

SINGLE AXIS SOLAR TRACKING SYSTEM


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“I declare that this report entitled “*SINGLE AXIS SOLAR TRACKING SYSTEM*” is the result of my own group research except as cited in the references. The report has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.”

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ABSTRACT

Photovoltaic panel is suitable alternative way to generate electricity in Malaysia because most of its location receives large number of solar radiation throughout the year. However the regular PV panel is implemented on a fixed place but the position of sun in the sky changes with the seasons and time of the day. Since the maximum point of received energy is reached when the directions of solar radiation is directly perpendicular on the panel surface, therefore the conversion energy on the PV panel does not efficient. Thus an increase of the output energy of a given PV panel can be obtained by mounting the panel on a solar tracking device that follows the sunlight direction. The objective of this project is to develop automatic solar tracking system whereby the system will caused PV panel keep align with the direction of sunlight from sun rise until sunset in order to maximize energy conversion. The system focuses on the controller circuit in which it will caused the system is able to track the maximum intensity of sunlight.

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