

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E.in Power Electronics & Electrical Drives

Semester: I

Subject Name: **Power Electronics Simulation Laboratory**

Subject Code: **714503**

Sr. No	Course Content
1.	To simulate and design gate triggering circuit using analog devices.
2.	To simulate and design gate triggering circuit using microcontroller.
3.	To simulate and study speed control of DC series motor by static armature voltage control using SCR.
4.	To simulate and study the speed control of 3-phase induction motor using PWM and to determine speed torque characteristics.
5.	To study 3 ϕ full wave controlled rectifier with R and RL load and to plot input and output waveforms.
6.	To study the single phase series inverter and to measure the resonance frequency.
7.	To simulate and study the current commutated step down chopper.
8.	To simulate and study operation of DC static circuit breaker using SCR.
9.	To simulate and study the UJT based relaxation oscillator & to evaluate the dynamic resistance.
10.	To simulate and study single phase Mc Murray Inverter power circuit.