Structural Engineering Laboratory

The structural engineering laboratory has facilities for testing using self-straining horizontal and vertical loading frames other research and teaching needs. Design of Masonry, Reinforced Concrete, Prestressed Concrete, Steel Structures, Steel Composite Structures, and other areas of work are covered. The Structural Engineering lab in the Department of Civil Engineering employs people and infrastructure to carry out a variety of teaching and research activities.



Loading Frame Apparatus

S.No	Name of the Equipment	Description	Image
1	Ultra Sonic Pulse Velocity Meter	An ultrasonic pulse velocity test is an in-situ, Nondestructive test to check the quality of concrete and natural rocks. In this test, the strength and quality of concrete or rock is assessed by measuring the velocity of an ultrasonic pulse passing through a concrete structure or natural rock formation.	
2	Professional Detector (Bosch GMS – 120)	This allows a user to detect steel that is placed up to 4-5 inches deep in cured concrete or Hardened concrete.	

S.No	Name of the Equipment	Description	Image
3	Self-compacting Equipment	These equipment's are used for finding fresh concrete properties of self-compacting concrete.	
4	Half-cell potentiometer	It is used for assessment of the durability of RCC and helps in Diagnosing reinforcement corrosion.	

S.No	Name of the Equipment	Description	Image
5	Strain Gauges	Strain gauges are devices that are commonly used by engineers to measure the effect of external forces on an object. They measure strain directly, which can be used to indirectly determine stress, pressure, Deflection, Torque and many other measurements.	
6	Load framing apparatus	Load frames testing utilises a high stiffness support structure against which the test forces can react.	

S.No	Name of the Equipment	Description	Image
7	Rebound Hammer	A Schmidt hammer, also known as a Swiss hammer or a rebound hammer or concrete hammer test, is a device to measure the elastic properties or strength of concrete or rock, mainly surface hardness and penetration resistance.	
8	Air entrainment Detector	It is used to determine entrapped air content of fresh concrete	

S.No	Name of the Equipment	Description	Image
9	Lateral Extensometer with Dial Gauge	Essential equipment for measuring the elongation of specimen. It used in tensile test and sense the elongation when testing is processing & to find elastic modulus of concrete material	
10	Longitudinal Compressometer with dial gauge	Evaluating deformation and strain characteristics of concrete cylinders while undergoing compression testing & to find elastic modulus of concrete material.	

S.No	Name of the Equipment	Description	Image
11	Concrete Drum Mixer	Used to Mix the fresh concrete Uniformly and quickly.	