

**DESIGN AND DEVELOPMENT OF A PORTABLE PHOTOVOLTAIC
MODULE TEMPERATURE METER**

This thesis is presented in partial fulfillment for the award of the

Bachelor of Electrical Engineering (Honours)

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ABSTRACT

This project involves design a small portable solar temperature sensor with display unit. Most probably battery operated. The main application is to measure the temperature at PV module. The heart of the system consists of analog PIC (peripheral interface controller) as PIC16F873, analog temperature sensor using LM35DZ and display unit using LCD display. The highest and lowest PV cell temperatures expected are 80 °C and 20 °C and will display at LCD display. The model was calibrated with the commercially available unit and the temperature performance was compared with the mini temperature meter which is in the market in order to validate its functionality.

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