**K.L.E.SOCIETY'S**
**RAJA LAKHAMAGOUDA SCIENCE INSTITUTE (AUTONOMOUS), BELAGAVI.**
**Department of PG - Physics**
**Program Specific Outcomes**

Solid State Physics has been theoretical basis of materials science, chemistry & engineering. Recently, it has also developed overlaps with biology, biochemistry, biotechnology & medicine. Large numbers of new physics discoveries are made in this area all the time So, many current research questions in Solid State Physics are at the frontiers of applied science & next-generation technologies.

During the course Students will understand the current and voltage characteristics and will be able to design and analyze electronic circuits. Concepts of Quantum Mechanics help to gain the knowledge about the behavior of energy, momentum and microscopic systems. Spectroscopic concepts provide knowledge of Raman, Microwave, infrared and electronic spectroscopy for analyzing and future studies in atomic and molecular physics. Study of elementary particles in the nuclei provides deeper knowledge about their structure

After completion of the course, the student will be able to understand Basic methods, results and simple applications of statistical mechanics. They study the applications of linear integral/differential equations & their relation. Hence they offer a powerful technique for solving practical problems using Mathematical Methods of Physics. Study of Solid State Physics enables them to gain knowledge about band energy calculations by APW method and k-p method, Hall Effect or nature of charge carriers and carrier concentration. Physical and chemical methods of synthesizing nano materials enable students to synthesize a compound for its further studies.