

SYLLABUS :-

The course covers the importance of electron spin and its prospects in electronic devices and concepts related to magnetic hysteresis, anisotropy and exchange bias. Emphasis will be on major experimental results reported in the literature and the basics necessary to understand them. Lectures on concept of various devices such as GMR, AMR, Spin valves and TMR will be covered at the same time providing suitable background related to different kinds of materials and charge and spin transport in them. Recent devices and major hurdles in the development of spin based devices and spin logic will be discussed.