



List of Experiments

1. Design simulation of Single phase rectifier with R, RL and RLE loads using MATLAB.
2. Study and analysis of open and closed loop control of three phase induction motor using DSP microcontroller board.
3. Study and analysis of open and closed loop control of BLDC motor using DSP microcontroller board.
4. Study and analysis of open and closed loop control of Switch Reluctance Motor using FPGA.
5. Study and analysis of open and closed loop control of PMDC motor using DSP microcontroller board.
6. Study and analysis of three level diode clamp three phase MLI for open and closed loop control of Induction motor using FPGA Board.
7. Study and analysis of five level cascaded MLI operation through FPGA control Board.
8. Study and analysis of various operation by Matrix Converter through FPGA Controlled Board.
9. Study and analysis of closed loop control of BLDC and Three Phase Induction Motor parameter on Real Time GUI FPGA platform.

List of Major Equipment's

1. Real Time – GUI FPGA Controller Based
 - I. Induction Motor Set up
 - II. DC Motor Drive Set Up
 - III. BLDC Motor Drive Set up
 - IV. SR Motor Drive Set up.
2. Matrix Converter Power Module
3. Three Phase Five Level Cascaded Multilevel Inverter.
4. Three Phase Three Level Diode Clamped Multilevel Inverter Power Module.
5. DSPIC4011 Microcontroller Based PWM Controller.
6. FPGA PWM Controller
7. AC/DC Current Measurement Cards with auxiliary power supply
8. AC/DC Voltage Measurement Card with auxiliary power supply
9. Single IGBT Project card with Opt coupler based driver circuit
10. Dual IGBT Project card with Opt coupler based driver circuit
11. Opal RT Real Time HIL Simulator and HIL Controller
12. Typhoon HIL Simulator.
13. Workstation Dell