UG Laboratories/ Electrical Drives Laboratory



List of Experiments

- 1. Study of chopper/DC-DC converter-controlled DC Drive.
- 2. Study of Rectifier controlled DC Drive.
- 3. Study of PWM controlled Inverter fed Induction Motor
- 4. Study of electrical braking operation of DC Motor
- 5. Study of electrical braking operation of AC motor
- 6. Study of V/f control operation of 3phase induction motor drive.
- 7. Study of permanent magnet synchronous motor drive fed by PWM Inverter.
- 8. Study of Closed-Loop Control of DC Drives.
- 9. Study of slip power recovery control of induction motors.
- 10. Study of two-quadrant operation of DC-DC Converter.

List of Major Equipment's

- 1. DC-Motor Gen System (3kw)-NI LabVIEW based
- 2. Induction Generator System- NI LabVIEW based instruments.

- 3. 3-phase Synch motor gen System, 3 kW
- 4. Three Phase Squirrel Cage Induction –Controlled by NI-LabVIEW and VFD Drives
- 5. Switched reluctance Motor kit 0.3 kW
- 6. 3-Phase Universal Motor Controller
- 7. PM Synch Motor Kit 3 kW
- 8. PMBLDC- Kit 0.25 kW
- 9. Solar and Wind Power Trainer Kit (NI LabView)
- 10. Smart Grid Monitoring Module
- 11. Three-phase half and fully controlled rectifier.
- 12. Variable frequency drives.
- 13. Voltage Source Inverter.