

SCHOOL OF ENGINEERING

SOLAR BATTERY CHARGER AND TRACKING SYSTEM

FINAL REPORT

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## **Abstract**

A solar battery charger with its self solar tracking system is presented. This project involves 2 major parts which are Solar battery charger and solar tracking system. The Solar battery charger are consists PWM pulse, state-of-charge and LCD display of Battery voltage, where PWM pulse is used as a current pulse to charge the battery in order to reduce the battery heat and longer the battery life time, the state-of-charge is to determine the charge condition with issue a command to charge or discharge a battery and the voltage of battery level will be showed on LCD screen. However, the Solar tracking system are consists one servo motor, light detect sensors, LCD display of tracking direction and LCD display of solar panel voltage, where the servo motor is used to control the direction of tracking and light detect sensors are used as a sun detect sensor in order to track the sun movement with sending a signal to the comparator. The whole project can be considered as an embedded system project.