

## KCE-352 Surveying & Geomatics Lab

S.No.	Name of major equipment/setup
1	Total Station
2	Electronic Theodolite
3	Vernier Theodolite
4	Prismatic and surveyor compass
5	Auto level
6	Engg. Precision level
7	Substance bar
8	Measuring chains 30 m
9	Plane table and its accessories
10	Ranging Rods 3m steel
11	Planimeter sliding bar type
12	Dumpy Level
13	IOP level (Intraocular pressure)
14	Measuring Tapes metallic
15	Aluminium Levelling Staff
17	Hand GPS
18	Parallax Bar
19	Mirror stereoscope
20	Topo Maps
21	DGPS
22	Hilti- disto meter
23	Ghat Tracer
24	Telescopic Alidade
25	Surveyor umbrella

**LIST OF EXPERIMENTS**  
**KCE-352 SURVEYING & GEOMATICS LAB**

1. To measure bearings of a closed traverse by prismatic compass and to adjust the traverse by graphical method.
2. To find out reduced levels of given points using Auto/dumpy level.
3. To study parts of a Vernier and electronic theodolite and measurement of horizontal and vertical angles.
4. To measure the horizontal angle between two objects by repetition/reiteration method.
5. To determine the height of a vertical structure (e.g. chimney/ water tank etc.) using trigonometrical leveling by taking observations in the single vertical plane.
6. To set out a simple circular curve by Rankine's method.
7. Demonstration and working on Electronic Total Station. Measurement of distances, horizontal & vertical angles, coordinates and area of a land parcel.
8. Demonstration and working with Mirror stereoscopes, Parallax bar and Aerial photographs.
9. Visual Interpretation of standard FCC (False colour composite).
10. Digitization of physical features on a map/image using GIS software.
11. Coordinates measurement using GPS.