

# DEPARTMENT OF ELECTRICAL ENGINEERING

## ELECTRICAL MEASUREMENTS LABORATORY

### List of Major Experiments:

#### EE2090 Basic Electrical Engineering Lab

- (a) STUDY OF ANALOG AND DIGITAL MULTIMETERS
- (b) VERIFICATION OF KIRCHHOFF'S LAWS
- CHARACTERISTICS OF LINEAR AND NON-LINEAR LOADS
- (a) POTENTIAL DIVIDER CONNECTION
- (b) MEASUREMENT OF LOW, MEDIUM AND HIGH RESISTANCES USING VOLTMETER AND AMMETER
- VERIFICATION OF SUPERPOSITION THEOREM AND MAXIMUM POWER TRANSFER THEOREM
- VERIFICATION OF THEVENIN'S AND GENERALIZED RECIPROCALITY THEOREMS
- STUDY OF FUSE, MCB AND ELCB-SELECTION OF FUSE RATING FOR CIRCUITS
- SINGLE PHASE POWER MEASUREMENT (FAN LOAD) AND DETERMINATION OF EFFICIENCY OF KETTLE
- DETERMINATION OF POWER AND POWER FACTOR IN RLC SERIES AND PARALLEL CIRCUITS
- THREE PHASE POWER MEASUREMENT OF BALANCED AND UNBALANCED LOADS
- ANALYSIS OF RESONANCE IN RLC CIRCUITS
- MEASUREMENT OF SELF-INDUCTANCE, MUTUAL INDUCTANCE AND COUPLING COEFFICIENT OF WINDINGS
- MEASUREMENT OF EARTH RESISTANCE AND INSULATION RESISTANCE

#### EE2092 Electrical Measurements Lab

- DETERMINATION OF B-H CURVE,  $\mu_r$ -H &  $\mu_r$ -B CURVE OF AN IRON RING SPECIMEN
- CALIBRATION OF MAGNETIC FLUX METER USING STANDARD SOLENOID AND SEARCH COIL AND HIBBERT'S MAGNETIC STANDARD
- MEASUREMENT OF RESISTANCE USING WHEATSTONE'S BRIDGE AND CABLE RESISTANCE USING KELVIN'S DOUBLE BRIDGE AS PER ISI SPECIFICATION
- EXTENSION OF RANGE OF WATT METER USING CT & PT
- CALIBRATION OF DYNAMOMETER TYPE WATTMETER USING SLIDE WIRE POTENTIOMETER AND PRECISION TYPE VERNIER POTENTIOMETER
- EXTENSION OF RANGE OF AMMETER/VOLTMETER AND CALIBRATION OF THE EXTENDED METERS USING STANDARD AMMETER/VOLTMETER
- EXPERIMENTS ON LLOYD FISCHER SQUARE
- CALIBRATION OF SINGLE PHASE ENERGY METER BY DIRECT AND PHANTOM LOADING
- CALIBRATION OF THREE PHASE ENERGY METER BY DIRECT AND PHANTOM LOADING
- DETERMINATION OF HYSTERESIS LOOP OF AN IRON RING SPECIMEN USING SIX POINT METHOD
- PHOTOMETRIC EXPERIMENTS
- MEASUREMENT OF CAPACITANCE BY SCHERRING BRIDGE AND MEASUREMENT OF BRANCH VOLTAGES IN SERIES RLC CIRCUIT USING AC POTENTIOMETER

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