

**DEVELOPMENT OF A CONTROL SYSTEM TO MEASURE THE EFFICIENCY AND CHARACTERISTIC CURVE I-V IN REAL TIME OF A SOLAR PV SYSTEM USING LABVIEW® AND ARDUINO**

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**ABSTRACT**

In this article we present a control system for real time visualization of experimental data of the efficiency and I-V (current vs. voltage) charts of a SUNTECH-STP30-12 photovoltaic (PV) panel. The system consists of a LabView® program and an electronic circuit to capture and process data of the PV panel. An Arduino UNO R3 microprocessor was used as an interface between the PV panel data and the LabView® program. The results show that it is possible to use low-cost microprocessors, with enough capacity to process information of PV panels in real time.

**Keywords:** PV Panels, Arduino, LabView®, Control Aystems.