



# **SREE VIDYANIKETHAN ENGINEERING COLLEGE**

**(Autonomous)**

**Sree Sainath Nagar, Tirupathi – 517 102**

## **Department of Electrical and Electronics Engineering**

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### **Centre for Energy**

**Centre for Energy** at Sree Vidyanikethan Engineering College, under the departments of Electrical and Electronics Engineering and Mechanical Engineering was established for conducting, developing and promoting interdisciplinary research work in the field of renewable energy. Looking into the potential and application of different energy resources, it is emphasized that the centre gives priority to activities in the field of bio-energy, alternative fuels, clean coal technology, combustion and energy efficiency of systems, power quality, renewable energy and power electronic converters etc.

Members of Faculty from Electrical and Electronics Engineering and Mechanical Engineering are presently associated with the centre for the promotion of interdisciplinary research for sustainable energy. Faculty and student development programs are also organized for capacity building.

#### **VISION**

To become a Regional centre of excellence in the field of Energy Research.

#### **MISSION**

Developing new technologies and innovations for increasing energy needs

- ❖ Conducting high quality multi-disciplinary research for energy efficiency, economy and environmental protection.
- ❖ Designing and developing energy efficient devices in compliance to the environment and standards.

## **OBJECTIVES**

- ❖ To design and develop new efficient energy storage systems.
- ❖ To identify and assess uncertainties in the field of energy management and possible solutions.
- ❖ To innovate green technologies for harnessing energy from natural resources and waste.
- ❖ To develop futuristic, efficient power electronic converters for energy systems.

## **Major Equipments**

### **Software:**

- ❖ MiPower
- ❖ PSCAD
- ❖ MATLAB/SIMULINK
- ❖ Code Composer Studio
- ❖ ANSYS
- ❖ CATI

### **Hardware available:**

- ❖ Programmable AC & DC Electronic Load
- ❖ Power Quality Analyzer
- ❖ Pyrano Meter
- ❖ Solar MPPT System
- ❖ Digital Oscilloscopes



Power quality analysis in Inverters room



Solar PV based battery charging system



Wireless remote based speed and direction control of Ceiling Fan



Single phase Inverter testing under loaded condition using lamps