**SWARNANDHRA COLLEGE OF ENGINEERING & TECHNOLOGY**

AUTONOMOUS

Accredited by National Board of Accreditation, AICTE, New Delhi

Accredited by NAAC with “A” Grade-3.32/4.00 CGPA,

Recognised under 2(f) & 2(B) of UGC Act 1956, Approved by AICTE,

Permanently Affiliated to JNTUK, Kakinada

SEETHARAMPURAM, NARSAPURAM-534 280, W.G.DT.,

**B Tech I/II SEMESTERS**

**ENGINEERING PHYSICS LAB**

**(Common to All Branches)**

**LIST OF EXPERIMENTS**

**COURSE OUTCOMES**

**At the end of the course, student will be able to**

CO1: Demonstrate the basic knowledge to know the frequency of a vibrator, hall coefficient, (K3)

CO2: Attain knowledge to verify some of the properties of physical optics. (K4)

CO3: Develop skills to plot various characteristic curves and to calculate the physical properties of given materials. (K4)

CO4: Calculate some the properties of semiconducting materials. (K2)

**STUDENT HAS TO DO ANY TEN OF THE FOLLOWING**

1. Determination of wavelength of Laser using diffraction grating.
2. Determination of Numerical Aperture and Acceptance angle of an Optical Fiber.
3. Determination of the charge carrier density by using Hall Effect.
4. Determination of the Band Gap of a Semiconductor using a p-n junction diode.
5. Study of Characteristic curves (l/V) of a Zener diode to determine its Breakdown voltage.
6. Determination of Temperature coefficient of resistance of a Thermistor by using its Characteristic curve.
7. Study the variation of intensity of magnetic field along the axis of a circular current carrying coil by using Stewart and Gee’s experiment.
8. Study of Characteristic curves (l/V) of a P-N diode.
9. Determine Frequency of given electrically driven tuning fork in Transverse and Longitudinal modes by using Melde’s apparatus
10. Determine frequency of A.C. supply by using Sonometer.
11. Determination of the Time Constant for a C-R Circuit
12. Determination of the Planck's constant by using Photo-Cell
13. Determination of dielectric constant of a given material