

S. No	Name of the Equipment	Quantity (nos.)	Capacity	Purpose	Location	Prof. Incharge for the equipment
1	Double wall triaxial set up	1	Load 10 kN, Cell pressure 2 MPa, Sample size (dia)- 70 mm.	Triaxial testing of unsaturated soils		
2	Pressure Volume Control Device- Twin cylinder	1	Each cylinder: Pressure - 5 Mpa, Volume - 200cc,	Pressure and/or Volume Controlled fluid flows		
3	Humboldt triaxial set up	1	Load- 10 kN; Confining pressure - 1 Mpa; Sample Size (dia) - 35mm	Triaxial testing of soils		
4	Humboldt flexiwall permeameter	1	Confining pressure - 1 MPa, Sample Size (dia)- 35mm	Permeability testing of soils (constant and variable head) at different confining pressures.		
5	Humboldt direct shear set up (Automated)	1	Normal Stress - 200 kPa, Horizontal Load- 9 kN, Sample size - 10 x 10 x 3.5 (ht) cm	Fixed single plane shear testing of coarse grained soils		
6	Geotechnical centrifuge	1	Frequency- 15 Hz	acceleration of various constant stress tests in soil.		
7	Mini-centrifuge	1	Arm Radius - 9.5 cm, rpm up to 4000. Max. Acc- 4000*g.	Accelerated density separation of suspensions.		
8	Impedence Analyzer	1	Frequency - 1 Hz to 40 MHz.	Measuring electrical properties of geomaterials		
9	Dewpoint Pontentiameter	2	Max. measurable suction: 80 Mpa and 300 Mpa respectively	measures suction of soil		
10	Gas (Helium) Pycnometer	1	Fourth decimal accuracy	density/specific gravity of materials		
11	Spectrophorometer	1	Elemental, compounds, COD and BOD.	chemical analysis		

12	Thermo digester	1	Temp: 150°C	Thermal digestion of samples for spectrophorometer
13	Ovens	3	150 °C (2); 200 °C (1)	drying
14	Muffle furnace	1	1200 °C	organic content of soils
15	Environmental chamber	2	Temp - 65 °C, Rh- 100%;	to simulate varying environmental conditions
16	Incubator	1	Temp - 45°C, rpm - 250.	for incubation of microbial cultures under sterile conditions
17	Water quality analyser	1	pH, Electrical conductivity, Dissolved solids and Salinity measurements	chemical characterization
18	TDR	2	2 prongs, length of prongs - 165mm; 3 prongs, length of prong - 140mm	in-situ moisture content of soils
19	Auto compactor	1	Variable compaction energy	compaction of soils
20	Ultra-fine sieve set and automated shaker	1	Sieve-set ranging from 63 to 20 microns	Gradation of silty soils
21	Air Compressor	1	Pressure - 35bar; Volume - 50L	supply of compressed air
22	Cold chamber	1	Temp: -15°C	Studies on frozen soil
23	Pressure Membrane Extractor	1	Pressure - 16bar	Matric/Total suction of soils
24	MilliQ Ultra-water purifier	1	18L/day	De-Ionized water
25	Thermal conductivity probes	5	temp: 55°C	Thermal characterization of soils
26	Dynamic cone penetrometer	1		insitu stress and strength measurement of the soil
27	Atomic Absorption Spectrometer	1		for determination of elemental composition of samples

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28	Laboratory cone penetrometer	1		consistency of soils		
29	FDR	1		in-situ moisture content of soils		