# 20SH11P2 - APPLIED PHYSICS LABORATORY

(Common to EEE, CSE, IT and AI&DS)

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| **Course Category:** | Basic Science | **Credits:** | 1.5 |
| **Course Type:** | Practical | **Lecture - Tutorial - Practical:** | 0-0-3 |
| **Prerequisite:** | Fundamental concepts of physics. | **Sessional Evaluation:**  **Univ. Exam Evaluation:**  **Total Marks:** | 40  60  100 |
| **Objectives** | To provide student to learn about some important experimental techniques in physics with knowledge in theoretical aspects so that they can excel in that particular field. | | |

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| **Course Outcomes** | CO1 | These experiments in the laboratory are helpful in exploring important concepts of physics through involvement in the experiments by applying theoretical knowledge. |
| CO2 | It helps to recognize where the ideas of the students agree with those accepted by physics and where they do not. |
| **Course Content** | **Minimum of 8 experiments to be conducted out of the following**  **LIST OF EXPERIMENTS**   1. Determination of rigidity modulus of a wire material – Torsional pendulum. 2. Melde’s experiment – Transverse & longitudinal modes. 3. Resonance in LCR circuit. 4. Magnetic field along the axis of a coil (Stewart – Gee’s Method). 5. Study of characteristics of LED. 6. Newton rings. 7. Wedge method. 8. Diffraction grating - Wavelength of given source. 9. Dispersive power of prism material using spectrometer. 10. P-N- junction diode characteristics. 11. Evaluation of Numerical Aperture of given optical fiber. 12. Energy gap of a P-N junction diode material. 13. Transistor characteristics. 14. Solar cell characteristics. 15. Logic gates. | |