

## DEPARTMENT OF HUMANITIES & SCIENCES

### APPLIED PHYSICS LAB

#### Course Objectives:

- Capable of handling instruments related to the Hall effect and photoelectric effect experiments and their measurements
- Understand the characteristics of various devices such as PN junction diode, Zener diode, BJT, LED, solar cell, lasers and optical fibre
- Measurement of energy gap and resistivity of semiconductor materials.
- Able to measure the characteristics of dielectric constant of a given material
- Study the behaviour of B-H curve of ferromagnetic materials.
- Understanding the method of least squares fitting.

#### Course Outcomes:

**CO1. Determine** the Planck's constant using Photo electric effect and identify the material whether it is N-type or P-type by Hall experiment

**CO2. Analyze** the quantum physics in semiconductor devices and optoelectronics.

**CO3. Develop** the knowledge of measurement of energy gap and resistivity of semiconductor materials.

**CO4. Understand** the variation of magnetic field and behaviour of hysteresis curve

**CO5. Improve** out the data analysis.