



P.S.R. ENGINEERING COLLEGE, SIVAKASI – 626 140.

(An Autonomous Institution)

An Autonomous Institution, Affiliated to Anna University, Approved by AICTE
Accredited by NBA, NAAC Recognized under 12(B) of the UGC Act, 1956

Sevalpatti (P.O), Sivakasi – 626140, Virudhunagar, Tamilnadu.



Solar Energy and Electrical Power Analysis Laboratory

The objective of a Solar Energy and Electrical Power Analysis Laboratory is to conduct research, analysis, and experimentation related to solar energy and electrical power systems. The laboratory aims to gather data, investigate various aspects of solar energy generation and electrical power systems, and develop innovative solutions to improve efficiency, reliability, and sustainability. The main aim of a Solar Energy and Electrical Power Analysis Laboratory is to conduct research, analysis, and experimentation related to solar energy and electrical power systems.

The laboratory aims to gather data, investigate various aspects of solar energy generation and electrical power systems, and develop innovative solutions to improve efficiency, reliability, and sustainability. This Laboratory enables the students to acquire knowledge in Wind Emulation, Solar emulation, grid integration of renewable sources, Power System Analysis, Power System Operation and Control, Power System Protection, Restructuring of Power System and Cable Sizing.

The major hardware and software equipment of the laboratory includes

- Micro Wind setup
- Spartan 6 FPGA Board
- DC-DC Boost Converter
- DC-DC BI Bidirectional Buck-Boost Converter
- Three phase voltage source Inverter
- Solar PV module
- Harmonic analyser
- MATLAB
- ETAP
- Keil IDE