



GEOTECHNICAL ENGINEERING LABORATORY

Location: ROOM NO. W/S 113, WORKSHOP BUILDING, ADIT

Introduction of Lab:

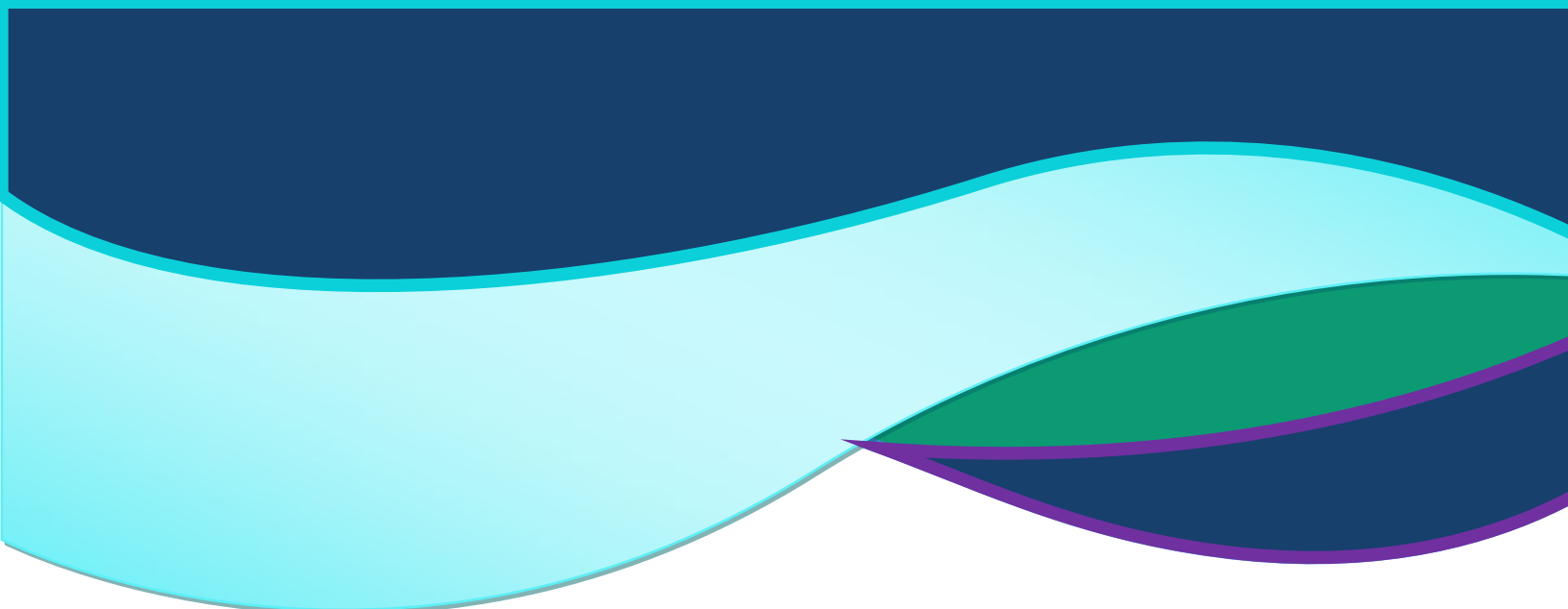
Soil is a structural material. A Geotechnical Engineer should have thorough knowledge of Soil properties. Geotechnical Engineering is important in respect of infrastructure development, highway and airport pavements, foundations and underground structures, retaining walls and embankments and multi storey buildings.

Application of laws and principles of mechanics and hydraulics to engineering problems in dealing with soil is usually referred to as Soil Mechanics. The term soil engineering is used to cover a much wider scope implying that it is a practical science rather than a purely fundamental or mathematical one. Study of Soil Mechanics includes site investigation, design and construction of the foundation, earth retaining structures and earth structures.

In the design of any foundation system, the central problem is to prevent the settlements large enough to damage the structure. Just how much settlements to permissible depends on the size, the type and use of the structure, the type of foundation, the source is the subsoil of the settlement, and the location of the structure.

List of practicals performed:

1. Free Swell Index
2. Swell Pressure Test
3. Proctor (Standard) Compaction Test
4. CBR Test
5. Consolidation / Odometer Test
6. Direct Shear Test
7. Unconfined Compression Test

- 
8. Tri axial Test
 9. Different Boring & Sampling Techniques
 10. Standard Penetration Test
 11. Atterberg's limits
 12. Liquefaction Test
 13. Permeability Test
 14. Grain Size distribution by Sieve Analysis
 15. Field density
 16. Relative density
 17. Field Identification samplers