

DEPARTMENT OF CIVIL ENGINEERING



RAGIV GANDHI UNIVERSITY OF KNOWLEDGE
TECHNOLOGIES (RGUKT-IIIT)
BASAR-TS

List of Laboratories

- Surveying Laboratory.
- Engineering Graphics.
- Mechanics of Solids Laboratory
- Fluid Mechanics Laboratory.
- Concrete Technology Laboratory.
- Engineering Geology Laboratory.
- GIS and Auto Cad Laboratory.
- Soil Mechanics Laboratory.
- Transportation Engineering Laboratory.
- Hydraulics Engineering Laboratory.
- Environmental Engineering Laboratory.

Laboratories Details:

a. Surveying Laboratory

The Surveying laboratory aids in the developments of fundamental laboratory on land surveying to civil engineering students. Laboratory comprises of instruments for distance measurements and for measuring heights of the objects. Laboratory aims with the purpose of enabling students to practice land surveying techniques, using a wide spectrum of surveying equipments ranging from chains compass, traditional levels, Transits and Theodolites to latest electronic Total satiations.

Name of Laboratory	Major Equipment's Available
Surveying Lab	Dumpy levels
	Prismatic campus
	Auto levels
	Total Station
	Theodolites
	Survey Chain 30m
	Survey Compass Along with stand
	Total Station
	GPS

b. Hydraulic and Hydraulic Machinery Laboratory

This main function of this laboratory is to apply hydraulic modelling, analysis, and field testing expertise to the solution of water resources, hydraulics, and fluid mechanics problems. Our work is focused on running practical classes for undergraduate students in the area of fluid mechanics and hydraulics and hydrology, managing and conserving water resources, constructing and maintaining essential infrastructure, and protecting and improving the environment.

Name of Laboratory	Major Equipment's Available
Hydraulic Lab	Arm field Equipments Hydrology system With PC Control
	Ground water Flow Apparatus
	Basic Hydraulic Bench
	Computer Control Franchise Turbine
	Basic Self Contained Flume 5m
	Axial Flow impulse Turbine
	Tilting Flume

c. Environmental Engineering Laboratory

Environmental Pollution is a burning global issue. Water pollution, air pollution, noise pollution, soil pollution etc., are to be understood by assessing the quality of pollutants. To inculcate the knowledge of qualitative analysis of pollutants, to the Undergraduate student's tests on the pollutants is essential. Environmental Engineering Laboratory is fully equipped with equipments for the qualitative analysis of water to evaluate the fitness as per BIS standards. Waste water analysis is also carried out in this laboratory.

Name of Laboratory	Major Equipment's Available
Environmental Engineering Lab	Gas Chromatography (GC)
	Atomic Absorption Spectrophotometer (AAS)
	Total Organic Carbon (TOC)
	Flame photometer
	UV Spectrophotometer
	Muffle Furnace
	BOD Incubator
	Jar Test
	pH & EC Meter
	Hot Air Oven
	COD Digester
	Laminar Air flow

d. MOS and Concrete Technology laboratory

Concrete is a composite construction material used for construction of various types of structures. Rapid change in use of ingredients like flash, cement, fine geo polymer is necessity the study of fly ash. Properties of concrete to understand its suitability for particular job. In this context the concrete laboratory is fully equipped with all the test setups for cement, fire aggregate, coarse aggregate.

Concrete is a construction material that consists of cement as well as other cementitious materials such as fly ash and slag cement, aggregate.

Name of Laboratory	Major Equipment's Available
MOS & CT Lab	Vibrating Machine
	Laboratory Concrete mixer pan type
	Concrete Penetrometer spring type
	UTM Machine
	Variable flow type air permeability apparatus
	Grinding machine blade for above 300mm
	Ultra Sonic Pulse Velocity
	Rebar Detector
Rebound Hammer	

e. CAD Engineering Lab

Computer software's are used in all disciplines for various applications. Likewise in civil engineering field also various software's are used for many applications like Surveying, Analysis, Designing and Drawing, Quantity calculations, and costing etc. of civil engineering structures.

f. Transportation lab

Name of Laboratory	Major Equipment's Available
Transportation lab	Aggregate Impact tester
	Sieve Shaker
	Universal Penetrometer with needle and cone
	Density Basket
	California Bearing Ratio Test Apparatus (Motorized) with moulds.
	Dynamic Cone Penetrometer
	Los Angeles Abrasion Testing Machine
	Ring and Ball Apparatus
Marshal Stability test Apparatus with Electronic Conversion Kit and moulds.	

g. Soil Mechanics Lab

The Soils Mechanics Laboratory aims to improve the theory and application of geo-mechanics (soft soils) and geo-environmental engineering.

Name of Laboratory	Major Equipment's Available
Soil Mechanics Lab	Triaxial Test Apparatus With all Accessories
	Consolidation three gang new model electronic apparatus
	High Speed Stirrer with Dispersion Cup & Baffle
	Automatic Soil Compactor
	Laboratory vane Shear Apparatus(Hand operated)
	Casagrande Apparatus with Accessories
	Sieve Shaker
	Electronic Heater
	Consolidation Apparatus with all accessories

