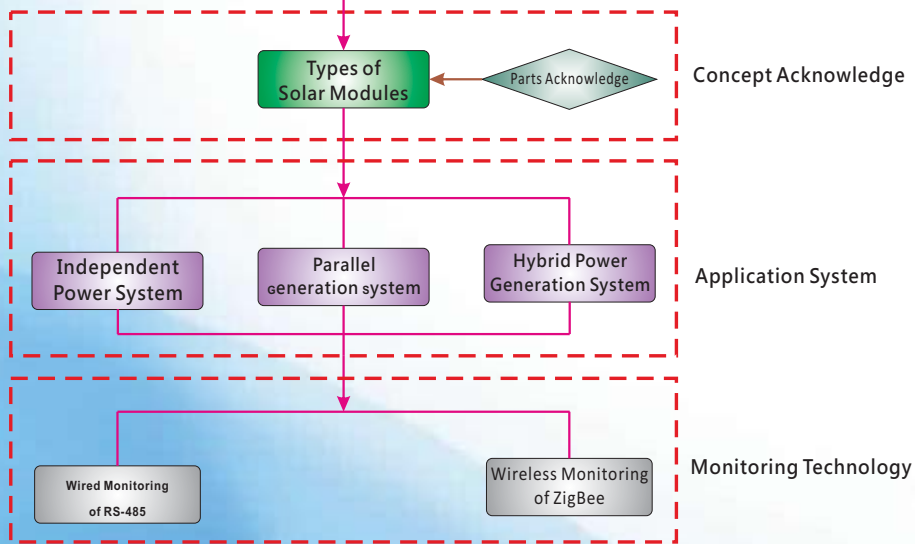


Simulation-Based Platform for Solar Energy Teaching Practice  
CE-0112



**Product**

Practical Teaching and Training System of Solar Energy  
*Education & Training*

Solar Photovoltaic Power Teaching Modules  
CE-0111

Simulation-Based Platform  
CE-0112

Portable Solar Power Learning System  
CE-0117



**CLEAN ENERGY CO., LTD.**  
70143 6F., No.256, Sec. 1, Changrong Rd., East Dist., Tainan City 701, Taiwan (R.O.C.)  
TEL: +886-6-2375818 FAX: +886-6-2375878  
E-mail: sales@clean-energy.com.tw http://www.clean-energy.com.tw

Dealer

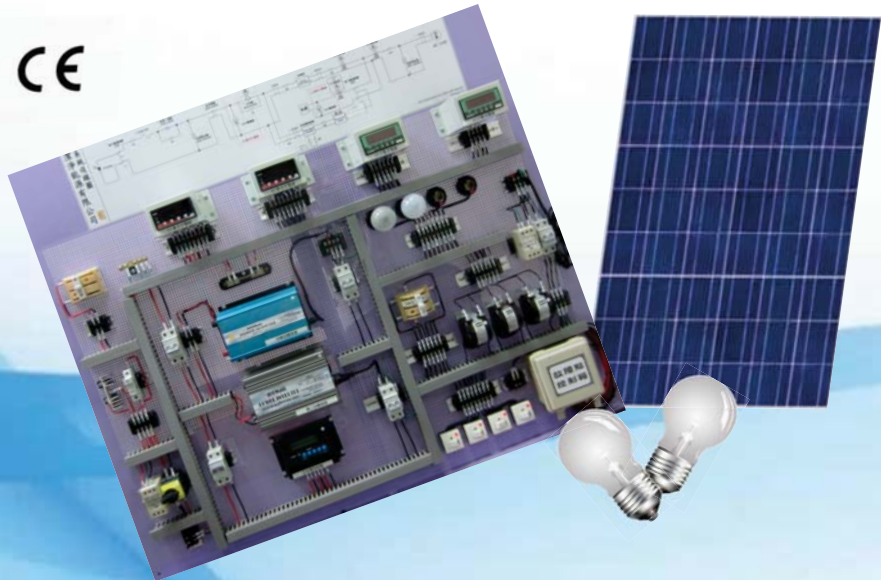
# Simulation-Based Platform For Solar Energy Teaching Practice

**Curriculum Objectives**

In order to achieve the goal of energy saving and carbon reduction, the development of teaching trainer of solar power systems and materials of alternative energy. In a progressive manner of teaching, demonstrates configurations of standalone, parallel and hybrid (disaster type) simulation-based solar power systems, so that students can through simulation-based aids learning to have the ability to assemble the solar power system engineering.

**Curriculum Outline**

Through the course content such as configurations of independent type, shunt type and hybrid type (disaster type) simulation-based solar power systems, students can understand the actual engineering architecture and assembly methods, after the training course have the ability to assemble solar power system engineering.



*The best choice of solar power system for education and training*

# Simulation-Based Platform For Solar Energy Teaching Practice CE-0112

## Concept Acknowledge

### Types of Solar Modules

Chapter : Types of Solar Modules

Section 1 : Understanding Solar Module

Section 2 : Types of Solar Cells

### Equipment Acknowledge

Chapter : Practice Units

Section 1 : Understanding System Devices

Section 2 : Practice of Energy Generation System of Single Solar Module

Experiment 1 : Practice of DC Power Supply and Digital Instrumentation Features

## Application System

### Independent Power System

Experiment 2 : Practice of Load and Efficiency of Inverter of Independent Power System

### Parallel generation system

Experiment 3 : Practice of Load and Efficiency of Inverter of Parallel Power System

### Hybrid Power Generation System

Experiment 4 : Setting up a Small Power of Hybrid Power System

## Monitoring Technology

### Wired Monitoring

Experiment 5 : Wired Monitoring (USB & RS-485)

5.1 Understanding the Setting of Interface and Data of Header

5.2 System Data Collection and Analysis

5.3 System Failure Alarm System

### Wireless Monitoring

Experiment 6 : Wireless Monitoring of ZigBee

6.1 Point to Point Wireless Communication of ZigBee

6.2 Wireless Network Analyzer

6.3 Measurements of Packets of Wireless Network Analyzer

6.4 System Data Collection and Analysis

6.5 System Failure Alarm System

Experiment 7 : Wireless Monitoring of WiFi

7.1 WiFi How to Link to the District Network Wireless Communication

7.2 WiFi How to Read the Data of Header

7.3 System Data Collection and Analysis

7.4 System Failure Alarm System

### Related Products:

- ◆ Solar Photovoltaic Power Teaching Modules (CE-0111)
- ◆ Portable Solar Power Learning System(CE-0117)
- ◆ Customized Solar Aids
- ◆ Related Import and Export Trade