

Geotechnical Engineering Lab

Objective: Tests conducted to know the various properties of soil.



Sections Handled: IIIrd and IVth Years

Major Equipment Details:

Sl.No	Equipment Name	Qty
1.	Casagrande's liquid limit apparatus.	1
2.	Apparatus for plastic and shrinkage limits	1
3.	Field density apparatus for a) Core cutter method b) Sand replacement method	1
4.	Set of sieves: 4.75 mm to 0.075 mm	1
5.	Hydrometer	1
6.	Permeability apparatus for Constant & Variable Head Test	1
7.	Apparatus for Light & Heavy Compaction Tests	1
8.	Apparatus for CBR test	1
9.	One dimensional Consolidation Test apparatus	1
10.	Triaxial Cell	1
11.	Box Shear Test apparatus	1
12.	Vane Shear Test apparatus	1
13.	Hot Air Oven	1
14.	Swelling Pressure test apparatus	1
15.	Penetration test apparatus	2
16.	Linear shrinkage Limit	1

Faculty In charge with qualification: T.Kishore Kumar - M.E and Raju Gogam - M.Tech

Lab Technician name with qualification: K.Vinay Kumar - B.Tech

Experiment list as per curriculum:

1. Determination of Specific gravity (G) of a soil sample
2. Determination of Atterberg's Limits for a fine grained soil sample
3. Determination of Field density-Core Cutter & Sand replacement methods
4. Grain size analysis by sieving
5. Hydrometer Analysis Test for fine grained soils
6. Permeability of soil - Constant & Variable head tests
7. Proctor Compaction test
8. Consolidation Test
9. Direct Shear Test
10. Tri-axial Compression test (Unconsolidated Undrained Test)
11. Unconfined Compression test
12. Vane Shear test
13. Differential free swell (DFS)
14. CBR Test