



## DEPARTMENT OF PHYSICS

### ENGINEERING PHYSICS LAB

(Common for all branches)

#### Course Outcomes

At the end of this course, the students will be able to

	COURSE OUTCOMES	Bloom's Taxonomy	Bloom's Taxonomy Level
CO-1	Apply the theoretical knowledge as working principles of Laboratory experiments related to Optics, Mechanics, Electromagnetic and Electronics.	Apply	L3
CO-2	Adopt the experimental procedure to perform the experiments for Data procurement / Acquisition.	Adopt	L3
CO-3	Compute the required parameters by suitable formula using experimental values (observed values) in Mechanics, Optics, Electromagnetic and Electronics.	Compute	L3
CO-4	Analyze the experimental data and obtain the results through graphical Interpretation.	Analyze	L4
CO-5	Classify effectively as an individual or as a team and be Accountable / Responsible to the work rendered.	Classify	L4

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3				1	2						
CO2		2	1									
CO3				2				1				
CO4	1			3								
CO5								2	3	1	2	

### List of Experiments

#### Electricity, Magnetism & Optics

1	Determination of thickness of a thin paper by forming interference fringes – wedge method	<b>INDIVIDUAL</b>
2	Newton's rings--radius of curvature of the convex lens	
3	Determination of wavelengths of spectral lines in mercury spectrum-using diffraction grating in normal incidence position	
4	Determination of Cauchy's constants using spectrometer and mercury light	
5	Determination of refractive indices o-ray and e-ray in quartz crystal	
6	Determine the band gap of a semiconductor (thermistor) by studying the variation of resistance with temperature.	
7	Verification of laws of resistance and measurement of Specific resistance of the material of the wire using Carey-Foster's bridge	
8	Calibration of a low range voltmeter using potentiometer	
9	Study the variation of the magnetic field along the axis of a current carrying circular coil - Stewart and Gee's apparatus	
10	Determination of the frequency of an electrically maintained tuning fork - Melde's experiment	
11	Determination of moment of inertia by using Torsional pendulum	
12	Determination of moment of inertia by using Fly wheel	
13	Determination of the particle size of micro particles (lycopodium powder) using laser diffracting grating.	<b>TEAM</b>
14	Determination of the Numerical aperture of the given fiber optic cable.	
15	Determination of the velocity of ultrasound in liquids by using the phenomenon of diffraction of light by ultrasound	
16	Determination of the wavelength of diode laser using a transmission grating	