COURSE CODE	COURSE NAME	L	T	P	CREDIT	YEAR OF INTRODUCTION
101009/PH122T	ENGINEERING PHYSICS LAB	0	0	2	1	2021

1. Preamble

The aim of this course is to make the students gain practical knowledge to correlate with the theoretical studies and to develop practical applications of engineering materials and use the principle in the right way to implement the modern technology.

2. Prerequisite

Higher secondary level Physics

3. Syllabus

LIST OF EXPERIMENTS

(Minimum 7 experiments should be completed)

1. LCR Circuit.
2. Verification of Malus' law.
3. Determination of wavelength of monochromatic light using Air Wedge.
4. Determination of wave length of light by Laser diffraction method.
5. Determination of wavelength of a monochromatic source of light using Newton's Ring's method.
6. Determination of optical fiber parameter (NA)
7. Determination optical fiber parameter (Bending Loss)

4. Text Books

1. A. Beiser, *Concepts of Modern Physics*, 5th Edition, McGraw Hill International.
2. David Halliday, Robert Resnick and Jearl Walker, *Fundamentals of Physics*, Wiley plus.

5. Reference Books

1. Ajoy Ghatak, *Optics*, 5th Edition, Tata McGraw Hill.

2. Sears and Zemansky, *University Physics*, Addison-Wesley.
3. Jenkins and White, *Fundamentals of Optics*, 3rd Edition, McGraw-Hill.

6. Course Outcomes

After the completion of the course the student will be able to

CO1: Develop analytical/experimental skills and impart prerequisite hands-on experience for engineering laboratories

CO2: Understand the need for precise measurement practices for data recording

CO3: Understand the principle, concept, working and applications of relevant technologies and comparison of results with theoretical calculations

CO4: Analyze the techniques and skills associated with modern scientific tools such as lasers and fiber optics.

CO5: Develop basic communication skills through working in groups in performing the laboratory experiments and by interpreting the result

7. Mapping of Course Outcomes with Program Outcomes

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

8. Assessment Pattern

Learning Objectives	Continuous Internal Evaluation (CIE)
Remember	30
Understand	50
Apply	20
Analyse	

Evaluate	
Create	

9. Mark Distribution

Total	CIE				ESE
	Attendance	**Internal Examination**	**Daily Evaluation and viva**	**Total**	
100	20	30	50	100	0

10. Internal Examination Pattern

There will be multiple choice questions of one and two marks. The total marks will be 30.

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