

Lab Name: Electrical Machines

Room No: 139
EE Department (NBA Accredited)
A D Patel Institute of Technology
New Vidyanagar
Lab in-charge name : Mr. M. B. Astik
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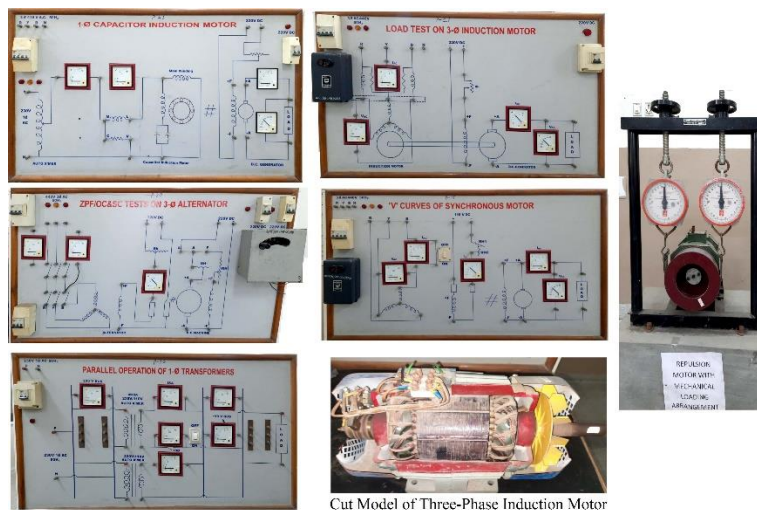
Lab Area: 228.87 Sq.m

Lab Introduction:

In this lab, the students perform the practical on open circuit test and short circuit tests on a single-phase transformer, parallel operation of two single-phase transformers and to observe how the two transformers share the common load, different connection for three phase transformer, three phase supply into two phase supply using Scott's connections, study of circle diagram of a three-phase induction motor and to determine all the possible parameters of the induction motor with the help of the circle diagram, load characteristics of three-phase induction motor, the working of induction motor starters, squirrel cage as well as slip ring induction motor. Practical on induction motor to find out the unbalance condition and effect of variation in supply voltage are performed. Demonstration and experiment on cut model of three-phase squirrel cage and slipring motor. V-curves of a synchronous motor, open circuit and short circuit tests on a three-phase Alternator and thereby find % regulation at various loads and power factor, synchronization of the alternator with infinite bus bar. The laboratory contains all the above equipment's. Also load test on repulsion motor and universal motor is performed.

Major Equipments available in lab: Squirrel cage and slipring Induction motors, cut model squirrel cage and slipring Induction motor, single-phase and three-phase transformers, Alternators, DC Generators, Synchronous motor, single-phase capacitor Induction Motor, Repulsion Motor, Universal Motor, Reluctance Motor, and Shaded-pole Motor.

Lab Photograph:



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