Surveying Lab

List of Experiments

Chain Surveying

1. (a) Pacing (b) Ranging (c) Spreading and Folding of Chain (d) Chaining of a line
2. (a) Determination of Area by taking Perpendicular Offsets

   (b) Determination of Area by taking Oblique Offsets

3. Determination of Obstacle Length
4. Chain and Cross Staff Survey – Running a closed traverse around an existing building

Compass Surveying

5. Compass traverse – Plotting and Adjustments of Traverse 6. Compass Surveying – Distance between Two Inaccessible Points.

Plane Table Surveying

7. (a) Radiation method of plane table survey
   (b) Intersection method of plane table survey
8. Plane Table traverse
9. Two Point Problem
10. Three Points Problem – Trial and error method.

Levelling

11. Simple Levelling (Including an inverted staff reading)
12. Fly LEVELING
13. Check LEVELING
14. Longitudinal sectioning and Cross Sectioning

Theodolite

1. Traversing and adjustment of traverse.
2. Determination of Horizontal and Vertical distances by stadia methods.
3. Determination of Elevations and Heights.
4. Height and distances – Single plane method.
5. Height and distances – Double plane method.

Tachometry

1. Tachometry – Constants of Tacheometer.
2. Stadia Tachometry.
3. Tangential Tachometry.
4. Tachometric contouring – Radial method

Total Station

1. Study of Instrument – Determination of Distances, Directions and Elevations
2. Determination of Boundaries of a Field and computation of area.
3. Determination of Heights of objects.

Setting Out

1. Setting of simple circular curve using tape and chain.
2. Setting of simple circular curve using tape or/and theodolite
3. Setting of a simple circular curve using Total Station.
4. Setting out for Building