Lab Facilities of Department of Civil Engineering

The Department of Civil Engineering has fully equipped state-of-the-art laboratories supervised by experienced faculty members. There are trained technicians to help the students in performing the experiments.

1. Fluid Mechanics Lab- A basic knowledge of Fluid mechanics is essential for all the civil engineers as they frequently come across a variety of problems involving flow of fluids, force of fluid on structural surfaces etc. This laboratory is used for experimentation on the properties and behavior of fluids.

Lab in charge – Dr. Deepak Kumar Soni., Assistant Professor

Lab equipment details:

Sl. No.	Apparatus Available in The Laboratory
1	Orifice Meter Apparatus
2	Bernoulli Theorem Apparatus
3	Venturi Meter Apparatus
4	Friction Double Pipe
5	Reynolds Number Apparatus
6	Wind Tunnel Experiment
7	Helical Spring Apparatus
8	Orifice & Mouth Pipe Apparatus

2. Hydraulics & Hydraulic Machines Lab- The hydraulics laboratory is fully equipped with all the facilities and experimental set-ups through which students are given a very good demonstration to understand the various methods of measurement of flow rates, capacity & velocity of water in tanks, closed pipes and open channels.

Lab in charge – Mr. Deepak Kumar Soni, Assistant Professor

Lab equipment details:

Sl. No.	Apparatus Available in The Laboratory
1	Reciprocating Pump
2	Centrifugal Pump
3	Impact Of Jet
4	Tilt Flume Turbine
5	Pelton Turbine
6	Francis Turbine

7	Kaplan Turbine
8	Meta Centric Height Apparatus

3. Building Material Lab and Concrete Lab- The Building Material and Concrete lab is equipped with all the experimental set ups required for the study of properties of various building materials. Concrete is the most widely used construction material. Our concrete laboratory tests every component in the concrete mix design as well as the concrete mix itself. The lab provides evaluation of the plastic properties of the mix as well as the hardened properties.

Lab in charge – Mr. M. Karthikeyan Murugesan, Assistant Professor

Lab equipment details:

Sl. No.	Apparatus Available in The Laboratory
1	Vicat Apparatus
2	Air Permeability Apparatus
3	Cement Tensile Testing Machine
4	Ultrasonic Concrete Test Apparatus
5	Density Basket
6	Sieve Shaker
7	Slump Test Apparatus
8	Thickness Gauge
9	Length Gauge
10	Digital Verner Caliper
11	Electric Oven
12	Concrete Mixer
13	Compression Testing Machine
14	Aimil Consisto Meter
15	Rebound Hammer
16	Flow Table Apparatus
17	Vibrating Table
18	IS Sieves
19	U.T.M
20	Brinell Test Attachment
21	Shear Test Attachment(5-20)mm Dia
22	Bend Test Attachment
23	Double Walled 12-Hole Rectangular Water Bath
24	Digital Balance 100kg
25	Briquette Mould: Three Gang with Steel Base Plate

26	Beam and Cube Moulds
27	Flexure Testing Machine

4. Soil Mechanics Lab- The soil lab provides academic and research services through performing all lab tests needed for analysis and studies of soil characteristics and its properties.

Lab in charge – Mr. Jagan J. , Assistant Professor

Lab equipment details:

S.No.	Apparatus Available in The Laboratory
1	Constant Head Permeability Test Over Head Tank(Made of Steel)
2	Variable Head Permeability Apparatus
3	Oven Hot Air
4	Pycno Meter(Set of Six), (Glass Material)
5	Vane Shear Apparatus
6	Universal Penetrometer Apparatus
7	CBR Test Apparatus

5. Transportation Lab- Transportation lab consists of equipment used in the testing of bituminous material such as viscosity, ductility and plasticity and other devices for testing of bitumen and aggregate. There are other devices for mix design by various methods.

Lab in charge – Mr. Ms. Priyanka Priyadarshini, Assistant Professor

Lab equipment details:

Sl. No.	Apparatus Available in The Laboratory
1	California Bearing Ratio Test Apparatus
2	Ductility Test Apparatus
3	Grooved M.S. Plate
4	Los Angeles Abrasion Testing Machine
5	Load Truss Capacity Apparatus
6	Plate Bearing Test Apparatus
7	Ring and Ball Apparatus

6. Structure Analysis Lab- Structural analysis lab facilitates in the determination of the effects of loads on physical structures and their components. The results of the analysis are used to verify a structure's fitness for use.

Lab in charge – Mr. Rikshit Kumar, Assistant Professor

Lab equipment details:

Sl. No.	Apparatus Available in The Laboratory
1	Column And Struts Apparatus
2	Portal Frame Apparatus
3	Pin Joint Truss Apparatus
4	Three Hinged Arch Apparatus
5	Two Hinged Arch Apparatus
6	Unsymmetrical Bending Apparatus
7	Simply Supported Beam Apparatus
8	Cable Geometry and Diff Loading Apparatus
9	Elastic Properties of Diff. Beam Apparatus
10	Redundant Joint Apparatus
11	Accessories (Magnetic Stand)
12	Accessories(Dial Gauge)

7. Environmental Lab- The Environmental lab comprises of modern and technically advanced instruments needed for water and wastewater analyses. The lab has also many in-situ devices and equipment to perform different types of measurements and to take grab and composite water, wastewater samples.

Lab in charge – Mr. Anil Kumar Choudhary, Assistant Professor

Lab equipment details:

Sl. no.	Apparatus available in Laboratory
1	Atomic Absorption Spectrophotometer
2	Distillation Unit
3	Micro Processor based Conductivity/TDS meter
4	Micro Processor based pH/Temperature meter
5	Magnetic Stirrer with hot plate

8. Survey Lab- The survey lab is used for surveying exercises and is equipped with all latest necessary instrumentation for conducting ground surveying work; Levels, Total Stations, and GPS receivers sets.

Lab in charge – Mr. Anil Kumar Choudhary, Assistant Professor

Lab equipment details:

Sl. No.	Apparatus Available in The Laboratory
1	Metallic Tap
2	Prismatic Compass
3	Plane Table with Accessories
4	Vernier Theodolite
5	Garmin GPS
6	Total Station
7	Ranging Rod