



सामग्री निदान प्रयोगशाला Material Diagnostic Lab

Major Equipments:

Creep Rig Machine
Concrete Impermeability Apparatus Ultra
Sonic Pulse Velocity Analyzer Concrete
Resistivity Meter Concrete Penetrometer
Silver Schmidt Rebound Hammer (Digital)
Rebar Locater
Crack Measurement Microscope.
Vibration Measurement System



In Charge

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Department Of Civil Engineering



समग्री नैदानिक प्रयोगशाला Material Diagnostic Lab

SAFETY PRACTICES TO BE FOLLOWED IN LABORATORY:

1. Enter in Lab with enclosed Shoes/Footwear (no sandals).
2. Make sure that you know the location of First Aid Kit and Fire Extinguishers before you start your experiments.
3. Get First Aid immediately for any injury, no matter how small it is and do not wear loose dress.
4. Do not play with valves, screws and nuts.



DO's

- Be on time, at the start of the lab period, there will be a short introduction to the experiment you will perform that day.
- Thoroughly CLEAN your laboratory work space at the end of the laboratory session.
- Maintain silence and clean environment in the lab and put bags at allocated.
- When you come in, go to your seat and wait for instructions.

DON't

- Do not try to run and operate any machine without permission and knowledge of the lab Personnel
- In case of any mishap - Do not be Panicky, be calm but quick report at once to the Lab Personnel.
- Do not eat or Drink in the Lab room at any time.



समग्र नैदानिक प्रयोगशाला

Material Diagnostic Lab

LIST OF EXPERIMENTS:

Determination of compressive strength of Concrete by rebound hammer

Determination of crack width in concrete by micro crack measurement

Determination of compressive strength of Concrete by ultrasonic pulse velocity analyzer.

Determination of passing ability of self-compacting concrete by L-Box test

Determination of filling ability of self-compacting concrete by U-Box test

Determination of flow ability of self-compacting concrete by V-funnel test

Determination of the initial setting time of concrete mixes using concrete Penetrometer

Determination of durability of concrete using Resistivity Meter

Determination of impermeability of concrete specimen by using impermeability apparatus.

Determination of creep in concrete cylinder subjected to longitudinal compressive load by using Creep Test Rig

COURSE OUTCOMES

CO 1: Select suitable aggregate material by testing the physical properties.

CO 2: Determine properties of material and its grading.

CO 3: Characterization of materials and its durability properties.

CO 4: Determine the relation between various properties and plot graphs.

CO 5: Analysis suitability of materials and its utilities.

INSTRUMENT MODEL NO.

S.No.	Name of equipment	Model No.
1	Creep Rig Machine	AIM-219
2	Concrete Impermeability Apparatus	AIM-384