

# **SOLAR TRACKER**

*A socially relevant project report submitted in partial fulfillment of the requirements for the award of the degree of*

## **BACHELOR OF TECHNOLOGY IN ELECTRICAL & ELECTRONICS ENGINEERING**

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**AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY**

(Permanently Affiliated to Jawaharlal Nehru Technological University, Kakinada, AP)

(An NAAC Accredited Institution)

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**(2021-2022)**

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**CERTIFICATE**

This is certify that the socially relevant project report entitled “**SOLAR TRACKER**” is a bonafide work submitted by **E.TULASIRAO, B.PAVAN KUMAR, CH.HARISH, E.RAVITEJA, N.GANESH** in partial fulfillment of the requirements for the award of degree of

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During the academic year  
**(2021-2022)**

**Internal Guide**  
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## **ABSTRACT**

Solar panel has been used increasingly in recent years to convert solar energy to electrical energy. The solar panel can be used either as a stand-alone system or as a large solar system that is connected to the electricity grids. The earth receives 84 Terawatts of power and our world consumes about 12 Terawatts of power per day. We are trying to consume more energy from the sun using solar panel. In order to maximize the conversion from solar to electrical energy, the solar panels have to be positioned perpendicular to the sun. Thus the tracking of the sun's location and positioning of the solar panel are important. The goal of this project is to design an automatic tracking system, which can locate position of the sun. The tracking system will move the solar panel so that it is positioned perpendicular to the sun for maximum energy conversion at all time. Photoresistors will be used as sensors in this system. The system will consist of light sensing system, microcontroller, gear motor system, and a solar panel. Our system will output up to 40% more energy than solar panels without tracking systems.