

S. No	Name of the Equipment	Quantity (nos.)	Capacity	Purpose	Location	Prof. Incharge for the equipment
1	Rheometer	1	250 ml	Rheology of Paste and Mortar		
2	Rheometer	1	19 litres	Rheology of Mortar and Concrete		
3	Programmable Oven	1	300 Deg C	Thermal Treatment		
4	Muffle Furnace	1	1400 Deg C	Heating/ Sintering		
5	Carbonation Chamber	1		Provides desirable CO2 %, temperature and % RH		
6	Oven (small)	1	250 Deg C	Thermal Treatment		
7	Needle Vibrator	1		Concrete Compaction		
8	Rock Crushing Machine	1		Crushing of rocks		
9	Drilling Machine	1		Drilling Purpose		
10	Grinding Machine	1		Grinding Purpose		
11	Abrasion Testing Machine with compressor	1		Measures abrasion resistance of concrete		
12	Water Permeability Apparatus	2		Measures permeability of concrete and mortar		
13	Tile Testing Machine	1		Transverse Strength of Tiles		
14	Ball Mill Machine	1	Maximum 980 rpm	Grinding of materials like Rice husk, bagasse ash		
15	Buoyancy Balance	1	15 kg	Specific Gravity		
16	Flow table	2	20 cm and 76 cm spreads	Flow or spread of mortar and concrete		
18	Automatic Sieve Shaker	1		Sieving of aggregates		
19	Weighing Balance	4	(0.5 g, 12 kg), (0.5g, 10 kg), (0.1 g, 6kg), (5g, 50 kg), (0.5 kg, 300 kg)	Measures Mass		
20	U-Box	1		Workability of SCC		
21	Vicat Apparatus	4		Setting time and consistency of paste		
22	Humidifier	1	80 % max RH	To increase % RH		
23	Dehumidifier	1	20 % min RH	To decrease % RH		
24	Compression Testing Machine	2	500 KN and 2000 KN	Compressive Strength		
25	Flexural Strength Machine	1	100 KN	Flexural strength of concrete		
26	Flexural Jig	1		Flexural strength of mortar		
27	3 D Mixer	1	3 liter, 10 - 65 rpm	Blending fo powders		
28	Planetary Mixer (Hobart)	1	4 L	Mixing of paste and mortar		
29	Mini Slump	2	40 ml	Optimisation of SP		

30	Marsh Cone (paste and mortar)	2	1000 ml	Optimisation of SP
31	Impact Machine	1		Impact value of Aggregates
32	Hot water curing Tank	1	100 Deg C	Stream Curing
33	Twin Shaft Mixer	1	80 liter	Mixing of Concrete Ingredients
34	Pan Mixer	1	40 liter	Mixing of Concrete Ingredients
35	Mortar Mixer	1	4 L	Mixing of paste and mortar
36	Mortar Vibrator	1	Suitable for 5 cm <sup>3</sup> and 7cm <sup>3</sup> moulds	Compaction of cement mortar
37	Vibrating Table	2		Compaction of concrete and mortar
38	Humidity Chamber	1		Controlled temperature and RH
39	Bucket Fall Apparatus	1	3 liter	Dry density of aggregates
40	Slump Cone	2		Measures slump of concrete
41	Pipe Flow Apparatus	1		Permeability of pervious concrete
42	RCMT Apparatus	1	3 samples each with a maximum diameter of 100 mm	chloride migration
43	Magnetic Stirrer	1	1000 rpm	Agitates mixture
44	Core Cutter	1		Cuts core from a existing member
45	Length Compactor	1		Shrinkage of Concrete and mortar
46	Rebound hammer			Compressive Strength of Concrete
47	Half-cell Potential Equipment	1		Corrosion potential of concrete (probability)
48	Ultrasonic Pulse Velocity (PUNDIT)	1		Detect precense of voids or cracks in concrete
49	Water Purifier	1		Deionoses water
50	Profoscope	1		Measures reinforcement cover and rebar diameter
51	Penetration Apparatus	1		Setting time of concrete and mortar
52	LVDT	1		Measures displacement
53	Pycnometer	2		Specific Gravity of Fine Aggregates
54	Crack width Microscope	1		Determines size of cracks
55	Schimidt Hammer	1		NDT
56	Blain Air permeability	1		Measures Specific Surface Area

SEMT lab

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