



UGC RECOGNIZED

PDEU PANDIT
DEENDAYAL
ENERGY
UNIVERSITY

Formerly Pandit Deendayal Petroleum University (PDPU)



SCHOOL OF ENERGY TECHNOLOGY

Department of Electrical Engineering

Name of Laboratory : Electrical Machines and Renewable Energy Lab

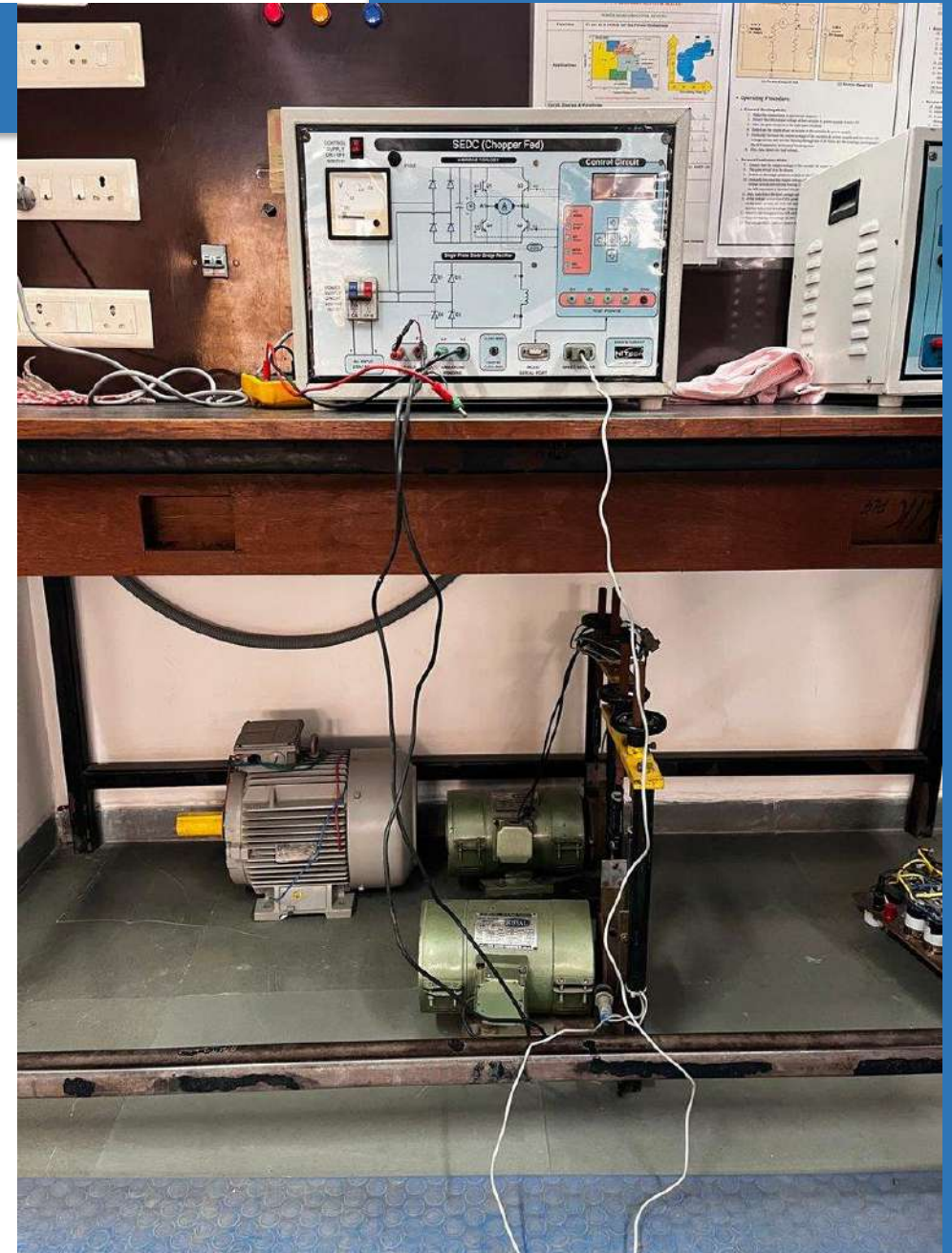
www.pdeu.ac.in

NAME OF EQUIPMENT :

3Ph Squirrel Cage Induction Motor with Control Panel (MG Set)

TECHNICAL SPECIFICATIONS :

- 3-Phase, 5 Hp, 4-Pole, 415 V, 50 Hz
- Class of Insulation F
- Efficiency as per IS 12615
- Type: 3-Phase Squirrel Cage Induction Motor
- Power Rating: 5 HP (3.73 kW)
- Poles: 4 (Synchronous Speed: 1500 RPM)
- Voltage: 415V, 50Hz, Δ /Y Connection
- Full Load Current: \sim 8.5A
- Class of Insulation: F (155°C)
- Efficiency Class: IE2 (as per IS 12615:2011)
- Frame: Totally Enclosed Fan Cooled (TEFC)
- Coupled with: DC Generator for MG Set operation



NAME OF EQUIPMENT :

Experiment Set of Wind Generator

TECHNICAL SPECIFICATIONS :

- Wind Control Panel
- Digital Voltmeter, Ammeter, Power Analyser
- Make: ECOSENCE
- Make: ECOSENCE, Chennai
- Type: Permanent Magnet AC Generator (PMAG)
- Wind Simulation: Variable speed DC motor drive
- Output: 3-phase AC, Variable frequency
- Control Panel: Digital Voltmeter, Ammeter, Power Analyser
- Rated Wind Speed: 12 m/s (simulated)
- Cut-in Speed: 3 m/s (simulated)
- Load Bank: Resistive + LED load
- Interface: PC-based data logging



NAME OF EQUIPMENT :

Solar Research Kit

TECHNICAL SPECIFICATIONS :

- PV Characteristics Stand Alone System
- MPPT Inverter 230 V, 50 Hz, 2 KW
- Make: ECOSENCE
- Make: ECOSENCE, Chennai
- PV Panel: 250W monocrystalline module
- MPPT Inverter: 2 kW, 230V, 50Hz output
- Battery Bank: 12V / 100Ah sealed lead-acid
- Charge Controller: 20A PWM/MPPT
- IV Curve Tracer: Built-in PV characteristics plotter
- Monitoring: Voltage, Current, Power, Irradiance
- Stand Alone System with grid-tie capability

