HIRA RAZIQ
ELECTRICAL ENGINEER(POWER)

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OBJECTIVE	To pursue an enchanting career demanding innovations and applications of myintellectual, organizational and technical skills.		
EDUCATION	**MSc Electrical Engineering,** UET, Taxila, Pakistan.	3.0	2022
	BSc Electrical Engineering, UET, Taxila, Pakistan.	2.8 CGPA	August 2018
	Higher Secondary School Certificate, FBISE, Islamabad**.**	83%	August 2013
	Secondary School Certificate, FBISE, Islamabad.	83%	August 2011

PROJECTS

FINAL YEAR PROJECT: A Smart Hybrid Inverter using solar Photovoltaic modules**.**

Short Description: The aim of our project is to supply Uninterruptable power to the customers without any power cut-off problems. Hybrid solar inverter is the combination of a solar inverter and a battery inverter into a single piece of equipment that can intelligently manage power from your panels, solar batteries, and the utility grid at the same time. The power supplied to the customers is free of any interruptions.

RESEARCH THESIS: Power Quality Improvement of a Distribution System integrating a Large Scale Solar Farm using Hybrid Modular Multilevel Converter with ZSV Control.

Short Description: The aim of our research is to Model and Implement Zero Sequence Voltage controller on Hybrid Modular Multilevel Converter (HMMLC) under various shading conditions for large scale PV integration. Power Quality parameters i.e. Current, Voltage and Power is improved after the ZSI. The developed zero sequence control scheme will enable HMMC to better perform under unbalance power conditions with high efficiency.

SEMESTER PROJECTS:
- Variable and fixed DC power Supply
- Digital Clock
- Power Bank
- Heat Sensor
- Sun Tracking Solar panel
- Tunnel Switching
- ATM Machine in C++
- Amplitude Modulation and Demodulation
- Equation Grapher in MATLAB
- Implementation of Illumination Design using DIALux
- Temperature controlled DC fan using transistor
- 100kA CB Testing bench

RESEARCH PAPERS

- A Comparison of meta-heuristic techniques for solving optimal sitting and sizing problems of capacitor banks to reduce the power loss in radial distribution system.

- Application of MLC for Imbalances reduction using MPPT control for PV integrated system.

- Power Quality Improvement of a Distribution System integrating a Large Scale Solar Farm using Hybrid Modular Multilevel Converter with ZSV Control.

SKILLS	**SOFTWARE**: MATLAB, ModelSim, Dev C++, Proteus Professional, PCB Wizard, Arduino, DIALux, LabVIEW, OrCAD Pspice, ETAP, PSSE, PSCAD.
	LANGUAGES: C/C++, Basic Android Programming and basic assembly language.
EXTRA CURRICULARA CTIVITIES	Badminton, Internet Surfing, Outings, Book Reading, Photography.