



Solar Energy Trainer NV6005 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

- Calculation of voltage and current of solar cells in series
- Calculation of voltage and current of solar cells in parallel
- Study of V - I curve and power curve of solar cells to find out maximum power point (MPP)
- Calculation of efficiency of solar cells
- 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