

# Solar Power Trainer



## Curriculum Coverage

- · Acquiring Physical Phenomena:
  - -To introduce the principles of computer-based signal acquisition of physical phenomena.
  - -To acquire signals from different types of sensors, including solar radiation, temperature sensors, current and voltage transducers
- Solar Panel Characteristics:
  - -To investigate the behavior of a Solar Panel when exposed to variable light intensities.
  - -To obtain the Current VS Voltage curve of the solar panel.
  - -To obtain the Current VS Voltage curve of the solar panel under different temperatures (Day and Night).
  - To obtain the Power VS Voltage curve of the solar panel.
- Determining the efficiency of a solar panel

#### **features**

- · Computer based Solar Power Trainer
- . Includes all required sensors
- For use with NI's Data Acquisition & Control hardware

# NI<sup>1</sup> Compatible Platforms

PV Panel

Components

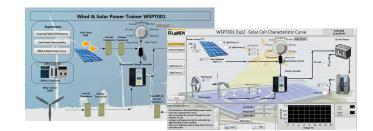
- Inverter
- Temperature Sensor
- Solar Radiation Sensor
- Loads
- CTs & VTs

- Compact RIO
- Others<sup>2</sup>
- <sup>1.</sup>NI: National Instruments
- <sup>2</sup> Please check with us about compatibility of other NI Platforms

### Software

- · User friendly with easy to use interface
- Developed using NI LabVIEW package
- Built-in safety features & limitations, and designed for students' use

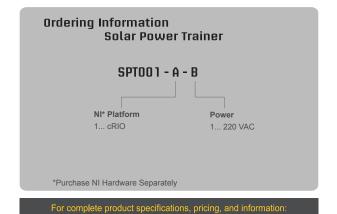






### **Required NI Modules**

• cRIO: NI-9208, NI-9476, NI-9263



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