

SOLAR CHARGE CONTROLLER WITH PWM CONTROLLER

A 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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(Permanently Affiliated to Jawaharlal Nehru Technological University, Kakinada, AP)
(An NAAC Accredited Institution)
Tamaram, Narsipatnam, Visakhapatnam-531113
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CERTIFICATE

This is certify that the project report entitled “ **SOLAR CHARGE CONTROLLER WITH PWM CONTROLLER**” is a bonafide work submitted by **M SAI SUDHEER, T KUMAR RAJA, D SYAMALA NAIDU, K SUDHAKAR NAIDU AND P RAMANA** in partial fulfillment of the requirements for the award of degree of **BACHELOR OF TECHNOLOGY**

IN

ELECTRICAL & ELECTRONICS ENGINEERING

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA

During the academic year

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ABSTRACT

In this project fully integrated single switch DC-DC Buck-Boost Converter is designed and implemented for photovoltaic (PV) applications. Buck-Boost Converter is employed to transform the unregulated DC supply from the PV system to a regulated output voltage. Conventional switching of converters leads to power losses during switching there by reducing the efficiency of the system. In this work Zero Voltage Source (ZVS) based soft switching is employed to buck boost converter without using auxiliary switches. A 50 W prototype model was designed and realized in hardware. The experimental results were found to be satisfactory.