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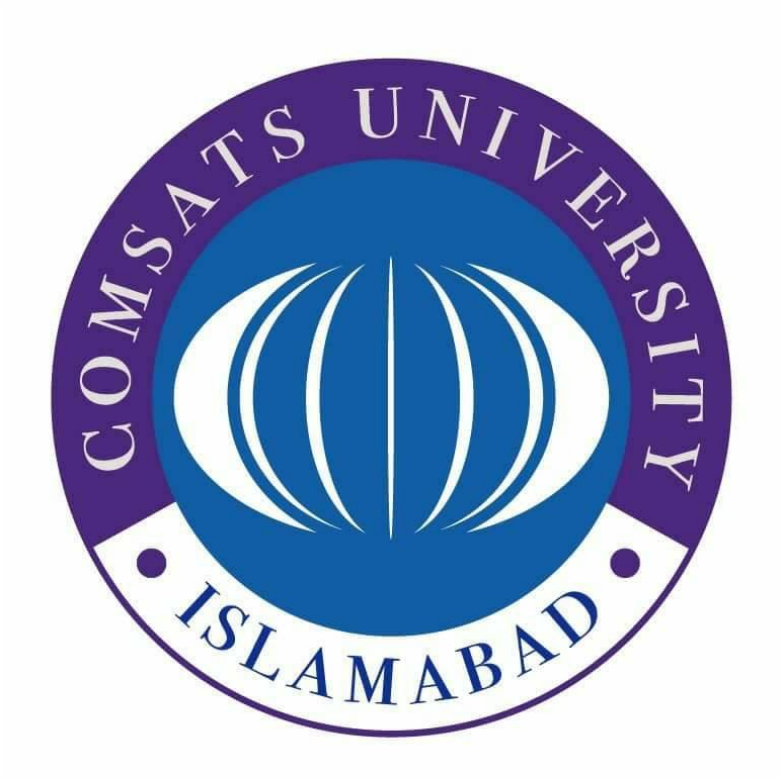

PROJECT PROPOSAL

EEE241: Digital Logic Design
Submitted To: Dr. Tahir Khan
Dated: 30th December, 2022

Project Name
Dual Axis Solar Tracker

Group Members
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Overview
Solar energy is coming up as a major source of energy. The need of the hour is renewable energy resources with cheap running costs. With the current systems for solar energy harvesting, we have high production only at fixed times, mostly noon. This project proposes a dual axis solar tracker system that increases productivity by a significant margin.

Project Details
This project's goal is to evaluate the performance of a dual-axis solar tracking system. It is made up of three major structures: the inputs, the controller, and the output. The LDRS provides input, the controller is an intermediate, and the servo motor serves as the output. The main controller receives analogue input from LDRs and converts it to a digital signal using an analog-to-digital (A- D) converter. The controller then sends the signal to the servo motor to determine the position of the solar panel. One servo motor is used for tracking along x-axis and the other is for y-axis tracking.

Applications
- ➔ It can be used for large and medium scale power generations.
- ➔ It can also be used for power generation at remote places.
- ➔ It may be used as domestic backup power systems.
- ➔ It can be used for solar street lighting systems.
- ➔ It may be used in water treatment technologies and solar heating.