

## ELECTRICAL MEASUREMENTS AND INSTRUMENTS

Code : EE 302(EI)

**Credits : 4**

### **Module I**

General features – Construction and principle of operation of moving coil, moving iron, Dynamometer, Thermal and Rectifier type deflecting instruments. Deflecting, controlling and damping torques, extension of instrument ranges using shunts, multipliers and instrument transformers.

### **Module II**

Measurement of low, medium and high resistances, Kelvins double bridge, multimeters, megger, localization of cable faults using Murray and Varley loop methods.

### **Module III**

D.C. and A.C. potentiometers, Measurement of high voltage, Electrostatic instruments, measurement of inductances, capacitance and frequency by A.C. Bridges – Maxwell, Schering, Anderson, De-Sauty, Wien.

### **Module IV**

Measurement of active power in polyphase circuits, various wattmeter connections. A.C. and D.C. energy meters.