



S. N. Patel Institute of Technology & Research Centre, Umrakh

(A Vidyabharti Trust Institution)

B.E-ELECTRICAL ENGINEERING DEPARTMENT

Subject Name: POWER ELECTRONICS

Subject Code: 3140915

Sr.No.	Experiment
1	To study about Static and dynamic characteristic of SCR, MOSFET and IGBT.
2	To study about R, RC and UJT triggering of SCR.
3	To study and perform DC-DC Buck converter.
4	To study and perform DC-DC Boost converter.
5	To study and perform DC-DC Buck-Boost converter.
6	To study and perform 1-phase half and full bridge inverter with R and R-L load.
7	To study and perform 3-phase bridge inverter operating with 180° conduction mode.
8	To study and perform 3-phase bridge inverter operating with 120° conduction mode.
9	To study and perform harmonic spectrum of output voltage for unipolar and bipolar PWM controlled full bridge converter.
10	To study and perform SVPWM technique for inverter.
11	To study and perform single phase full bridge thyristor rectifier for R and RL load.
12	To study and perform three-phase full bridge thyristor rectifier for R and RL load.
13	To study and perform AC voltage control of SCR based 1-phase ac voltage controller using phase-control principle.
14	AC voltage control of SCR based 1-phase ac voltage controller using ON-OFF control principle
15	To simulate and perform of step-up cycloconverter and step-down cycloconverter.