

Geotechnical Engineering Laboratory: Instruments and Facilities

SN	Equipment	Nos.
1.	Sieve shaker & Sieves set 4.75mm, 2 mm, 1mm, 212, 150, 75 microns	1
2.	Vibratory sieve shaker	1
3.	Unconfined Compression Tester	2
4.	Hydraulic Sample Extractor (Hand operated cum Motorized)	1
6.	Liquid limit device(motorized) and Plastic limit device	3
7.	Shrinkage limit	3
8.	Hydrometer	5
9	Relative Density Apparatus	1
10.	Swell pressure measurement, Chemical test, muffled furnace (900°C)	1
11.	Laboratory Permeability Apparatus: Falling head and Constant head	4&1
12.	Standard & Modified Procter test (Compaction test) with extra compaction moulds	2
13.	Three-gang Consolidation Apparatus (Oedometer test)	3
14.	Direct Shear test setup	1
15.	Vane shear test apparatus	1
16.	Triaxial System (DAQ and analysis software)	2
17.	Advanced Automated Triaxial setup with additional facility for extension loading test, K_0 test and Stress path test	1
18.	Fully Automated Cyclic Triaxial test setup (0.01-10Hz, stress & strain controlled, hydraulic cum pneumatic operation)	1
19.	Bender Element system	1
20.	Auto level	2
21.	Laser Distance meter	2
22.	Plate load test of 300kN capacity with motorized anchoring system	1
23.	Standard Penetration Test (SPT) with automatic free fall hammering system	1
24.	Dynamic Cone Penetration Test (DCPT)	1
25.	Slurry consolidation setup: self-reacting 250kg reaction frame with 4 double stroke pneumatic pressure cylinders & 4 consolidation cells (developed in-house)	1
26.	Pulverizer	1
27.	Soil mixer (0.25HP)	1
28.	Screw Air-Compressor (35-45CFM, 10HP, 500L receiver)	1
29.	High speed stirrer	1
30.	Core cutter	1
31.	Sand pouring apparatus	1
32.	De-airing apparatus	1
33.	Controlled rate of strain (CRS) consolidation setup (developed in-house)	1
34.	Digital LCD Microscope	1
35.	Digital Handheld Microscope	1
36.	Design software: GEO5, GiD, STAD Pro, CSI-SAP	1
37.	Dew Point Potentiometer (total suction measurement varying from 0 to 300 Mpa)	1
38.	Ground Penetration Radar with GPS system (antennas: 100MHz & 400MHz with bistatic operation and 200MHz & 900MHz with monostatic operation)	1

