

Hamza Ul Hassan Malik

BE Mechanical Engineering

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Objective

I am an enterprising young professional intending to continue my development as an engineer. I am very much enthusiastic in terms of results and objectives and work with decisiveness and conviction, with a proactive attitude to stimulate and engage with people. I am a mechanical engineer competing to obtain a challenging position in Applied Engineering Departments, Automotive Industry, Oil & Gas Sector and other related fields in order to apply all major principles and specialized areas of interest from my field and knowledge. Goal oriented, disciplined and versatile professional with a strong educational background. Seeking an opportunity to develop practical expertise. Sincere to provide my services to the carrier oriented organization, where I can groom my personal & professional skills.

Achievements

- Filed Provisional **Patent** in IPO Pakistan on “**Harvesting Energy by Footsteps using Piezoelectric Material**”.
- **Research Paper** on “**Energy Harvesting Techniques using renewable energy sources**”
- Worked With **UMEED-A welfare Society**
- Worked as organizer in annual events of university like World Space Week, IST Youth Carnival
- Represented Institute of Space technology at HEC and Inter University extracurricular activities.

Final Year Project

“Harvesting Energy from Footsteps” i.e. Design, Analysis and Fabrication of a footstep energy generation platform using piezoelectric material.

Semester Projects

- Design Study of Solar Wind Hybrid Power generation System
- Design of a Pelton Wheel Turbine
- Analysis on crankshaft of diesel engine
- Vibration model of energy harvesting from footsteps
- Design calculations of a reciprocating engine
- Analysis of Pressurizer of a nuclear plant on Ansys
- Design of a conveyor belt system for a packaging company
- Design of lab equipment for heating of fluid through a pipe
- Design of a hand powered Tricycle
- Design study and modifications in assembly of Pump
- Design of asphalt based solar thermal system
- Design, analysis and manufacturing guide of solar powered wheel chair
- Design of a Gasket cutting Machine
- Broadcasting Model for estimating solar radiation in Dammam area
- Design of Thermal Power Plant System

Educational Background

- HVAC design for the hostel Building
- Design study of Gas turbines
- Design and Manufacturing of Truss Bridge
- Designing a C++ based program for ticket system of Airport
- Comparative Study of Suspension systems used in vehicles

➤ **Bachelors in Engineering** (2014-2018)

Mechanical Engineering

Institute of Space Technology, Islamabad, Pakistan

➤ **Higher Secondary School Certificate** (2013)

Pre-Engineering

Punjab College of Information Technology Satellite Town, Rawalpindi.

➤ **Secondary School Certificate** (2011)

Siddeeq Public School, Rawalpindi.

Internship

Orient Petroleum Private Limited (OPPL)

Surface Engineering Department

Technical Skills

PRO E, Solids work, ANSYS Workbench, MATLAB, C++, Visual studio, Adobe Photoshop, Microsoft Office, Creo Parametric, LABVIEW, LYX

Interests & Activities

Volleyball, Cricket, Badminton, Research on different energy harvesting Techniques, 3-D Designing, Hiking and Adventure Trips, Music, Cycling, Innovation based Documentaries