

## ABSTRACT

**This work concerns an experimental study of the effect of Phase Change Materials PCM on the thermal behavior and electrical performance of a Photovoltaic PV panel. To proceed, an appropriate experimental setup is devised and two prototypes constructed and tested. Prototype 1 corresponds to a reference case and consists of a stand, a PV panel, and an electrical circuit with a given load. Prototype 2 corresponds to an enhanced case of prototype 1 with in addition a container at the rear face of the PV panel that holds PCM. It was shown that the use of PCM can increase the electrical efficiency of PV panels by an average of 5%.**

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