

MACHINES LAB



Objective of the Laboratory:

- To provide the students a chance to put theory into practice.
- To get familiar with DC machines, Transformers, synchronous machines and induction motors and give them experimental skills.
- To calculate the various parameters and characteristics of the Electrical machine.
- To understand the basic principles of operation of rotating electric machines, their classification, and basic efficiency and performance characteristics.
- To understand the operation and basic configuration of AC machine.

Major Equipment in Machine Lab:

- DC compound motor (HP-3, 1500 rpm,230V)
- DC compound Generator (2kW,1500rpm,220V,9A)
- DC compound Generator (3kW,1400rpm,110V)
- DC compound Motor (HP-5,1760rpm,230V,20A)
- DC compound Generator (3kW,1750rpm,115V)
- DC Series Motor (HP-2, 1500 rpm,230V,12A)
- DC Shunt Generator (1.5kW,1500rpm,230V,6.5A)
- DC series Generator (2kW,1500rpm,115V,17.4A)
- DC Shunt Motor (HP-5,1500rpm,230V,20A)
- DC Shunt Motor(HP-2.5, 1200/2400 rpm,230V,13.5A)
- DC Shunt Motor (HP-5,1400rpm,220V,21A)
- DC compound Motor (HP-5,1400rpm,220V,42A)
- DC compound Generator (3kW,1750rpm,110V,27.3A)
- DC compound Generator (2kW,1500rpm,115V,17.4A)
- DC Shunt Motor (HP-5,1500rpm,230V,20A)
- DC compound Motor (HP-2,1430rpm,220V,6A)

- DC compound Motor (HP-2,1450rpm,220V,8.3A)
- DC compound Motor (HP-2,1450rpm,220V,8.56A)
- DC Shunt Motor (HP-5,1500rpm,230V,20A)
- DC Series Motor (HP-5,1000- 1500 rpm,220V,21.2A)
- DC Shunt Generator (3kW,1400rpm,220V,13A)
- DC compound Generator (45kW,1460rpm,230V,196A)
- DC compound Motor(6kW,1400rpm,110V,6.5A)
- 3 Φ Induction Motor (HP-5, 1400 rpm,230V,16A)
- 3 Φ Transformer (2kVA,230/25-110V)
- 3 Φ Transformer (2kVA,230/25-110V)
- 3 Φ Induction Motor (HP-8, 1450 rpm, 220V,21A)
- 3 Φ Induction Motor (HP-5/2.5, 1450/720 rpm,400V,7.5/5A)
- 3 Φ Auto Transformer (400/470V,8A)
- 3 Φ Induction Motor (HP-1, 1410 rpm,220V,3.4A)
- 3 Φ Squirrel Case Induction Motor (HP-2, 1430 rpm,220V,6A)
- 3 Φ Induction Motor(HP-17, 1460 rpm,400V,125A)
- AC Alternator (6kVA,400/230V,8.7/15.1A,1500 rpm)
- 1 Φ Auto Transformer (230/270V,28A)
- 1 Φ Transformer (2kVA,220/50-75-110V)
- 1 Φ Transformer (1kVA,230/115V)
- 1 Φ Transformer (2kVA,230/50-110V)
- 1 Φ Auto Transformer (230/270V,28A)
- 1 Φ Induction Motor (HP-0.5, 1425 rpm,200V,3.5A)
- 1 Φ Auto Transformer (220/270V,28A)
- 1 Φ Induction Motor (HP-1.5, 750/1500 rpm, Repulsion motor)
- 1 Φ three winding Transformer (2kVA)
- Rheostats
- AC Alternator (3kVA,230V,7.5A,1470 rpm)
- Exciter (115V,2500 rpm,6A)
- Rotary Converter (5kW,1500 rpm,230V,21.75A)
- Transformer (7.5kVA,400/16.3V,10.9/15.3A)
- Wattmeter (2.5/5A,75-150-300V)
- Wattmeter (1-2/125/250/500V,75-150-300V)
- Resistance Starter for DC series Motor
- Three point DC starter V-230 Regulator
- Solar panel
- Wind energy system
- Rectifier

Name of officials handling the Laboratory:

- Sh. Ram Singh (Rtd. 2015)
- Sh. Gurmail Singh (2016-till now)