

**SUBJECT OUTCOMES:**

1. To understand basic concepts and to practice problem solving by using selected problems in solid state physics, Mechanics and Vibration and waves.
2. To learn the mathematical tools needed to solve quantum mechanics problems.
3. To acquire knowledge in the content areas of nuclear and particle physics, facilitating informed decisions as students pursue research projects, internships and graduate study.
4. To understand how statistics of the microscopic world can be used to explain the thermal features of the macroscopic world.
5. To be able to use thermal and statistical principles in a wide range of applications.
6. To understand how major concepts developed and changed over time and enlighten students with the various applications of electronics in modern era.
7. To enhance the practical skills of the students by the utilization of their theoretical knowledge of Electronics, Solid state physics, Nuclear physics, Optics in various practical and real time experiments.
8. To organize a presentation on the application of modern physics to modern technology.