















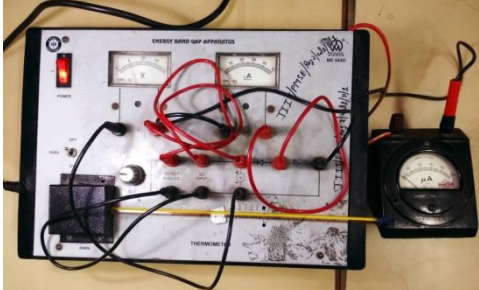


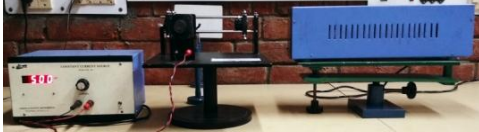



DEPARTMENT OF PHYSICS AND MATERIALS SCIENCE AND ENGINEERING








UG Laboratories: (PL01, PL02, PL06, and PL07)

Equipments/facilities available

S. No.	Experiment Detail	Photograph
1	Newton's ring setup	 A photograph of a Newton's ring experiment setup. It features a light source on the left, a lens on a stand, and a microscope on the right to observe the interference pattern.
2	Fresnel's Bi-prism setup	 A photograph of a Fresnel's bi-prism experiment setup. It shows a light source, a bi-prism, and a screen on a table to observe interference fringes.
3	Polarimeter setup	 A photograph of a polarimeter experiment setup. It includes a light source, a polarizer, a sample, and an analyzer on a stand.
4	Stefan's law setup	 A photograph of a Stefan's law experiment setup. It shows a power supply unit with a voltmeter and an ammeter, connected to a heating coil.
5	Malus Law setup	 A photograph of a Malus Law experiment setup. It features a light source, a polarizer, a rotatable analyzer, and a detector on a table.
6	Carey foster bridge setup	 A photograph of a Carey Foster bridge experiment setup. It shows a bridge circuit with a battery, a galvanometer, and various resistors on a table.







7	Spectrometer with prism setup	
8	Spectrometer with grating setup	
9	Planck's constant setup by photo cell	
10	Helmholtz galvanometer setup	
11	Planck's constant setup by solar cell	
12	Cauchy's Constant Setup	
13	Single, double and N slit Diffraction using Laser	

14	Resolving Power of telescope	
15	$p-n$ junction diode setup	
16	Four probe setup	
17	Hall effect setup	
18	Magnetostriction setup	
19	Dielectric setup	
20	Magnetoresistance setup	
21	Susceptibility setup	

22	Optical Fiber setup	 <p>A photograph of an optical fiber setup on a laboratory bench. It includes a power supply, a fiber optic cable, and various measurement instruments.</p>
23	e/m by Thomson setup	 <p>A photograph of a Thomson setup for measuring the charge-to-mass ratio (e/m) of an electron. It features a circular vacuum tube with a central electrode and a control panel with several dials and switches.</p>
24	e/m by Magnetron setup	 <p>A photograph of an e/m setup using the magnetron valve method. The device has a white front panel with three large circular meters and several control knobs and buttons.</p>
25	Solar cell characteristics setup	 <p>A photograph of a solar cell characteristics setup. It includes a solar cell, a power supply, and a meter to measure the current and voltage generated by the cell.</p>
26	Ultrasonic Interferometer setup	 <p>A photograph of an ultrasonic interferometer setup. It consists of a white control unit with a meter and a vertical probe assembly mounted on a base.</p>
27	Planck's constant setup using LED	 <p>A photograph of a Planck's constant setup using an LED. The setup includes a power supply, a meter, and a red LED connected to the circuit.</p>
28	Inverse square law setup	 <p>A photograph of an inverse square law setup. It features a power supply, a meter, and a detector connected to a light source to measure the intensity of light at different distances.</p>







PG Laboratories: (PL03: MSE I and PL04: MSE II)







Equipments/facilities available

S. No.	Experiment Detail	Photograph
1	Four probe setup	
2	Magnetostriction setup	
3	Magnetoresistance setup	
4	Dielectric setup	
5	Hall effect setup	
6	Optical Fiber setup	

Materials Characterization Laboratory: (PL05)

Equipments/facilities available

S. No.	Experiment Detail	Photograph
1	X-ray diffractometer	
2	UV/Visible spectrophotometer	
3	LS-55 Luminescence spectrometer	
4	Spectrum BX-II Spectrophotometer (FTIR)	
5	Vacuum coating unit	
6	Spin coating unit	

7	Novocontrol alpha A high performance frequency analyzer	
8	PE-loop tracer with furnace	
9	Impedance analyzer with micro processor based temperature controlled furnace	
10	LCR meter	
11	Millipore water Purification System	
12	Electromagnet with power supply and Gaussmeter	

13	Keithley Digital multimeter	
14	Keithley nanovoltmeter and AC/DC current source	
15	High temperature muffle furnace up to 1500°C, PID controlled	
16	Tubular muffle furnace up to 1500°C, PID controlled	
17	High temperature furnace up to 1200°C, PID controlled	
18	Two zone split type furnace: zone-1 1200°C, zone-2 800°C	
19	Oven with heating up to 350°C	

20	Oven with heating up to 300°C, PID controlled	
21	Trinocular microscope with magnification up to 100x	
22	Hardness testing machine	