Machines Lab

Welcome to Machines Lab!

This lab has its foundations laid down many years back. Machines form an integral part of our life and it is difficult to imagine our life functioning without them. Right from the core entity: handsets to the vehicles to the big power stations, one can find them everywhere in all scales. The fundamental topics needed to build and operate these machines are focussed upon during the experiments performed here for both UG and PG Labs. We believe in entering the realm of physical experiments to prove the theory being taught in the class.

A 360 view of Machines Lab

We also hold basic lab courses for other departments like Metallurgical Engineering and Materials Science, Energy Science and Engineering etc. The list of experiments conducted for the UG & PG labs is given below. Know how of these experiments is essential before you come for the RA Lab exam.

1. TRANSFORMER
   - BH curve of transformer
   - Polarity test
   - Short circuit and Open circuit test of single phase transformer

2. DC GENERATOR
   - Open circuit characteristics of separately excited DC generator
   - VI characteristics of separately and self excited DC generator
   - Self excitation in DC Generator

3. DC MOTOR
   - Torque-speed characteristics of DC Motor
   - Operation of semi converter based drive for DC motor

4. INDUCTION MOTOR
   - Torque-speed characteristics of squirrel cage Induction Motor
   - Speed Control of wound rotor Induction motor using rotor resistance control
   - Parameter estimation of squirrel cage Induction motor using Blocked rotor & No-load test Induction Generator (self excitation and grid connected operation)

For more details, visit our website at Machines Lab