

Structural Engineering Laboratory

Capabilities

- Testing of simply supported reinforced concrete and steel beams for strength and deflection behaviour
- Testing of reinforced concrete column subjected to concentric and eccentric loading
- Characteristic analysis of RC and Steel Beams when subjected to dynamic and static loading
- Non-Destructive testing of in - situ strength of concrete
- Study about the various elastic and plastic properties of RC beams

List of Equipment

S.No	Equipment
1	Loading Frame 100 Tones capacity
2	Hydraulic Jack 50 T
3	Load Cell 100 T
4	Proving Ring - 50 T, 20 T & 10 T
5	Demec Gauge 200 mm
6	Electrical Strain Gauge with indicator
7	Rebound Hammer
8	Ultrasonic Pulse Velocity Tester
9	Dial Gauges 25 mm
10	Clinometer
11	Vibration Exciter
12	Vibration Meter

Target Users

- Faculties and Research Scholars from various institutions
- PG and UG Students

In-charges

Dr. R. Dharmaraj,
Associate Professor,
Department of Civil Engineering

Mr. S. Ashok Pandian B.E,
Technical Assistant,
Department of Civil Engineering

Strength of Materials Laboratory

Capabilities

- Tension and Compression tests on various materials like wood, metal and concrete blocks.
- Shear, impact and hardness tests on metals
- Torsion and deflection test on mild steel rods, metal beam and springs.

List of Equipment

S. No	Equipment
1	Digitized Universal Testing Machine (1000 kN capacity)
2	Universal Testing Machine (400 KN Capacity)
3	Torsion Testing Machine
4	Izod Impact Testing Machine
5	Rockwell Hardness Testing Machine
6	Brinell Hardness Testing Machine
7	Vicker hardness testing machine
8	Beam Deflection Test Apparatus
9	Le Chatelier's Apparatus
10	Vicat's Apparatus
11	Extensometer
12	Compress meter
13	Muffle Furnace
14	Spring Testing Machine
15	Computerized portable UTM (5 TON capacity)

Target Users

- Faculties and Research Scholars from various institutions
- PG and UG Students
- Research Activities
- Consultancy Activities

In charges

Mr. S. Anandaraj M.E (Ph.D.),
Assistant Professor (Sr.G),
Department of Civil Engineering.

Mr. S. Ashok Pandian B.E,
Technical Assistant,
Department of Civil Engineering.

Concrete & Highway Engineering Laboratory

Capabilities

- Physical properties of construction materials like cement, aggregates, bitumen etc
- Properties of fresh concrete and hardened concrete
- Physical properties of bituminous mixes

List of Equipment

S. No	Equipment
1	Concrete Mixer Machine
2	Flow Table Apparatus
3	Vibrating Table Apparatus
4	Compression Testing Machine (200T)
5	Vee Bee Consist meter
6	Aggregate Impact Testing Machine
7	CBR Apparatus
8	Blains Apparatus
9	Vicat's Apparatus
10	Le Chatelier's Apparatus
11	Flexure Testing Machine
12	Los Angeles Abrasion Testing Machine
13	Universal Penetrometer
14	Standard Tar Viscometer
15	Ductility Testing Machine
16	Ring and Ball Apparatus
17	Marshal Stability Apparatus
18	Bitumen Extractor Apparatus
19	Electronic Weighing Balance
20	Benkelman Beam
21	Water Absorption Testing Machine
22	Rapid Chloride Permeability Test
23	Accelerated corrosion test
24	IS Sieve Sets for coarse and fine aggregate
25	Flash and Fire Point apparatus
26	Slump Cone Apparatus

Target Users

- Faculties and Research Scholars from various institutions
- PG and UG Students
- Industry people

In-charges

Dr. R. Saravanakumar

Assistant Professor (SL. G),
Department of Civil Engineering.

Mr. S. Venkat Raman

Assistant Professor,
Department of Civil Engineering.

Mr. K. Nirmal

Technical Assistant,
Department of Civil Engineering.

Soil Mechanics Laboratory

Capabilities

- Calculation of index properties like specific gravity, grain size distribution of various types of soils
- Study about the liquid limit, plastic limit, and shrinkage limit of various types of soils.
- Calculation of in situ and compaction characteristics
- Tests to determine the permeability and other engineering properties of the soil.

List of Equipment

S. No	Equipment
1	Motorized Sieve Shaker
2	Permeability Apparatus - Falling Head
3	Permeability Apparatus - Constant Head
4	Sand Mould (Accessory)
5	Proctor Compaction Apparatus
6	Atterberg's Limit Devices - Liquid Limit Device
7	Atterberg's Limit Devices - Shrinkage Limit
8	Direct Shear Apparatus
9	Proving Ring for Direct Shear
10	California Bearing Ratio Apparatus
11	Proving Ring For CBR
12	Consolidation Apparatus (Three gang Apparatus)
13	Unconfined Compression Apparatus
14	Dial gauge
15	Pycnometer
16	Triaxial Compression Apparatus (Electrical)
17	Field Density Apparatus - Sand pouring Cylinder
18	Field density - core cutter with rammer
19	Field Density Apparatus - core cutter
20	Core Cutter accessories
21	Hot Air Oven
22	Infra-Red Moisture Meter
23	Soil Sieves sets
24	Relative Density Apparatus
25	Hand Operated Extractor (38mm Sample)
26	Zodiac Electronic scale 200kg capacity)
27	Zodiac Electronic scale 3kg capacity)
28	Standard Penetration Test
29	Hydrometer including Jar
30	High Speed Stirrer
31	Swell Pressure Test Apparatus
32	Laboratory Vane Shear Apparatus
33	Uniaxial Automatic Compactor

Target Users

- Faculties and Research Scholars from various institutions
- PG and UG Students
- Industry peoples

In-charges

Ms. S. Bharani

Assistant Professor,
Department of Civil Engineering.

Mr. K. Nirmal

Technical Assistant,
Department of Civil Engineering.



Environmental Engineering Laboratory

Capabilities

- Characterization of waste water.
- Study on treat-ability of the water.
- Tests to find out the various chemical constituents of the water.

List of Equipment

S. No	Equipment
1	pH Meter
2	Turbidity Meter
3	Conductivity Meter
4	Refrigerator
5	BOD Incubator
6	Muffle Furnace
7	Hot Air Oven
8	Jar Test Apparatus
9	COD Apparatus
10	Kjeldahl Apparatus
11	Heating Mantles
12	Calorimeter
13	Peristaltic pump
14	Chlorine Comparator
15	Laminar air flow
16	Filtration Assembly
17	Electronic Top Loading Balance
18	Double Beam UV Visible Spectrophotometer
19	Flame Photometry
20	Atomic Adsorption Spectroscopy

Target Users

- Faculties and Research Scholars from various institutions
- PG and UG Students
- Industry peoples

In-charges

Mr. S. Arjunker,
Assistant Professor,
Department of Civil Engineering

Mr. M. Thangapandian,
Technical Assistant,
Department of Civil Engineering.

Applied Hydraulics Laboratory

Capabilities

- Measurement of flow of water through various type of flow.
- Measurement of major and minor losses when passed through pipes Characteristics of pumps and turbines
- Models of various Hydraulic structures

List of Equipment

S.No	Description of the equipment
1	Flow through Orificemeter
2	Flow through Venturimeter
3	Rotometer
4	Centrifugal Pump (Single Stage)
5	Centrifugal Pump (Multi Stage)
6	Submergible pump
7	Reciprocating pump
8	Gear oil pump
9	Pelton wheel Turbine
10	Francis Turbine
11	Kaplan Turbine
12	Bernoulli's theorem
13	Metacentric height
14	Pitot's tube
15	Flow through open channel (Notches)
16	Flow though Orifice
17	Flow through Mouthpiece
18	Losses in Pipes (Major loss)
19	Losses in Pipes (Minor loss)
20	Gravity Dam Model
21	Tank weir Model
22	Sluice Tank - Tower head type model
23	Canal Drop Model
24	Canal Regulator Model
25	Syphone Aqueduct Model
26	Aqueduct Model
27	Super passage to two span Model

Target Users

- Faculties and Research Scholars from various institutions
- PG and UG Students

In-charges

Mr. S. Logeswaran M.Tech (Ph.D)
Assistant Professor,
Department of Civil Engineering.

Mr. D. Lalluprasad DCE,
Technical Assistant,
Department of Civil Engineering.

Survey Laboratory

Capabilities

- Marking and ranging of a line.
- Area of the plot with regular and irregular boundaries by different methods of surveying
- Development of a contour map.
- Marking and Curves setting for various engineering projects using Theodolites and Total Stations.

List of Instruments

S. No	Name of Equipment
1	Metric Chain-20 M
2	Metric Chain-30 M
3	Prismatic Compass
4	Surveyor Compass
5	Plane Table Set
6	Dumpy Level
7	Transit Theodolite
8	Vernier Theodolite
9	Aluminium Leveling Staff
10	Laser Distance Meter
11	Horizontal Auto Level
12	Pocket Stereo Scope
13	Ranging Rod-3M
14	Ranging Rod-2M
15	Cross Staff
16	Steel Arrows
17	Wooden Pegs
18	Garmin eTrex Vista GPS
19	Subtense Bar
20	Total Station with Accessories
21	Mirror Stereoscope
22	Electronic Theodolite

Target Users

- UG Students
- Industry peoples

In-charges

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