropic Media and Meta materials” attend at Quad-i-Azam University Islamabad 31st December, 2018 to 3rd January, 2019.
- Awarded PEEF Scholarship for whole M.Phil Degree.
- Awarded Need Based Scholarship 3rd to 8th Semester for BS Electrical Engineer.
- “Transformation” Organized by TECH IN PAKISTAN.
- Represent CET UOS, in International Student Expo at Pak China Business Centre, Islamabad.
- Attended workshop on Successful entrepreneurs organized by Career Development Cell CET UOS Sargodha. Venue: MBA Hall University of Sargodha.

## References

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Reference will be furnished on demand.