IIT KANPUR
Indian Institute of Technology Kanpur

CONSTRUCTION OF A NEW HALL OF RESIDENCE FOR STUDENTS

Submitted to

CLASS OF 1986

*Image used for illustration purposes only.

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Overview

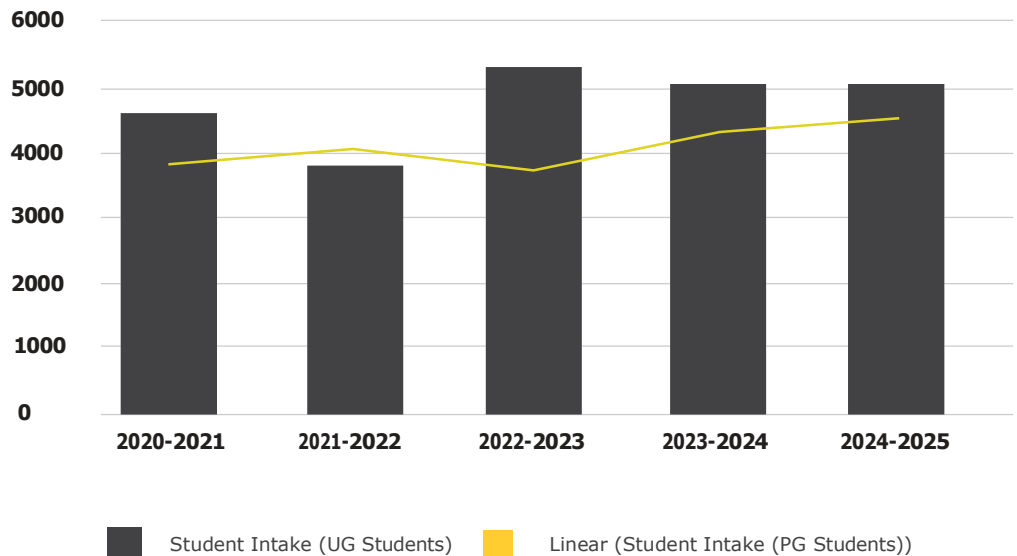
Indian Institute of Technology Kanpur, established in 1959, is a premier institution established by the Government of India. In the early stage, under the Kanpur Indo-American Programme (1962-1972), the Institute received technical assistance under KIAP from a consortium of nine leading institutions of the U.S.A. The institute has since grown into a globally recognized center of academic excellence. It has gained a legendary reputation in the country through its academic, social, and economic contributions. The combined record of its past and present faculty and students along with the alumni spread across the world is awe-inspiring.

In the 65 years of its existence, over 45,000 students have graduated from the Institute. The Institute has a large pool of academic resources spanning 20 departments, 3 Interdisciplinary programs, 3 specialized schools and 25 centers across engineering, science, design, humanities, and management disciplines. It has a student strength of more than 9500 across the programs.

Background

Over the past several years, our esteemed institution has experienced a remarkable growth in its student population. This expansion can be attributed to various factors, including a pivotal decision by the government to significantly increase enrolments in the IIT's that has brought both opportunities and challenges for the institute. The move was driven by the goal of promoting higher education accessibility, fostering innovation, and meeting the demands of a rapidly developing economy. However, this decision has had a profound impact on the existing infrastructure, leading to a series of challenges that need to be strategically addressed. The increased enrolment is a testament to our institution's appeal, however it has presented significant challenges in terms of accommodation and providing adequate facilities for our students.

Academic Year	2024-2025	2023-2024	2022-2023	2021-2022	2020-2021
Student Intake (UG)	5043	4964	5231	3759	4571
Student Intake (PG)	4482	4273	3738	4007	3780

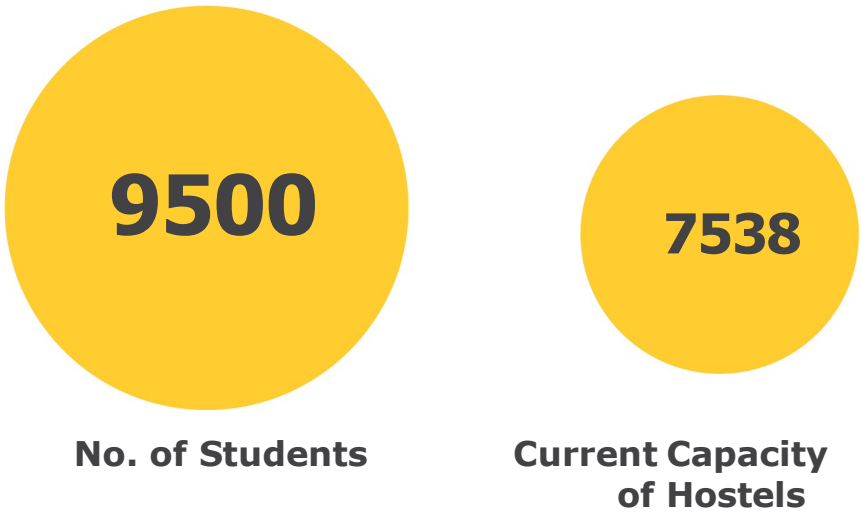


Challenges

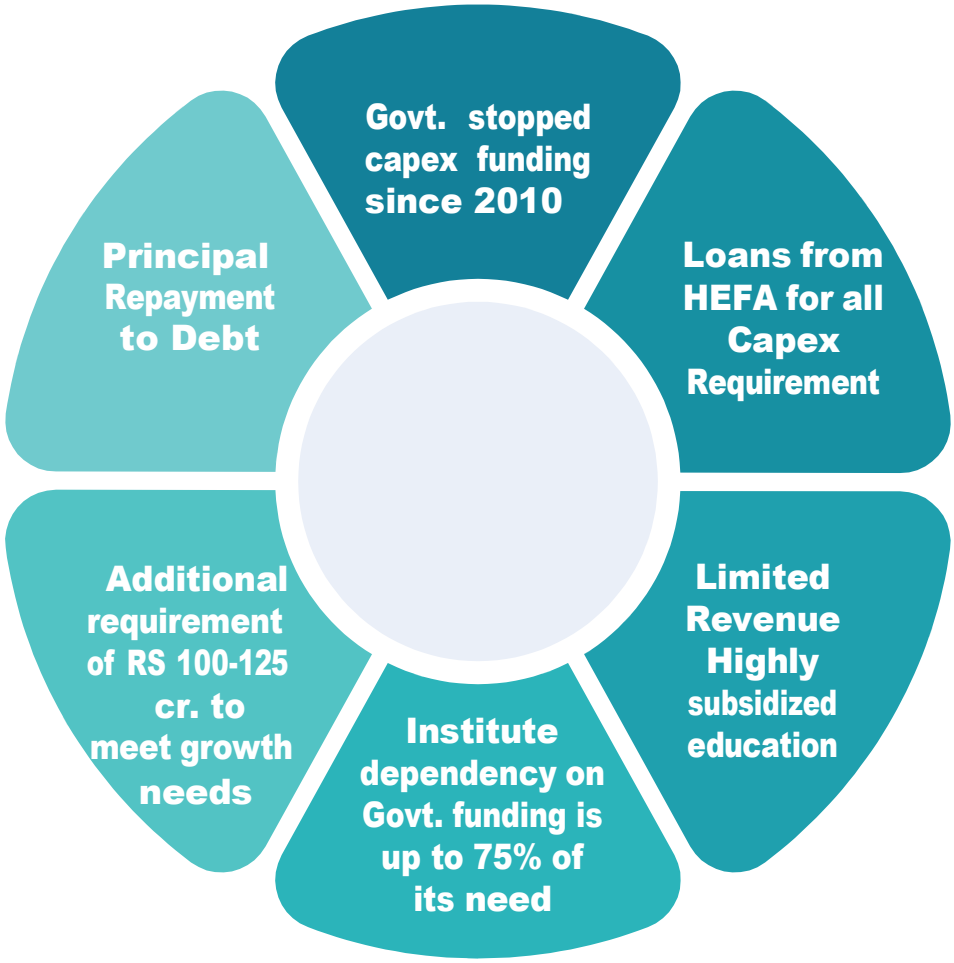
One of the most pressing challenges stemming from the enrollment surge is the shortage of suitable and comfortable student accommodations. The existing residential facilities, designed to cater to a lower number of students, are now overburdened, leading to overcrowding and discomfort. In many instances, three students are being accommodated in rooms originally intended for one or two occupants. This overcrowding not only affects the quality of life for our students but also hampers their ability to focus on their studies and engage fully in extracurricular activities.

Cramped spaces can exacerbate feelings of loneliness. Lack of social cohesion due to physical attributes of the place can further contribute to mental health challenges. Basic issues of quality education, right to privacy also has a negative impact on the well-being of a student. Hostel life is a principal component of students' academic journey. Creating conducive environment within hostels is crucial for achieving the ultimate purpose of learning. Ensuring adequate space, a strong sense of community, and essential facilities are vital for supporting students' mental health, wellbeing, and academic success.

Hostel Capacity vs No. of Students



The economic challenge faced by the institute is multifaceted



- **Government CapEx Funding Halt:** Since 2010, the government has ceased providing capital expenditure (CapEx) funding, creating a significant financial gap for the institute in terms of infrastructure development and expansion.

- **Dependency on Loans from HEFA:** To cover all the CapEx requirements, the institute heavily relies on loans from the Higher Education Financing Agency (HEFA). This dependence on loans can lead to increased financial strain due to repayment obligations.

- **Limited Revenue Streams:** The institute primarily relies on highly subsidized education, which results in limited revenue generation. This revenue model may not be sustainable in the long term, especially considering the increasing operational costs and demands for quality education.

- **High Dependency on Government Funding:** Up to 75% of the institute's financial needs are met through government funding. This high dependency leaves the institute vulnerable to fluctuations in government budgets and policies, posing a significant risk to its financial stability.

- **Additional Funding Requirement for Growth:** The institute requires an additional investment of 100-125 crore to meet its growth needs. This includes funding for infrastructure development, faculty hiring, research facilities, and other critical areas necessary for institutional advancement.

- **Principal Debt Payments:** Apart from meeting operational expenses and expansion needs, the institute also faces the challenge of servicing the principal debt payments associated with the loans acquired for CapEx funding. Failure to meet these obligations could lead to financial penalties.

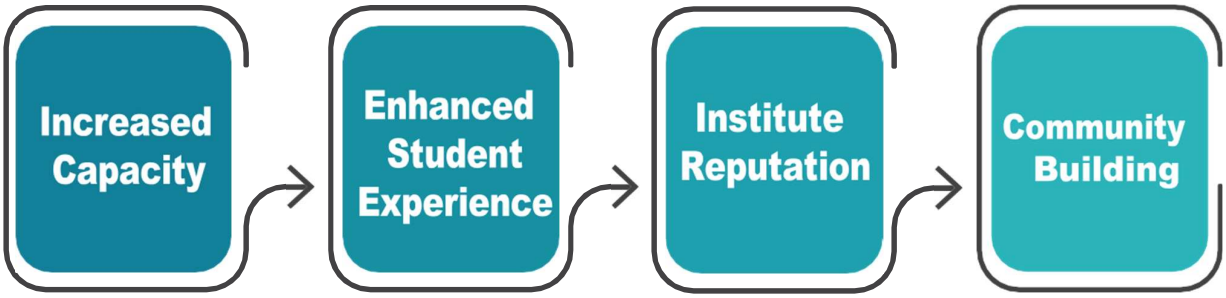
Proposed Project

Construction of a New Hall of Residence for students

As our institution is committed to providing an exceptional educational experience, it is imperative that we address these challenges. It is not only about accommodating the increased number of students but also about ensuring that our students have the necessary facilities and environment to thrive academically, socially and emotionally.

The present situation necessitates a strategic approach that aligns with our institution's mission and values. To manage these challenges, we are looking at support from our esteemed alumni towards the construction of additional Halls of Residence for students.

Objective



State-of-the-art Hall of Residence

The proposed construction of a new student residence hall at IIT Kanpur represents a vital step in accommodating the burgeoning student population while fostering an environment conducive to both academic excellence and personal growth. With a holistic approach, the project aims not only to address the immediate need for housing but also to enhance essential amenities such as dining facilities, canteens, and laundry services. This comprehensive strategy underscores our commitment to providing students with a comfortable and supportive environment that nurtures their holistic development.

To support the growing student population at IIT Kanpur, we are expanding our residential infrastructure with four new Halls of Residence: Hall 15 (for girls) and Halls 16, 17, and 18 (for boys). Each Hall of Residence is composed of five distinct towers, each designed to provide a structured and comfortable living environment. **Every tower consists of ground + eight floors, with each floor housing 25 single-occupancy rooms, accommodating a total of 200 students per tower and the ground floor housing common facilities.** This layout ensures optimal space utilization while maintaining individual privacy. The design supports a balanced residential experience, combining personal space with shared amenities and common areas that foster community interaction and student engagement.

Overall, the Hall of Residence is designed to accommodate approximately 1,000 students, with its five towers collectively offering well-structured living spaces.

Furthermore, in line with IIT Kanpur's dedication to sustainability, we are steadfast in our pursuit of carbon neutrality. By 2030, we aspire to achieve net-zero carbon emissions through a meticulously crafted strategic plan. However, the institute's significant carbon footprint necessitates concerted efforts to mitigate environmental impact, especially as our institution continues to grow. In tandem with the development of state-of-the-art infrastructure, the proposed project is poised to pioneer a transformative journey towards a green and carbon-neutral hostel, exemplifying our unwavering commitment to environmental stewardship and sustainable progress.

Construction of Hall of Residence

This project endeavors to construct a cutting-edge hall of residence tailored to accommodate 1000 students, seamlessly integrating modern design principles to foster both comfort and functionality within living spaces. Emphasizing inclusivity, the design incorporates accessibility features to cater to the diverse needs of our student community.

- **Accommodation:** Comfortable and spacious rooms accommodating one student, equipped with centralized air conditioning, lockers, bedding, and storage space.
- **Wi-Fi and Internet Access:** High-speed internet connectivity throughout the hostel premises to facilitate communication and research.
- **Cafeteria/Kitchen:** On-site dining facilities offering a variety of local cuisines, along with self-catering kitchens equipped with cooking appliances and utensils for residents to prepare their meals.
- **Laundry Facilities:** Washing machines, dryers, Cloak room and ironing equipment for residents to conveniently clean and maintain their clothes.
- **Study Rooms/Workspaces:** Quiet areas or designated study rooms equipped with desks, chairs, and adequate lighting for residents to focus on their academic pursuits.
- **Recreational Facilities:** Indoor and outdoor spaces for recreational activities such as sports, yoga, or fitness workouts, as well as leisure facilities like library.
- **Smart Rooms:** Lounge areas for socializing, studying, or relaxing, furnished with comfortable seating, tables, and recreational amenities like board games or TVs.
- **Guest Rooms:** Two guest rooms with all the modern amenities to accommodate parents and students from other institutes.
- **Fire & Safety Norms:** To Secure physical infrastructure with boundary walls to prevent unauthorized access. Restricted entry points manned by security guards, CCTV cameras, and identity verification mechanisms. The building will comply with all Fire norms mentioned in National Building Code (NBC), in particular to the Lift pressurization, Staircase pressurization, Fire evacuation lifts, Refuge area, Exit route with signage, etc. Regular inspection and maintenance of electrical installations and fire safety equipment. Clear signage indicating exit routes and the location of fire safety equipment. Storage of flammable materials in designated safe areas. These guidelines are designed to ensure a safe and secure environment for students living in hostels.

Constructing an Eco-Friendly Building

Hall of Residence will be constructed in an eco-friendly way using pre-cast construction methods, ensuring strength, durability, cost-effectiveness, weather resistance, and fireproofing. By incorporating these eco-friendly features into the construction of the hostel, a sustainable and environmentally responsible building can be created that benefits both the occupants and the campus community. The structure will be designed with the latest provisions NBC and IS codes in respect to Load calculations, Design and detailing of structure, Modern energy saving concepts and Fire-fighting system

Pre-cast Construction: Pre-cast concrete panels or blocks for the structure of the hostel will be preferred. Pre-cast elements are manufactured off-site under controlled conditions, reducing construction time, minimizing waste, and ensuring quality.

Insulation: Insulation materials within the pre-cast panels to enhance thermal performance, will be incorporated reducing heating and cooling needs and thus energy consumption.

Weatherproofing: Weatherproof coatings or sealants to the pre-cast elements will be used to protect against moisture penetration, ensuring durability and longevity of the structure.

Fireproofing: Fire-resistant materials in the pre-cast panels or fire-retardant coatings will be used to enhance the fire resistance of the hostel.

Rainwater Harvesting & Water Conservation: Water-saving fixtures such as low-flow toilets, faucets, and showers to minimize water usage. Utilize rainwater harvesting systems to reuse water for non-potable purposes such as toilet flushing.

Renewable Energy Integration: Solar panels onto the roof or other suitable areas of the hostel will be integrated to generate renewable energy. This can offset electricity consumption and reduce carbon footprint.

Waste Reduction and Recycling: To develop waste reduction strategies to minimize the generation of waste during construction and operation. Ensure easily accessible recycling bins and composting facilities for residents to separate and recycle waste materials effectively. Encourage sustainable consumption practices among residents to reduce waste generation.

Sewage Treatment Plant (STP): An on-site sewage treatment plant to treat wastewater will be installed. The treated water can then be reused for flushing toilets, or other non-potable purposes, reducing water consumption and pollution.

Energy-Efficient Fixtures: Energy-efficient lighting fixtures, appliances, and HVAC systems to will be installed to minimize energy consumption and operating costs.

Natural Ventilation and Lighting: The hostel would be designed to maximize natural ventilation and daylighting, reducing the need for artificial lighting and mechanical ventilation systems.

Green Spaces: Green spaces and landscaping will be incorporated around the hostel to enhance biodiversity, improve air quality, and provide a natural cooling effect.

Recycled Materials: Choosing sustainable building materials with low embodied energy and minimal environmental impact, such as recycled, reclaimed, or locally sourced materials. To prioritize materials that are durable, non-toxic, and easily recyclable or biodegradable at the end of their life cycle. Implement waste management practices to minimize construction waste and maximize recycling and reuse of materials.

Implementation Plan for Hall of Residence

Estimated Budget for Construction of a Tower- INR 15 CRORE

Milestones (Months)	0-4	4-5	5-6	7-8	9-22	23-26	24-26
Appointment of a PMC (project management consultant) & an Architect							
Architectural design and detailed project overview, Designs approval, Obtaining building permit etc.							
Tender and Award of construction work							
Construction Work				**Foundation work Up to Plinth Level**	**RCC Structure up to Terrace level and Water proofing works**	**Finishing works- Internal and External Finishes, Electrical and Central AC commissioning and Testing**	
Handover & Documentation							
Inauguration							

Expected Impact

Transforming Student Living: An Enduring Legacy of this New Residential Block

The construction of this environmentally sustainable state-of-the-art hall of residence, boasting 1000 single occupancy rooms, has the potential to profoundly enhance multiple facets of student life at the campus:

Academic Excellence: A conducive living environment, free from concerns related to safety or comfort, can enhance concentration and focus on studies. Additionally, the sense of community and collaboration within the hostel can lead to peer support and shared academic goals, ultimately contributing to academic excellence among female students.

Increased Accommodation Capacity: The immediate impact would be the provision of accommodation for a significant number of students, potentially easing the strain on existing housing facilities. This could be particularly beneficial if there is a shortage of student housing in the area.

Community Development: Hostels often serve as hubs for social interaction, fostering a sense of community among residents and promoting cultural exchange, especially in facilities catering to travelers or international students. This can contribute to a richer and more diverse local community.

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Pledge

There is an urgent need for substantial investments in infrastructure, emerging technologies, projects etc., assessed at ₹5,000 crore, with Prof Manindra Agrawal's vision for restoring the old glory of the institute. Of this, ₹3,000 crore is expected from alumni & industry and ₹2,000 crore from the government.

Your alma mater is embarking on a project of lasting significance—the construction of a new Hall of Residence designed to house 1,000 single-occupancy rooms. This thoughtfully planned facility will serve as a cornerstone of student life at IIT Kanpur, fostering an environment where learning, growth, and collaboration thrive.

This Hall of Residence will reflect the values of modernity and sustainability, featuring state-of-the-art amenities such as spacious common areas, recreational zones, and guest accommodations. It will be more than just a place to live—it will be a vibrant, inclusive space where students from diverse backgrounds come together to build lasting memories and a strong sense of community.

As IIT Kanpur undertakes this transformative initiative, we invite the **Class of 1986** to join hands in this transformative journey. Your batch has the opportunity to create a **lasting legacy** by funding and naming one of the Towers of this new hall.

We seek a contribution of minimum ₹15 crore from the Class of 1986 in support of one tower of G+8 floors of the new Hall of Residence to house 200 students.

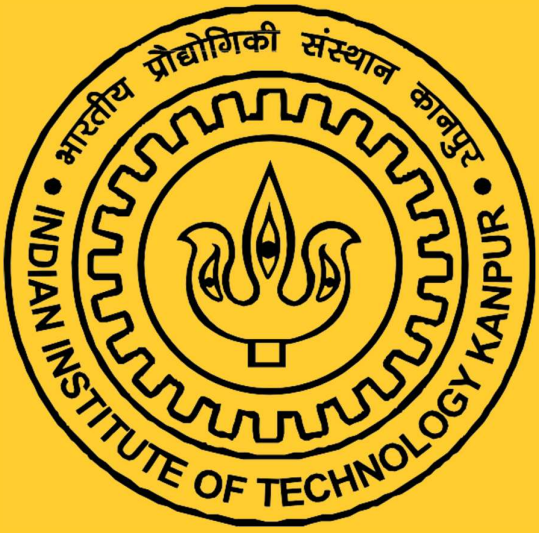
In appreciation of this meaningful support, IIT Kanpur will offer **exclusive naming rights for the sponsored Tower.** The Class of 1986's name will be prominently displayed within the hall and on the Tower, serving as a testament to your batch's commitment to giving back and shaping future lives. Your gift will make a lasting impact—providing much-needed residential infrastructure and nurturing the next generation of scholars and innovators.

There will be a **dedicated webpage** for streamlined pledging and donations through various methods, with the availability of **tax benefits** for contributions from India, USA, Canada, AU, UK, Germany & Belgium.

Typically, the pledged donation has to come in **within 3 years** of pledging and IIT Kanpur Development Foundation enters into an MOU with the donors for the entire process.

Naming	**Amount in ₹** or equivalent US$	**Description**
Tower	Every ₹15 Cr/batch	An entire G+8-Floor Tower will be named after the Class of 1986 - IITK82
Floor	≥ ₹2 Cr/alumnus	An entire Floor of the Tower will be named after the alumnus
Plaque	≥ ₹25 lac/alumnus	At the entrance of a Tower, a list of these alumni shall be put as "Major Contributors" on a plaque

IIT Kanpur looks forward to partnering with the Class of 1986 in realizing this visionary project. Your collective support will not only help create a world-class residential facility but will also stand as a proud symbol of your batch's enduring bond with the institute.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