5. Diamagnetic and paramagnetic susceptibility using Gouy balance
6. Hysterisis loss and determination of Curie temperature
7. Magnetoresistance
8. Electron spin resonance
9. Solar cell I-V characteristics
10.Conducting studies of polyaniline
11.Preparation and characterization of metal nanoparticles
12. Preparation and characterization of semiconductor nanoparticles
13.Study of shape memory alloys
14. Junction voltage and band gap
15. SCR Characteristics

*** Minimum of ten experiments shall be completed in each course.

MSP 551: PROJECT (18 Credits)
Project/Internship-three months

Objectives: This project aims at (i) training the students to take up research as a career in academics and industries. (ii) exposing the student to recent topics in research (iii) training the student to conduct literature survey, material preparation, characterization. (iv) training the student in writing a research report, analysis and data interpretation. (v) encouraging independent and out-of-the box thinking (vi) instilling soft skills like communication, team work and problem solving.
Expected course outcomes: The student is able to (i) learn the methods of literature survey (ii) independently formulate a research problem (iii) carry out experimental methodology (iv)compile the data and write the report. (v) develop presentation and communication skills.(vi) correlate the fundamentals studied in the theory to the hands on experiments carried out (vii) design an original plan of action on a research problem. (viii) acquire skills and knowledge for initiating a start-up.