Basic Physics Lab

Most of the branches of engineering have evolved from the subject of physics and they extend the boundaries of physics towards real life applications. Hence, the concepts of physics are highly important for the engineering undergraduates as they will help the students all through their career as an engineering professional. Hence, the PHP101 Lab has been designed to cater for the experiential learning of the students through hands-on exploration of concepts of physics in the areas of mechanics, electricity and magnetism, and optics. The experiments for the B.Tech. laboratory have been chosen keeping in view the above philosophy of training.

In the B.Tech. laboratory the students learn the systematics of performing experiments including setting up of experiment, proper recording of observations, performing calculations, analysing the results vis-a-vis principles of physics and possible error sources. Due attention is given to the documentation part. The typical experiments being performed by the students are briefed below:

1) Electrodynamics : e/m-ratio with Helmholtz's coil, Basic current balance
2) Intrinsic magnetic properties: Hall effect, B-H curve tracing
3) Wave nature of light : Newton's Rings, Refractive index of prism, Diffraction of light, Faraday effect.
4) Mechanics: Stationary waves in strings, Flywheels.

BTech Physics Lab is equipped with a number of brand new instruments and the list of experiments is revised periodically to keep it aligned with the emerging needs of the engineering disciplines.