



DOCTORAL PROGRAMME IN CIVIL ENGINEERING

2026-27

APPLY NOW!



Research Streams

ENVIRONMENTAL ENGINEERING

GEOINFORMATICS ENGINEERING

GEOTECHNICAL ENGINEERING

HYDRAULICS & WATER RESOURCES
ENGINEERING

INFRASTRUCTURE ENGINEERING AND
MANAGEMENT

STRUCTURAL ENGINEERING

TRANSPORTATION ENGINEERING

**Direct
Ph. D.**

**Exclusive for
final year
BTech
students in
CFTIs**

**Last date
November 10, 2025**

THE DEPARTMENT

- Established in 1961, the Department of Civil Engineering at IIT Kanpur aims at producing highly qualified technical human resources
- Provides technical support to:
 - Industries
 - R&D organizations
 - Educational institutes
- Actively involved in consulting and research in frontier areas
- Strong outreach activities at national and international levels
- Several international mobility programmes



WHAT YOU GET!

**FARE Fellowship
if PhD completed
within 5 years**

**MTech degree in
addition to PhD
for direct PhD
students**

**Travel grants
to present at
national &
international
conferences**

**Placement
Services**

**Married
Student
Housing**

**Sports &
cultural events
on campus**

The process!

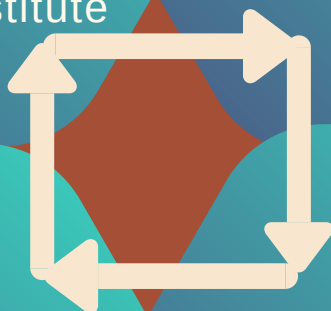
Eligibility Check

B.Tech 7th Sem
 $\text{CPI} \geq 7.5$
Centrally Funded
Technical Institute

Submit Online Application Form

Selection for Direct Ph.D.

Attend Interview DEC 2025





RESEARCH INTERESTS



ENVIRONMENTAL ENGINEERING (EE)

Water distribution systems modelling; remote sensing of water quality; urban water management; pollutant fate and transport in soil–water systems; physico-chemical processes for water / wastewater treatment; air quality modelling; exposure and health risk assessment; indoor/outdoor pollution monitoring; environmental chemistry of pesticides and aerosols; exposure assessment; development of instrumentation for environmental pollution monitoring



GEOTECHNICAL ENGINEERING (GTE)

Constitutive Modelling of Geomaterials; Micromechanics of granular media; Rock Mechanics and Rock Engineering; Uncertainty and reliability Analysis in geotechnical engineering; Unsaturated Soil Mechanics; Ground Improvement Techniques; soil Dynamics; Soil-Structure interaction; Geotechnical Earthquake Engineering; Foundation Engineering; Vibration Screening



RESEARCH INTERESTS



GEOINFORMATICS ENGINEERING (GI)

Earth observation techniques; Optical, Microwave and Hyperspectral remote sensing; Geodetic reference frames; Satellite Geodesy; Gravity field research; Environmental & Geophysical Geodesy; GNSS positioning; GNSS reflectometry; Satellite Altimetry; Integration of various sensors for navigation and mapping; Forest Biomass and Carbon Stock Estimation using Terrestrial and Aerial LiDAR and other EO data; Deep Learning and Machine Learning for Remote Sensing Applications; Sensor and Scenario Simulation for Autonomous System Development like AV/ADAS



HYDRAULICS & WATER RESOURCES ENGINEERING (HWRE)

Vadose Zone Hydrology, River Mechanics and Sediment Transport, Ecohydrology, Climate Change, Flow and Mixing in porous media, Hydrologic Extremes, carbon sequestration, Open Channel Flow, Drought Risk Management, Hydroclimatology, Water resources Systems Analysis, Experimental Hydraulics, geothermal energy recovery, multiphase flow, Green energy harvesting



RESEARCH INTERESTS



INFRASTRUCTURE ENGINEERING & MANAGEMENT (IEM)

Construction project management; Infrastructure asset management; Quality and safety in construction; Sustainable and resilient Infrastructure systems; Construction technology; Sustainable smart Cities; Digitization of Infrastructure systems; Financing of infrastructure projects; Circular economy in Construction



STRUCTURAL ENGINEERING (STR)

Structural dynamics; earthquake-resistant design; performance-based design of steel, concrete, and masonry structures; advanced materials; mechanics and stability of structures; advanced modelling and multi-scale structural mechanics; structural health monitoring; nonlinear structural analysis, Modelling and design of thin-walled structures



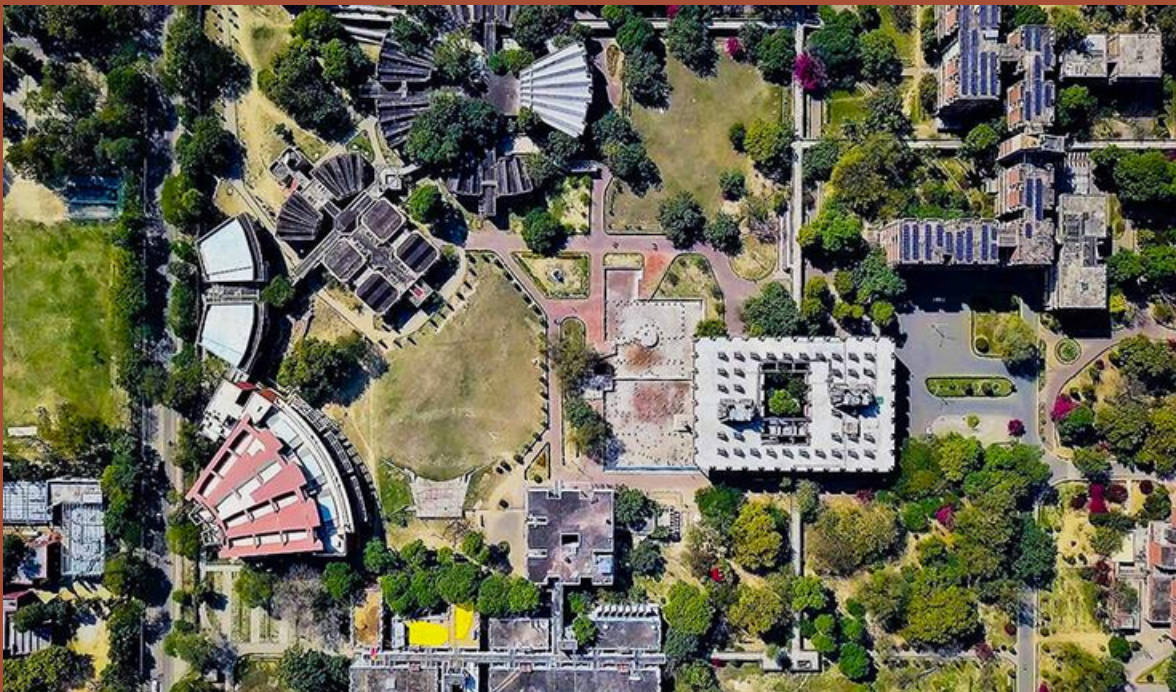
RESEARCH INTERESTS



TRANSPORTATION ENGINEERING (TE)

Traffic Engineering (e.g., Traffic flow theory, Driver behaviour); Transit Systems (e.g., Route development, System evaluation); Infrastructure Management (Facility-level deterioration & improvement modelling); Networks (e.g., Transportation network modelling, Optimization); Road Safety (Statistical modelling of crashes, road safety); Intelligent Transportation Systems (Big data analytics, machine learning, Connected and autonomous vehicles); Pavement Materials and Engineering (Pavement analysis, design & rehabilitation, Viscoelastic response of asphalt based materials, Semi Flexible Pavement composite material, NDT methods for pavement materials evaluation, development of sustainable pavement materials)

CAMPUS VIEW



SCAN HERE
FOR
MORE DETAILS

