

Solar Energy Trainer is a versatile training system to be used in laboratories. It introduces the basic concept of solar cell (photovoltaic cell) of converting sunlight directly into electrical energy. The system works as a live demonstration unit of solar cells in terms of its concepts and applications. This system is provided with Solar Energy Trainer and a Solar Panel.

- Complete training system to study the fundamentals of photovoltaic system
- The system has two modes for study:
- Characteristics and Application Modes
- □ On board voltmeter and ammeter are provided to measure the voltage and current respectively, during various modes of operation
- Charging the batteries using solar energy
- □ Weather proof solar cells
- Portable and light weight
- □ User friendly manual is provided with theoretical and practical details
- □ 2 Years Warranty

Scope of Learning

- O Calculation of voltage and current of solar cells in series
- O Calculation of voltage and current of solar cells in parallel
- O Study of V I curve and power curve of solar cells to find out maximum power point (MPP)
- O Calculation of efficiency of solar cells
- O Application of solar cells in domestic purposes :
 - Charging of battery in load and no load condition
 - Operating bulb, fan and radio

Technical Specifications

Solar Panel	: Consists of 6 solar cells
Maximum Voltage of each solar cell	: 1.5 V
Maximum Current of each solar cell	: 150 mA
Voltmeter	: 0 -10 V
Ammeter	: 0 - 500 mA
Potentiometer	: 5 K
2 AA Rechargeable NiCd Battery	: 1.2 V
Bulb	: 1.2 V, 270 mA
Fan	: 1.5 V, 400 mA
FM Band Radio	: 12 V
Dimension (mm)	: W 365 × D 265 × H 120

Note: Specifications are subject to change.

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