

Engineering Physics Lab														
Course Code	23BS1252	Year	I	Semester	II									
Course Category	Basic Science	Branch	ECE	Course Type	Lab									
Credits	1	L-T-P	0-0-2	Prerequisites	Nil									
Continuous Internal Evaluation:	30	Semester End Evaluation:	70	Total Marks:	100									
Course Outcomes														
Upon successful completion of the course, the student will be able to														
CO1	Identify the type of semiconductor using Hall effect and measure the thermal resistivity, energy band gap L3.													
CO2	Apply resonance to estimate the frequency of a tuning fork and verify laws of a stretched string L3.													
CO3	Examine the optical, elastic, and dielectric properties of the given materials. L4													
CO4	Assess s the intensity of the magnetic field of circular coil carrying current with distance and measure resistance using four probe method. L4													
CO5	Summarize and tabulate the experimental observations and output.													
Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (3: High, 2: Medium, 1: Low)														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3			3								3	1	1
CO2	3			3								3	1	1
CO3	3			3								3	1	1
CO4	3			3								3	1	1
CO5									3	3		3	1	1
Exp.no	Contents													Mapped CO
1	Determination of dielectric constant of the various solid samples													CO3,5
2	Determination of wavelength of Laser light using diffraction grating.													CO3,5
3	Determination of the resistivity of semiconductors by four probe methods													CO4,5
4	Determination of energy gap of a semiconductor using p-n junction diode													CO1,5
5	Magnetic field along the axis of a current carrying circular coil by Stewart Gee's Method													CO4,5
7	Determination of temperature coefficients of a thermistor.													CO1,5
8	Determination of rigidity modulus of the material of the given wire using Torsional pendulum													CO3,5

9	To verify the laws of transverse vibrations of a string using Sonometer.	CO2,5
10	Determination of Frequency of electrically maintained tuning fork by Melde's experiment	CO2,5
Learning Resources		
References: <ul style="list-style-type: none">• S.Balasubramanian, M.N.Srinivasan, S.ChandPublishers, 2017A Textbook of Practical Physics		
Web Resources <ul style="list-style-type: none">• www.vlab.co.in• https://phet.colorado.edu/en/simulations/filter?subjects=physics&type=html.prototype		