# 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:** | 4060100 |
| **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.
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