

Environmental Engineering Lab:

The instruments available in Environmental Engineering Laboratory are adequate for the undergraduate programs of Civil Engineering Department. This laboratory mainly deals with all the testing to check the quality of drinking water, solid liquid waste and sanitation. The laboratory provides good testing, teaching and research facilities. The laboratory is recently constructed and contains modern analytical instruments and facilities. It contains the following instruments and equipment.

- Digital pH meter with glass and reference electrode.
- Direct reading conductivity meter with PVV cell
- Hot air oven
- Muffle Furnace
- Electronic Analytical Balance
- SBR Process (Sequencing Batch Reactor)
- Digital Colony Counter
- Water Bath



Engineering Survey Lab

Engineering survey is the subject required to study for planning and design of any construction work. Engineering survey laboratory provides students with hands – on experience to supplement instruction in surveying courses which will be more convenient in understanding the theory parts. This laboratory contains a wide variety of modern surveying equipment, such as total station, GPS, Automatic level, digital planimeter etc. By using the laboratory as an integral part of their surveying coursework and by obtaining any topographic information that can help them in designing projects, such as road surveying for highway design and land development. The instruments of this laboratory are listed below:

- Measuring Chain
- Measuring Tape
- Prismatic Compass
- Trough Compass
- Metal Ranging Rod
- Dumpy Level
- Automatic Level
- Levelling Staff
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- Plane Table
- Alidade
- Plumbing Fork
- Transit Vernier Theodolite
- Planimeter
- Digital Planimeter
- GPS
- Reflector less Electronic Total Station
- Arrow
- Plumb Bob





Hydraulics Lab:

The Hydraulics Laboratory is an integral part of the Civil Engineering Department. The facilities offered in the field of Fluid Mechanics and Hydraulics Laboratory and as well as the theory parts to use the demonstrative experiments to Civil Engineering Students. It mainly includes measuring devices and techniques, analysis of assumptions of various theoretical parts in the area of fluid mechanics. Also it has some demonstrative experiments in the field of Hydrology and Water Resources which will enable the students to work and to do projects and researches in those fields.

The instruments of this laboratory are listed below:

- Measurement of Jet Forces
- Pitot Tube Apparatus
- Pipe friction for laminar/turbulent flow
- Bernoulli's Principle Demonstrator
- Osborne Reynolds Demonstrator
- Plate Weirs
- Horizontal Flow from the tanks
- Experimental Flume
- Base Module for experiments in fluid mechanics





Structural Engineering Lab:

Structural Analysis is the technique to analyse a structural system to determine the effects of loads on physical structures and their components by using physical laws and mathematical equations. The main objective is to determine the internal forces, stresses and deformations of structures under various loads. The structural engineering laboratory of civil engineering department is well equipped with the required instruments and modern equipment which will be helpful in understanding and improving practical knowledge of the students. This laboratory is useful in understanding the theory parts of the subjects like structural analysis and strength of materials. The experiment models/equipment available here are very useful in practical and theoretical approach in theory and analysis of the structural member.

The instruments and apparatus contained in this laboratory are listed below:

- Bending Moment in beam
- Shear Force in beam
- Euler Buckling of Struts
- Two Pinned Parabolic Arch
- Parabolic Fixed Arch



Material Testing Lab:

The material testing laboratory of civil engineering department includes machines and well equipped instruments which are useful in determining the various physical and mechanical properties and behaviours of different materials. This will help the students in understanding the theoretical and practical approach of the subjects like Solid Mechanics/Strength of Materials, Structural Analysis.

The instruments/machines of this laboratory are listed below:

- Universal Testing Machine
- Brinell cum Rockwell Hardness Tester
- Impact Testing Machine (Izod and Charpy)

