



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

DEPARTMENT OF CIVIL ENGINEERING

GEOTECHNICAL ENGINEERING LABORATORY

Labincharge : Ms.V.Suneetha

Objective:

To impart knowledge of determination of index and engineering properties of different soils.

R-14- (R) Regulation

Course Outcomes:

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

1. Determine the index properties and classify the soils
2. Determine the in-situ density of the soil samples
3. Perform Compaction tests and determine the OMC and MDD of soil samples
4. Analyze the coefficient of permeability for different soils
5. Conduct shear tests and obtain c & ϕ of the given soil
6. Significance the CBR Value

LIST OF EXPERIEMENTS:

S.No.	Topic / Experiment
1	Specific Gravity
2	Grain Size Analysis a) Dry Sieve Analysis b) Wet Sieve Analysis – Hydrometer Method
3	Atterberg's Limits a) Liquid Limit b) Plastic limit c) shrinkage limit
4	Field Density a) Sand Replacement Method b) Core Cutter Method
5	Permeability a) Constant Head b) Variable Head
6	Direct Shear Test

7	Compaction Test a) Light Compaction b) Heavy Compaction
8	Consolidation Test
9	CBR Test
10	Tri-axial Compression Test
11	Unconfined Compression Test
12	Vane Shear Test
13	Differential free swell(DFS)