

Course Code
CE253

Course Name
SURVEYING LAB

L-T-P - Credits
0-0-4 : 2

Prerequisite:

Corequisite:

Course Objective:

To understand the practical application of various surveying instruments in the field

Course Outcomes:

1. To carry out preliminary surveying in the field of civil engineering applications such as structural, highway engineering and geotechnical engineering.
2. To plan a survey, taking accurate measurements, field booking, plotting and adjustment of traverse.
3. To use various conventional instruments involved in surveying with respect to utility and precision.
4. To plan a survey for applications such as road alignment and height of the building.

Syllabus (List of Experiments)

1. Chain surveying
2. Compass traversing and error adjustment
3. Theodolite traversing and error adjustment
4. Profile levelling and cross sectioning of a given route
5. To determine the difference in elevation of two given points.
6. Profile levelling and cross sectioning of a given route.
7. To prepare the contour map of an area
8. Plane tabling by radiation and intersection method
9. Setting out of simple circular curve by different methods.
10. Total station set up and finding slope, horizontal distance and vertical distances.
11. Total station traversing
12. Collecting topographic data using hand held GPS

Supplementary Readings:

1. Punmia, B.C. "Surveying Vol.I and II, Standard Publishers", Second edition, 1994.
2. Duggal, S.K. "Surveying Vol. I and II, Tata McGraw Hill", Fourth edition, 2004.
3. W. Schofield and M. Breach, "Engineering Surveying", 6th edition, CRC Press, 2007.
4. Basak NN. "Surveying & Levelling, McGraw Hill, second edition, 2014