



**SHRI VISHNU ENGINEERING COLLEGE FOR WOMEN :: BHIMAVARAM
(AUTONOMOUS)**

DEPARTMENT OF CIVIL ENGINEERING

SURVEYING LABORATORY

Labincharge : Mrs P.Lavanya

Objective:

1. Aimed at acquiring practical knowledge of various components of chain surveying.
2. To understand compass surveying, plane table surveying & leveling.
3. To understand surveying with theodolite.
4. Understand the usage and functions of Total station & DGPS.

R-18- Regulation

Course Outcomes:

At the end of the course, the students are able to

1. Determine the area of the given field by using surveying equipments.
2. Determine the traverse / sides of building and find the location of points present on field by using compass.
3. Apply the knowledge of theodolite in different operations in civil engineering projects.
4. Formulate the parameters of setting out a curve by linear and angular methods.
5. Survey the given field using total station and summarize the basic principles of GPS and GIS in civil engineering.

LIST OF EXPERIEMENTS:

S.No.	Topic / Experiment
1	Chaining across obstacles and determine its area.
2	Surveying of a given area by prismatic compass (closed traverse) and plotting after adjustment.
3	Radiation method or intersection methods by plane table survey
4	Two point or three point problems in plane table survey
5	Levelling H.I & Rise & fall
6	Two exercises on contouring.
7	Measurement of horizontal angles by method of Repetition and Reiteration.

8	Trigonometric levelling - Heights and distance problem.
9	Heights and distance using Principles of tachometric surveying.
10	Curve setting - different methods.
11	Total Station surveying - Measurements of Distances and Angles, Slope distances , height, Traversing.
12	DGPS surveying - Coordinate Measurements.



CHAIN



COMPASS



PLANE TABLE



DUMPY LEVEL



THEODOLITE



TOTAL STATION