

K L DEEMED TO BE UNIVERSITY
DEPARTMENT OF CIVIL ENGINEERING

SOIL MECHANICS LAB (CE 04 A)

PURPOSE OF LAB: To develop fundamental understanding of science and engineering of soil mechanics, through rigorous theoretical discussions, analytical examples, practical applications and computational projects, such that these theories, physical and engineering properties of soils can be effectively used for the design of suitable foundation for any structural design and will be able to choose the suitable field and laboratory tests required for any foundation design.

In this course, the students will gain hands-on experience in conducting soil laboratory tests to determine soil parameters needed for geotechnical engineering design.

FLOOR AREA: 70 SQ.M

EQUIPMENTS USED:

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| 1. CORE CUTTER APPARATUS | 11. DENSITY BOTTLES |
| 2. SAND REPLACEMENT APPRATUS | 12. CONSOLIDOMETER |
| 3. PYCNOMETERS | 13. ELECTRIC CONSOLIDOMETER |
| 4. COMPACTION EQUIPMENT | 14. MECHANICAL SIEVE SHAKER |
| 5. LIQUID LIMIT EQUIPMENT | 15. HYDROMETER APPRATUS |
| 6. VANE SHEAR TEST APPRATUS | 16. CONSTANT HEAD
PERMEAMETER |
| 7. UNCONFINED COMPRESSION
TEST EQUIPMENT | 17. VARIABLE HEAD
PERMEAMETER |
| 8. DIRECT SHEAR STRESS
EQUIPMENT | 18. TRI AXIAL TEST EQUIPMENT |
| 9. ELECTRONIC DIRECT SHEAR
STRESS EQUIPMENT | 19. OVEN |
| 10. SOIL EXTRUDER | 20. RAPID MOISTURE METER |





Relative Density



Tri-Axial Apparatus