

CIVIL ENGINEERING LABORATORY

AIM

To understand the physical properties of building construction materials like cement, fine and coarse aggregate to design the mix, make the specimens and test the same for their respective strengths

LIST OF LABORATORIES



**Soil Mechanics
Laboratory**



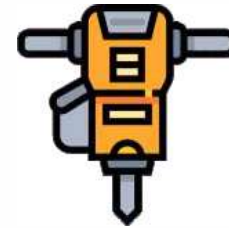
**Solid Mechanics
Laboratory**



**Fluid Mechanics
Laboratory**



**Survey & Geomatics
Laboratory**



**Concrete Technology
Laboratory**



**Environmental Engineering
Laboratory**



**Transportation Engineering
Laboratory**



**Water Resources
Engineering Laboratory**



**Computer –aided Civil Engineering
Software Laboratory**

GLIMPSES OF THE LABORATORY

TOTAL STATION

A total station can measure angles and distances electronically and process trigonometrically to give at a minimum, position coordinates in space.



APPLICATIONS

- The main usage of total station is for surveying applications. Furthermore, they are also used for specialized purposes in fields like metrology and rocket launch technology

LOS ANGELES ABRASION TEST

The Los Angeles Abrasion Test is widely used as an indicator of the relative quality of aggregates & it measures the degradation of standard grading of aggregates.



APPLICATIONS

- Los Angeles abrasion test on aggregates is the measure of aggregate toughness and abrasion resistance such as crushing, degradation and disintegration & It is very important in construction of floors, roads or pavements

UNIVERSAL TESTING MACHINE

A UTM or universal testing machine is referred to as universal because it can be used to perform a variety of static tests i.e., Tensile tests and compression tests, as well as flexure tests, peel tests, tear tests and other mechanical tests.



APPLICATIONS

- A universal testing machine is used to assess the strength of materials. A universal testing machine offers enhanced control and stability during a materials testing process

ADDITIONAL INSTRUMENTS AVAILABLE

Universal testing machine | Torsion and spring testing machine
Rockwell and Brinell hardness testing machine
Total Station | Dumpy Level | Theodolite Machine
Vicat Apparatus | Compacting Factor Machine
Ultra-sonic Pulse Velocity Machine | Compressive Strength Machine | Los Angeles Abrasion Machine
Impact Test Machine | Ductility Test Machine
Marshall Stability Test Machine | Penetration Testing Machine
Softening Testing Machine | Flash and Fire Point Machine
Casagrande Apparatus | Direct shear Testing Machine
Vane shear Testing Machine | Triaxial Testing Machine
Consolidation Testing Apparatus | Metacentric Height Apparatus
Venturi meter and Orifice Meter Apparatus
Notch Apparatus | Losses In Pipe Apparatus

POSSIBLE OPPORTUNITIES FOR STUDENTS



and many more...