## **INDIAN INSTITUTE OF TECHNOLOGY** PATNA



#### **B. Tech Placement Brochure** 2022 - 23

**DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING** 







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# **About Us**

The Department of Civil and Environmental Engineering (DCEE) of IIT Patna was established in Year 2013. The Department offers a four-year and two-year program leading to Bachelors and Masters Degree in Civil Engineering. It constitutes five independent disciplines: Structural Engineering, Geotechnical Engineering, Transportation Engineering, Water Resources Engineering, and Environmental Engineering. DCEE, IIT Patna is adopting an integrated approach to forge all these areas into a multi-disciplinary and application-oriented course. This interdisciplinary nature will lead to the development of the creative and analytical ability of the students, thus improving the knowledge-based approach towards real-life situations. The Department has proved itself on the quality of its academic programs and is keeping pace with the latest developments in engineering education and is well equipped with state-of-the-art research laboratories to enable the students to carry out research and experimentation. It is committed to providing holistic and enriching industrial/research training opportunities to the students to help them excel in their professional life. The Department has several ongoing/approved projects and consultancy works. It makes a continuous effort of setting up and upgrading experimental and computational facilities.

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# Message from HOD's Desk



Dr. Vaibhav Singhal



The Department of Civil and Environmental Engineering at IIT Patna since its inception in 2013 has continuously upgraded itself in field of academic, research and laboratories. The Department attracts the finest young and dynamic faculty members and the best of students for its Bachelors, Masters, and Doctoral programs.

Since the inception, our focus has been to impart quality education with special emphasis on technical advancements and research. Students are exposed to well-defined academic programs along with a host of sport, cultural and organizational activities on a vibrant and splashing green campus of IIT Patna at Bihta. Our curriculum is designed as per the need of the hour and to meet the challenges of tomorrow. Apart from Institute and program core courses, our curricula provide flexibility to students to choose elective courses of interdisciplinary nature including humanities, social sciences, and management streams. Emphasis is provided on project-based learning. Students are encouraged to work on their projects or dissertation on topics of industrial and societal needs. The presence of state-of-the-art experimental and computational facilities, the active institute – industry interaction, rigorous training through immersive industrial/research internships prepare the students of the Department with their innate quality to meet more than adequately any challenge in their competitive professional life and also, take on leadership roles in later years in their career.

The Department is continuously striving for greater heights in teaching and research that is relevant to the industry and shall help in nation-building. Various national and multinational companies, reputed public sector undertaking, etc. regularly visit our Institute for campus recruitment. The Institute maintains cordial relationships with the recruiters and all possible hospitality is extended to them by our Training and Placement Cell (TPC). I heartily welcome both the recruiters and our graduating students to come to a common platform and get the best out of each other. I am quite certain that students of our Department will prove themselves competent enough to meet the challenges of the modern technological world and society. I wish them all the best for their future.



### Structural

Dr. Vaibhav Singhal Dr. Avik Samanta Dr. Koushik Roy Dr. Sourav Gur

### Water Resources

Dr Om Prakash Dr Vishal Deshpande

## Environmental

Dr Subrata Hait

# Faculty

### Geotechnical

Dr Pradipta Chakrabortty Dr Amarnath Hegde Dr Ramakrishna Bag Dr Arvind Kumar Jha

### Transportational

Dr Syed K.K. Hussaini Dr Sudhir Varma Dr Bachu Anilkumar

# **Courses offered**

## **CORE COURSES**

- Geomatics Engineering
- Fluid Mechanics
- Structural Engineering
- Structural Analysis and Mechanics
- Infrastructure Drawing and Estimation
- Civil Engineering Materials
- Foundation Engineering
- Numerical Methods in Civil Engineering
- Water Resources Engineering
- Transportation Engineering
- Design of Reinforced Concrete Structures
- Design of Steel Structures
- Construction Planning and Management

## **ELECTIVES**

- Programming: Data Science, Python, and Algorithm
- Finance
- Forensic Linguistics
- Optics and Vacuum



- Microeconomics, Macroeconomics and
- Industrial and Organizational Psychology
- Sociology and Globalization

### LABS

- Structural Engineering and Concrete **Technology Lab**
- Geotechnical Engineering Lab
- Surveying Lab
- Soil Dynamics Lab
- Environmental Engineering Lab
- Water Resource Engineering Lab
- Transportation Engineering Lab
- Railway Engineering Lab
- Computer-Aided-Design Lab

# SOFTWARE RESOURCES

- ABAQUS
- AutoCAD
- MATLAB
- SAP2000
- GeoStudio
- LISCAD
- PLAXIS 3D
- FLAC 3D

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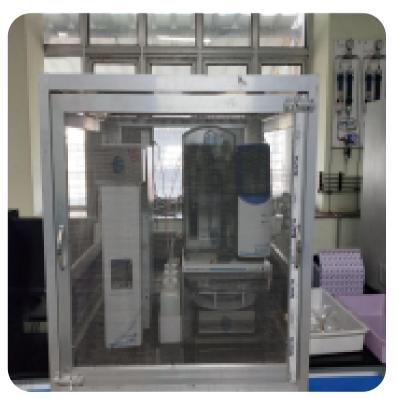
# Equipments











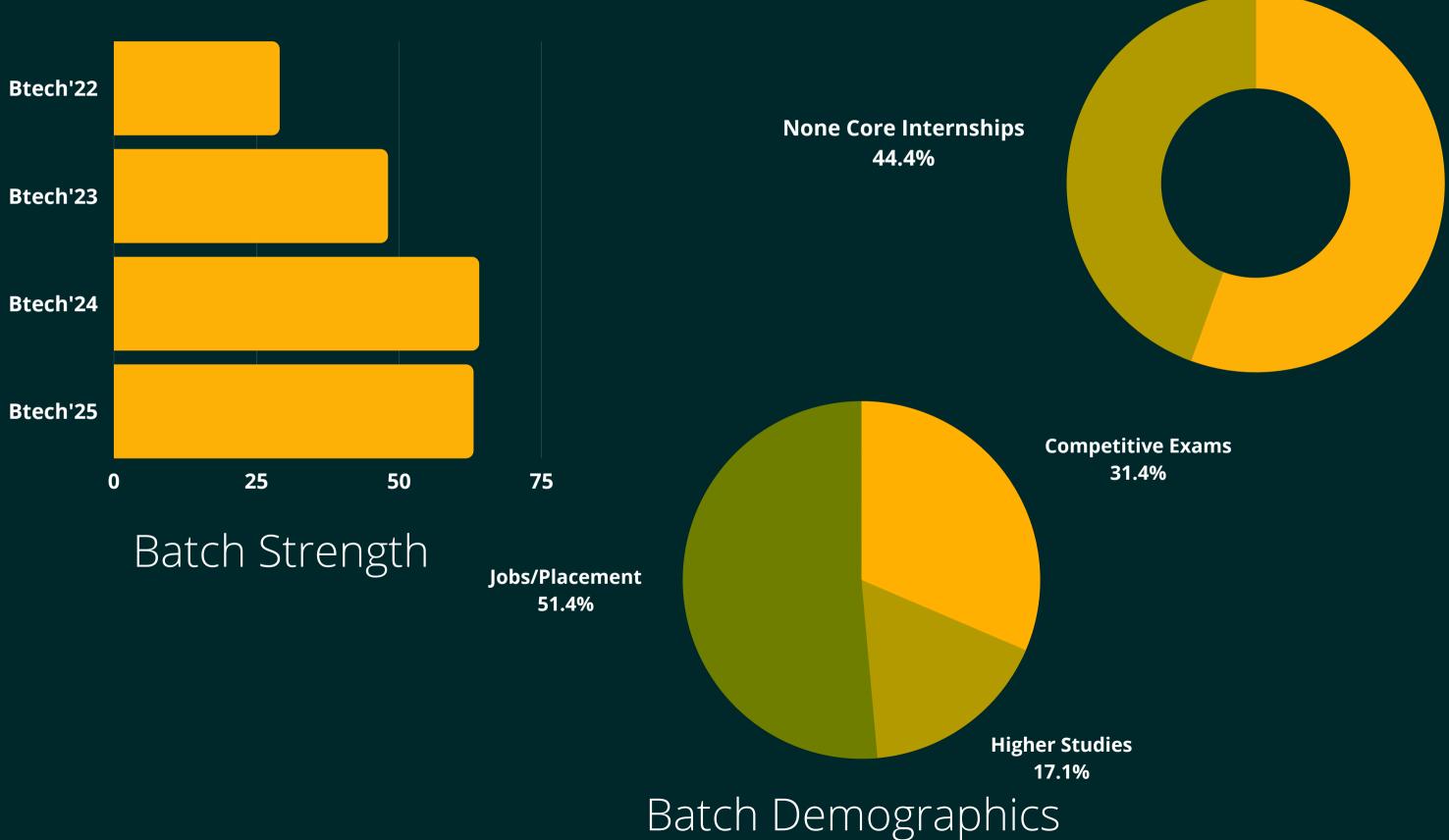






# Statistics





#### Internship Distribution

**Core Internships** 55.6%

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# Achievements

### Core

- 1. Five UG students of Batch 2022 participated in Inter IIT Civil Conclave organized by IIT Roorkee in November 2020 and secured 1st position in 2 events.
- 2. Nine UG students participated in Inter IIT Civil Conclave 2021 organized by IIT Roorkee and secured 1st position in 3 events and bagged 2nd position in 1 event.
- 3.One PG student secured 2st position in research work presentation.
- 4. Shashank Kumar, UG Batch 2022, secured AIR 249 in GATE 2021.
- 5.Six UG students of Batch 2022 qualified GATE 2021 in their third year.
- 6.Seven UG students of Batch 2023 qualified GATE 2022 in their third year.
- 7.Twenty Two UG students of Batch 2023 got internships in core companies.

### **Non-core**

- resources, etc.
- in non core companies.
- 2022.

1.Pritam Kumar Singh, UG Batch 2022, is a Certified Hyperledger Fabric Administrator.

2. Maurya Bhatt, UG Batch 2022, is one of the founders of the startup - 'Boox Woox'. It is started to create a strong local network for book communities where people can have access to all the books, libraries, digital

3. Preetam Abhinay Kamaji, UG Batch 2022, has founded his startup, 'Preetam Services'. It currently provides freight vehicle services in few districts of Maharashtra.

4. Nine UG students of Batch 2023 got internships

5.Two UG students of Batch 2024 won gold in a team event organized in Inter IIT Tech Meet

6.Two UG students(1 from Batch 2023 and 1 from Batch 2024) won gold in a team event organized in Inter IIT Tech Meet 2022.

# Research Work

- Seismic performance of structures | Fluid-structure interaction | Structural health monitoring
- Ground improvement | Radioactive waste disposal | Geotechnical earthquake engineering | Geo-energy
- Pavement characterisation | Traffic Engineering | Performance of railway ballast using geosynthetic
- Groundwater Pollution Sources Identification | Sedimentation analysis
- Waste treatment and resource recovery | Biological production of nano-silica from agro-industrial waste | management and recycle of e-waste

# Sponsored Research Projects

- Seismic response, damage, and vulnerability of structures in Patna for future earthquakes SERB, DST, Gol
- Development of Structural Health Monitoring Technique for Existing Bridge in Bihar: A Pilot StudyRoad Construction Department, Bihar
- Evaluate the fate and transport and implication of engineered nanoparticle retention in porous mediaDST, Go
- Arsenic immobilization by in-situ synthesis of iron-based adsorbent under reducing environment within porous media- DST-WTI (Water Technology Initiative)
- Varied profiling of bio-macromolecules for energy and byproduct assessment employing electrochemical tools- SERB, DST
- Development of Ganga Grams under Namami Gange Programme with Support of Technical Institutions MHRD & National (NMCG), Ministry of Water
- Development of Gravity-based Household Filter for Simultaneous Removal of Arsenic and Iron Contamination of Groundwater in Patna District, Bihar, India. Shastri Indo-Canadian Institute
- Occurrence, Fate and Removal of Emerging Contaminants in Surface Water- Shastri Indo-Canadian Institute
- Microzonation of Jaipur City Based on Shear Wave Velocity DST, Gol,



# Our Esteemed Alumni

- 1. Abhishek Mishra, (2014-18), secured AIR 2 in GATE 202
- 2. Pranav Suresh (2015-19), Associate at Exponent, California
- 3. Rahul Jain (2015-19), M.S., Purdue University.
- 4. Amolika Sinha (2013-17), PhD, UNSW, Australia.
- 5. Abhinav Gyan (2016-20), IIM Bangalore



## ACE (Association Of Civil Engineers)

The Association of Civil Engineers is a student club established by DCEE to proliferate knowledge & provide industrial exposure by bringing corporates, professors, and students on a common platform. The various activities organized by ACE include technical seminars, research practices, site visits, Open-House Sessions, competitions, and quizzes. The students are also encouraged to participate in various fests to enhance their technical skills. ACE conducts regular discussions and brainstorming sessions for the DCEE students to bring awareness about civil and environmental-related works and new ideas related to this field.

## SAMNIVESHA

Samnivesha is the two day civil technical fest of DCEE, IIT P, organised by ACE. Starting in 2019 our vision was to reach out to interested students and provide a glimpse of beauty Civil engineering has to offer.With its maiden edition fetching 300+ participations, second edition with 500+ participations, and the third one being the latest and online edition witnessed 600+ registrations. Events organised in Samnivesha so far were spectacular and saw a great enthusiasm among the participants along with their engagements in workshops and guest lectures. Some of the highlighting events were CiviQ, Crack the Clue, Engineers conclave, and CADdesign. The extravaganza truly justifies the word "Fest", and is definitely worth experiencing.



# Message from ACE PIC



#### Dr. Bachu Anilkumar

I am pleased to invite you for Placements 2022-23 of the B. Tech (Civil and Environmental Engineering) batch of 2019-23 and M.Tech. (Civil Engineering) the batch of 2021-23 at the Department of Civil and Environmental Engineering (DCEE), IIT Patna. Our department was established in 2013. The DCEE offers courses and activities that encompass Planning, Design, Construction, and Management of engineering projects. The academic programs, B. Tech., M.Tech., and Ph.D., of the Civil and Environmental Engineering Department at IIT Patna, are some of the best in the country. Along with this, DCEE provides and ensures an academic and research environment, which is highly conducive to preparing civil engineering professionals who can handle the challenges associated with the multidisciplinary nature of genuinely committed to their specialization. On the academic front, our students have skills and traits that are methodically cultivated during their stay at the department. In addition to academics, DCEE encourages a variety of co-curricular activities that are managed by students themselves with the due support of faculty members. They are motivated to take part in several competitions and activities. Through a diverse and integrated approach, our graduates and postgraduates have been since the inception of the Department, selected by leading national and multinational corporations and research /academic institutes. They have made us proud !! I am delighted to present the current batch of DCEE B.Tech. and M.Tech. students. They are highly intellectual and academically robust. I am confident that students selected from this department will perform as per the employers' expectations and satisfaction.

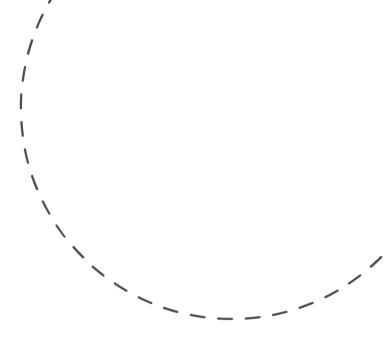
# Our Recruiters





# Placement/Internship Procedure

- 1.Companies are contacted by the Placement office or Placement cell (authorized student representatives) and invitations are extended, providing relevant information.
- 2.Companies are given an exclusive login id in the website after they submit the filled-in Job Announcement Forms (JAF) via email or fax. The JAFs are made available online, which helps the willing students to register for the company.
- 3.The Placement Cell and the Company confer and finalize the date for preplacement talks if necessary.
- 4.Each student who has registered for a particular company submits resume so that the company can shortlist the students accordingly.
- 5.A detailed schedule is prepared by the Placement Cell evaluating the job offer, prospects, student intake and the like. The schedule is confirmed with all the companies.
- 6.The companies/organizations visit the campus, meet the registered (or shortlisted) students, and conduct the interviews, tests or group discussion sessions in accordance with their respective recruitment process. The date of the interview and other sessions should be in compliance with the mutually confirmed schedule discussed earlier.
- 7. The companies are required to prepare and submit, with a written confirmation letter the list of students who are selected after the interview process, on the day of the interview itself.





# **Contact Us**

#### PROFESSOR IN-CHARGE

#### Dr. Jose V Parambil

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#### FACULTY DEPARTMENT COORDINATOR

#### Dr. Sourav Gur

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#### **Training & Placement Cell**

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### **STUDENT COORDINATORS**

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#### TRAINING AND PLACEMENT OFFICER

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