



कं क्रीट प्रौद्योगिकी प्रयोगशाला

Concrete Technology

Major Equipments:

- Compression Testing Machine Digital 2000KN, 500KN & 100KN Flexural capacity
- Silver Schmidt Rebound Hammer (Digital)
- Creep Rig Machine
- Concrete Penetrometer
- Concrete Impermeability Apparatus
- Ultra Sonic Pulse Velocity Analyser
- Concrete Resistivity Meter
- Compression Testing Machine Analog 2000KN capacity
- Concrete Mixer
- Humidity Chamber
- Le-Chatelier Apparatus
- Vee Bee Consistometer
- Slump Cone Slump
- Flow Table Apparatus
- L-Box, U-Box, V-Funnel
- Vicat Apparatus
- Rebound Hammer (Analog)
- Rebar Locater
- Flexural Test Apparatus (Analog)
- Compaction Factor Test Apparatus
- Oven
- Vibration Table
- Core Cutting Machine
- Crack Measurement Microscope



Prof. In Charge:
Dr. Sanjay
(9406587811)

Associate Faculty:
Dr. S.K. Jain
Prof. Pranjul Rajput

Physical In Charge:
Ms. Renu Gupta
(9826507415)

Department Of Civil Engineering



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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



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 Locations.

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.

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Tiwari**

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कं क्रीट प्रौद्योगिकी प्रयोगशाला

Subject Name & Subject Code: Building Material & Construction
110303

LIST OF EXPERIMENTS:

1. Determination of Normal consistency of cement
2. Determination of Initial and final setting times of cement
3. Determination of Compressive strength of cement
4. Determination of Soundness of cement
5. Determination of Fineness of cement
6. Determination of Fineness modulus of fine and coarse aggregate
7. Determination of Specific gravity, void ratio, porosity and bulk density of coarse and fine aggregates
8. Determination of Bulking of sand
9. Determination of workability of concrete by slump cone apparatus
10. Determination of workability of concrete by compaction factor apparatus
11. Determination of workability of concrete by Vee-bee consistometer
12. Determination of water absorption of brick
13. Determination of efflorescence of bricks
14. Determination of shape and size of the brick
15. Study of various field test on brick
16. Determination of compressive strength of bricks

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Concrete Technology Lab

Subject Name & Subject Code : Building Material & Construction 110303

Course Outcome :

Upon completion of practical course, the students will be able to:

- **CO 1: Determine** the properties of cement, sand & aggregate as per IS code.
- **CO 2: Determine** the workability of concrete for suitability of concrete mix in different construction works.
- **CO 3: Evaluate** compressive strength of various concrete mixes.
- **CO 4: Determine** physical properties of brick by experiment and practice accordingly.
- **CO 5: Examine** the properties of the cement mortar for various elements of the buildings

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