

17BSP502P					Solid State Physics Laboratory					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	Viva	
0	0	2	1	2	0	0	0	50	50	100

COURSE OBJECTIVES

To make the students to understand a broad range of experimental techniques and to enable them to demonstrate their ability to use the techniques in conducting scientific experiments and observations.

LIST OF EXPERIMENTS

1. Measurement of resistivity by using 4-probe technique
2. Study of Hall effect
3. Measurement of magnetoresistance
4. Measurement of magnetic susceptibility
5. Study of thermoluminescence of color center
6. Study of magnetic hysteresis
7. Measurement of dielectric constant
8. Study of Raman effect
9. Introduction to X-ray diffraction Pattern
10. Sputtering Techniques
11. Determination of bandgap of semiconductor using DFT
12. Optical property of an element using DFT

Course Outcomes:

Student will be able to;

CO1: Student will be able to collect data and revise an experimental procedure iteratively and reflectively.

CO2: Evaluate the process and outcomes of an experiment quantitatively and qualitatively.

CO3: Extend the scope of an investigation whether or not results come out as expected.

CO4: Communicate the process and outcomes of an experiment.

CO5: Conduct an experiment collaboratively and ethically.