

# Annual Report

## 2024-25



**Indian Institute of Technology Roorkee**  
**Roorkee**





**Visitor**

**Her Excellency Mrs. Droupadi Murmu  
President of India Chairman**

**Chairman, IIT Council**

**IIT Council Hon'ble Shri Dharmendra Pradhan  
Minister of Education, Government of India**

**Chairman, Board of Governors**

**Padma Shri Dr. B.V.R. Mohan Reddy**

**Director**

**Prof. Kamal Kishore Pant**

**Deputy Director**

**Prof. Udai Pratap Singh**



# Annual Report: At a Glance

## 2024-25

Department / Centers /Units /School	
Academic Department/Centers	23
Specialized Centers	14
Service Centers	07
Other Units	06
School	01

Grants	Amounts in crores
MoE	82521.00
Others	2859.50
Total	<b>85380.50</b>
CSIR	184.68
Research and Consultancy	<b>39848</b>

Student Admitted		Student Strength	
B.Tech./B.Arch./IDD	1326	B.Tech./B.Arch./IDD	5520
PG Degree	1122	PG Degree	1976
Research Scholars	728	Research Scholars	3295
Total	3186	Total	10791
Male	2403	Male	8144
Female	783	Female	2647

No. of Degrees Awarded	
B.Tech./B.Arch./IDD	1277
PG Degree	793
Research Scholars	443
Total	2513
Male	1933
Female	580

Faculty / Staff Strength	
Faculty/Professor of Practice/Emeritus/Visiting & Adjunct/PDF	666
Others (Group B, C & MTS)	532
Group A	98
Total Non-Teaching Staff in Position	630

Research Papers	
Journals	2415
Conference & Other Publications	851
Total	3266

Consultancy Project		Sponsored Research Projects	
Number of New Projects	962	Number of New Projects	254
Outlay (Amount in Lakhs)	115.72	Outlay (Amounts in Lakhs)	282.76

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**Indian Institute of Technology Roorkee**

## **Vision**

To attain global level of excellence in education and to create a sustainable and equitable society through innovative research in science and technology.

## **Mission**

To create an environment that shall foster the growth of intellectually capable, innovative and entrepreneurial professionals, who shall contribute to the growth of Science and Technology in partnership with industry and develop and harness it for the welfare of the nation and mankind.



## Director's Message



With immense pride and a profound sense of responsibility, the Indian Institute of Technology Roorkee presents the Annual Report for the academic year 2024–25. This year has witnessed **transformative growth, cutting-edge innovation, and strengthened global collaborations**, further reaffirming IIT Roorkee's role as a **premier institution** committed to **excellence** in technical education, pioneering research, and fostering **entrepreneurial leadership**.

IIT Roorkee has been honoured with the **CII Most Innovative Institution Award 2024**, marking this prestigious recognition's **fifth consecutive year (2020–2024)**. This accolade underscores the Institute's **unwavering commitment** to advancing **innovation**, developing **transformative technologies**, and translating research outcomes into **impactful real-world applications**. Additionally, the Institute received the **CII Intellectual Property (IP) Award 2024**, validating its excellence in **innovation, IP management, and technology commercialization**, reinforcing IIT Roorkee's leadership in fostering an **IP-aware ecosystem** that drives India's **technological advancement**.

In the **NIRF 2024 Rankings**, IIT Roorkee secured the **8th position overall, 6th in Engineering, 9th in Research, and 6th in Innovation**. The Department of Architecture & Planning

maintained **1st position** for the **fourth consecutive year**. Globally, the Institute achieved a **QS World University Ranking of 335**, ranking **108th in Asia**, and performed strongly across disciplines, ranking **51–100 in Metallurgical and Materials Engineering, 101–150 in Civil Engineering and Architecture**, and within the **top 200 in multiple subjects**, reflecting academic breadth and global competitiveness.

Regarding **R&D activities**, **2024–25** has marked **significant progress** and **renewed alignment with India's vision of Viksit Bharat@2047**. At IIT Roorkee, we remain deeply committed to advancing **research, innovation, and education** that directly contribute to **national priorities** and **societal well-being**.

Our **R&D ecosystem** has made **impactful contributions** across critical areas such as **semiconductors, quantum technologies, clean energy, disaster resilience, digital health, rural development, precision manufacturing, drones, electric vehicles (EVs), and sustainable infrastructure**. We address real-world challenges through **interdisciplinary centres** and **mission-driven projects** while nurturing **future-ready talent**.

The Institute secured **external funding worth ₹ 398.48 crores**, supporting a diverse portfolio of **254 sponsored research projects** and **962 consultancy assignments**. Significant funding was received from **central ministries**, including the **Ministry of Education, Ministry of Electronics & IT, Ministry of Housing & Urban Affairs, Ministry of Road Transport & Highways**, and the **Department of Science & Technology**, along with international partners such as **ARIQT International, LifeArc UK, Max Planck Society Germany, and Southern Cross University Australia**. These initiatives addressed critical challenges in **quantum technologies, AI-driven defence applications, smart agriculture, sustainable energy systems, and urban**

## planning.

With a strong emphasis on **translational research, entrepreneurship, and strategic partnerships**, we have enabled **startups and technologies** that **improve lives**, particularly in **underserved regions**. During the year, we filed **146 patents** and **transferred 20 technologies** to industries, leading to **large-scale commercialization**.

Our **collaborations with government and industry** have strengthened IIT Roorkee's role as a **trusted knowledge partner** in India's development journey. IIT Roorkee signed **67 MoUs** with prominent entities such as the **Indian Army, Power Grid Corporation of India Ltd, NTPC, Bharat Electronics Limited (BEL), ICICI Foundation, Severn Glocon India Private Limited, and Container Corporation of India**. These partnerships led to the establishment of multiple **Centres of Excellence** in **semiconductors, honey authentication & food safety, process safety in the hydrogen economy, and the Integrated Centre for Adaptation, Disaster Risk-Resilience and Sustainability (ICARS)**.

IIT Roorkee also runs various **capacity-building programmes**, like the **Advanced Entrepreneurship Skill Development Program (E-SDP)** and **PMKVY**, collaborating with **government agencies, industries, and academic partners**. These initiatives focus on enhancing **technical, managerial, and entrepreneurial skills** across sectors, supporting **professionals, artisans, farmers, and students** in emerging areas like **drones, EVs, the green hydrogen economy** and many more.

Through its **Corporate Social Responsibility (CSR)** initiatives, the Institute partners with industry to implement **socially impactful projects** in **rural development, health, education, sanitation, and skill training** — driving **inclusive development** and extending **technological outreach** to underserved regions. The **AARTI Foundation**, an industry accelerator of IIT

Roorkee, was honoured with the prestigious **NSE Social Stock Exchange Award** for its outstanding contributions to **grassroots innovation, rural development, and sustainable technology deployment**, especially for presenting its **RSVC model** in collaboration with the **Office of the Principal Scientific Adviser (PSA)**.

As we move forward, we aim to **deepen our societal impact, foster innovation at scale**, and uphold our responsibility as a **leading institution** to shape a **self-reliant, inclusive, and globally competitive India**.

These achievements underscore the Institute's **commitment to translating knowledge into action, advancing national priorities, and fostering global partnerships** that deliver **meaningful societal impact**.

Faculty-led innovation at IIT Roorkee continues to grow, with the establishment of **15 new startups** and the operation of over **50 faculty-driven ventures**. Incubation units such as **TIDES Business Incubator** and **iHUB Divyasampark** have enabled the development of startups that have earned national and international accolades. Notably, the Institute received the **IP CII Awards 2024** for excellence in intellectual property management and attained a **4-star rating** from the **Institution Innovation Council (IIC)**.

The **24th Convocation**, held on **July 27, 2024**, saw the conferment of degrees to **1,277 undergraduates, 794 postgraduates**, and a record **442 doctoral** candidates. With a current student population exceeding **10,700**, including **3,295 Ph.D. scholars**, IIT Roorkee remains committed to producing globally competent professionals and researchers.

To meet emerging demands in energy, sustainability, and advanced technologies, IIT Roorkee introduced **five new academic programmes** in 2024–25: **B.Des., B.Tech. in Energy Engineering, and M.Tech. Programmes in Computational Materials Engineering, Structural and Computational Biology, and Space Science and Technology**.



The Institute fostered vibrant knowledge-sharing by hosting scholars and delegations from premier institutions across the **USA, UK, Australia, Canada, Germany, France, Japan, and ASEAN nations**.

**Strategic engagements** with universities such as the **University of Technology Sydney, RWTH Aachen, École Centrale de Nantes, The University of Sheffield, the University of Texas at Austin, and Vrije Universiteit Amsterdam** resulted in key **Memorandums of Understanding (MoUs)** and **joint degree agreements**, reinforcing IIT Roorkee's commitment to **academic excellence and innovation**.

Furthering its dedication to **global education**, the Institute welcomed over **132 full-time international students** in 2024–25, enriching its **multicultural environment** and strengthening the **research community**.

By partnering with **global research agencies**, participating in **international summits**, and leading **collaborative projects**, IIT Roorkee continues to expand its **worldwide network**, driving advancements in **science, technology, and cultural understanding**.

The Media Cell of the Institute was pivotal in enhancing outreach and institutional visibility. With over **500 media features** on national and international platforms and a robust digital engagement strategy, the Institute's achievements are being effectively disseminated to a global audience. The Institute remains at the forefront of public and academic discourse through strategic communication and research outreach.

As IIT Roorkee proudly celebrates **178 years** of unparalleled **excellence**, the Institute remains unwavering in its mission to push the frontiers of **knowledge**, foster groundbreaking **innovation**, and empower future leaders to tackle complex global **challenges**.

The generous and sustained support from the **Ministry of Education**, exceeding **₹825 crores**, has been pivotal in driving this remarkable progress.

As a premier institution of national importance, IIT Roorkee remains deeply committed to advancing the frontiers of knowledge and societal impact through its diverse array of **research, innovation, cultural, and outreach initiatives**. In close alignment with key **Government of India missions** such as **Skill India, Digital India, Namami Gange, Start-up India, and Unnat Bharat Abhiyan**, our efforts this year reflect our dedication to **inclusive excellence** and **sustainable progress**. Flagship programs like the **Smart India Hackathon, CEFIPRA Indo-French Symposium, SPARC Indo-UK Workshop**, and initiatives under **Namami Gange** and **HASI** underscore our focus on **technological leadership, environmental stewardship, and social responsibility**. Cultural milestones like **Thomso'24**, combined with domain-specific events such as the **32nd IAHR Symposium** and the **DAE Nuclear Physics Symposium**, illustrate the Institute's vibrant intellectual ecosystem and its growing global engagement. Through these endeavours, IIT Roorkee continues to contribute meaningfully to the **UN Sustainable Development Goals (SDGs)** and India's **Atmanirbhar Bharat vision**, reaffirming our resolve to build a **resilient, innovative, and equitable future** for the nation and beyond.

With the relentless dedication of its **students, faculty, alumni, and staff**, IIT Roorkee is well-positioned to spearhead India's journey towards a future characterized by **sustainability, resilience, and global leadership in science and technology**.

**Prof. K.K. Pant**

Director, IIT Roorkee  
June 2025



## BOARD OF GOVERNORS

### Chairman

**Padma Shri B.V.R. Mohan Reddy**

Chairperson, Board of Governors, IIT Roorkee &  
Executive Chairman, Cyient Limited  
Hyderabad

**Chairperson**

### Two Nominee of State Government

**Prof. Narendra Singh**

S/o Late Shri Harish Chandra  
Distt. Haridwar upto 31.12.2023

**Member**
**Prof. Prof. Onkar Singh**

Vice Chancellor  
Veer Madho Singh Bhandari, UTU  
Dehradun – 248007 w.e.f. 23.02.2024

**Member**
**Principal Secretary to Government of Haryana**

Technical Education Department  
Chandigarh

**Member**

### Four Nominees of the Council of IITs

**Additional Secretary (TE)**

Ministry of Education  
Government of India  
Department of Higher Education  
New Delhi

**Member**
**Prof. (Retd.) H.C. Pokhriyal**

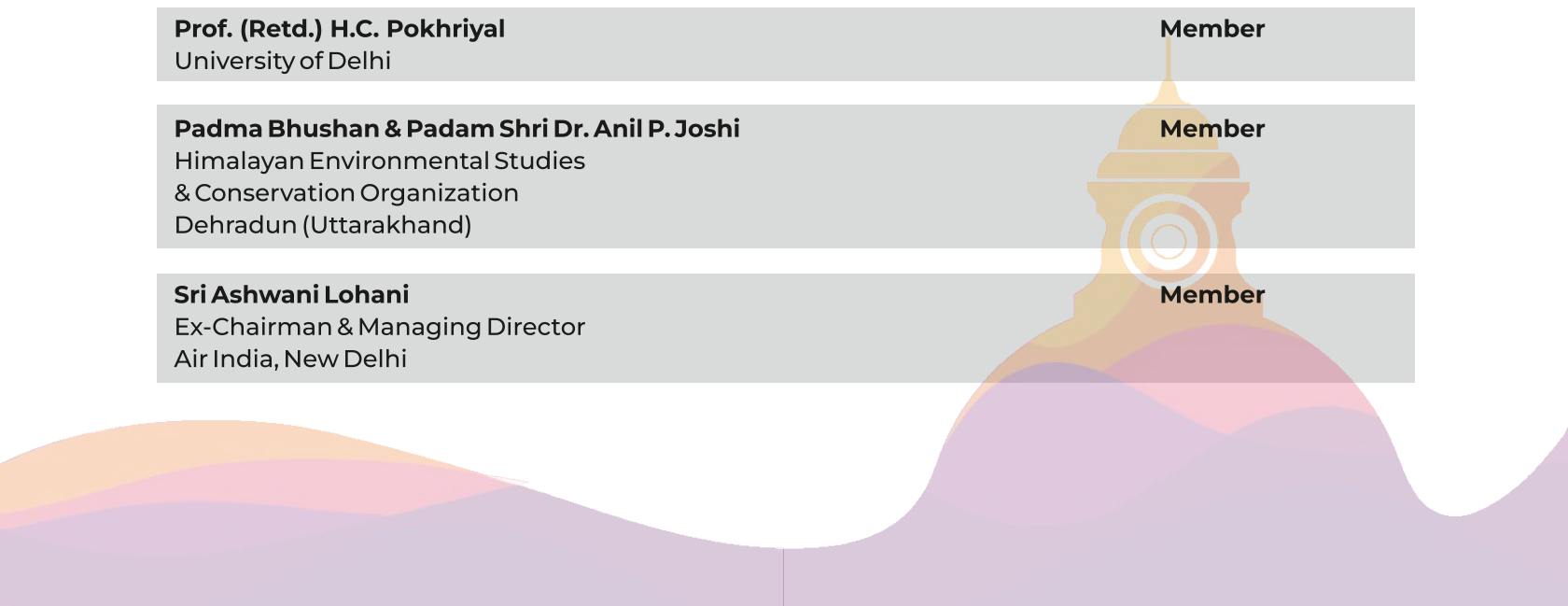
University of Delhi

**Member**
**Padma Bhushan & Padam Shri Dr. Anil P. Joshi**

Himalayan Environmental Studies  
& Conservation Organization  
Dehradun (Uttarakhand)

**Member**
**Sri Ashwani Lohani**

Ex-Chairman & Managing Director  
Air India, New Delhi

**Member**


**Director (ex-officio)****Prof. K.K. Pant**

Director  
Indian Institute of Technology Roorkee

**Member****Two Senate Nominees****Prof. C.S.P Ojha**

Department of Civil Engineering  
Indian Institute of Technology Roorkee upto 31.12.2023

**Member****Prof. U.P. Singh**

Department of Chemistry  
Indian Institute of Technology Roorkee upto 31.12.2023

**Member****Prof. N.K. Samadhiya**

Department of Civil Engineering  
Indian Institute of Technology Roorkee w.e.f. 01.01.2024

**Member****Prof. B.K. Gandhi**

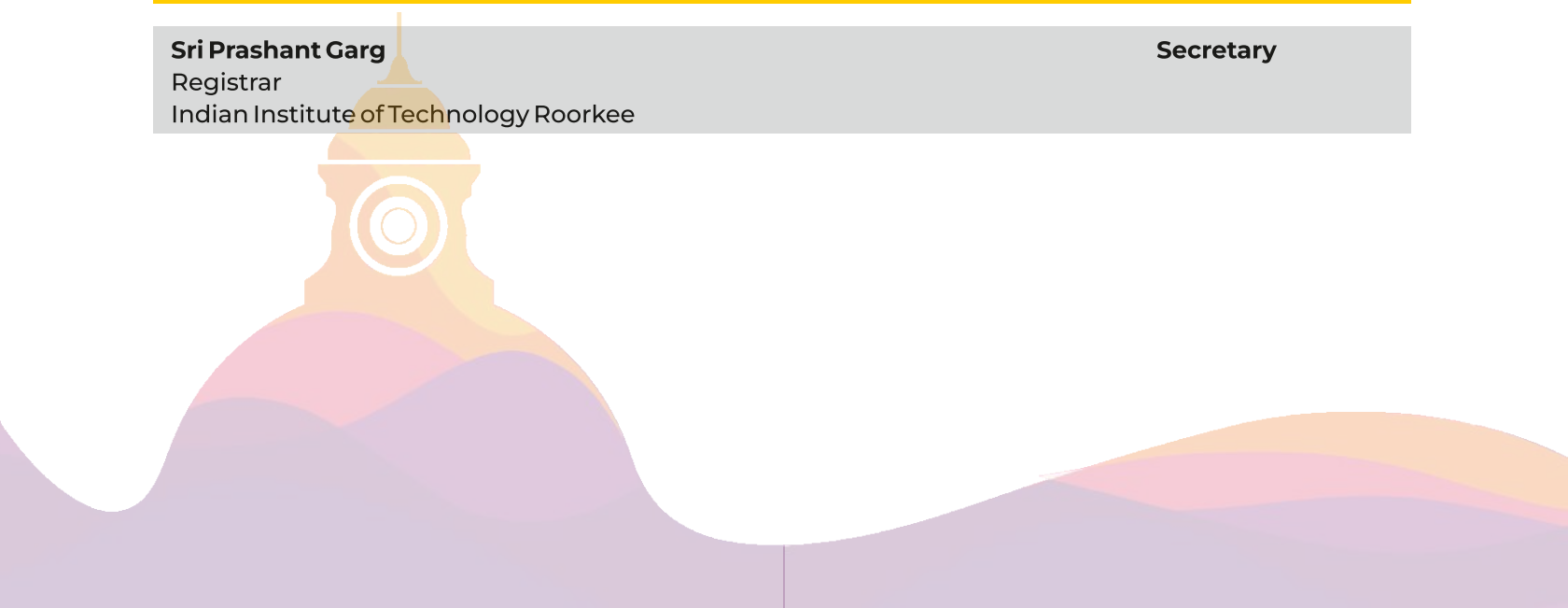
Department of Mechanical & Industrial Engineering  
Indian Institute of Technology Roorkee w.e.f. 01.01.2024

**Member****Special Invitee****Prof. U.P. Singh**

Department of Chemistry  
Indian Institute of Technology Roorkee w.e.f. 01.01.2024

**Member****Secretary****Sri Prashant Garg**

Registrar  
Indian Institute of Technology Roorkee

**Secretary**

## ACADEMIC AFFAIRS

Academic affairs office deals with all matters related to admissions, curriculum and evaluation of the Institute. It has the responsibility of conducting meetings of IRC, IAPC and it also play a significant role in the conduct of Senate meetings. The Institute Lecture Hall & Conference Complex is maintained by Academic Affairs Office. Several Institute level events including Annual Convocation, National Science day, Dean's Appreciation award, Institute Research Day, Institute Research awards and Workshops are organised by Academic Affairs office.

- a) **Convocation :** The 24<sup>th</sup> Annual Convocation of the Indian Institute of Technology Roorkee was held on July 27<sup>th</sup>, 2024. Ms. Debjani Ghosh, President, NASSCOM was the Chief Guest at the Convocation. A total of 1277 Degrees of B. Tech. /B. Arch. /Integrated Dual Degree/ Integrated M. Tech./ Integrated M.Sc. and 794 Degrees of M. Tech. / M. Arch. / M.U.R.P. /P.G. Diploma /M.Sc./M.B.A. were awarded. In addition, 442 Ph.D./Dual Degrees were conferred in various disciplines.



- b) Dean's Appreciation letter to UG Students: Award Distribution Ceremony to encourage UG students for obtaining highest increase in

CGPA as per academic regulations at IITR.



- c) **Science Day:** On the occasion of the National Science Day, the institute organized various events for the school children of Roorkee such as Quiz Competition, Interactive Idea Competition, Science Exhibition and open house. Chief Guest Prof. P Guptasarma, IISER Mohali, delivered a Science Day lecture.



- d) **Institute Research Day :** IIT Roorkee celebrated Institute Research Day, with Shri A. S. Kiran Kumar, Former Chairman of ISRO, as the Chief Guest. The one-day event featured a Poster Competition, Guest Lecture, and an Award Distribution Ceremony, highlighting the spirit of research, innovation, and technological excellence.



With an increase in undergraduate (UG) and postgraduate (PG) intake, the student strength has undergone significant changes in the last 10 years. In 2014-15, the number of UG students on-roll was 4450 while the number of PG students was 2166. This changed to 4159 and 1470 for UG and PG students, respectively in 2020-21. Presently, the Institute has about 10791 students of which 5520 are UG and 1976 are PG. In order to continue imparting high-quality and holistic education to

the much larger student body, the Institute continues to modify and evolve processes to effectively address the changing situations. The PhD student strength has increased in leaps and bounds in the last 10 years. From 1445 PhD students in 2014-15, the number increased to 3295 in 2024-25. The number of PhDs awarded at the Convocation 2024 was 442. Here are the details of few students who performed exceptionally well: (attached at APPENDIX- I)

## Awards & scholarship

The following awards & scholarships have been distributed to the students across various programmes of the institute:

- A Total of 138 awards were distributed among the graduating students during Convocation-2024.
- A Total of 71 awards were distributed among other than graduating students.
- A Total of 129 SC & ST students were benefitted under the Institute Free Messing Scheme and 173 SC & ST students Benefitted through National Scholarship Portal.
- A Total of 555 Merit Cum Means (MCM) Scholarships were distributed among students with lack of means, out of which, 317 students benefitted from institute MCM and 238 students benefitted from donor sponsored MCM.
- A Total of 1210 students were benefitted under the Institute Tuition Fee Waiver Scheme.
- A Total of 88 students were benefitted from INSPIRE SHE Scheme.
- A Total of 294 students were provided scholarships from various central, state, public sector and private organizations.

The Following academic programmes were Introduced in the Academic session 2024-25:

- B. Des.
- B. Tech. (Energy Engineering)



- c) M. Tech. (Computational Materials Engineering)
- d) M. Tech. (Structural and Computational Biology)
- e) M. Tech. (Space Science and Technology)

**JEE (Advanced)-2024** was conducted as Computer Based Test (CBT) only. Two lakh fifty thousand candidates had been made eligible after JEE (Main)-2024. It comprised 2 bilingual (Hindi and English) papers of 3 hours duration. IIT Roorkee zone conducted the JEE (Advanced) 2024 examination at 56 centres in 28 cities spanned across six states, viz., Haryana, Himachal Pradesh, Madhya Pradesh, Punjab, Uttarakhand and Uttar Pradesh and in Union Territory Chandigarh. In addition to Indian centres, IIT

Roorkee zone also conducted the examination in one centre in Nepal. Result of JEE (Advanced)-2024 was declared on June 09, 2024. The total number of registered candidates in IIT Roorkee zone was 18,088 out of which 5,136 were selected for seats in various IITs. The exam of Architecture Aptitude Test (AAT) was conducted on June 12, 2024.

## SUPPORT FROM MINISTRY

Grant in Aid received from MoE for the FY 2024-2025 includes (Amount in Crores)

Recurring	652.32
Non recurring	172.89
<b>Total Grant</b>	<b>825.21</b>
Income from Fee & other	103.00



# NATIONAL AND INTERNATIONAL RANKING

## NATIONAL INSTITUTIONAL RANKING FRAMEWORK (NIRF)

The National Institutional Ranking Framework (NIRF) was officially approved by the Ministry of Human Resource Development (MHRD) and launched by the Honorable Minister on September 29, 2015. This pioneering framework offers a robust methodology for ranking institutions across India, underpinned by insightful recommendations from a dedicated Core Committee formed by the MHRD to identify essential parameters for evaluation. The parameters broadly cover “Teaching, Learning

and Resources,” “Research and Professional Practices,” “Graduation Outcomes,” “Outreach and Inclusivity,” and “Perception” which assess institutional quality and impact.

In 2022 and 2023, additional category-specific domains namely Research Institutions and Innovation; were incorporated into the NIRF ranking portfolio. This enhancement aims to systematically rank major higher education institutions and universities in India based on their strengths on research, innovation, and entrepreneurial initiatives involving students and faculty.



Category	2024	2023	2022	2021	2020
Overall	8th	8th	7th	7th	9th
Engineering	6th	5th	6th	6th	6th
Architecture	1st	1st	1st	1st	2nd
Management	18th	18th	19th	14th	12th
Research*	9th	7th	8th	-	-
Innovation**	6th	5th	-	-	-

Research\* Category in NIRF started in 2022

Innovation\*\* Category in NIRF started in 2023

## QS World University Ranking

The QS World University Rankings is a highly regarded benchmark for assessing university performance, developed by Quacquarelli Symonds, a leading analytics firm in higher education. This comprehensive ranking provides invaluable insights for students and university partners around the globe, highlighting institutions that excel in education, research, and overall impact on the academic community.

### QS World University Rankings 2025

QS World University Rankings 2025 – Global Rank = 335th

QS World University Rankings 2024 – National Rank = 7th

### QS World University Rankings: Asia 2025

QS World University Rankings 2025 – Global Rank = 108th

QS World University Rankings 2024 – National Rank = 8th

### QS World University Rankings: Sustainability 2025

QS Sustainability 2024 – Global Rank = 561th

QS Sustainability 2024 – National Rank = 7th

### QS World University Subject Rankings 2025

The subject-wise ranks/bands of IITR are shown below:

Subject area/ Discipline	Global Band in 2025	National Rank in 2025
Architecture & Built Environment	101-150	3rd
Overall Engineering & Technology	131	7th
Chemical Engineering	251-300	8th
Computer Science and Engineering	201-250	7th
Civil and Structural Engineering	101-150	7th
Mechanical, Aeronautical & Manufacturing Engineering	151-200	8th
Electrical and Electronic Engineering	151-200	8th
Metallurgical and Materials Engineering	51-100	8th
Biological Sciences	551-600	8th
Chemistry	301-350	8th
Environmental Sciences	151-200	5th
Materials Sciences	01-250	7th
Mathematics	251-300	8th
Physics & Astronomy	351-400	8th
Business & Management Studies	301-350	14th
Economics & Econometrics	551-700	11th

India Today Best Colleges Ranking

India Today, the leading weekly news magazine in India, partners with MDRA to conduct an annual

survey that ranks the country's top colleges. This initiative aims to establish a benchmark for identifying institutions that offer the highest quality education in India.

India Today	Best Colleges Ranking 2024
Architecture	1st
Engineering	5th





ASIA 2025

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Indian Institute of Technology Roorkee  
(IITR)

November 2024

Date



Ben Souter  
Senior Vice President  
QS Quacquarelli Symonds

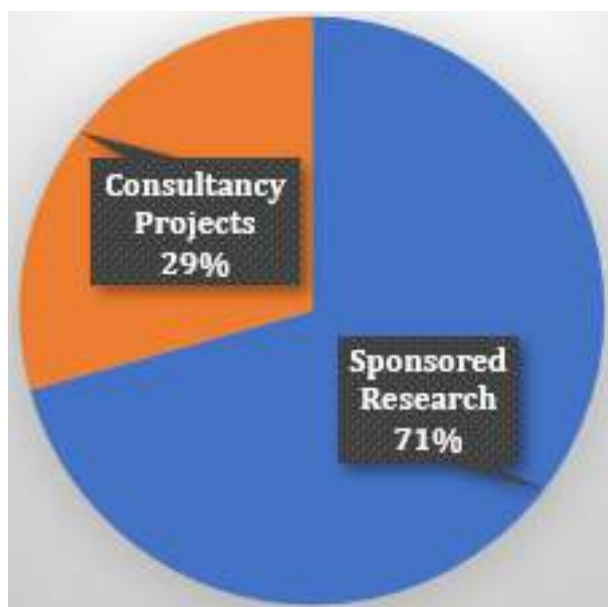


## RESEARCH & DEVELOPMENT ACTIVITIES

In financial year (FY) 2024-25, IIT Roorkee received external funding of Rs. 282.76 crore for R&D related activities. This included funding from government agencies, industries, and others, both within and outside India.

### R&D ACTIVITIES

SRIC acts as a facilitator for research and development projects by actively engaging with industries, government agencies, and funding bodies. It assists in identifying funding opportunities, forging partnerships, and supporting researchers in developing competitive proposals. Through its extensive network, SRIC enables IIT Roorkee's faculty and researchers to undertake research projects that address real-world challenges and have a tangible impact on society. A total of 254 sponsored research projects with a total outlay of 282.76 crore were sanctioned this year. Similarly, a total of 962 consultancy projects with a total outlay of 115.72 crores were sanctioned.



### External Grants for R&D

Some of Major projects are as follows:-

- The development of antibody-drug conjugates targeting virus-infected cells for the delivery of Hsp 70 Inhibitors, sponsored by LifeArc, London, United Kingdom***

This project aims to develop antibody-drug conjugates that can specifically target virus-infected cells and deliver Hsp 70 inhibitors. It will involve the isolation and characterization of broadly cross-reactive antibody fragments. Also, it will involve biochemical and biophysical characterization of antibody fragments for their suitability for inclusion in ADC development.

- Development of Catalytic Innovations for Navigating Sustainable Solutions relevant to Energy and Environment: Lessons from Nature's Catalytic Repertoire sponsored by Max Planck Partner Group, Germany***

This research aims to harness a bioinspired sustainable approach for addressing problems relevant to energy and environment, specifically to address the two most important challenges associated with the natural biogeochemical nitrogen cycle: Nitrous oxide activation and Nitrite / Nitrate reduction. Additionally, the activation of Ammonia as a carbon-free alternative fuel will also be explored. The interplay of fundamentally designed reaction chemistry seeking to discover unknown and elusive reactivity along with new applications, could facilitate the discovery of new reactivity, which is poised to represent the pinnacle of academic research in the coming years.

- Monitoring debris in river waters using camera-based videos, facilitating a sustainable environment sponsored by Southern Cross University, Australia***

The primary objective of this research project is

to develop and implement an innovative machine learning and computer vision-based system for the automated monitoring of microplastic debris in Indian rivers. The proposed system will also be applied to Australian context. The increasing threat of plastic pollution in water bodies, particularly rivers, necessitates a scalable and automated approach to detect and quantify debris. Traditional methods are labor-intensive, lack scalability, and are not conducive to comprehensive global sampling. The outcomes of this research are expected to contribute valuable insights into not only the country-specific challenges related to water pollution within India but also into Australian context, & thus it will contribute globally.

### List of other Projects initiated :-

#### 1. Profiling, Fingerprinting, and database development of Indian honeys

Funding Agency: National Beekeeping and Honey Mission, National Bee Board, & Farmers Welfare, New Delhi

Sanction Outlay (Cr.): - 13.5

#### 2. Electronics & ICT Academy Scheme, Phase II

Funding Agency: Ministry of Electronics & Information Technology, New Delhi

Sanction Outlay (Cr.): - 10

#### 3. Establish a 5G/6G telecom CoE at IIT Roorkee, Saharanpur Campus

Funding Agency: U.P. Electronics Corporation Limited, Lucknow

Sanction Outlay (Cr.): - 20

#### 4. Powergrid Centre of Excellence

Funding Agency: Power Grid Corporation, Limited, New Delhi

Sanction Outlay (Cr.): - 20.73

#### 5. RASPAC (Reconfigurable and scalable photonic qubit architecture for quantum computing: heterogeneous and monolithic approaches)

Funding Agency: National Quantum Mission, DST, New Delhi

Sanction Outlay (Cr.): - 12.04

#### 6. AMRUT-funded centres of urban planning for capacity building (ACUPCB)

Funding Agency: Ministry of Housing & Urban Affairs, New Delhi

Sanction Outlay (Cr.): - 10

#### 7. Towards trusted node free hybrid quantum secure communication networks (TAHQEECAT) - SKS

Funding Agency: National Quantum Mission, DST, New Delhi

Sanction Outlay (Cr.): - 10.4

#### 8. Object detection using hyperspectral remote sensing

Funding Agency: DRDO, DIA-Centre of Excellence

Sanction Outlay (Cr.): - 6.99

#### 9. USAID/India Higher Education partnership for disaster resilience infrastructure

Funding Agency: Virginia Tech, USA

Sanction Outlay (Cr.): - 5.25

### Some major Consultancy Projects initiated are:-

- Heritage Impact Assessment Report for the Punjab and Haryana High Court, Chandigarh.
- Vetting of all design and drawings of the 220 MLD STP and 292 MLD SPS Meerut.
- Review of the Structural Design of the Group Housing Society Nirala Grand (Formerly known as Morpheus Pratiksha) Plot No.16-A, Sector-1, Greater Noida (West).
- Consultancy for preventive and curative measures in the landslide-prone location between km 28-30 on the Haridwar-Dehradun section under the Assistant Divisional Engineer, Northern Railway, Haridwar.

- Model study for river training works for a Bridge.
- Proof checking of the structural design of the high-rise RCC tower Aegis fragrance at Raj Nagar Extension.

The Institute released funds to the tune of Rs. 6.01 crore in total for R&D related activities. Funds to the tune of Rs 4.69 crore were sanctioned as Faculty Initiation Grant for the initiation of research for new faculty members. The funds released by the Institute during the FY 2024-25 were distributed across the following areas:

- 1) Faculty initiation grant given to new faculty members to provide funds for establishing research infrastructure for each individual.
- 2) Matching Grant - This Scheme supports equipment procurement with a 50% upto sanctioned grant from external agencies or upto 20 lacs. The scheme can be availed of by an individual faculty member or a group of faculty members, and under the Matching Grant scheme institute can provide a commitment letter during proposal submission to external agencies. A total of 16 projects were sanctioned with a total outlay of 93.55 lakhs.
- 3) Facilitating grants to faculty members for filing patents, research publications, and/or international travel
  - Leverage grants and bridge grants
  - Fellowships for PhD students
  - Conferences, seminars and exhibitions
  - Publications
  - Student research/competition/event
- 4) SMILE grant - The SMILE (Support for Major Interdisciplinary Laboratory Equipment) scheme at IIT Roorkee provides funding for the procurement of major research equipment, particularly in areas where a long-felt need exists or to support new research thrust areas. This funding is based on a proposal and can be used for upgrading obsolete equipment as well. One project was sanctioned with a total outlay of ₹ 38.85 Lakhs.

In order to leverage Industry academia linkages, the institute continuously promotes activities like participation in corporate summits, corporate lectures and generating opportunities for students (internships, fellowships, and work studentships), as well as research collaborations with corporate entities via the execution of MoUs and MoAs with corporations. In FY 2024-25, a total of 67 MoUs were signed with various Government and Private entities. The list is as follows:-

- 1 Brahmos Aerospace Tiruvananthapuram Limited
- 2 Ananth Technologies Private Limited
- 3 AIESKY Advisory & Consultancy Services
- 4 Surya Command: Indian Army
- 5 Skyroot Aerospace Private Limited
- 6 CBDE - MMTC-IIITDM Kancheepuram & HK GARG
- 7 Hella India Lighting Limited
- 8 Central Water Commission for Water Resources & Management
- 9 Central Water Commission for Urban Flooding
- 10 Indian National Space Promotion & Authorization Centre (IN-Space)
- 11 Kumaun University, Nainital
- 12 National Telecommunication Institute for Policy Research, Innovation & Training, Ghaziabad
- 13 Institute of Infrastructure, Technology, Research & Management Ahmedabad
- 14 IFCI Venture Capital Funds Limited
- 15 Planet Aerospace, Bengaluru
- 16 SatSure Analytics India Private Limited
- 17 Uttarakhand Sanskrit University
- 18 Linearized Amplifier Technologies & Services Private Limited
- 19 Centre for Development of Telematics, C-DOT
- 20 United States Artificial Intelligence Institute (USAII)

- 
- 21 University of Energy & Petroleum Studies, Dehradun
  - 22 Indian Council of Agricultural Research-Central Institute of Research on Buffaloes, Hisar
  - 23 Container Corporation of India Limited (CONCOR)
  - 24 Tata Consultancy Services Limited
  - 25 Gexon India Private Limited / Green Hydrogen Energy Limited & Greenstat Hydrogen India (GHI) Limited
  - 26 National Institute of Solar Energy (NISE)
  - 27 AMRUT- Ministry of Housing & Urban Affairs, Govt. of India
  - 28 Samarkand State University, Uzbekistan
  - 29 National Inland Navigation Institute, NINI (Bihar)
  - 30 AARTI Foundation
  - 31 Rekhi Foundation for Happiness
  - 32 Carbon U Turn Technology Private Limited
  - 33 Physics Research Laboratory, Ahmedabad
  - 34 Adani Enterprises Limited
  - 35 New Age Education and Skills Foundation-NAMTECH
  - 36 IIIT Vadodara
  - 37 HMT Limited -Hindustan Machine Tools
  - 38 Centre for Heavy Haul Rail Research and Development- CHHRRD, Noida
  - 39 Twenty-First Century Mining Private Limited
  - 40 Suzlon Energy Limited
  - 41 Hydrocarbon Sector Skill Council (HSSC), Noida
  - 42 Alliance for Energy Efficient Economy, AEEE, New Delhi
  - 43 Powergrid Corporation of India Limited
  - 44 GB Pant Institute of Engineering & Technology, Pauri Garhwal
  - 45 Ministry of Road Transport & Highways, MoRTH
  - 46 School of Artillery: Indian Army
  - 47 National Agri-Food & Biomanufacturing Institute (NABI)
  - 48 ICAR-National Dairy Research Institute Karnal
  - 49 Ministry of Electronics & Information Technology (MEITY), India AI
  - 50 Bridge, Ropeway, Tunnel, and other Infrastructure Development Corporation of Uttarakhand Limited (BRIDCUL)
  - 51 Edovu Ventures Private Limited (EduxII)
  - 52 Zero Code Technologies and Applied Research (ZETA)
  - 53 IMARTICUS Learning Private Limited
  - 54 Chadha Paper Limited (CPL)
  - 55 UPL University of Sustainable Technology
  - 56 National Centre for Good Governance (NCGG)
  - 57 BAIF Development Research Foundation
  - 58 Bioritin BioSciences
  - 59 FUTURENSE Technologies Private Limited
  - 60 Sunrise Mentors Private Limited (Coding Ninja)
  - 61 CLA Indus Value Consulting Private Limited
  - 62 Bhakhra Beas Management Board
  - 63 Saharanpur Testing Instruments Pvt. Ltd
  - 64 Rubber Chemical and Petrochemical Skill Development Council (RCPSDC)
  - 65 International Water Management Institute (IWMI)
  - 66 GeoExpOre Private Limited
  - 67 Director, Town Planning, Maharashtra Government



### Some of the prominent MoUs are:-

- Surya Command signed a Memorandum of Understanding with IIT Roorkee, This collaboration focuses on the development of an AI-based Electronic Circuit Unit for the Bofors gun system and a Gyroscopically Stabilized Stretcher for safe evacuation in rugged terrains. This partnership strengthens academia-defence relations and reinforces IIT Roorkee's role in advancing indigenous technological capabilities.
- Indian Army, 6 Mountain Division signed an MoU with IIT Roorkee, for design and development activities, providing expert advice/consultation to the Indian Army in understanding the technological requirements



- Hella India Lighting Limited signed an MoU with IIT Roorkee, for research collaboration & work-studentship and preplacement offers to IITR Students. It also includes, collaboration on a PM fellowship for doctoral researches, Industry-oriented M.Tech programs under a CSR initiative.
- ICAR-Central Institute of Research on Buffaloes signed an, MoU with IIT Roorkee, for the research project titled 'Climate Smart Buffalo Farming Using Digital Support Systems,' sponsored by the Bill & Melinda Gates Foundation, USA "ICAR-CIRB, is the lead center, and IIT Roorkee and the University of Adelaide are collaborating partners in this international collaboration.

- Container Corporation of India Limited signed an MoU with IIT Roorkee, to transform logistics through research and innovation. This strategic collaboration focuses on optimizing containerized freight movement, particularly on the Western Dedicated Freight Corridor (WDFC), by developing advanced optimization models and decision support systems.



- Gexon India Private Limited, Green Hydrogen Energy Services Private Limited, & Greenstat Hydrogen India Limited signed an MoU with IIT Roorkee, to launch a Center of Advanced Sciences in Process Safety & Risk Vulnerability in the Hydrogen Economy a initiative facilitated by the Office of the Principal Scientific Adviser to the Government of India.
- Rekhi Foundation for Happiness signed an MoU with IIT Roorkee, to establish a "Centre of Excellence for the Science of Happiness" at IIT Roorkee. The main idea behind this collaboration is to promote research, training, education, and the practice of well-being for students and staff through the application of happiness and well-being.
- New Age Makers' Institute of Technology (NAMTECH) signed an MoU with IIT Roorkee, To explore joint collaboration for research, symposia, and students' Industry Interface with special emphasis on onboarding of students into NAMTECH's Industrial Professional Engagement Program (IPEP). Both organizations have decided to explore collaboration for joint internships, action research projects, faculty capacity development, consultancy assignments, guest lectures, and outreach activities such as conferences and symposia.

- HMT Limited signed an MoU with IIT Roorkee, to establish a relationship of mutual benefit to both organizations, IITR and HMT have agreed on collaboration in academic and research-related activities focusing on top-up fellowships and work studentships to IITR students, internships for IIT Roorkee students, Sponsoring Lab Facilities & Centre of Excellence (CoE), Courses and workshops for HMT employees, Hackathons and Exhibitions at IIT Roorkee



- Powergrid Corporation of India signed an MoU with IIT Roorkee, to establish a relationship of mutual benefit to both organizations, for CSR initiative & to establish three cutting-edge Centres of Excellence (CoEs). POWERGRID and IIT Roorkee have partnered to establish three cutting-edge Centres of Excellence (CoEs), including a Command-and-Control Centre for UHS networks, an IoT Research & Application Centre, and a Cyber Security & Mobile Security Lab.



- The Ministry of Road Transport & Highways signed an MoU with IIT Roorkee, to outline the general framework for collaboration between MORTH & IIT Roorkee for technological collaboration on tunnel projects on national highways.



- School of Artillery, Indian Army signed an MoU with IIT Roorkee, to establish a Centre of Excellence (CoE) at IIT Roorkee to promote collaborative research between both Organizations. The name of the proposed centre will be as "Centre of Excellence for Studies & Applied Research in Defence and Security".



- MoU with National Agri-Food & Biomanufacturing Institute (NABI), for collaborative research and development in the mutually agreed-upon domains of biotechnology, biomanufacturing, nutraceuticals, nanotechnology, and related fields. Joint partnerships with international organizations and private sector entities to advance research in these areas.
- BRIDCUL signed an MoU with IIT Roorkee, for collaborative research and development in the mutually agreed-upon domains of Ropeway technologies. For establishing a relationship of mutual benefit to both organizations, BRIDCUL and IITR have agreed on the following areas of collaboration on academic and research-related activities as mentioned in this MoU.

## INTELLECTUAL RIGHT PROPERTY CELL

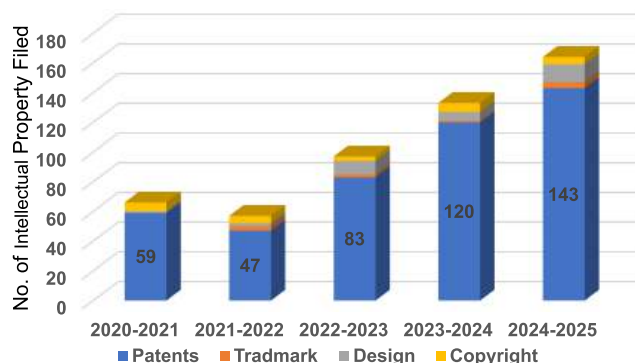
The Institute's IPR Cell is the single point of contact for all activities related to Intellectual Property. The range of work of the IPR Cell includes filing and managements of all types of IP's. Further, IPR Cell also facilitate the preparation of patent application for facilitating the granting process and further commercialization of technologies. To improve in TRL level of technologies TRLB scheme was launched in 2022. Afterwards, many inventors received Institutional support for improving the TRL level of their respective technologies. This year IIT Roorkee received IP CII Awards 2024, for its excellence in intellectual property management, demonstrating a strong ability to translate research outcomes into granted patents. IPR Cell makes constant efforts to raise awareness on departmental & Institutional level through different workshops, and other informative sessions to encourage students and faculty members to invest in their own innovative ideas and protect their intellectual assets. The regular components of IPR cell webinars include training on prior art search using Derwent Innovation databases. Periodically, a lot of IPR competitions are also held and number of webinars, expert talks, and workshops were held in an attempt to create a comprehensive IP ecosystem. The IPR Cell is dedicated to process, streamlining and accelerating the application and granting of intellectual property is seen a record-breaking 143 patent applications, with 62 being granted.

### Patent and other IP FILING

In the dynamic landscape of intellectual property (IP) innovation, last financial year marked a significant surge. During this time frame, the Intellectual Property Rights (IPR) Cell was abuzz with various activity, having received a notable influx of 193 IP applications from the pool of students and academic members. These

submissions underwent meticulous scrutiny by the Intellectual Property Assessment Committees (IPACs), leading to a remarkable outcome of 143

patents being filed. This period epitomized a thriving culture of creativity and ingenuity, culminating in tangible contributions to the realm of intellectual property.



**Figure 1: Number of intellectual property applications filed in the last five years**

**Table 1: Patents and other IPR Applications filed FY 2024-25**

IP Type	Applications filed (No.)
Indian Patents Filed	143
Indian Patents Granted	01
PCT application Trademark	04
Industrial Design	12
Industrial Design Registered	05
Copyright	05
<b>Total IPs</b>	<b>231</b>

### IIT Roorkee received IP CII Awards 2024

IIT Roorkee has earned special recognition for its exceptional ratio of granted patents to published ones, highlighting the institute's excellence in intellectual property (IP) management. It stands out for its ability to effectively convert research outcomes into granted patents. With streamlined procedures and robust institutional support, IIT Roorkee ensures efficient IP filings and



commercialization, underscoring its strong commitment to innovation and the protection of intellectual assets.

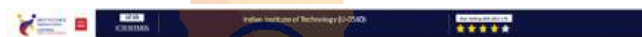


## Institute Innovation council

The Institute Innovation Council (IIC) is an initiative launched under the Ministry of Education's Innovation Cell (MIC), Government of India, with the aim of promoting innovation and entrepreneurship in higher educational institutions. Established to nurture a vibrant innovation culture on campus, the IIC encourages students and faculty to actively engage in ideation, research, and the development of innovative solutions to real-world problems. The council regularly conducts workshops, hackathons, startup mentoring sessions, and entrepreneurship development activities. Through this ministry-led initiative, the IIC plays a crucial role in strengthening the institutional innovation ecosystem and aligning it with national innovation and startup goals.

## IIC 4-Star Rating

IIT Roorkee has been honored with the prestigious 4-star rating from the Institution's Innovation Council (IIC), a testament to its exemplary efforts in nurturing a vibrant culture of innovation and entrepreneurship. This distinguished recognition underscores the institute's commitment to advancing research excellence, fostering startups, and driving transformative technological progress.



## Best Poster award in IIC regional Meet

IIT Roorkee has been honored with the prestigious IIC Best Poster Award at the regional

meet, recognizing its outstanding research and innovative ideas. This accolade highlights the institute's commitment to academic excellence and its ability to effectively communicate complex research outcomes. The award underscores IIT Roorkee's focus on fostering a culture of innovation, encouraging knowledge dissemination, and contributing significantly to the advancement of technology and research.



## Short Term IPR Course

The IPR Cell and DPIIT IPR Chair at IIT Roorkee organizes an IP course twice a year in collaboration with the Continuing Education Centre. This course aims to enhance understanding of intellectual property rights, including patenting, copyrights, and technology commercialization. It is designed for faculty, researchers, and industry professionals to strengthen their IP knowledge. The program fosters a culture of innovation and effective IP management.



**Intellectual Property Rights Cell with DPIIT IPR Chair  
& Continuing Education Centre,  
Indian Institute of Technology Roorkee**

**Organizes**  
**Short term Certificate course**  
**On**  
**"Creativity, innovation and Intellectual Property Rights"**

**Date:- 15th May to 6th June 2024**  
**Last Date of Registration 25 February 2024**

Modes of Teaching:- Online (3:00-5:00 P.M. Monday-Friday)  
Hours of Teaching:- 30hrs  
Course Fees:- Industry participants:- Rs. 4000 + GST  
Outside Institute Faculty/Staff:- Rs. 2000 + GST  
IIT Roorkee Faculty Members/Staff:- Rs. 1500 (including GST)  
Students:- Rs. 1000 (including GST) (Valid Student ID)

For Payment  
Name of Bank:- STATE BANK OF INDIA  
Branch Office:- IIT ROORKEE, 247607  
Account Number:- 8318732957  
Branch Number:- 3040  
IFSC Code:- SBIN0001069  
Swift Code:- SBININBB539

Email:- [iprc@iitr.ac.in](mailto:iprc@iitr.ac.in)  
[iprc@iitr.ac.in](mailto:iprc@iitr.ac.in)  
Contact Number:- 01332285873

For Registration Click here:- <https://www.iitr.ac.in/AYSPIT/PoA/C9>





## Support to Faculty Entrepreneurship

Faculty members at IIT Roorkee actively pursue entrepreneurial ventures, leveraging their research and domain expertise to develop innovative solutions and launch startups. The institute's robust and supportive ecosystem empowers them to transform groundbreaking ideas into impactful enterprises. These ventures, driven by cutting-edge technologies, exemplify the spirit of innovation and collaboration that defines IIT Roorkee's entrepreneurial landscape. To date, 50 faculty members have registered their ventures under this initiative. Notably, in the last financial year alone, 15 startups were established at IIT Roorkee, focused on translating advanced technologies into viable commercial solutions. Few of them are:-

- Advanced Manufacturing Solution Pvt Ltd
- Battezy Energy Private Limited
- EnrgEnv Smart Chemicals and Materials Pvt' Ltd

- Student research/ competition/ event
- Viagnosis Technologies Pvt. Ltd
- Advanced Membrane Horizon Pvt. Ltd.
- ECO Carbon Innovator

## Technology Transfer Activities

Technology transfer and commercialization are crucial processes for bringing innovations from research labs to the marketplace to bring it real ecosystem, IPR Cell works on following key aspects of technology:

- Identification of Technology: Researchers or innovators identify technologies with commercial potential
- Market Assessment: An analysis is conducted to understand the market demand, competition, and potential customers
- Licensing or Collaboration:
- Assistance may be provided to the licensee for integrating the technology into products or processes This year, IIT Roorkee transferred



21 technologies across various domains, including medical, wastewater treatment, AI/ML, batteries, and sustainability. This initiative highlights the institute's focus on fostering innovation with a strong emphasis on societal impact.

## Awareness Session

A significant number of webinars, expert talks, and workshops were organized to build a robust and comprehensive intellectual property ecosystem. These events aimed to educate and engage students, researchers, and faculty on various aspects of IP. They played a key role in fostering innovation awareness and promoting a culture of IP protection across the institute.



*World Intellectual Property Day 2024*

**WORKSHOP ON IP & SDG'S:  
BUILDING OUR COMMON FUTURE  
WITH INNOVATION &  
CREATIVITY**

**26/04/2024**  
**03:00 - 04:00 PM**  
**Mechanical Auditorium**

**ABOUT WORKSHOP:**  
The Sustainable Development Goals, endorsed by all United Nations Member States in 2015, provide a shared blueprint for peace and prosperity for people and the planet by 2030. Intellectual property plays a crucial role in supporting the achievement of these goals by fostering innovation, creativity, and technological advancements. The crucial role that intellectual property plays in fostering innovation and creativity to address global sustainability challenges. It emphasizes the need for responsible and sustainable practices in the development, protection, and use of intellectual property results to ensure a better future for all.

**DISCUSSIONS AND INSIGHTS**  
The workshop would provide a platform for interdisciplinary dialogue and knowledge-sharing, fostering a better understanding of the complex relationship between IP and sustainable development.

**OUR CONTACT:**  
ipr-cell@iitr.ac.in,  
odi@iitr.ac.in

**SPEAKER :**

**MS MANSI CHAUDHARY**  
FOUNDER & MANAGING PARTNER  
THE FRONTIERS LEGAL

**DR. SIDHARTH ARORA**  
FOUNDER & CEO,  
FERMENTECH LABS. PVT. LTD.

**राष्ट्रीय बौद्धिक संपदा महोत्सव**  
**National Intellectual Property Festival**

वसुधैव कुटुम्बकम्  
Nurturing Ideas to Innovation

Date : 11st of September, 2024  
11:30 AM-12:30 AM Online



## MEDIA OUTREACH

### MEDIA CELL: DRIVING STRATEGIC VISIBILITY AND ENGAGEMENT

The Media Cell at the Indian Institute of Technology Roorkee plays a critical role in shaping the institute's public image through strategic communication, media engagement, and timely dissemination of information. As the official communication interface of the institute, the Media Cell is responsible for projecting IIT Roorkee's academic excellence, research accomplishments, institutional milestones, and community initiatives to a broad spectrum of stakeholders. Over the past year, the Media Cell has significantly enhanced the institute's visibility, resulting in over 500+ features across leading national and international media platforms. By curating well-researched content, crafting compelling narratives, and leveraging visual storytelling, the Cell has effectively positioned IIT Roorkee as a leader in science, technology, and innovation. In addition to traditional media, the Media Cell has strengthened the institute's digital and social media presence across platforms like Twitter, Facebook, LinkedIn, Instagram, and

YouTube. With a growing digital audience, the Cell ensures that content remains dynamic, inclusive, and aligned with the institute's vision. Campaigns around major events, research breakthroughs, and national initiatives have garnered substantial engagement and amplified IIT Roorkee's voice in the public discourse. Importantly, the Media Cell has actively supported research outreach by highlighting transformative discoveries, promoting faculty achievements, and disseminating complex research in accessible formats. These efforts have broadened public understanding and appreciation of IIT Roorkee's cutting-edge contributions across disciplines. Beyond proactive outreach, the Media Cell has demonstrated exceptional competence in managing sensitive communication and crisis situations. With a focus on transparency and credibility, it has ensured that the institute's messaging remains clear, timely, and aligned with its core values during times of challenge. Through its efforts in fostering strong relationships with the media, coordinating press releases, facilitating interviews, and supporting major events, the Media Cell continues to play a vital role in reinforcing the reputation and institutional ethos of IIT Roorkee.

#### RECENT ACHIEVEMENTS



#### NIRF Rankings 2023: IIT Roorkee Ranked Top Institute Of Architecture & Planning

As per the NIRF Ranking 2023, the Indian Institute of Technology, Roorkee, has ranked as the top Institutes of Architecture and Planning in India. The other top institutes include National Institute of Technology, Calicut; Indian Institute of Technology, Kharagpur; National Institute of Technology, Tiruchirappalli; and School of Planning and Architecture, Delhi.

#### RECENT ACHIEVEMENTS



#### IIT Roorkee Researchers Help In Understanding Humming Of Our Universe

An International team of astronomers from India, Japan and Europe has recently published the results from monitoring nature's best clocks, pulsars using six of the World's most sensitive radio telescopes, including India's largest telescope, uGMRT.

## RECENT ACHIEVEMENTS



## IIT Roorkee Professor Felicitated For Outstanding Contributions

Indian Institute of Technology Roorkee (IIT Roorkee) achieves another milestone. Prof Ramesh Chandra, Institute Instrumentation Centre, IIT Roorkee, was honoured at the recent DRDO-Academia Conclave organized by Defence Research and Development Organizations (DRDO) on May 25 - 26, 2023, at DRDO Bhawan New Delhi.

## RECENT ACHIEVEMENTS



## IIT Roorkee-Backed Start-Up Indi Energy Wins National Award 2022

Indian Institute of Technology Roorkee's (IIT Roorkee) start-up Indi Energy, which specializes in manufacturing Sodium-ion batteries, has won the National Startup Awards 2022 in 'Energy Storage' category.

## IITR IN MEDIA



Renewable grid integration, green hydrogen labs inaugurated at IIT Roorkee

IIT Roorkee Director, Professor K.P. Pant inaugurated two new labs - Renewable Grid Integration Laboratory and Green Hydrogen Laboratory at the Department of Hydro and Renewable Energy.

[READ MORE](#)


ITRDF And PTC India Financial Services Ltd (PFS) Inks An MoU

IIT Roorkee has identified digitalising water and sanitation as a major water sector challenge. Having signed MoU with PTC India Financial Services Ltd (PFS), IIT Roorkee will be working on water and sanitation lab-research, testing, and innovation, and will be working on water and sanitation lab-research, testing, and innovation.

[READ MORE](#)


IIT Roorkee organizes Industry-Academia Conclave on Sustainable Energy

Center for Sustainable Energy (CSE), Indian Institute of Technology Roorkee (IIT Roorkee) conducted an Industry-Academia Conclave on Sustainable Energy: Way Forward, on 4 August, 2023.

[READ MORE](#)


Driving Financial Inclusion: IIT Roorkee's Trailblazing Conference on Digitaliza

The Department of Humanities and Social Sciences, Indian Institute of Technology Roorkee hosts a two-day conference on "Digitalization and Inclusive Banking: Vision for the Next 25 Years" on 3-4th August.

[READ MORE](#)


IIT Roorkee Convocation: 1,918 degrees awarded to UG, PG, PhD graduates

A total of 1,918 medals and cash prizes were distributed among 1,918 students, with all gold medals being awarded, including the President Gold Medal, Director Gold Medal, and the President of India's Silver Medal.

[READ MORE](#)


IIT Roorkee to hold its Convocation as part of successful 3 years

Indian Institute of Technology Roorkee (IIT Roorkee) is all set to conduct the Institute's Convocation 2023, commencing on 28th July 2023 in the Convocation Hall at the Roorkee campus for the graduating students on the

[READ MORE](#)

## RECENT RESEARCH



## We Embrace AI To Tackle Disruptions

In an interview with BW Businessworld, Kamal Kishore Pant, Director, Indian Institute of Technology, Roorkee, highlights the utilization of artificial intelligence and machine learning in optimising the efficient

[READ MORE](#)


## IITRoorkee develops water-soluble coating to replace plastic in disposable paper

A team of researchers from the Indian Institute of Technology Roorkee, IIT Roorkee, has developed a coating for disposable paper that is water soluble and will be used in various applications with requirements of

[READ MORE](#)


## IIT-Roorkee invents coating to enhance durability of submarine equipment

Researchers from the Centre for Nanotechnology at IIT-Roorkee have claimed to have developed a "first of its kind" titanium-based coating that would enhance the durability of the components of naval

[READ MORE](#)

## RECENT RESEARCH



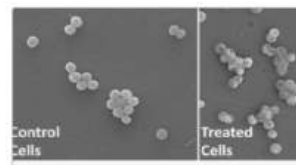
#### IIT Roorkee develops structural colour-based sensors from agro-waste sugarcane

A group of researchers from the Indian Institute of Technology Roorkee (IITR), department of polymer and process engineering have developed structural colour-based sensors by making structural

[READ MORE](#)


#### Researchers at IIT Roorkee are able to record Ultrafast Photoresponse in SIS

Imagine waste plastic bottles coming to your rescue during an earthquake. Scientists at IIT-Roorkee claimed to have developed a technique that will just do that for you.

[READ MORE](#)


#### IIT Roorkee researchers discover new antibacterial molecule 'IITR00693'

IIT Roorkee researchers led by Prof Ranjana Pathania, discover New Antibacterial Molecule Against Superbugs. The molecule has shown potent antibacterial activity against a wide range of Gram-positive and

[READ MORE](#)

## RECENT RESEARCH



#### IIT Roorkee Researchers developing sustainable technologies to tackle Plastic

IIT Roorkee researchers are developing sustainable technologies to tackle plastic and e-waste. The large generation of plastic waste and electronic waste (e-waste) has become a matter of concern due to

[READ MORE](#)


#### IIT Roorkee researchers help in understanding humming of our universe observed

An international team of astronomers from India, Japan and Europe has recently published the results from monitoring nature's best clocks, pulsars using six of the World's most sensitive radio telescopes.

[READ MORE](#)


#### We Embrace AI To Tackle Disruptions

In an interview with BW Businessworld, Kamal Kishore Pant, Director, Indian Institute of Technology, Roorkee, highlights the utilisation of artificial intelligence and machine learning in optimising the efficient

[READ MORE](#)

## NOTABLE ACHIEVEMENTS



## SOCIAL MEDIA BUZZ



## PRINT COVERAGE





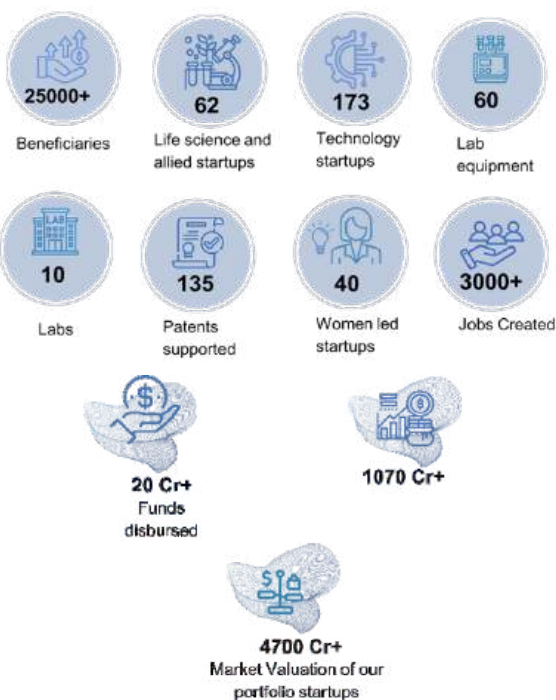


# INCUBATION UNITS

## TECHNOLOGY INNOVATION & DEVELOPMENT OF ENTREPRENEURSHIP SOCIETY (TIDES) TIDES BUSINESS INCUBATOR

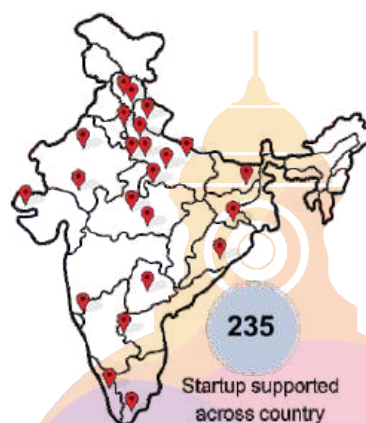
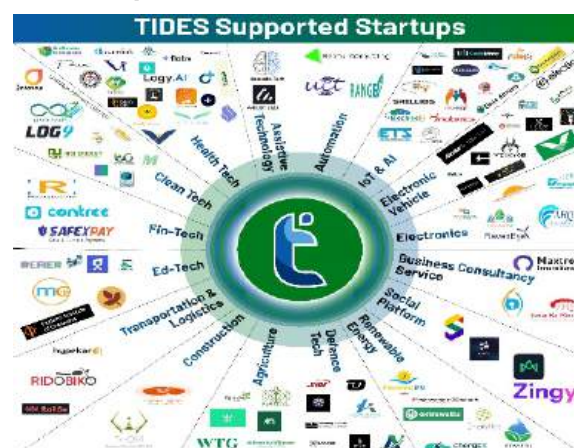
Technology Innovation & Development of Entrepreneurship Society (TIDES) is a Society formed under the Society Registration Act, 1860 to promote innovation and entrepreneurship at IIT Roorkee and in the local Uttarakhand region.

TIDES runs and manages a Business Incubator "TIDES Business Incubator" at IIT Roorkee to facilitate incubation of new startups with innovative technologies. TIDES Business Incubator is recognized as leading Incubator by the Government of **#startupindia** India.



- Pre-incubation at TIDES, IIT Roorkee offers aspiring entrepreneurs a platform to refine their startup ideas. It provides mentorship, resources, and access to industry experts. Pre-incubation supports early-stage ventures, helping them develop business models, validate ideas, and prepare for the incubation program.
- Incubation at TIDES, IIT Roorkee nurtures startups through resources, mentorship, and infrastructure. It provides office spaces, laboratory, prototyping facilities, and connections with industry experts. TIDES offers workshops, training, and access to investors. It has a track record of supporting successful ventures in various sectors, fostering entrepreneurship and innovation.

### Startup Portfolio





## Funding and Acquisition



**18+**  
Startup Funding Programs



**5+**  
Ministries Associated



## Partnership & Collaborations



**90+**  
Ecosystem Partners





**Awards and Accolades:**

1. Indi Energy was awarded the first position in the category of "Waste to Energy Solutions & Recycling Technologies" of "SIDBI Young Environmental Champions Challenge".
2. AkashaLabdhi Pvt. Ltd. was honored with the prestigious title of "Best Innovative Startup of the Year 2023-24" by Startup Odisha, Ministry of Industry".
3. Startup Feynman Energy embarked on a transformative journey as it was incubated at TIDES Business Incubator, in the IIT Roorkee campus.
4. Hornet Biologicals Pvt Ltd was received ₹21,00,000 under the IDEA2PoC Grant-in-Aid scheme of Karnataka Startup Policy 2022-27.
5. TIDES IIT Roorkee hosted an engaging and insightful interactive session on "European/ Nordic Market Entry: Opportunities & Challenges".
6. Mokx, one of the innovative startups at TIDES IIT Roorkee, formed a strategic partnership with Āgāmi Stores.
7. Gaurav Dwivedi, founder of UGreen Technology Pvt. Ltd, secured a grant of ₹6 lakhs from the Ministry of Education's Innovation Cell and AICTE.
8. Perovskite Innovation Pvt. Ltd, a TIDES IIT Roorkee incubated startup, won the IOCL Start-up Challenge grant for Advancing Solar Window Technology.
9. Azam Ali Khan, CEO of TIDES IIT Roorkee, met with Dr. K. Srikar Reddy, Hon'ble Consul General of India in San Francisco.
10. TIDES IIT Roorkee collaborated with E2E Cloud, a leading provider of advanced GPU cloud solutions.
11. Azam Ali Khan, CEO of TIDES IIT Roorkee, visited Skydeck Accelerator at the Berkeley University California.
12. SS AgriQulture Innovations, an agritech startup at TIDES IIT Roorkee, won the "Sustainable Startup of the Year 2023-24" award.
13. TIDES IIT Roorkee participated in the IITRAANA Global Conference in Austin, Texas.
14. Flabs, a TIDES IIT Roorkee incubated startup, generated over one million medical reports.
15. Gohemp Agroventures, a TIDES IIT Roorkee incubated startup, qualified for the Solar Decathlon Climate Smart Innovation Exhibition 2024.
16. Gohemp Agroventures showcased India's innovation in sustainable architecture at the Hemp Home Expo 2024 in Perth, Australia.
17. AkashaLabdhi Pvt. Ltd., a TIDES IIT Roorkee incubated startup, was featured in "The Times of India" for their groundbreaking work on building an Expandable Space Habitat.
18. UGreen Technology Pvt. Ltd, a TIDES IIT Roorkee startup, successfully completed a carbon capture project with Oil India Limited.
19. Patenti Technology Solutions, a startup under the NIDHI EIR scheme at TIDES IIT Roorkee, was honored with the 'Emerging Star Startups Awards 2024'.
20. Amrutha M., founder of Patenti Technology Solutions, was honored by Startup Karnataka for winning the ELEVATE 2023 program.
21. CodeMate, a startup under the NIDHI EIR scheme at TIDES IIT Roorkee, achieved total revenue of \$100,000 in just seven months.
22. Mantiswave Networks Private Limited, a startup incubated at TIDES IIT Roorkee, was recognized as one of the winners of Startup Karnataka ELEVATE 2023-24.
23. Gohemp Agroventures, a TIDES IIT Roorkee incubated startup, was honored with the Amritam, Sustainable India Award.
24. Akshay Singhal, founder of Log9 Materials, was awarded the Young Achiever's Award.
25. TIDES IIT Roorkee was honored as the Best Incubator in the Country among Tier III towns by DBT BIRAC.
26. TIDES IIT Roorkee was selected as an Implementation Agency in the G1 category by

MeitY for the GENESIS program.

27. Prof. Siddhartha Khare, founder of Bhoomicam, was honored with the Rising Star Award, at the Making India Employable Conference And Award 2024 held in Mumbai!
28. Amrutha M., founder of Patenti Technology Solutions, was honored with the Entrepreneur of the Year award.
29. Team Codemate got the opportunity to exhibit at Expand North Star, GITEX GLOBAL 2024.
30. SMDPower Solutions won the Best Innovative Startup Award at the Lokmat Goa Startup Tourism Awards.
31. Navstream Innovations was awarded Young Start-up of the Year at the 4th CSI IT Excellence Awards 2024.
32. Avkalan Labs was one of the 30 selected Start-ups from India, chosen as the Start-up delegate for the Slush event held in Helsinki, Finland, on (November 20th and 21st, 2024).
33. Elexo Energy, a standout start-up from the Sakshi EV Cohort, has successfully completed the ninth cohort of Seed Spark in South Asia and won the Pitch Competition.
34. RYM GREENERGY, a NIDHI Prayasee startup, achieved a remarkable feat at KPIT Sparkle 2025, securing the Gold Award and a ₹7 lakh prize among 28,000 global participants.
35. Agri Joy, a TIDES IIT Roorkee portfolio startup, won first Prize at Vasant Utsav 2025, Uttarakhand in Hydroponics Technology.
36. Bhoomicam, a faculties-led startup founded by Dr. Siddhartha Khare, was selected among the Top 25 Indian Startup under the Operation Dronagiri program by the Ministry of Science & Technology and awarded a ₹10 Lakh funding grant.
37. Flux Motors, a startup from the SAKSHI EV Cohort at TIDES IIT Roorkee, is the only startup from Uttarakhand showcasing at Taiwan Smart City TAINE 2022.

38. Akashalabhi delivered its first Air Data Computing System to Bharat Electronics Limited (BEL), marking a significant milestone in India's aerospace journey, and will showcased it at Aero India 2025.

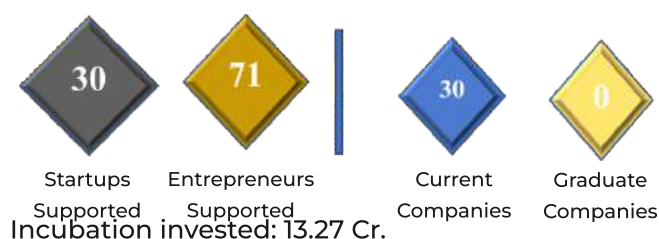
39. Three incubated startups of TIDES IIT Roorkee have been featured in the prestigious "Idea to Impact" list of 50 startups supported by DST NIDHI PRAYAS.

## I-HUB DIVYASAMPARK, TIH

iHUB DivyaSampark is a section 8 company which is a Technology Innovation Hub, at IIT Roorkee set up under the National mission on Interdisciplinary Cyber Physical Systems (NM-ICPS), initiated by Department of Science and Technology (DST) and Indian Institute of Technology Roorkee (IITR) to build innovative solutions, to train manpower and encourage entrepreneurship for the world's current challenges like Defense, Digital Healthcare, Industry 4.0 and sustainable smart cities. iHUB's core focus is on fostering research and innovation to develop and commercialize products and technologies in CPS, with a particular emphasis on relevant and next-generation Smart Devices, Technologies and Materials. University.

### Focus Areas:

- Defence
- Healthcare
- Industry 4.0
- Sustainable smart cities



Funds raised by Startup: 32 Cr

External funding:

Valuation of Startup: - 695.2 Cr.

Employment generated: 48 jobs created in 2024 and 2025 through startups.

### Pre-incubation program:

To ignite students innovation and entrepreneurship potential, we are offering Comprehensive and Holistic Advancement of National Knowledge Yield and Analytics (CHANAKYA) fellowships and Entrepreneurs-in-Residence (EIR) program to motivated students and individual who want to work in the broad area of smart devices and materials for cyber physical systems

#### 1. CHANAKYA UG Fellowship :-

iHUB DivyaSampark at TIH at IIT Roorkee strongly believe that fresh, creative, and original young minds have huge potential to transform the world. To ignite students innovation and entrepreneurship potential, TIH at IIT Roorkee is offering Comprehensive and Holistic Advancement of National Knowledge Yield and Analytics (CHANAKYA) fellowships to motivated UG students who want to work in the broad area of smart devices and materials for cyber physical systems.

#### 2. Entrepreneurs-in-Residence (EIR) :-

This Program supports and encourages budding innovators to transition into entrepreneurs by minimizing the risks associated with startup and mitigating the opportunity costs of high-paying jobs. It provides grant support of ₹30,000 per month for 6-12 months.

#### IP details:

##### Key Points

- 4 patents have been granted
- Filed and published 21 patents
- 1 copyright granted

#### Incubation:-

iHUB DivyaSampark to collaborates with

industries and startups to generate new job opportunities and foster economic growth. There are various types of startup programs available:

1. PRAYAS Program provides prototype funding to convert ideas into prototype. PRAYAS grant is a Proof-of-concept grant for converting idea and innovations into a prototype. Applicants can be individual innovators or early-stage startups. The maximum funding support under this program to a startup will be grant of up to ₹10 Lakhs.
2. PANKH-The Wings Program provides financial assistance to potential startups with promising ideas, innovations, and technologies. Startups with Deep technology-enabled products in Cyber-Physical Systems can apply for this program. The startup should be incorporated under the Ministry of Corporate Affairs as a Private Limited Company. The possible seed funding in this program will be up to ₹50 Lakhs.
3. DIAL (Dedicated Innovation Accelerator)- PANKH Propel Program provides a supportive environment for startups to quickly bring their innovative products and technologies to market. The startups with certified MVP's and revenue generated up to ₹50 Lakhs in at least one financial year can apply for this program. The funding support in this program will be up to 2 crores, wherever applicable.

● **Alliance Details :-** To ensure that innovation can emerge from anywhere, including remote and hilly areas, iHUB DivyaSampark implemented a unique Hub-and-Spoke model and until now, we have established 29 spoke hubs, which serve as extension arms of iHUB DivyaSampark and IIT Roorkee. These spokes are predominantly established in remote regions, aiming to ensure that innovation can reach a wide range of individuals. The core hub coordinates with satellite "spokes" in various regions, actively engaging with local talent and startups. This approach extends our reach, supporting innovation in diverse landscapes, and underlines our commitment to making innovation thrive universally

## Spoke Hubs of iHUB Divyasampark:



- **MoU :** - In 2024-2025, iHUB DivyaSampark signed two international agreements. It also partnered with six industries to help in skills Development.
- **Partnership & Collaboration:-** In the year 2024-25, iHUB Divyasampark has established two international and four national collaborations.

## International Collaboration in year (2024-2025)

1. Social Impact Solution, Japan: iHUB DivyaSampark has partnered with Social Impact Solution, Japan, to drive innovation in emerging technologies, fostering global collaboration for cutting-edge advancements and societal impact.
2. Sogang University, Korea: iHUB DivyaSampark has collaborated with Sogang University, Korea, in advanced technology fields, including quantum computing and artificial intelligence, fostering global partnerships in cutting-edge research and innovation.

## National Collaboration

1. RITES Limited: iHUB DivyaSampark has collaborated with RITES Limited to drive innovation and technological advancements in transport infrastructure and smart mobility solutions.

2. Homeland Securitech Pvt. Ltd.: iHUB Divyasampark has partnered with Homeland Securitech Pvt. Ltd. to advance quantum-related technology through collaborative research and innovation.
3. Antennae Ventures Pvt. Ltd.: iHUB DivyaSampark has collaborated with Antennae Ventures Pvt. Ltd. to advance quantum-related technology and innovation.
4. ExcelR Edtech Pvt. Ltd.: iHUB DivyaSampark has collaborated with ExcelR Edtech Pvt. Ltd. to drive innovation in education technology and skill development.

## Awards and Accolades:

### 1. MythyaVerse Private Limited:

- Runner-up, MeitY Startup Challenge 2024.
- Selected for Microsoft for Startups Program.

### 2. Nexactly AI Solutions Pvt. Ltd.:

- Best EdTech Startup at Shilp Startup Fest 2.0, award given by Sonu Sood, recognizing its innovation in neurotech for Education.
- Finalist at MJF India Pavilion, CES 2025, Las Vegas, where Nexactly AI Solutions Pvt. Ltd. showcase of their startup at the world's largest consumer tech trade show, connecting with global innovators.
- Selected as one of the esteemed Hello Tomorrow DeepTech Pioneers!

### 3. Vignam Labs Pvt. Ltd. :

- Selected for TIE Pune Nurture 13.0 Accelerator Program.
- Selected for Google AI Academy 2024

### 4. Theranautilus Pvt. Ltd. :

- Top 50 DeepTech Startups in India 2024 by NASSCOM Emerge 50!





## ADMINISTRATION AFFAIRS

The Institute's administrative procedures, services, and personnel management for non-project and non teaching staff (permanent, temporary, and outsourced) are managed by the Office of the Dean (Administrative Affairs). To address this, the division is in charge of creating rules for administrative structures and linkages, assessing the need for staffing and manpower at

different levels, defining job functions and profiles, authority levels and duties, recruitment policies, career and promotion stages, and the allocation and sanctioning of the best manpower resources to different units, in addition to hiring and recruiting related staff. Kindly refer to the list of non-teaching officers in Appendix.

## FACULTY AFFAIRS

Faculty Affairs During the year, 42 faculty members (22 Assistant Professor Grade I, 19 Assistant Professor Grade II and 01 Professor) joined the Institute. The number of full time faculty members on the roll of the Institute has risen to 555 comprising 239 Professors, 116 Associate Professors, 171 Assistant Professors (Grade-I) and 29 Assistant Professors (Grade-II). In addition, there are 77 Adjunct faculty members and 34 Post Doctoral Fellows on the roll. Around 16 faculty members retired, 13 of whom were re-employed, 03 resigned and 01 expired during the year. The Institute provided financial assistance to

-- faculty members for participating in international conferences/workshop/accolades.

### List of faculty achievements and recognitions are as follow.

- Prof. Pankaj Gautam, Department of Applied Mathematics and Scientific Computing, received Travel Support from the International Mathematical Union (IMU) to attend the International Congress of Mathematics (ICM).



- Prof. Gaurav Raheja, Department of Architecture and Planning was awarded Research Fellowship by the Berlin Centre for Global Engagement, Technical University of Berlin; also received SMUS Travel Fellowship for the 4th SMUS International Conference, Chulalongkorn University, Bangkok, Thailand.
- Prof. Harshit Sosan Lakra, Department of Architecture and Planning was awarded Fulbright-Nehru Postdoctoral Research Fellowship by the United States-India Educational Foundation at the University of Michigan, Ann Arbor, USA.
- Prof. Sonal Atreya, Department of Architecture and Planning was received the Special Mention Award at the International Conference on Rethinking Built Environment.
- Prof. Ranjana Pathania, Department of Biosciences and Bioengineering was featured as 'Star Reviewer of the Decade' by ACS Infectious Diseases.
- Prof. S.R. Yadav, Department of Biosciences and Bioengineering was elected Fellow of the National Academy of Sciences, India (FNASc) by NASI, Prayagraj.
- Prof. P. Gopinath, Department of Biosciences and Bioengineering, was awarded the prestigious "A.S. Arya Institute Chair Professorship" by IIT Roorkee. Also received the Bright Spark Lecture Award from the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), 2024. In addition He is selected for the TATA Innovation Fellowship by the Department of Biotechnology, Government of India, and, was conferred with Outstanding Teacher Award under Post Graduate Category – 2024, IIT Roorkee.
- Prof. K.K. Pant, Department of Chemical Engineering was awarded the Prof. C.N.R. Rao Medal and CHEMCON Distinguished Speaker Award 2024.
- Prof. Shishir Sinha, Department of Chemical Engineering, featured on the front page of Plastics Today magazine, and received the CHEMCON Distinguished Speaker Award 2024.
- Prof. Vimal C. Srivastava, Department of Chemical Engineering was appointed as Adjunct Professor, Department of Chemical Engineering, University of Diponegoro, Indonesia.
- Prof. Prakash Biswas, Department of Chemical Engineering, served on the Faculty Selection Committee, Department of Petroleum Engineering, IIT-ISM Dhanbad. Also, was appointed Session Chair, 9th Green & Sustainable Chemistry Conference, Elsevier, NCL Pune. He was also appointed as Visiting Professor, Department of Applied Science and Chemical Engineering, Institute of Engineering, Tribhuvan University, Nepal.
- Prof. Shabina Khanam, Department of Chemical Engineering was conferred Award of Excellence for "Her Impact in STEM: Driving Sustainability and Environmental Change" by IIT Roorkee. Also appointed Subject Expert to evaluate proposals under WISE-SCOPE Fellowship, WISE-KIRAN Division, DST.
- Prof. Vimal Kumar, Department of Chemical Engineering was appointed as Nodal Officer, Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilisers, Government of India.
- Prof. R.P. Bharti, Department of Chemical Engineering, received Distinguished Alumnus Award from SLIET for Academic Excellence.
- Prof. Hari Prakash Veluswamy, Department of Chemical Engineering was awarded the Scientific High-Level Visiting Fellowship (SSHN) 2024 by the French Institute in India (IFI); visited the University of Lille. He also featured in the Top 2% Scientists List by Stanford University (2024). and received the 2023 Emerging Scientist Award from Gas Science and Engineering.
- Prof. Dheeraj Kumar, Department of Chemistry, was awarded the Outstanding Young Faculty Award and received the Institute Research Fellowship by IIT Roorkee.
- Prof. Debasis Banerjee, Department of Chemistry, received the Humboldt Research Fellowship for Experienced Researchers from

the Alexander von Humboldt Foundation, Germany. Also, served as Visiting Professor at the University of Goettingen, Germany, Ruhr-Universität Bochum, Germany and Sorbonne University, France

- Prof. Amit Agarwal, Department of Civil Engineering, received the Young Achiever's Award (Academic & Research Excellence) from Malaviya National Institute of Technology (MNIT), Jaipur, Also received a Travel Grant for the International Alumni Workshop organized by TU Berlin and DAAD. He was conferred Special Recognition at the IEEE Bengaluru Mobility Challenge 2024, IISc Bangalore.
- Prof. Satish Chandra, Department of Civil Engineering, was awarded the Eminent Engineer Award 2024 by The Institution of Engineers (India), Uttarakhand Centre.
- Prof. Anjaneya Dixit, Department of Civil Engineering, received Certificate of Appreciation as one of the Top 5 Teachers in the UG Young Faculty Category at IIT Roorkee, 2024.
- Prof. Rahul Dev Garg, Department of Civil Engineering, was awarded the National Geospatial Faculty Fellow Award by IIT Bombay FOSSEE GIS, Ministry of Education, Government of India, 2024.
- Prof. Pradeep Kumar Garg, Department of Civil Engineering, was awarded the National Geospatial Faculty Fellow Award by IIT Bombay FOSSEE GIS, Ministry of Education, Government of India, 2024.
- Prof. Sidhartha Khare, Department of Civil Engineering, received the Best Geospatial Startup Award from IIT Bombay FOSSEE GIS, Ministry of Education, Government of India, 2024. He was also honored with the Rising Star Award 2024 by the India Education Forum and India Employer Forum, Ministry of Education, Government of India. His startup Bhoomicam was selected by IIT Roorkee Innovation and Incubation Cell for Nasscom Technology Confluence (NTC) 2024, Chandigarh. Bhoomicam was shortlisted among Top 8 Companies by IN-SPACE ISRO and Department of Space, Govt. of India.
- Prof. Chandra Shekhar Prasad Ojha, Department of Civil Engineering, was appointed Member, Board of Evaluation (BoE) at National Institute of Geo-Informatics Science & Technology (NIGST), Hyderabad. He was also appointed Convener, Sectional Committee for Civil Engineering, Indian National Academy of Engineering.
- Prof. Manoranjan Parida, Department of Civil Engineering, was elected President of the Indian Road Congress.
- Prof. Narendra Kumar Samadhiya, Department of Civil Engineering, was conferred the IGS Kueckelmann Award by Indian Geotechnical Society. Also, won 2nd Prize in "Best EBM of the Year 2023" from Indian Geotechnical Society. In addition he received the IGS Z Tech Biennial Award.
- Prof. Vishwas A. Sawant, Department of Civil Engineering, received the Best Presentation Award from IIT Hyderabad, 2024.
- Prof. Abhiraj Sharma, Department of Civil Engineering, was honoured with the Physical and Life Sciences Directorate Award by Lawrence Livermore National Laboratory, USA, 2024.
- Prof. Akanksha Tyagi, Department of Civil Engineering, was awarded the IEI Young Engineers Award 2024 by the Institution of Engineers also received the Bright Spark Lecture Award from the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), 2024.
- Prof. Sandeep Kumar Garg, Department of Computer Science and Engineering, was selected as a Member of the Program Committee for IEEE ICWS 2024, a prestigious CORE-A conference on Web Services.
- Prof. Apurbba Kumar Sharma, Department of Design was appointed as the Ajit Singhvi Institute Chair Professor, IIT Roorkee, recognising his contributions as Head, Department of Design.
- Prof. Sudheer Kumar Tiwari, Department of Earth Sciences was honoured with the

Excellence in Teaching Award 2024, IIT Roorkee.

- Prof. M.L. Sharma, Department of Earthquake Engineering, received the Best Commercialisation Award for the Strong Motion Sensor.
- Prof. P.C. Ashwin Kumar, Department of Earthquake Engineering, was part of the Indiawelds team that won First Prize at the 2nd CII National Corrosion Management Practices Competition & Awards.
- Prof. Pankaj Agrawal, Department of Earthquake Engineering, was honoured with the ICI-Ultratech "Outstanding Concrete Technologist of the Year Award, 2024."
- Prof. Ritesh Kumar, Department of Earthquake Engineering, was awarded the Humboldt EVR Fellowship at KIT, Germany.
- Prof. Satish S. Belkhode, Department of Electrical Engineering, was awarded the Prime Minister Early Career Research Grant (PM-ECRG) for the project 'Universal Power Electronic Building Block (U-PEBB)-Assisted V2X-System with Enhanced Efficiency and Power Density'. Also, received the ECCE Best Paper Award 2024
- Prof. Sohom Chakrabarty, Department of Electrical Engineering, was awarded the Senior Fellowship 2025 by the Brussels Institute for Advanced Studies (BrIAS). Also, received the FWO grant for Incoming Stay in Flanders, funded by the Research Foundation Flanders, Belgium.
- Prof. Parikshit Pareek, Department of Electrical Engineering, was awarded the Prime Minister Early Career Research Grant as Principal Investigator.
- Prof. Jeevanand S, Department of Electrical Engineering, received the SIRE Fellowship.
- Prof. Apurv Kumar Yadav, Department of Electrical Engineering, was recognised as the Most Promising Campus Champion of Start-up Support 2025 by TIDES, IIT Roorkee.
- Prof. Sparsh Mittal, Department of Electronics and Communication Engineering, co-authored a paper that received the "Best Industry-Related Paper Award" at the International Conference on Pattern Recognition. Also, was the recipient of the 2024 Qualcomm Faculty Award in India.
- Prof. Vishvendra S. Poonia, Department of Electronics and Communication Engineering, was nominated for the Irwin Oppenheim Award of the American Physical Society.
- Prof. Dharmendra Singh, Department of Electronics and Communication Engineering, contributed to the Satellite-based Agriculture Information System developed at IIT Roorkee, which received the National "Gold" Award for e-Governance under Outstanding Research on Citizen-Centric Services by Academic/Research Institutions.
- Prof. Bishnu Prasad Das, Department of Electronics and Communication Engineering was received the Best Tape-out Award at the VLSI Design Conference 2025, Bengaluru.
- Prof. Pavan Kumar Satuluri, Department of Humanities and Social Sciences, served as Subject Expert for the UGC Syllabus Design Committee for Linguistics.
- Prof. Smita Jha, Department of Humanities and Social Sciences was appointed as a Senate Member, NIT Uttarakhand.
- Prof. Ankit Agarwal, Department of Hydrology was selected for membership in the Indian National Young Academy of Science (IN-YAS-INSAs) for 5 years, starting February 2025.
- Prof. Bhaskar Jyoti Deka, Department of Hydrology was awarded YUKTI Innovation Challenge 2023 (Yukti 2.0) by the Ministry of Education's Innovation Cell, AICTE, Govt of India.
- Prof. Nitin Khandelwal, Department of Hydrology, received the Alan Tetlow Memorial Award from the Water Science Forum of the Royal Society of Chemistry, UK.

- Prof. Brijesh Kumar Yadav, Department of Hydrology, received the AGGS Distinguished Fellow Award. Also, received a Travel Grant to Zululand University, South Africa. In addition received a grant to attend the Baltic Carbon Forum 2024, Vilnius, Lithuania. He was nominated by the Ministry of Jal Shakti as Committee Member for Groundwater Modelling SOP review under CGWA.
- Prof. Sumit Sen, Department of Hydrology, was nominated to the Technical Advisory Committee for National Disaster Mitigation Fund projects on flood and erosion. Also, appointed Member of the Steering Committee, Himalayan University Consortium, ICIMOD, Nepal.
- Prof. Prashant Surana, Department of Hydro and Renewable Energy, received the SSHN-2024 Fellowship. And was awarded the SGSITS National Award for Best Research Work done by Young Teachers of Engineering Colleges for 2024 by the Indian Society for Technical Education (ISTE).
- Prof. S.K. Singal, Department of Hydro and Renewable Energy, was awarded the MNRE Professor Chair by the Ministry of New and Renewable Energy.
- Prof. Vinay Sharma, Department of Management Studies (DoMS), was conferred with the prestigious National Teachers' Award 2024 by the President of India at a ceremony held in New Delhi.
- Prof. Sourabh Arora, Department of Management Studies (DoMS), was received the Excellence in Teaching and Research Award 2024 in recognition of his outstanding contributions to academia.
- Prof. Santosh Rangnekar, Department of Management Studies (DoMS), was awarded the Best Paper Award at the 30th ITAM Conference, held in Kathmandu, Nepal.
- Prof. Manil T. Mohan, Department of Mathematics, was conferred with the Outstanding Teacher Award 2024, IIT Roorkee.
- Prof. S. K. Gupta, Department of Mathematics, was received the Excellence in Teaching Award 2024, IIT Roorkee.
- Prof. Ram Jiwari, Department of Mathematics, was awarded the Ulam NAWA Research Fellowship by the Polish National Agency, Poland.
- Prof. Arbaz Khan, Department of Mathematics, was received the Robert Bartnik Fellowship from Monash University, Australia.
- Prof. P. K. Jain, Department of MIED, was appointed as Director General of the Institute of Infrastructure Technology Research and Management (IITRAM), Gujarat.
- Prof. Saurabh Sharma, Department of MIED, was awarded the Young Scientists Award 2024 by the International Society for Energy, Environment and Sustainability.
- Prof. Kaushik Pal, Department of MIED, was conferred the Teaching Excellence Award – 2024 by His Excellency Governor of Rajasthan, Shri Haribhau Kisanrao Bagde, presented by the Central University of Rajasthan (CURAJ) on Teachers' Day 2024.
- Prof. Nikhil Dhawan, Department of Metallurgical and Materials Engineering, was received the IIM-ASM Lectureship (North America) for the year 2023, jointly awarded by the Indian Institute of Metals (IIM) and ASM International.
- Prof. Kirtiraj K. Gaikwad, Department of Paper Technology, was received the Institute Research Fellowship (IRF) Outstanding Young Faculty Award 2024 from IIT Roorkee. Also, was selected among the top five faculty in both PG and Young Faculty categories for the Excellence in Teaching Award at IIT Roorkee. In addition received the Young Scientist Award 2025 by ILSI India for his contributions to food safety, nutrition, and public health.
- Prof. Vibhore Kumar Rastogi, Department of Paper Technology, was selected among the top five faculty in both PG and Young Faculty categories for the Excellence in Teaching Award at IIT Roorkee in 2024.



- Prof. Pradip Kumar Maji, Department of Polymers and Process Engineering, was awarded the '1992 Batch Institute Chair Professorship'. Also, received the DAAD-Bilateral Faculty Exchange Program Fellowship from DAAD, Germany in 2024.
- Prof. Kuljeet Kaur, Department of Polymers and Process Engineering, was received the Future Faculty Award 2024 from the American Chemical Society's Division of Polymer Material Science and Engineering (PMSE) US.
- Prof. Gaurav Manik was elected as a Fellow of the Royal Society of Chemistry (RSC) in 2024.
- Prof. Kaushik Parida, Department of Polymers and Process Engineering, was inducted as a Young Associate of the Indian National Academy of Engineering (INAE). And was received the SMC Emerging Scientist Award 2024.
- Prof. Sachin Kumar Srivastava Department of Physics, was conferred the Outstanding Young Faculty Award – 2024 and received the Institute Research Fellowship.
- Prof. Vipul Rastogi Department of Physics, was conferred the title of “Distinguished Fellow” by the Optical Society of India.
- Prof. Yogesh Kr. Sharma, Department of Physics was received the Ram Kumar Prize for Outstanding Teaching and Research, 2024, at IIT Roorkee. He was also appointed as the Founding Secretary-cum-Treasurer of the Battery Research Society of India.
- Prof. Anjani Kr. Tiwari Department of Physics was featured among the top five faculty for outstanding teaching in the UG category (classes with 80+ students) at IIT Roorkee.
- Prof. Basant Yadav Department of water resources and management, was conferred the Eminent Engineer Award – 2024 (Under 45 years) by the Uttarakhand State Center, The Institution of Engineers (India), Dehradun (2024).
- Prof. Mohit Prakash Mohanty Department of water resources and management, was received the International Travel Grant to attend the Multi-Hazard Disaster Risk Reduction (DRR) Academy held in Barcelona, Spain. Also was awarded the prestigious Sivapalan Young Scientists Travel Award (SYSTA) by the International Association of Hydrological Sciences
- Prof. Ashish Pandey Department of water resources and management was, received the Dr. K.G. Tejwani Award (Natural Resources Management) from the Indian Association of Soil and Water Conservationists. Also, was appointed Bharat Singh Chair Professor, Ministry of Jal Shakti
- Prof. Thanga Raj Chelliah Department of water resources and management was, conferred as a Fellow of the Society of Power Engineers, under the Central Board of Irrigation and Power, India.
- Prof. M. Sankar, Centre of Nanotechnology, was was appointed Member, Board of Studies (BoS) for NIT Delhi and Devbhoomi Uttarakhand University.
- Prof. P. Gopinath, Centre of Nanotechnology, was awarded A.S. Arya Institute Chair Professorship, IIT Roorkee, March 2025. Also, selected for TATA Innovation Fellowship
- Prof. Piyush Srivastava, Centre of Excellence in Disaster Mitigation and Management (CoEDMM) was received an International Travel Grant of \$500 to attend the 9th Global Energy and Water Exchanges Open Science Conference (GEWEX-OSC 2024), Sapporo, Japan, July 2024.
- Prof. Rajat Rastogi, Centre for Transportation Systems (CTRANS), was appointed as Convener of G-6 Committee on Multimodal Transportation Systems of the Indian Roads Congress for 2025–2027.



## STUDENTS AFFAIRS

In 2024–2025, Student Affairs focused on fostering accountability, discipline, and academic excellence among students. Through reboarding, orientation, and counseling programs, we supported their holistic development and well-being. Our efforts aimed to nurture responsible leadership and help students reach their full potential.

### Wellness Centre

The Wellness Centre at IIT implemented 33 impactful programs aimed at promoting mental health awareness, early intervention, and support-seeking behavior. Over the year, it managed 1,587 new cases, 3,434 follow-up sessions, and 49 emergencies, while also supporting students with low CGPAs and facilitating orientation programs for new students and their parents. Key initiatives included life skills training, academic counseling, and appointing wellness representatives in departments. The Centre also led a month-long mental health literacy campaign and celebrated key mental health awareness days. Additionally, the Students' Aid Committee provided essential support to financially distressed students.

### Team Wellness: Cultivating a Culture of Well-being at IIT Roorkee

Team Wellness at IIT Roorkee, consisting of 12 POR members and 25 new recruits (as of August 2024), acts as a bridge between the Wellness Centre and students to promote mental well-being. The team actively supported new student registration and orientation, and led eight impactful programs during Mental Health Month. In March 2025, they welcomed 23 freshers across Operations, Design, Editorial, and Web Development, who will help advance future wellness initiatives. An introductory session and upcoming plans are currently underway to further enrich student well-being efforts.



### Empowering Academic Success: The Impact of the Academic Reinforcement Programme (ARP)

The Academic Reinforcement Programme (ARP) team spearheaded numerous impactful initiatives in 2024-25, notably the strategic recruitment of Undergraduate Teaching Assistants (UGTAs) and the delivery of dynamic sessions designed to foster academic clarity and facilitate career exploration among students. A particular focus was placed on providing robust support to students in newly introduced branches such as Energy and Design, addressing their initial need for senior guidance and academic resources.

During the autumn and spring semesters of this year, a cohort of 156 students was meticulously selected to serve as Undergraduate Teaching Assistants (UGTAs). These UGTAs played a vital role in supporting first-year core courses across various departments, contributing significantly to the learning experience of their peers.

#### Key Events and Initiatives in 2024 included:

- **Alumni Session on Higher Studies in Business:** Featuring accomplished IITR alumni who shared their insights and experiences in pursuing advanced degrees in business.

- **Guest Talk by Vishal Joshi:** An engaging session led by Vishal Joshi, co-founder of Nucleus Education and a distinguished TEDx speaker, who offered valuable reflections on his academic journey through IIT Madras and IIM Nagpur, as well as his entrepreneurial ventures in the edtech sector.
- **Internship Panel:** PM, Consulting & Quant Finance: A focused panel discussion providing students with insights into the diverse opportunities available in Product Management, Consulting, and Quantitative Finance.
- **Guidance Junction – Foreign Research Internships:** An informative session dedicated to guiding students on how to pursue research internships abroad.
- **Guidance Junction – Semester Exchange:** A session providing comprehensive information and guidance on participating in semester exchange programs.
- **CFA and Career Growth Session:** A targeted session offering insights into the Chartered Financial Analyst (CFA) designation and broader career growth strategies in the finance domain.

## Nurturing Growth and Transition: The Student Mentorship Program (SMP)

The Student Mentorship Program (SMP) remains steadfast in its core mission: to provide comprehensive guidance and robust support to first-year undergraduates as they navigate their transition into the dynamic academic and cultural environment of IIT Roorkee.

During the academic session of 2024–25, the SMP team built upon several impactful initiatives from preceding years while also introducing innovative strategies aimed at fortifying the mentorship framework, optimizing communication channels, and enhancing mentor accountability. To ensure the continued efficacy of the mentorship structure, a comprehensive mentor evaluation

process was conducted in March 2025. This evaluation incorporated valuable feedback from both mentees and senior coordinators, providing critical insights for program improvement. The mentor recruitment and onboarding process underwent a significant revamp this year, featuring structured interviews and focused mentor workshop sessions. These sessions placed particular emphasis on cultivating empathy, honing communication skills, and fostering leadership qualities among mentors. Furthermore, the team proactively organized engaging ice-breaking sessions during the initial weeks of the semester and again at the conclusion of the first semester for first-year students. These sessions were instrumental in creating a comfortable and inclusive environment for mentees to connect with their mentors, establish trust, and embark on their IIT Roorkee journey with a strong and reliable support system. Building upon the success of the career talk series, SMP has further empowered its mentors through collaborative training workshops and continuous engagement organized by the Wellness Centre. This strategic collaboration has equipped mentors with the crucial skills to identify early signs of student distress and effectively guide students toward the appropriate support resources when needed, ensuring a holistic approach to student well-being.

## The Cultural Council

The Cultural Council at IIT Roorkee had a dynamic year, launching a new General Championship format with 600+ participants across 16 events and hosting vibrant celebrations like Garba Night Diwali festivities, and “IITR Got Talent.” Seventeen cultural clubs contributed through impactful films, theatre, music shows, literary events, stand-up performances, and art. Highlights included major productions by the Cinematics, Dramatics, and Music sections, engaging activities by Kshitij and DebSoc, and creative outputs from the Audio and Fine Arts sections. The council successfully fostered a campus culture of creativity, inclusivity, and student expression.



## Inter IIT Cultural Meet

IIT Roorkee made a remarkable mark at the Inter IIT Cultural Meet 7.0 held at IIT Patna from 26th to 29th December 2024. Across music, film, literature, drama, dance, fashion, and fine arts, the contingent delivered commendable performances. The CineSec team won the Gold medal in the 51-hour Filmmaking Competition, while the Music Section earned the Bronze Cup overall, including a Silver in Band Performance. The Dramatics Section participated in all theatre verticals including mime, monologue, and street play. Fashion Society bagged Silver overall, with second place in the fashion show and strong modeling submissions. Fine Arts secured top-10 finishes in events like Canvas Painting, Live Sketching, and Costume Design. Kshitij and DebSoc performed notably in various speaking and literary events. The IITR contingent's preparation, collaboration, and creativity were lauded, marking it as one of the institute's most diverse and successful Inter IIT cultural outings yet.



## Cinema Club

The Cinema Club actively engaged the IIT Roorkee community through a diverse range of film screenings, curated events, and creative competitions, all aimed at nurturing a shared passion for cinema and storytelling across various languages and genres



## Spic Macay

Throughout 2024–2025, SPIC MACAY IIT Roorkee wove classical arts, folk traditions, cinema, and hands-on learning into a vibrant tapestry that invigorated campus and community alike.

- **Gotipua Dance Performance;** Marking India's 77th Independence Day at the MAC Auditorium, a troupe of young Gotipua dancers from Odisha reenacted the ten incarnations of Lord Vishnu with live vocals, violin, flute, mardala, harmonium, and majira, followed by a lively Q&A.



- Outreach Movie Screening; At Chandra Shekhar Public School, Ramnagar, SPIC MACAY screened The Making of the Mahatma for Classes 6–12, sparking student-led discussions on Gandhi's ideals of peace and truth.
- Kabir Folk Music Concert ; Padma Shri Dr. Bharti Bandhu and ensemble interpreted Saint Kabir's poetry through folk–classical fusion, featuring tabla, dholak, keyboard, ghunghru, and chorus vocals, eliciting profound reflection on universal love.
- Virasat 2025 ;A fortnight-long festival blending performances, workshops, and heritage explorations:
- Puppetry by Dadi Pudumjee: Interactive glove, string, and marotte puppetry with behind-the-scenes insights.
- Carnatic Violin Recital: Vidushi A. Kanyakumari's renditions of Vatapi Ganapatim Bhaje, Pancharatna Kriti, and a Sindhu Bhairavi thillana earned standing ovations.
- Charulata Film Screening: Collaboration with the Cinema Club to showcase Satyajit Ray's classic.
- Koodiyattam Demonstration: Exploration of Sanskrit theatre's ritualistic storytelling and intricate gesture vocabulary.
- Hands-On Workshops: Tabla basics with Shri Mithilesh Jha; Kuchipudi dance under Vidushi Vyjayanthi Kashi; Mata ni Pachedi textile painting with Padma Shri Bhanubhai Chitara.
- Kuchipudi Dance Recital: Vyjayanthi Kashi dramatized Krishna's leelas and Putana episode, capped by a Q&A.
- Heritage Walk: Guided tour of Solani Aqueduct, Dhanauri mutiny site, and the 1842 Workshop, illuminating Roorkee's engineering legacy.
- Dhrupad by Ustad F. Wasifuddin Dagar: Meditative Ragas Puriya and Des with devotional Shiva compositions.
- Virasat Convention: A three-day residential camp featuring yoga, Shramdaan, vocal and calligraphy intensives, Japanese film Kagemusha, and participant showcases, culminating in a cultural farewell

## Student Affairs Council (SAC)

The Student Affairs Council (SAC) maintained a highly active and pivotal role throughout the academic year 2024-2025, serving as an indispensable bridge between the vibrant student body and the institute's administration. SAC officials diligently conducted regular meetings to address emergent student-related concerns and ensure fluid, effective communication channels across the student community.

To significantly bolster student involvement in institutional matters, SAC representatives proactively coordinated with student senators and various committee members. These concerted efforts proved instrumental in ensuring that diverse student perspectives were thoughtfully integrated into crucial campus-related discussions and integral decision-making processes. SAC spearheaded numerous key initiatives during the year, with an overarching focus on comprehensively enhancing student life and fostering active participation. Notable initiatives include:

## SAC Awareness Initiative: "Nasha Chhodo, Bharat Jodo"



The Student Activity Council (SAC) proudly spearheaded an impactful Awareness March, culminating in an inspiring lecture delivered by IPS Officer Kushi Mishra. Centered on the powerful



theme: "Nasha Chhodo, Bharat Jodo" (Say No to Drugs, Unite India), this initiative aimed to elevate awareness regarding the detrimental effects of drug abuse and passionately advocate for a healthier, more cohesive society. The event successfully empowered youth with critical knowledge and profound motivation to embrace a drug-free life.

## Enhanced Hostel Operations Oversight

Robust monitoring committees were established within Hostel Affairs to rigorously ensure the efficient operation of mess services and meticulous maintenance of all hostel facilities, thereby significantly enhancing residential student welfare.

## Vibrant Community & Celebration Events

As a highlight of SAC's extensive engagement, the Hostel Affairs Council orchestrated highly anticipated entertainment events. These included a spectacular "Firecracker" Show during Diwali and the joyous "Rang Barse" celebration on Holi, profoundly fostering a vibrant sense of community and shared celebration among students.

## Expanded Inter - Bhawan Championship

The Sports Affairs Council successfully organized the Inter-Bhawan Championship with an extended timeline, promoting flexible participation and impressively engaging over 1,500 students across a wide array of sports. This initiative significantly bolstered inclusivity and broad involvement in campus sports.

## Academic Policy Review & Inclusivity

SAC commendably initiated a thorough review of the eligibility framework and DORA funding

criteria, as specifically requested by the Academic Council. This crucial undertaking aims to significantly enhance inclusivity while rigorously upholding academic integrity.

## Revitalized Cultural Engagement

The Cultural Council launched a dynamic new model for the General Championship Culturals, successfully hosting 17 diverse events that attracted over 600 participants. Additionally, they meticulously organized key campus events such as "IITR Got Talent" for first-year students, a vibrant Garba Night, an eco-friendly Diwali celebration featuring a captivating Rangoli competition, and the iconic Main Building light-up, all contributing to a rich cultural tapestry.

## TECHNICAL AFFAIRS

The student technical clubs at IIT Roorkee foster innovation and hands-on learning across diverse domains such as robotics, programming, aeromodelling, electronics, and AI/ML. These clubs provide a platform for students to apply theoretical knowledge, work on real-world projects, and participate in national and international competitions.

## MDG Space

### Projects Built and Improved

- Election Portal: Secured platform for campus elections; over 120k votes cast by March 2025.
- E-Certification & Medical Booklet: Centralized portal for certificates, ID cards, and medical records with email/download options.
- Appetizer: Mess menu, notifications, skip counts, and feedback system.
- Security App: Digitizes entry/exit with fingerprint and QR systems; visitor/material management portal in progress.

### For the Wider Community

- DomainForge: Tool for subdomains with compute/storage support; integrates GitHub deployments.

- DS Viz: VS Code extension to visualize and debug data structures.
- Echofy: Slack-integrated hosted chat platform with OpenAI-powered chatbot.
- IKS Certificate Portal: Auto-generates and emails certificates for Ministry of Education events.

### Ongoing Projects

- Suraksha: Wearable-triggered SOS alert app for women's safety; currently seeking funds.
- MDG Wall: Visual tracker for all MDG projects; experimental tech stack.
- HLSLLS: Language server for HLSL with code intelligence features.
- Keriso: Pixelated 2D Unity game set in medieval times with multiple combat mechanics.

### Programs Hosted

- Season of Code & Design: 40-day mentorship with 34 freshers across 29 projects; workshops on tools, design, and teamwork.
- Nebula: Code-a-thon before internship season; 20 finalists after multiple challenge rounds.
- Hack8All: First MDG hackathon with 85+ projects in 36 hours; awarded across multiple tracks.
- Ctrl-Alt-Hack: Upcoming 36-hour hackathon with national reach and broader tech domains.

### Workshops Organized

- Shaders: GPU programming and computer graphics intro.
- Tug Connect Win: Web Sockets workshop with live game demo.
- Web Scraping: Hands-on workshop on data extraction from websites.
- Full Stack Dev: Covered end-to-end app development, aiding Hack8All participants.

### Notable Participations

MDG members shined in GSoC, SoB, Inter IIT Tech Meet 13.0, Google Gemini Hackathon, EthIndia,

and EthGlobal (Singapore)—furthering IIT Roorkee's global tech footprint.

## ACM Student Chapter

### Open Projects

Beginner-friendly, 3–5 week programs for hands-on system-level learning:

- CPU Scheduler – Efficient algorithm design. (250+ participants)
- Bootloader – Basics of bootloading mechanisms. (60)
- eBPF Apps – Real-time system monitoring. (45)

### Events & Workshops

- Code Decipher (Jan) – Coding contest; 200+ participants.
- Socket Programming (Jan) – Networking and IPC fundamentals.
- Multithreading Session (Oct) – Concepts of concurrency and parallelism.
- Intro to Networking (Oct) – Protocols and real-world case studies.
- Recruitment Talk (Jan) & Intro Talk (Nov) – Overview of ACM culture.
- Placement Talk (May) – Career guidance with industry experts.

### Notable Projects

- KSOS – Operating system with kernel and boot implementation (QEMU-based).
- VR Renderer – Head-tracked immersive rendering tool.
- AI Interview Platform – NLP-powered mock interview system (GitHub).

### Achievements

- Stack 2 Deep (Jan 2025) – 2nd (Open), 3rd (UNIDAO); blockchain expertise gained.
- Techshila ML Track (June 2024) – 2nd place; AI platform development.
- ICPC Regionals (Jan 2025) – Prelims Rank: 203, Regionals: 56; enhanced problem-solving skills.

## Airsoc IIT Roorkee

Airsoc is IIT Roorkee's premier student group for aeromodelling, drones, and unmanned aerial systems (UAS), dedicated to hands-on learning, research, and innovation in aerospace technologies.

### Recruitment Highlights

- Introductory Workshop (Feb 2025): 104 participants trained on RC planes and drones. Regionals: 56; enhanced problem-solving skills.
- Shortlisting: 33 selected for collaborative projects post-technical interviews.
- Final Selection: 19 inducted after HR interviews and project evaluations.

### Key Events & Initiatives

- Flight Fury @ Cognizance (Mar 2025) RC plane competition with payload delivery challenges. Winner: Team Matsya—recognized for aerodynamic excellence.
- Drone & RC Plane Workshop (Feb 2025) Practical training with 84 selected participants.
- Drone4S Hackathon (Sep 2024) 31 shortlisted from 60 applicants; focused on sustainability, agriculture, disaster management through drone tech.
- Upcoming: Aerothon 2025
- June: UAS design & presentation
- Nov: Test flights and performance evaluations

### Notable Projects

- Miniature Cargo Plane – Payload testing platform
- Waypoint Navigation Drone – GPS-guided autonomous mapping
- Differential Thrust Plane – Rudderless flight via motor control
- ROS Obstacle Avoidance – Real-time detection using Pi + camera
- Depth Estimator – 3D mapping from 2D video
- Gesture Command Module – Hands-free drone

control via MediaPipe

- Single Motor Failure Detection – Pixhawk telemetry for safety
- Arduino-Based Drone – Custom, low-cost educational UAV
- Ornithopter – Bird-like flapping wing aircraft
- OCR Module – EasyOCR for automated label recognition

### Competition Highlights

- Kalam Labs Tech Maker Expo (Oct 2024) – ₹25,000 prize for bio-inspired ornithopter
- MathWorks Minidrone Competition (Aug 2024) – MATLAB-based path-following simulation
- Inter IIT Drone Challenge (Dec 2024) – 4th place with a 3-motor operational drone

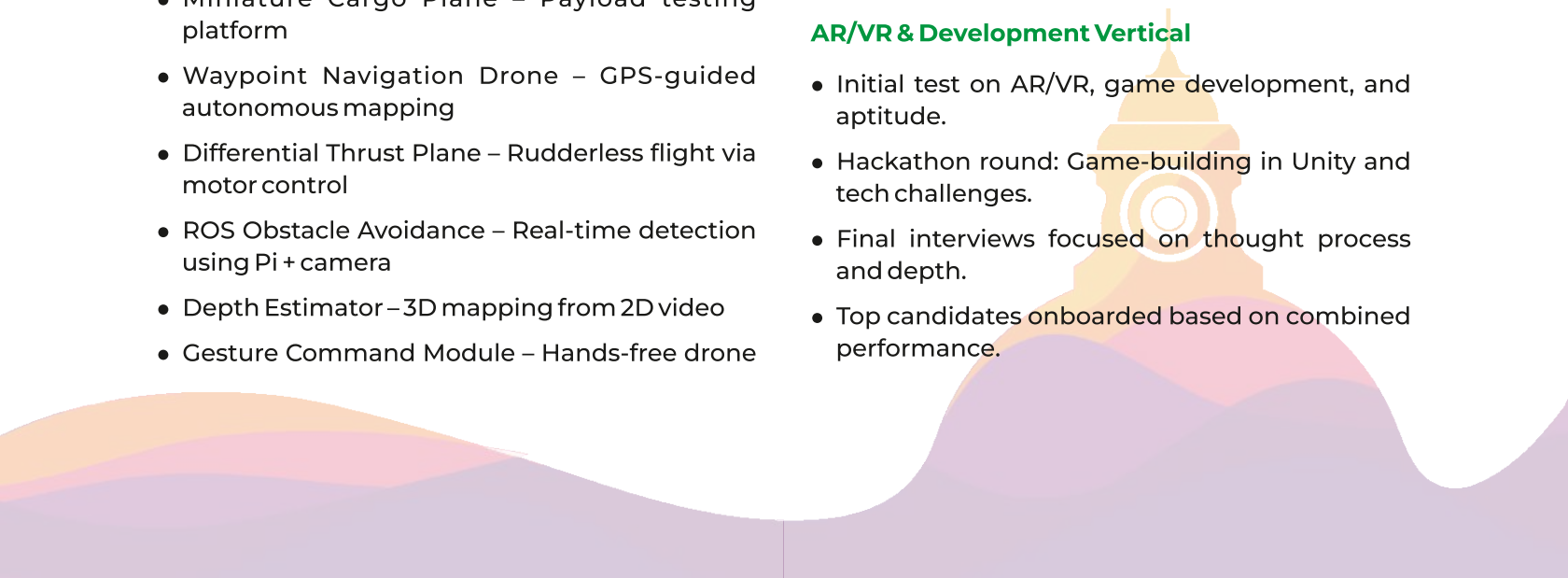
## ARIES Club (Robotics, Drones, AR/VR, Dev, AI/ML)

### Recruitment Process; Robotics & Drones Vertical

- Recruitment Test (9 Feb 2025) with 105 participants, covering Mechatronics and Electronics sub-verticals.
- CBT test followed by technical interviews.
- Shortlisted candidates completed collaborative projects to assess technical and teamwork skills.
- Final HR round focused on project-based evaluation.
- 15 members selected: 11 (Mechatronics), 4 (Electronics).

### AR/VR & Development Vertical

- Initial test on AR/VR, game development, and aptitude.
- Hackathon round: Game-building in Unity and tech challenges.
- Final interviews focused on thought process and depth.
- Top candidates onboarded based on combined performance.



### AI/ML Vertical

- Entrance test with 162 participants.
- Kaggle-based hackathon on image segmentation & classification.
- 20 candidates shortlisted for final interviews based on merit.

### Events & Initiatives

- Game Dev Workshops (Unity); Practical game-building sessions
- Sky Maneuver @ Cognizance; Drones applied to real-world problems like disaster response, urban planning.

### Notable Projects

- Virtual Helping Hand – VR education app using Unity and C# for immersive biological exploration.
- CityArt Walker – AR experience combining culture and tech via Lightship VPS and Firebase.
- Arrow-Following Robot – Gazebo simulation using ROS + OpenCV.
- Delivery Drone – Line-following drone using PX4, ROS/MAVROS.
- Object-Tracking Drone – YOLO/DeepSORT + drone integration.
- Depth Estimator – Vision Transformer-based depth prediction.
- Air Canvas – Gesture-based drawing system with real-time camera feedback.
- News Scribe AI – Langchain-based blog generator with Llama 3.2 and Playwright.
- 3-DOF Gimbal – Designed in SolidWorks, 3D printed using Tinkering Lab IITR.

### Achievements

- ISDC 2024; Ranked 12th.
- Amazon Challenge 2024; Ranked 4th
- COLING 2025 RegNLP; Ranked 3rd
- COLING 2025 FMD; Ranked 16th
- Stack-2-Deep; Ranked 2nd (Open), 3rd (UNIDAU)

## ASME IITR Student Section

Founded in 2007, the ASME IITR Student Section fosters multidisciplinary engineering skills through hands-on learning, workshops, and real-world projects. Our focus spans robotics, automation, sustainable design, and data science—with key contributions in underwater robotics (UROV & AUV).

### Recruitment

Held annually (Jan–Feb), the process includes a recruitment talk, a technical test, and two interview rounds evaluating technical knowledge, problem-solving, and teamwork.

### Workshops Organized

- SolidWorks – CAD modeling & assembly (45 participants)
- ANSYS – Finite element simulation for mechanical systems (60)
- ROS – Robot Operating System basics with Gazebo simulations (35)
- Motor Driver – Circuit design for robotics using PWM & H-bridge (30)
- TinkerCAD – 3D prototyping for beginners (35)

### Notable Projects

- AUV – Autonomous underwater robot for navigation and manipulation; Ranked 8th at SAUVC 2024.
- Solinas – Telescopic mixing system for deep tanks; Gold at Inter IIT Tech Meet 12.0.
- 6-Thruster ROV – Bucket-to-bucket task performer at SAUVC.
- Gripper Arm, Obstacle-Avoiding Drone, Line Follower, RAM Effect Vehicle – Deployed at events like Techfest 2024 and Shrishti'24.
- Cozmo Clench Bot – Autonomous task-solving robot built for IITB Techfest.

### Achievements & Competitions

- SAUVC 2024 (Singapore) – 8th internationally; improved hydrodynamics and sensor integration.



- Techzibition, Cognizance – 1st place for AUV performance.
- RowBoatics @ IITB – Finalist; propulsion and buoyancy enhancements.

### Recognition

- ASME Most Significant Membership Growth Award (Sep 2024) – Recognized nationally for outstanding development among 35+ ASME student sections.
- Club also served as judge at RoboSoccer and Plasma-Pull, Cognizance 2024.

## Blockchain Society (BlocSoc)

BlocSoc is IIT Roorkee's open blockchain and Web3 community. It promotes collaboration, project building, and knowledge sharing through workshops, lectures, and hackathons like StackTooDeep. Recruitment is conducted via the hackathon or a test and interview process held annually in Jan–Feb.

### Key Events

- StackTooDeep & StackTooDeep 2.0 – Annual blockchain hackathons with wide participation
- Unidao Cohort – Intensive learning + project mentorship program
- Lecture Series – Sessions with ZKSync and Robin (Avail)
- Blockchain Intro Talk & AMA – Engaged over 100+ students
- Recruitment Drive – Tests, talks, and interviews onboarded passionate blockchain learners

### Flagship Projects

- HorseRiders – FFT math library for EVM in Huff/Solidity (GitHub)
- Athena – Go-based blockchain data parser for deeper analysis
- Selene – Lightweight Ethereum client in Go, grant-backed

- zkQuest – Gamified learning platform for zero-knowledge proofs
- Beskar – Rust tool for mutation testing in smart contracts
- Eth-Tools – Toolkit for fast Ethereum dApp development

### Competitions & Achievements

- Winners at ETHIndia, ETHGlobal (Singapore & Brussels), Based India, ETHOnline, AgenticETH  
Key learnings: rapid prototyping, team coordination, simplicity in ideas, and impactful presentations

### Startups & Grants

- Blockflow – No-code Web3 infra, part of Circle's Alliance
- LucidlyFinance – Automating DeFi liquidity strategies
- Eastore & Privote – Grants for blockchain-based e-commerce and privacy voting
- Selene & ChillQuest – International grants for Ethereum light client and blockchain gaming platform

## Data Science Group (DSG)

The Data Science Group (DSG) is a student-led community at IIT Roorkee focused on Artificial Intelligence, Machine Learning, and Data Science. It fosters hands-on learning, research publication, and industry engagement through projects, competitions, and workshops.

### Recruitment Process

Conducted across three stages:

- BYOP (Dec) – Students submit and develop their own ML project ideas.
- Beginner's Hypothesis (Jan) – Kaggle-based ML competition for 1st/2nd years.
- Blogathon (Jan) – Students write about ML topics or past DSG projects.
- This ensures recruitment of learners with strong initiative and problem-solving skills.

### Key Events

- WWT Guest Lecture (July 2024) – Insights on Data Science in consulting by WWT experts; 100+ attendees.
- Generative AI Bootcamp (Aug–Sep 2024) – 3-week series; 800+ participants earned certificates and prizes.

### Flagship Projects

- Pika-Bot R – Reinforcement learning-based bot for Pokémon battles.
- SegmEdit – AI tool for inpainting and image segmentation (SAM, LaMa).
- Knowledge RAG – LLM-powered information retrieval with vector embeddings.
- Visual ML – Web-based visual ML learning platform (D2L port to PyTorch).
- ForecastPro – Tool for comparing deep learning and statistical forecasting models.
- AI Kavach – Certifiably robust ML model trainer for secure AI deployment.

### Competitions & Performance

- Amazon ML Challenge – 16th Rank
- NeurIPS Ariel Dataset Challenge – Top 20% (227/1200)
- INNOV8 2.0 (2024) – Top 20
- Myntra HackerRamp: WeForShe – Semi-finalists

### Achievements

- Papers Accepted at ICLR & NeurIPS – Poster presentations at premier AI conferences
- 1st Place – Embedded Security Challenge (CSAW)
- 2nd Place – Microsoft Membership Inference Challenge (IEEE SaTML)
- 4 GSoC Selections – Contributions to open-source ML tools
- 16th Rank – Amazon ML Challenge
- Paper Acceptance – MLRC Conference

## Design Studio (DS)

Design Studio is the official design club of IIT Roorkee, functioning as a creative powerhouse for students passionate about graphic, motion, 3D, and UI/UX design. The club facilitates hands-on experience through workshops, competitions, and real-world projects, fostering a vibrant community of future design professionals.

### Recruitment Process

Held annually in the even semester, the selection process includes:

- Design Task Submission
- Technical + HR Interviews Podium winners from Hexcode directly qualified for the HR round

### Key Events

- Hexcode 2025 – 36-hour national designathon hosted on Unstop; 100+ participants from across India; sponsored by Brucira, judged by Zomato Design Team.
- 3D Design Workshop – Blender workshop focused on modeling, texturing, and rendering basics.
- Design Say – Interactive session on design principles like contrast, balance, and hierarchy.

### Notable Projects

- NSDC Sierra Leone Report – Professionally designed report for NSDC and Sierra Leone's MTHE.
- Cultural GC Branding – Complete design and promotional kit for the campus-wide championship.
- Aspyre CAD Research – Visual design support for a sleep-tracking device.
- Vinyl Cover Redesign – Illustrator task recreating retro album covers.
- Photomanipulation Challenge – Photoshop-based image composition.
- Pokémon Character Design – Imaginative concept art using Sketchbook & Adobe Suite.

## Competitions & Achievements

- Inter IIT Design Meet 7.0 2nd Place – Online Design Marathon 3rd Place – Online Graphic Desig Key Learnings: Enhanced creativity, feedback-based iteration, better aesthetic cohesion Future Scope: Improve typography, blending, industry exposure & time-bound execution.

## Entrepreneurship Cell (E-Cell)

E-Cell fosters innovation and entrepreneurial thinking by empowering students with mentorship, competitions, and access to the startup ecosystem.

**Vision:** To build IIT Roorkee into a startup hub that nurtures creativity, risk-taking, and global impact.

### Focus Areas

- Entrepreneurial education
- Startup incubation
- Competitions & pitch events
- Industry collaboration
- Business skill development
- Campus startup ecosystem building

### Recruitment Process

- Held annually (Feb–Mar) for 1st-year students, the process includes:
- Business Model Canvas task
- Startup research & analysis
- Interviews evaluating business acumen & problem-solving

### Key Events

- Startup-Inspired Treasure Hunt (Aug) – 600+ participants solved puzzles based on business concepts.
- Business Frameworks Workshop (Aug) – Workshop + keynote by Azam Ali (TIDES CEO) on startup models.
- Accelerator (Oct) – 150+ startups pitched to IPV, India Accelerator, and others; IITR 1st-years pitched under Accelerator Junior.

- Envision (Sep) – National business challenge; winners from Masters' Union presented live at E-Summit.
- E-Summit '25 (Jan–Feb) – IITR's flagship 3-day startup festival; 15K+ footfall, 50+ events including Startup Expo, Consult Case, and talks by Aman Gupta, Dr. A. Velumani & more.
- Hi-Res (Feb) – Design + UX mini-conference; panels, workshops, and design challenges with 250+ attendees.
- Weekly Discussions – Industry-based weekly discussions on brands like Starbucks, Mensa, Of Business.

### Notable Projects

- Personal Finance Tracker – Real-time expense manager using UPI SMS parsing.
- Club Recruitment App – Centralized platform for club interview schedules and info.
- Delta – IITR's opportunity portal for jobs, internships, and freelancing.
- Campus Mobility – Proposal to introduce YULU bikes for night-time and peak-hour student travel.
- Startup Community Building – Creating a sustainable student startup ecosystem.

### Competitions & Achievements

- Hult Prize 2024 – Top 6 globally with a green hydrogen-based venture; boosted global exposure.

Suggestions: Improve validation, prototype early, and tap alumni mentorship.

## Enactus IIT Roorkee

Empower students to create sustainable, entrepreneurial solutions to real-world problems.

**Vision:** Drive innovation and collaboration for social transformation.

### Focus Areas:

- Social entrepreneurship
- Tech-driven innovation

- Sustainable development
- National & global competitions

Through workshops, speaker sessions, and high-impact projects, Enactus bridges technology and business for social good, fostering cross-disciplinary collaboration across IIT Roorkee.

### Recruitment Process

- Recruitment is held in Spring semester across tracks:
- Product/R&D – Problem statements + interviews
- Design/Media – Creative tasks + interviews
- Enact-a-thon winners receive direct interview opportunities.

### Flagship Events

- Envision @ E-Summit (Jan–Feb) – 450+ participants from 80+ colleges showcased scalable social innovations.
- Fresher's Ignite (Aug) – 100+ freshers engaged in quizzes and games on social entrepreneurship.
- Enact-a-thon 6.0 (Jan) – National ideation challenge with ₹2,000 prize + direct interview for winners.
- Speaker Sessions – Sharad Vivek Sagar, Yashveer Singh & Vikas Kakwani inspired students with their entrepreneurial journeys.

### Key Projects

- StubXtract – Converts stubble into vanillin, PLA, and lactic acid via biorefinery tech. Hult Prize 2025 Regional Finalist, NABARD recognized.
- Ark – Upcycles temple floral waste into incense sticks and gulaal, empowering rural women.
- reStove – Biogas cookstove reducing indoor air pollution, in partnership with Enactus Munich.
- SCRAPP – Recycles campus plastic into usable products like exam pads and bottles. Enactus Nationals 2024 Semi-finalist.
- Anushruti – Real-time ISL-to-text converter

using AI for DHH individuals.

- Black Soldier Fly – Converts food waste into biofuel, fertilizer, and animal feed via larvae.
- Khoj – Promotes hidden tourism sites to boost local economies.
- Mg Lamps – Saltwater-based fuel cell lamps replacing kerosene in remote areas.
- Parvati – Biodegradable sanitary pads from banana fibre.
- Bio-Carbon Capture – Uses bacteria to convert CO/CO<sub>2</sub> emissions into biofuels.

### Competitions & Achievements

- Enactus Nationals 2024 – Semi-finalist (Project SCRAPP)
- Hult Prize 2025 – Campus Winners & Regional Finalists (Project StubXtract)
- Enactus Nationals 2023 – Semi-finalist (Project Ark)

### Alumni Startups

- Loopworm – Agri-biotech startup tackling food waste via insect farming; raised \$3.4M, featured in Forbes 30 Under 30.
- Curelink – WhatsApp-based healthtech platform; raised \$3.5M to scale operations in Tier-2 cities.

### Finance Club

Finance Club IIT Roorkee is a dynamic hub for students passionate about equity research, quant finance, algo trading, and economics. Founded in 2018, it aims to cultivate a lasting culture of finance in a tech-centric ecosystem. Through competitions, workshops, open projects, and collaborations, the club empowers students with both conceptual and practical exposure to modern finance.

### Recruitment Process

Held annually in February, the selection includes:

- Recruitment Test (quant + qualitative finance,



current affairs)

- Interviews
- Design Track for creatives (portfolio submission)
- Direct interviews for top performers in flagship events (Finvista, Quantathon)

### Key Events & Initiatives

- FinVista – IITR-exclusive case competition (260 participants); topics: Tesla India entry, Indigo's profitability
- Quantathon – 36-hour quantitative finance problem-solving challenge (100+ participants)
- Finception – Two-round quiz testing financial knowledge; freshers' introduction to finance
- FinQuest – Mentored financial project incubation for 1Y & 2Y
- FinconMania – National-level case comp with SRCC & Finshots (2,500+ reach)
- Portfolio Perfecto – National portfolio design challenge (450+ participants)
- Workshops – Topics: Technical Analysis, Game Theory, Algo Trading, Paper Trading
- WorldQuant BRAIN Challenge – Session + challenge with cash prize

### Upcoming Events:

- World Quant IQC Workshop (Mar 2025)
- Capital Quest (Apr 2025)
- Open Projects (Summer 2025) – Qualitative & quantitative finance

### Flagship Projects

- Options Pricing using Stochastic Volatility – Achieved  $R^2 > 0.95$  using Heston, SABR, Kou, Merton models
- Two-Stage Credit Scoring Model – ANN + MARS; 92% accuracy, 15% better than logistic regression

- Deep Learning for Long-Short Portfolios – MLP, CNN, LSTM, Transformer; achieved Sharpe  $> 6$
- Quantum Computing in Options Pricing – Efficient & accurate financial modeling
- Drift-Independent Volatility Estimation – Superior to traditional standard deviation models

### Competitions & Achievements

- Fintech Olympiad 2024 – National Finalists
- Indian Case Challenge, IIT Kharagpur – Finalists
- Equity Research Challenge, IIT Guwahati – Top 10 Finalists
- Inter IIT Tech Meet 13.0 – Top 7 (BTC/ETH trading strategy)
- Ops-Strategia, BITS Pilani – 1st Place
- Finterprize 2024, DDUC – 2nd Place

### Legacy Achievements:

- Inter IIT Tech Meet 12.0 – Gold & Silver (Zetalabs, WorldQuant)
- AlphaGrep Alphathon 2024 – Global Rank 1
- EY CAFTA – Top 5 nationally (6-time winners)
- JPMC Quant Challenge – National Rank 1)

### Geek Gazette

Established in 2009, Geek Gazette is the official technical magazine of IIT Roorkee. What started as a medium for sharing tech knowledge has grown into a creative and intellectual collective of writers, designers, developers, and innovators. We explore science, storytelling, philosophy, pop-tech, and everything geeky through compelling writing, design, and web experiences.

### Legacy Achievements:

Geek Gazette's unique multi-path recruitment process ensured creative inclusion across all verticals:

- Problem Statement Submissions: For Edit,

Design, Web, Finance (via Instagram release)

- Intro Talk Challenge (Finance): Live product-pitching round for direct HR interview
- Spooktacular Showdown: A Halloween-themed writing/design competition offering cash prizes + direct recruitment

Shortlisted candidates proceeded through 2–3 interview rounds including HR evaluation for team compatibility.

### Key Activities & Initiatives

- Biannual Magazine Publication Each semester, GG publishes an edition full of technical deep-dives, sci-fi explorations, philosophical pieces, and stunning visual layouts.
- Intro Talk for Freshers Annual interactive session introducing club roles, legacy, and domain-specific opportunities.
- Workshops & Internal Upskilling Member-led sessions on Adobe Illustrator, Photoshop, InDesign, writing, and layout design ensure continuous learning.
- Themed Competitions & Creative Battles Events like Spooktacular Showdown and mini-sprints foster a culture of friendly competition and expression, with rewards and interview perks.

### Upcoming Project

- STC x Geek Gazette Special Edition A collaborative tech-mag with the Student Technical Council—celebrating the best of IITR's innovation culture, featuring student group articles, exclusive interviews, illustrations, and community-driven content.

## iGEM IIT Roorkee

iGEM IIT Roorkee is an interdisciplinary, student-led research club that participates in the global iGEM (International Genetically Engineered Machine) competition. The team focuses on synthetic biology and biotechnology-based solutions to tackle real-world problems using genetic engineering, computational modelling, and community outreach. Our mission is to foster research at the intersection of biology and

technology, promoting collaboration across academic disciplines. iGEM IITR empowers students to ideate, experiment, and present innovations on international platforms.

### Recruitment Process

Recruitments are held annually during the even semester. The multi-stage process includes:

- Written Application
- Technical Round (Wet Lab, Dry Lab, Human Practices, Finance, Outreach)
- HR Interviews for shortlisted candidates

### Events & Initiatives

- Farm Visit
- Chai Charcha
- School Visits

### Notable Projects & Achievements

- SugarCare – Spot the Rot on the Spot; Genetic Engineering, DNA Extraction, Molecular Docking, CNNs, ResNet, VGG16, EfficientNet, PCR

### Competitions & Performance

- iGEM Global Competition; Received Silver Medal

## Motorsports

IIT Roorkee Motorsports is the official Formula Student team of IIT Roorkee. The team designs and manufactures formula-style electric race cars, participates in national and international competitions, and promotes R&D in electric mobility and carbon neutrality.

### Major Initiatives & Events

- Techshila 2024: Displayed car components and trophies, engaging tech enthusiasts and increasing visibility.
- Freshers Orientation: Introduced 1st-year UG students to the team at Convocation Hall.
- Intro Talk + Thomso Simulator Stall: Intro Talk attracted ~150 freshers; Thomso stall with car simulators had 750+ footfall. Collaborated with

Tinkering Lab for a virtual campus tour.

- Inter IIT Tech Meet 13.0: Displayed RMSE19, engaged 500+ people including sponsors; increased industry visibility.
- Recruitment & Autonomous Workshop :Held Recruitment Talk, tests, and interviews. Conducted an AI-driven autonomous vehicle workshop with DSG.
- Cognizance Roadshow: RMSE'25 showcased live, drawing large crowds. High energy and performance attracted campus-wide attention.

### Flagship Project:

#### RMSE25, Significant upgrades over RMSE23:

- Patent-worthy diagonal damper
- Complete aero package
- In-house BMS & VCU
- CAN-based data logging system

### Performance Highlights

- Top Speed: 120 km/h
- Motor Torque: 240 Nm
- Motor Power: 100 kW (derated to 80 kW)

### Timeline

- May 2024: Design finalization; chassis completed
- Sep 2024: Business Plan Presentation (Formula Bharat prelims)
- Nov 2024: Reached rolling chassis stage; participated in VED
- Dec 2024: Testing and Vehicle Status Video submission

### Competition Performance

#### Formula Bharat 2025

- 1st – MathWorks Skidpad Modeling
- 1st – Altair Simulation Challenge
- 11th Overall (of 60 teams)

#### Ongoing Design Cycle

Post-competition, design for the next car began:

- Created subsystem-specific and integrated timelines
- Conducted weekly collaborative sessions
- Scheduled RMSE25 testing for data-driven improvements

### InfoSecIITR

InfoSecIITR is a student-led community focused on cybersecurity and information security at IIT Roorkee. The club promotes technical learning through competitive problem-solving, collaborative knowledge sharing, and practical exploration of cybersecurity domains such as binary exploitation, cryptography, digital forensics, reverse engineering, and web security.

### Flagship Events

- BackdoorCTF: Annual international Capture the Flag competition with over 1,100 participating teams. Sponsored by organizations including Google Cloud, Zelic, Trail of Bits, and CloudDefense.AI.
- Winterhack CTF: Beginner-friendly CTF for IIT Roorkee students. Winners receive recruitment interviews and prizes.
- n00bCTF: First-year specific CTF designed to assess practical security skills for club recruitment.
- Intro Talk and Workshop: Events introducing students to cybersecurity fundamentals such as web exploitation, reverse engineering, and cryptography. Each event had over 300 participants.

### Competitions and Performance

- CSAW CTF Finals; 1st and 2nd in India, 7th and 13th globally
- CSAW ESC; 1st in India
- DSCI EY Hackathon; 3rd, 7th, 8th, and 13th in India
- JerseyCTF, VishwaCTF; 1st place
- PearlCTF, ShaktiCTF; 3rd place

- Incognito 5.0, UMassCTF; 4th and 5th place
- PatriotCTF, BYUCTF; 5th place
- Flare-On 11; Three members completed all challenges
- CVE-2024-0911; Vulnerability discovered in Indent parser
- CTFtime 2024 Global Ranking; Ranked 37th worldwide

### Achievements

- Consistent top finishes in international cybersecurity competitions.
- First position in CSAW ESC and high global ranks in CSAW CTF for five consecutive years.
- CVE-2024-0911 assigned to a heap overflow vulnerability discovered by a club member.
- Top five finishes in over a dozen global CTF events throughout the year.
- Recognized for excellence in reverse engineering through Flare-On 11.
- Finished 37th worldwide on CTFtime, marking the highest ranking ever for the club.

### Outlook

InfoSecIITR remains committed to advancing IIT Roorkee's presence in the global cybersecurity community through competitive participation, research-driven learning, and technical excellence. The club aims to continue building expertise and nurturing talent for the future of information security.

## Models and Robotics Section

The Models and Robotics Section (MaRS) at IIT Roorkee serves as a dynamic platform for intelligent systems. The section offers extensive opportunities for hands-on learning in robotics, AI, embedded systems, and mechanical design, fosters innovation, collaboration, and technical excellence.

## Competitions & Performances

### 1. Flipkart GRiD 6.0 – Robotics Challenge

- National-level robotics challenge hosted by Flipkart.
- IITR MaRS secured 4th place among 19,000+ teams.
- Project involved developing an autonomous robot for warehouse operations.

### 2. e-Yantra Robotics Competition

- Organized by IIT Bombay, focused on ROS, drone control, image processing, and embedded systems.
- Participation enabled advanced learning in real-time robotics systems.

### 3. Inter IIT Tech Meet 2024 – IIT Bombay

- High Prep (IdeaForge PS): Developed fault-tolerant quadcopter system using PX4 and LQR, achieving 25ms failure detection latency.
- Mid Prep (Bharath Porge PS): Created multi-agent surveillance system using ROS2, SLAM, Nav2, and machine learning.

### 4. ISRO Robotics Challenge (IROC-U)

- Qualified with a project on autonomous drone navigation in GNSS-denied environments.
- Developed custom GPS emulator with barometric altitude estimation; future goals include Visual SLAM integration.

## Key Projects & Innovations

### Core Projects

- Drone Navigation Without GPS: PX4 drone with custom onboard synthetic GPS and sensor fusion for Mars-like environments.
- RoboDog: Quadruped robot controlled manually, planned to be autonomous using reinforcement learning.



## Open Projects

- Voice-Controlled Bot using Alexa
- Omni-Wheel Bot with RC Control
- Gesture-Controlled Car Robot
- Conveyor-Based Object Classification
- Ball-Target Hitting System with Dynamic Launch

## Workshops & Events

### 1. Lecture Series (100+ Participants)

- Covered Electronics, ROS, Mechanical Systems, and AI/ML
- Focused on fundamental and emerging robotics technologies.

### 2. Hands-on Workshops

- Gesture-Controlled Servo Motor Workshop using OpenCV and Arduino for first-year students.

### 3. Mechathon 2025

- Problem statement: Cable-driven robotic elbow joint design with pulley systems and motion simulation.

### 4. Vision Technology Challenge

- Hackathon focused on ML-based shipment quality assessment for e-commerce logistics.

### 5. Tech Exhibition - MediBot

- Showcased an autonomous pharmacy dispensing bot for hygienic, contactless delivery.

## Achievements

- 4th place – Flipkart GRiD 6.0
- 4th rank – High Prep (Inter IIT Tech Meet)
- 4th rank – Mid Prep (Inter IIT Tech Meet)
- Recognition for Innovation – Tech Exhibition

## Conclusion

The 2024–25 session for MaRS was marked by strategic innovation, successful competition

participation, and impactful project development. With continued focus on cutting-edge technologies and cross-domain integration, the team remains at the forefront of student-led robotics advancement at IIT Roorkee.

## Programming and Algorithms Group (PAG)

The Programming and Algorithms Group (PAG) fosters a strong culture of competitive programming (CP) at IIT Roorkee and represents the institute at global contests, particularly the International Collegiate Programming Contest (ICPC). PAG builds a community of coders passionate about algorithms and problem-solving, with a focus on collaboration, practice, and excellence.

### Events & Initiatives

- Numberphile 2024
- Algophobic 2024
- Inter-College CP Camp
- Intro to CP Workshop
- LogiQuest '24
- Intro Talk + Headstart Series
- AlgoRhythm 2.0
- Recruitment Talk
- CodeBlitz '25
- EndGame 11.0
- Insomnia '25 (Flagship)
- IICPC CodeFest
- Codify Rumble
- International Coding Challenge

### Flagship Contest – Insomnia '25

- 2nd biggest CP contest in India after IICPC
- 1700+ participants from across India
- Hosted on Codeforces; 14 problems in 5 hours
- Prize pool: ₹1,00,000
- Participation from India's top coders and institutes

### Competitions & Performance

- ICPC World Finals; 108th globally
- ICPC Online Prelims; 3rd (India)
- ICPC Regionals; 3rd (Chennai)
- ICPC Asia-West Finals; 6th (Asia-West)
- IICPC CodeFest; Regional Host Site

### Notable Achievements

- ICPC World Finalist; Team qualified for ICPC Finals in Astana, Kazakhstan
- ICPC Prelims – India; 2 PAG teams in Top 10 (Ranks 3 & 8)
- ICPC Chennai Regionals; 3rd place out of 100+ teams
- ICPC Asia-West Finals; 6th place; 4th Indian team to qualify for 2025 Finals
- IICPC Regional Site; PAG coordinated contest hosting with international firms

## Physics and Astronomy Club (PaAC)

The Physics and Astronomy Club (PaAC), formerly the Stargazing Section, is IIT Roorkee's core student-led academic club for Physics, Mathematics, and Astronomy. Operating under STC and Dean-SRIC, the club organizes events ranging from open projects, lectures, and quizzes to journal discussions and hands-on workshops. continuous.

### Major Events Conducted

#### 1. Integration Bee

- 300+ participants | ₹7.5K prize pool
- Team-based MIT-style integration contest with elimination rounds.

#### 2. Mathematics Week

- Events: Desmos Art, Math Crossword, Chaos Quiz, Math Bowl
- A week-long celebration of mathematical creativity and problem solving.

#### 3. Cosmic Conundrum Quiz

- Celebrated World Space Week
- MCQ quiz on astronomy concepts, celestial bodies, and space missions.

#### 4. Primer on Optical & Radio Astronomy

- Hands-on demo with custom-built radio telescope
- Workshop organized in collaboration with the Radio Telescope Project.

#### 5. Journal Club Series

- Discussions on topics like Inertial Frames, De Broglie Hypothesis, DFT
- Encouraged peer-led academic exploration and critical analysis.

#### 6. PaAC Open Projects 2024

- 250+ participants | 10+ interdisciplinary projects
- Topics ranged from Quantum Tunneling and PINNs to Astro Sonification and Solar Irradiance Forecasting.

### Flagship Events

- Cosmic Voyage: Week-long fest featuring astrophotography, lectures, telescope sessions, and quizzes.
- PaAC Open Projects (Biannual): Hands-on interdisciplinary projects with real-world applications.
- Integration Bee: Competitive integration-solving event fostering problem-solving under pressure.
- Mathematics Week: Themed week promoting fun, interactive math activities and tutorials.

### Notable Projects

- Designing Approximate Multipliers in Verilog: Power-efficient ML hardware design.
- Physics-Informed Neural Networks (PINNs): Solving ODEs and PDEs using AI models.
- Radio Telescope Project: Construction of a

working 5m radio telescope and 21cm Milky Way signal detection.

- Astro Sonification: Translating astronomical datasets into audio formats for creative scientific analysis.

### Competitions & Performance

- Inter IIT Tech Meet 14.0 – Rank 5 Worked on Chandrayaan-2 X-ray data analysis; gained valuable astrophysics and ML experience.
- Astropixel, BITS Pilani - Silver Medal Secured 2nd place with an astrophotography submission of the Orion Nebula.

### Achievements

- Gold Medal – Hyperion Case Study Competition, IIT Kanpur
- 2nd Position – Researchathon 2.0, NIT Surat
- 5th Rank – ISRO's Solar Burst Challenge (Inter IIT Tech Meet)
- Winners – Astrax Astrophotography Competition, IIT Mandi
- Bronze Medal – OPhO 2022, Team Hideyoshi
- Multiple Astrophotography Features – Including rare comet C/2022 E3 (ZTF) and Messier 51a.

### Key Takeaways

- Gained strong exposure in X-ray spectroscopy, data calibration, and astronomical image processing.
- Identified need for better time management and deeper technical preparation for competitions.
- Enhanced campus engagement through hands-on projects, peer discussions, and guest lectures.

## Quantum Computing Group (QCG)

The Quantum Computing Group (QCG) is a student-run initiative advancing quantum computing at IIT Roorkee. With a mission to bridge the gap between theory and practice.

### Flagship Event – Qiskit Fall Fest + Dead & Alive 3.0

#### Structure:

- Workshops: Basics of quantum computing and Qiskit
- Guest Speaker: Mr. Bhanwar Gupta, IBM Quantum Ambassador
- Hackathon: Two tracks — General Prompt and Freshers Prompt

#### Participation:

- 45+ Registrations | 10+ Submissions

#### Highlights:

- Support from IBM Quantum
- Prizes included Amazon gift cards and IBM merchandise
- Involved students across all academic levels

### Key Events & Initiatives

- Open Projects 2024
- Introductory Discussion Series
- Guest Talk by IBM Ambassador
- Recruitments 2025

### Key Research Projects

- Quantum Simulation Engine using C++ Development of a high-speed simulation package native to IITR
- Meta-Learning Framework for Quantum Circuit Optimization Used LSTM networks to enhance VQE/QAOA parameter convergence
- Hamiltonian Simulation via Quantum Graph Neural Networks Combined QGNNs and quantum spin system modeling
- Quantum Image Classification via Quantum Convolutions Built interpretable quantum-enhanced image classifiers

### Achievements

- PennyLane QHack Completion
- IBM Quantum Challenge Completion
- QOSF Mentorship Participation
- INSAIT SURF Fellowship
- QuTech Scholarship

### Outreach and Content

- QBytes: Launched as short informative posts on cutting-edge quantum advancements
- Blogs: Released articles on Topological Quantum Computing
- Collaborations: Active contributions to QOSF, QNickel, WOMANIUM, GSoC, and National Quantum Mission (NQM) projects

### Conclusion & Takeaways

- QCG significantly expanded its outreach and depth in 2024–25, both in terms of technical rigor and community engagement.
- Strong partnerships (e.g., IBM Quantum) and hands-on projects furthered its mission of bridging theory and application.
- A greater organizational structure during competition cycles is recommended to enhance focused participation and optimize learning outcomes in global challenges like MIT iQuHack.

## SAE IIT Roorkee

SAE IIT Roorkee is the student chapter of SAE International, fostering interest in automotive engineering, motorsport design, and vehicle innovation. The club emphasizes hands-on learning, creative prototyping, and competitive excellence—especially through the Formula Kart Design Challenge (FKDC).

### Key Initiatives

#### Open Mini-Projects for Sophomores

- Sophomores worked on real-world challenges, applying engineering concepts to automotive

design.

- Projects included: Robotic arm design, Thermal analysis of disc brakes, Rocket body and bridge failure analysis, Electromagnetic engines and Steering mechanisms.

#### Introductory Talk for Freshers

- Introduced 1st-year students to SAE's legacy and the field of automotive design.
- Covered club structure, past achievements, and how freshers can contribute.

#### FKDC Research & Preparation

- Preparation phase for Formula Kart Design Challenge:
- Review of past winning designs
- Powertrain & ergonomics discussions
- Analysis of go-kart dynamics and material selection

#### Recruitment & Team Expansion

- Conducted Recruitment Talk, Test, and Interviews
- 29 new members onboarded across design, research, electrical, and operations

#### FKDC Season 9 Workshop

- IIT Roorkee hosted FKDC Season 9 Workshop for 50+ students from 6 institutions
- Covered kart design basics, performance metrics, and industry trends
- Included live Q&A with previous FKDC winners

### Highlights and Impact

- Fostered open-ended innovation and engineering culture through internal projects
- Served as a host and inter-college mentor hub via FKDC workshop
- Created a robust pipeline of student-led R&D and hands-on fabrication
- Built cross-disciplinary teams blending mechanics, electronics, and embedded



systems

## SDSLabs

SDSLabs is a student-led software development lab at IIT Roorkee, known for fostering innovation through cutting-edge technology projects and open-source contributions. Driven by the ethos “Think. Build. Ship.”, the club builds high-impact tools, systems, games, and platforms, all aimed at solving real-world problems.

### Recruitment Process

- Annual intake via a recruitment test + interviews
- Pathways through events like Syntax Error, WinterHack, Mira Hackathon, Winter of Code, and Makers
- Encourages problem-solving and curiosity—no prior software experience required

### Open Projects

Released throughout the year via:

- Winter of Code
- Makers

### Key Events

- Syntax Error
- MixMatch
- Mira Hackathon

### Lectures

- Intro to VPN & Torrent – 200+
- Game Design & Dev – 100–150+
- Intro to Product Design – 100+
- What to Build in a Hackathon – 300+
- Linux Party (Ubuntu setup) – 250+

### Notable Projects

- StudyPortal
- VectorDB
- Erdos

- Quizio
- Watchdog
- Gasper
- playCTF / Katana
- Zeus

### Competitions & Performance

- CSAW ESC
- ETHIndia
- ETHSingapore
- IICPC Finals
- Calimero Hackathon
- Other notable events: Google GenAI, Docusign, Infinite Hackathon, Stack Too Deep, AgenticETH, WTF×IDGC

## Society of Business (SocBiz)

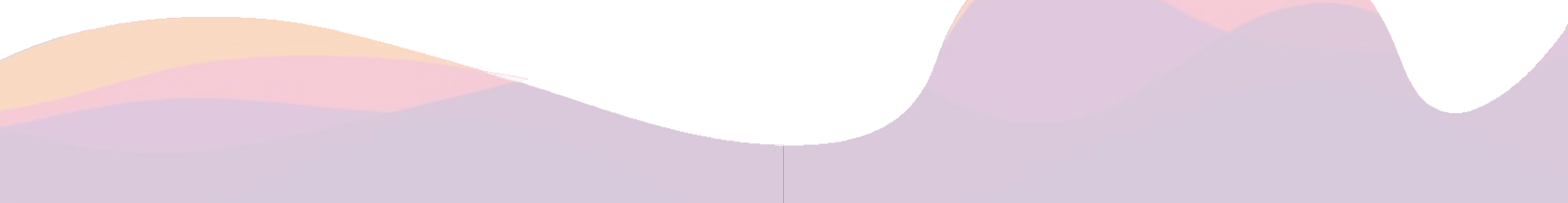
It is the institute's flagship business and management-focused student body. With verticals in Consulting, Product Management, and Data Analytics, the club nurtures real-world business problem-solving, deck-making, and strategic thinking. Through speaker sessions, workshops, competitions, and industry projects, SocBiz serves as a bridge between technology and business acumen, helping students transition from classrooms to boardrooms.

### Recruitment Process

- When: Conducted annually in February
- How:
- Product & Consulting: Case-solving and deck-making challenges
- Analytics: Recruitment test followed by interviews
- Final selections made after multiple interview rounds

### Open Projects

- Released biannually, generally around October
- Focus on hands-on learning across Consulting,



### Product, and Analytics

- Encourages case-based learning, real-world analysis, and presentation design

### Key Events

- Intro Talk
- Vertical-Wise Sessions
- Placement & Internship Talks
- Recruitment Talk
- Product & Consulting Workshop
- Business Baazigar
- Winter Analytics

### Notable Projects

- Crowwd
- Mindshif
- Pharoscion

### Competitions & Performance

- PmX'24 – National Runner-Ups
- Vihaan'25 – National 2nd Runner-Ups
- Techshila'24 – Gold Medal
- ICC & Jagriti 2025 – Finalists
- EY CAFTA, Avenues, Shri Ram Vyapar – Multiple finalist finishes
- ZS Campus Beats Challenge – Winners
- KPMG Ideation, Konsulenza – National Finalists
- CPCB Govt. Hackathon – Winners

### Achievements (All-Time)

- Ericsson Innovation Award – National
- Inter IIT Tech Meet – Multiple Bronze, Silver & Gold Medals (2017–2024)
- i-Batch by ShARE Global – Global Gold Medal
- Inter-ShARE India – National Gold

## Team KNOx

Team KNOx is IIT Roorkee's premier off-road motorsports club. Focused on building electric

ATVs for competitions like BAJA SAE, the team promotes sustainable vehicle engineering, hands-on learning, and interdisciplinary collaboration.

### Recruitment Process

- Conducted annually in Spring post-Tech Week
- Introductory & Recruitment Talks
- Selection Rounds (Technical + Teamwork Evaluations)
- 40 freshers onboarded across technical, marketing & design divisions

### Events & Initiatives

- Open Projects; 15 interdisciplinary projects on CAE, vehicle dynamics, e-powertrain
- Off-Road Simulator; VR driving simulator on in-house ATV during Thomso
- Drift Show @ ABN' Live ATV drifting & trials by students

### Flagship Project

- Design & Fabrication of Electric All-Terrain Vehicle
- Minor Projects; Static/Dynamic Rollcage Analysis, Ergonomic Rollcage Design, Suspension Geometry Analysis, Wheel Hub Optimization, Planetary Gearbox Design, Brake Disc Thermal Analysis, Electric Circuit Simulation, Steer-by-Wire System and PCB Design (Ready-To-Drive Circuit)

### Competitions & Performance

- Sales Event; 6th Ranked
- Virtual Dynamics; 9th Ranked
- Sustainability Event; 12th Ranked
- CAE; 15th Ranked
- IPG Runtime; 15th Ranked
- Cleared Mechanical & Electrical Pre-Tech Inspection
- Qualified for CAE & Sustainability Finals (Hyderabad)

### Key Learnings & Outlook

- Improve full-vehicle simulation & subsystem optimization
- Strengthen documentation & testing processes
- Aim for top-10 national finish in physical rounds for next season

### Sponsors

- Altair
- Crosshead Engineering
- Arc Global
- Wayspire
- Power Launchpad

### Team Robocon

Team Robocon IITR, established in 2009, is a multidisciplinary student group passionate about space robotics and autonomous systems. With a core strength of over 40 members from various engineering domains, the team specializes in developing advanced rover prototypes for planetary exploration and competes globally in elite events like the International Rover Challenge (IRC), International Rover Design Challenge (IRDC), and International Space Drone Challenge (ISDC).

### Events & Initiatives

- Cognizance 2025
- Space Day
- Thomso & Techzibition

### Flagship Projects

- Mars Rover Prototype; Autonomous missions, soil testing, terrain mapping
- Robotic Arm; 5-DoF manipulator for sample collection & deployment
- Drone System; Sensor data acquisition, aerial navigation
- Moon Rover Design; IRDC-compliant lunar

terrain rover

### Competitions & Performance

- IRC 2025; 10th globally, 3rd in Astrobiology
- IRDC 2025; Finalist – Top 6 globally
- ISDC 2025; 5th globally, 1st among IITs

### Key Achievements

- International Rover Challenge; 10th overall, 3rd in Astrobiology, major point leap from previous year
- IRDC 2025 Finalist; Among only 2 IIT teams in finals
- ISDC 2025; 5th globally, 4th in Science Mission
- Flipkart GRiD 6.0
- Inter IIT Tech Meet 13.0; Gold medal in No Prep PS
- Hyundai HOPE Scholarship; Honored by Union Minister

### Vision and Language Group (VLG)

The Vision and Language Group (VLG) is a research-centric deep learning community at IIT Roorkee focused on exploring the frontiers of Artificial Intelligence—especially Computer Vision (CV), Natural Language Processing (NLP), and Deep Learning (DL). The club regularly organizes open discussions on recent research papers published in top-tier conferences like NeurIPS, ECCV, ICCV, and AAAI, fostering an active research environment.

### Events Conducted

- Open Discussions, 1Y Workshops and Pixel-Play

### Notable Projects & Research Publications

- Benchmarking Object Detectors with COCO: A New Path Forward
- Unmasking the Veil
- Attention Shift: Steering AI Away from Unsafe Content
- StegaVision: Enhancing Steganography with Attention Mechanism

- LoRA Unlearns More and Retains More
- Give Me a Hint: Can LLMs Solve Math with Hints?
- Model Merging using Geometric Median of Task Vectors
- LoRA-Mini: Decomposition and Selective Training
- Low Rank Adaptations for Effective Machine Unlearning (NegLoRA)
- Adaptive Urban Planning Framework
- Analysing Spectral Biases in Generative Models
- Pruning as a Defense in LLMs

### Competitions & Performance

- NeurIPS LLM Merging Challenge; Write-up Winner
- MIDST Challenge (SATML); Top 4–15 in all categories
- Techshila ML Track; 2nd Place (Silver)

### Achievements

- Collaboration with Paras Chopra & Global Professors; Engaged with CMU, Trinity Dublin, Mila (Canada), and Lossfunk AI Lab

## Sports Council

The past year marked significant achievements for our sports programs, with championship wins, top finishes, and individual accolades showcasing the talent and dedication of our athletes. Backed by strong coaching support, we prioritized both competitive excellence and holistic development through new training programs, NSO, and Morning Fitness Classes. The Sports Council now oversees 16 sports and continues to enhance infrastructure and community engagement. Major annual events like Inter Bhawan, Colours Trophy, and Institute Open, along with participation in tournaments such as Spardha and Aarohan, foster a vibrant sports culture. Looking ahead, we aim to expand opportunities, invest in resources, and uphold the spirit of sportsmanship and growth.

## Cyclothon

Institute Sports Council, IIT Roorkee Organized Successful Cyclothon 2024 to Commemorate National Nutrition Week, In a remarkable event to celebrate National Nutrition Week and promote the Fit India Movement, the Institute Sports Council of IIT Roorkee successfully organized the Cyclothon 2024. This event saw enthusiastic participation from 65 students, ten professors, and staff members, who completed a challenging 45-kilometer ride from IIT Roorkee to the Saharanpur campus. The participants were felicitated with medals upon completion of the event. The successful completion of the 45-kilometer ride stands as a testament to the dedication and resilience of all participants, further fostering a culture of health and fitness at IIT Roorkee. The event concluded on a high note, with participants expressing their resolve to continue promoting the Fit India Movement and prioritizing healthy living.



## Triathlon event

IIT Roorkee proudly hosted the Triathlon event as part of the Uttarakhand State Olympics, showcasing exceptional athletic talent and spirit. The triathlon competition featured challenging swimming, cycling, and running events. A total of 23 participants competed, with athletes hailing from various regions, including five from Haldwani and two from Rudraprayag, and others from IIT Roorkee. IIT Roorkee's strong representation and commendable results reflect its commitment to promoting sports and physical



fitness among its students. The event was a test of endurance and a celebration of teamwork and sportsmanship.



### 5th Squash State Games championship 2024, Uttarakhand & National Games Camp

The Institute Sports Council organized squash state Games Championship 2024 in the association with the squash federation of Uttarakhand and also, we organized National Games camp for squash at IIT Roorkee.



### Annual Sangram Tournament

The Institute sports council organized a Sangram tournament from 11th October to 13th October and witnessed over 1000 participations from around 60 Colleges consisting of 3 IITs, 2 NITs, and 2 IIITs, along with other state universities of 18 states, including alumni teams of IIT Roorkee. A total of 14 formal events were organized, including Athletics, Badminton, Basketball, Chess, Cricket, Football, Hockey, Powerlifting, Squash, Table Tennis, Taekwondo, Tennis, Volleyball, Weightlifting



### 57th Inter IIT Sports Meet 2024-25.

A total of 175 contingents participated in the 57th Inter IIT sports meet 2024-25 at IIT Kanpur and IIT Indore from 10th December to 17th December 2024. IIT Roorkee won a gold medal in weightlifting in the 56 kg Age Category and a bronze medal in football, hockey, basketball girls, volleyball, and basketball boys. Athletics was awarded with Six gold Medals (Discuss women, Long Jump women, Javelin Men, 400 Meter women, 800 Metre Women, 1500 Meter Women), Seven Silver Medal (Hammer Throw, Pole Vault, Shot Put, 4\*400 Relay and 4\*400 Mixed Relay), four Bronze Medal.



### Half Marathon

The Institute Sports Council organized a Half Marathon on 2nd March 2024. A total of 1800 participants from different technical universities and states participated in the marathon.



## Himalayan Explorers' Club

The Himalayan Explorers' Club (HEC) at IIT Roorkee concluded a truly remarkable year, distinguished by pioneering new initiatives, successfully executing ambitious expeditions, and significantly expanding its outreach.

### Pioneering Initiatives

For the first time in its history, HEC spearheaded inter-IIT trekking collaborations, a groundbreaking endeavor aimed at promoting a broader culture of trekking beyond IIT Roorkee. We successfully conducted joint treks with IIT Delhi (to KedarKantha and Har Ki Dun) and IIT Kanpur (for the Kuari Pass Trek). These collaborations fostered invaluable inter-institute bonding, facilitated shared learning experiences, and significantly broadened outdoor cultural engagement among IIT students nationwide.

Another pivotal initiative involved the organization of a skating camp from September 22–27, 2024, held prominently in front of the Convocation Hall. This camp garnered enthusiastic participation from over 50 students, making a substantial contribution to skill development, fostering camaraderie, and promoting sportsmanship within the institute. Building on this success, HEC further enhanced campus sports culture by organizing popular roller skating races in February 2024 and May 2025.



## Monumental Achievements

A historic milestone was achieved with the successful summit of Mount Yunam (6,121 m). This represents the highest peak climbed by IIT Roorkee students in 52 years, underscoring the club's exceptional and growing technical expertise, as well as its remarkable endurance at high altitudes. This expedition not only set a new benchmark for student-led mountaineering but also profoundly inspired a new generation of aspiring climbers within the institute.

In addition to this flagship achievement, HEC introduced and successfully completed several new and challenging treks, including Hampta Pass, Kareri Lake, Parashar Lake, and Yulla Kanda (notable for hosting the world's highest Krishna temple). The club also continued its tradition of excellence by completing popular treks to iconic destinations such as the Valley of Flowers, Deoriatal-Chandrashila, Dayara Bugyal, and Gulabi Kantha. With an aggregate of over 1,300 participants across 15 distinct trekking and 3 successful skating events throughout the academic year 2024-2025 (spanning two semesters), the Himalayan Explorers' Club continues to unequivocally lead the spirit of adventure, exploration, and physical prowess at IIT Roorkee.





## NCC

The NCC unit at IIT Roorkee stands as a shining exemplar of discipline, leadership, and selfless service. Operating under the esteemed guidance of the Directorate General National Cadet Corps (DG NCC), an integral arm of the Ministry of Defence, and supported by the Dean of Students' Welfare, it is dedicated to instilling profound values of patriotism and social responsibility within its cadets. Through a diverse array of rigorous activities—including precision drill practice, ceremonial Guard of Honour duties, essential firing drills, impactful cleanliness drives, crucial awareness campaigns, and intensive leadership camps—students are meticulously trained and sculpted into responsible, conscientious citizens. A dedicated Commanding Officer, supported by proficient PI staff and a committed civil team, leads the unit, all unified by the timeless motto: “Unity and Discipline.”

## Key Events & Initiatives

- **Introductory Talk** first-year students attended an orientation session in the Convocation Hall, exploring NCC's scope - drills, firing, camps, academics, and more.
- **Independence Day Guard of Honour** : A disciplined contingent of 55 cadets presented a proud Guard of Honour to the Director of IIT Roorkee, who marched alongside the parade. The celebration was further enlivened by the vibrant flag hoisting ceremony and captivating performances by students of ABN School and IIT.



- **Space Day** In collaboration with the Centre for Space, Science & Technology, cadets celebrated India's space achievements, particularly Chandrayaan-3, with lectures and workshops.
- **Cadet Bharti** A rigorous recruitment drive involving physical and written tests saw the induction of 180+ motivated cadets, reflecting a surge in interest toward NCC.



- **Tree Plantation Drive** Jointly organized with the Green Committee and IWD, this initiative emphasized ecological responsibility as cadets planted saplings across campus.



- **Cadet Training** Weekly training sessions by 3 UK CTR NCC Roorkee covered military drills, weapon handling, map reading, and social awareness — forming the backbone of cadet development
- **Gandhi Jayanti Quiz** An online quiz with 398 participants promoted Gandhian values and historical awareness among students.
- **Firing Practice** Thirty cadets participated in a live firing session at BEG Roorkee under the supervision of JCOs, gaining hands-on experience in precision shooting.
- **Blood Donation Camp** Conducted with the Institute Hospital and local blood banks, this event witnessed enthusiastic student and faculty participation, promoting humanitarian values.

- **Constitution Day Quiz & Drawing Competition** with themes like justice and equality, the events enhanced civic consciousness and encouraged creative expressions among cadets.

- **Run for Fun** In association with 3 UK CTR, over 200+ cadets joined a 5 km run promoting physical fitness, camaraderie, and enthusiasm.

- **Combined Annual Training Camp (CATC)** This 10-day residential camp brought together cadets from various units and featured PT, drills, leadership lectures, weapon training, tent establishment competition, obstacle training, NCC cultural day and Sports Tournament under Col. Anoop Vyas and Col. A.K. Nautiyal. The camp promoted unity and holistic development.



- **Republic Day Guard of Honour** Seventy cadets formed a vibrant parade contingent, showcasing excellent synchronization and pride in front of institute dignitaries.

## NSS

The past year stands as a profound testament to this conviction. We've diligently spearheaded numerous initiatives across education, environmental stewardship, social welfare, and youth empowerment. Here's an illuminating glimpse into our unwavering journey of service:



## EDUCATION & EMPOWERMENT INITIATIVES

- **Mentorship Program;** We launched personalized 1-on-1 mentorship for JEE aspirants, effectively connecting them with IIT Roorkee students for comprehensive doubt-solving, targeted quizzes, and invaluable academic guidance.
- **Sankalp Navodaya Program ;** This year-long, free online mentorship and test series was meticulously tailored for Navodaya Vidyalaya students, specifically designed to foster and ensure equal opportunities.
- **Samarthya 2.0 ;** Revived due to its earlier success, Samarthya offers free offline coaching for deserving students, conducted at the New LHC premises.
- **Abhyaas & Pragati Test Series ;** Mock test series simulating JEE conditions to support Class XI & XII students in tracking and improving their preparation.

## ENVIRONMENTAL INITIATIVES

- **Tree Plantation Drive :** One hundred saplings were planted in collaboration with Arsh Yog Jankalyan Trust— furthering our commitment to biodiversity and a greener campus.

- **Zero Waste Week ;** A series of awareness activities including creative competitions and clean- up drives, advocating for sustainable and mindful living.



- **Road Safety Month ;** With workshops, a “Run for Road Safety,” and a keynote by Mr. Raghvendra Kumar, the “Helmet Man of India,” we drove home the importance of traffic discipline and safety.

## THE FLAGSHIP EVENT: NATIONAL SOCIAL SUMMIT 2025

The National Social Summit 2025 brought together change-makers, thinkers, and doers under one roof to exchange ideas and build impactful solutions. Highlights included: Menstrual Hygiene Workshop



## PLACEMENT CELL

The placement and Internship activities continue to grow in continuum. A core placements and Internship team of student/staff along with the Placement Advisory Council (consisting of student representatives from the final and pre-final year academic programmes and the faculty-in-charges from each academic department/centre) works round the year to look after the smooth execution of the activities. The team has put forward a strategic plan for this placement season, emphasizing internships, Pre-Placement Offers (PPOs), and traditional placements. The necessity of diligent preparation has been consistently communicated to the aspirants. The Placement & Internship Cell has successfully partnered with over 950+ esteemed companies that registered for placements and internships. As a result of these collaborations, our students have secured more than 1631 combined offers, providing them with exceptional opportunities to explore. The placement season is summarized in Table 1.

Highlights	Metrics
Number of Registered Students (For Placement)	1583
Number of Students who Actively Participated	1481
Number of Companies Participated	243
Total Number of Companies Making Job Offers	225
Total Number of Job Offers	1074
Number of Accepted Offers	1009
Number of Pre-Placement Offers	230
Pre-Placement Offers Accepted	215
Top Recruiting Sector	Core Engineering and Technology, IT/Software

### Important Features

- Multiple sessions of campus recruitment were conducted. We managed to conduct the

processes of over 40 top notch companies in hybrid mode across the globe on the first day of Placements (December 1, 2024).

- More than 4500 companies were contacted for the campus placements.
- We work with a proactive approach to invite the companies. We are continuously working hard on building connections with international firms through different modes like LinkedIn, SalesQL and the alumni network and have been receiving positive response from many firms across the globe.
- 1072 job offers till now have been materialized. As the recruitment process for the session 2024-25 is still ongoing, many offers are expected to come.
- 557 internship offers (for all the registered students) were gained this year.
- 230 Pre-Placement Offers including 3 international offers were received.
- 97 companies for summer Internship recruitments and 255 companies for Placements participated in campus (as the recruitment process for the session 2024-25 is still ongoing, many organizations are still expected to come).
- Out of 254 companies 56 companies were the first time visitors.
- Placement and Internship Cell has been conducting many negotiations with company officials to extend Branch Eligibility, lowering the CGPA cut offs, extend waitlist and have been organizing walk-in interviews at the last moment (through hybrid mode) post results of online tests to allow greater pool of students to appear for interviews, which enabled a positive situation for students as well as visiting companies.
- Complete computerization of the placement processes along with Placement and Internship Cell app has ensured efficient utilization of our resources has been done.

- In collaboration with IMG Team, a complete optimization of placement portal (Channeli) is being done to make it more user friendly for virtual mode, to provide more facilitation for sharing information reduce paperwork and for increase the overall performance.
- Some of the companies that hired interns from the campus for the first time include – Accenture, World Wide Technology, Ola Electric, UnifyApps, Zoominfo Technologies India Private Limited, British Petroleum (BP), Samsara, Zinnia Digital Service, LLP, Warner Bros. Discovery (WBD), Deutsche India Pvt. Ltd., Kenvue Solutions India Pvt. Ltd., Hero Motocorp, Bulls Eye, Knowledge System Limited, Autoliv Japan Ltd., Kansai Nerolac Paints Limited, and Aadesh Charitable Foundation etc.
- Major MNC's/Core Companies which participated in the Campus Placement for the first time include Air Flow Pvt. Ltd., Alfa Pumps Private Limited, Ananant Systems, Aurora Energy Research India, Baker Hughes, Barco Electronics, Commonwealth Bank of Australia, DLF Limited, Hewlett Packard Enterprise, Hitachi Energy, Kenvue Solutions India Pvt. Ltd., PUMA Sports India Pvt. Ltd., Radamatic Solutions Pvt Ltd., Ribbon Communications, SigIQ.ai Inc, USA, Streamsource Technologies India Private Limited, Synchrony International Services Private Limited, The Energy and Resources Institute (TERI), Vmock, VVF India LTD. etc.
- Virtual/Physical Meetings of Professor-in-Charge, Placement and Internship Cell with companies for establishing relationships and contacts at the highest level are being organized regularly.

## Student Preparation

The Placement and Internship Cell collaborated with several companies to organize a wide range of industry-led programs and sessions aimed at supporting student development. JPMorgan Chase hosted Quant Decode, a webinar focused

on demystifying the world of Quantitative Finance. Salesforce launched the Futureforce Tech Accelerator, offering mentorship and valuable exposure to the tech industry. Micron Technology, India conducted the URAM Lecture, providing insights into emerging technological advancements. Mastercard held an exclusive session titled “Career in Analytics”, designed to guide students interested in data-driven roles. Scale AI, through The Human Frontier Collective, engaged students in thought-provoking discussions on AI-driven solutions. HackOn with Amazon offered hands-on opportunities to tackle real-world challenges. These initiatives, among others, exemplify our commitment to fostering strong industry-academia collaboration and preparing students to meet the evolving demands of the professional world. Below is the list of companies that participated in Campus Recruitment:

S.No.	Name of Company/Organization/Institute
1	64squares
2	Aakash Educational Services Ltd.
3	Accenture S&C
4	Accordion Partners (formerly Merilytics)
5	Addverb Technologies Ltd.
6	Aditya Birla Science & Technology
7	Adobe
8	AECOM India Pvt Limited
9	Air Flow Pvt. Ltd.
10	Ajayvision Education Pvt. Ltd.
11	Alfa Pumps Private Limited
12	Amazon
13	American Express
14	Anakin
15	Ananant Systems
16	Applied Materials
17	Arsaga Partners, Inc.
18	Aspire IIT & MEDICAL
19	AtoB
20	Auronova Consulting
21	Aurora Energy Research India
22	Auxo AI Engineering Pvt Ltd.
23	Avathon (Ex – SparkCognition)

24	Axis Bank Limited
25	Axtria India Pvt. Ltd.
26	Axxela Research & Analytics Pvt. Ltd.
27	BAIF Development Research Foundation
28	Bajaj Auto Ltd & Chetak Technology Ltd.
29	Baker Hughes
30	Bakliwal Tutorials
31	Barclays
32	Barco Electronics
33	Bharat Electronics Limited, Ghaziabad
34	Bharat Petroleum Corporation Limited
35	Bidgely Technologies
36	Blinkit
37	BNY Mellon
38	Boston Consulting Group
39	Cafal Advisors
40	Cairn Oil & Gas
41	CARS24 Private Limited
42	Centre for Development of Telematics (C-DOT)
43	Chaitanyas Academy (Krishna Chaitanya Educare Pvt. Ltd.)
44	Circle K
45	CityMall
46	Cognizant Technology Solution Pvt. Ltd.
47	Cohesity
48	Commonwealth Bank of Australia
49	Continental India Private Limited (Tires Division)
50	Cosmo First Limited
51	D. E. Shaw India
52	DCM Shriram
53	Deloitte Consulting India Private Limited
54	Delta Electronics India Pvt. Ltd.
55	Deutsche India Pvt. Ltd.
56	DevRev Cloud India Pvt. Ltd.
57	DigitalAPICraft
58	DIT University, Dehradun
59	DLF Limited
60	Dream11
61	Eastern Electrolyser Ltd.
62	Ebullient Securities Private Limited
63	Enphase Energy

64	E-Ring IT Solutions Pvt Ltd.
65	FICO
66	Flipkart Internet Pvt. Ltd.
67	FlyNava Technologies Private Limited
68	FN MathLogic Consulting Services Private Limited
69	Futures First Info Tech Pvt. Ltd.
70	GAIL (India) Limited
71	Genpact
72	Godrej Properties Limited
73	Goldman Sachs
74	Goodspace AI
75	Google
76	Graviton Research Capital LLP
77	Greenko Group
78	GreyOrange India Pvt. Ltd.
79	Groww
80	Great Learning Educational Services Private Ltd.
81	Harness IO R&D Labs India Private Limited
82	HCL Technologies
83	Hero Motocorp
84	Hero Motors
85	Hewlett Packard Enterprise
86	HiLabs
87	Hilti Technology Solutions India
88	Hind Rectifiers Ltd.
89	Hindustan Petroleum Corporation Limited (HPCL)
90	Hindustan Unilever Limited
91	Hitachi Energy
92	IBM
93	ICICI Bank
94	ICICI Lombard GIC Ltd.
95	ICICI Securities
96	Inamo
97	Indian Oil Corporation Limited (IOCL)
98	Info Edge India Limited
99	Infosys Consulting
100	Inito
101	InMobi Technologies Pvt. Ltd.
102	Intel India Ltd.
103	Intellimation.Ai
104	Intuit India Product Development Centre Pvt. Ltd.



105	ION Trading India Pvt. Ltd.
106	Irage Broking Services LLP
107	IREDA
108	ISGEC Heavy Engineering Ltd.
109	ITC Ltd.
110	J P Morgan Chase & Co.
111	Jaguar Land Rover Technology and Business Service India Limited
112	Javis
113	JECRC University, Jaipur
114	Jindal Steel and Power
115	JM Financial Limited
116	JSW Group
117	Justdial Ltd.
118	K12 Techno Services Pvt. Ltd.
119	Kellogg Brown and Root Engineering and Construction India Pvt. Ltd. (KBR)
120	Keysight
121	Kenvue Solutions India Pvt. Ltd.
122	Kingfa Science & Technology (India) Ltd.
123	KLA-Tencor Corporation
124	KPIT Technologies
125	Kuantum Papers
126	Kunal Houseware Pvt. Ltd.
127	L&T Finance
128	Larsen and Toubro Limited
129	LG Soft India Pvt. Ltd.
130	LOHUM
131	LTIMindtree
132	Magicbricks
133	Mastercard
134	MathWorks India Private Limited
135	Meesho
136	Mezink (Super Creator Tech Pvt. Limited)
137	Microland Ltd.
138	Micron Technology
139	Microsoft India Pvt. Ltd.
140	Morabu Hanshin Industry Co., Ltd.
141	Mphasis Ltd.
142	Mygate
143	Myntra Design Pvt. Ltd.
144	Narayana Group of Educations

145	Nation with Namo
146	National Accreditation Board for Testing and Calibration Laboratories (NABL)
147	NatWest
148	Niva Bupa Health Insurance
149	Nokia
150	NSE India Ltd.
151	Nucleus Software Exports Ltd.
152	nVidia
153	Oceaneering International Services Ltd.
154	Oil India Limited
155	Ola Electric
156	Oracle
157	Osfin.ai
158	PCL AlgonXAI (PayrollCloud India Pvt. Ltd.)
159	Petronet LNG Limited
160	PhonePe Private Limited
161	Plutus Research Private Limited
162	PulseLabs
163	PUMA Sports India Pvt. Ltd.
164	Quadeye
165	Qualcomm India Pvt. Limited
166	Quantacus
167	Quantbox Research
168	Quest Global Engineering Services Pvt. Ltd.
169	QuickSell
170	Quintics Management Consultancies PVT. LTD. (Sutra Management)
171	Radamatic Solutions Pvt Ltd.
172	Rapido
173	Rays Power Experts Pvt. Ltd.
174	Reliance Industries Ltd.
175	Reliance New Energy Initiatives
176	Ribbon Communications
177	Rubrik
178	Salesforce
179	Samplitics Technologies Pvt. Ltd. (Inito-Biotech)
180	Samsung R&D Institute, Noida
181	Samsung R&D, Delhi
182	Samsung Research Bangalore
183	Samsung Semiconductors India Research
184	Sanjivani Group of Institutes

185	SAP Labs India Pvt. Ltd.
186	Schlumberger India
187	Schneider Electric
188	SEDEMAC Mechatronics Pvt. Ltd.
189	Siemens EDA
190	Siemens Limited
191	SigIQ.ai Inc, USA
192	SKAPS Industries India Pvt. Ltd.
193	SLB Software
194	Snapmint Financial Services Pvt. Ltd.
195	SPECTRUM Techno Consultants Pvt. Ltd.
196	SpeEdLabs
197	Sprinklr
198	SquarePoint Capital
199	SRF Ltd.
200	Sri Chaitanya
201	Standard Chartered GBS
202	Streamsource Technologies India Private Limited
203	Sun Petrochemicals Pvt. Ltd.
204	Synchrony International Services Private Limited
205	Synpase Biopharma Research Private Limited
206	TATA Advanced Systems Ltd.
207	Tata Consultancy Services (TCS)
208	Tata Motors
209	TATA Steel
210	TechMatrix
211	TERA QUEST MINERALS PVT. LTD.
212	Texas Instruments
213	The Energy and Resources Institute (TERI)
214	The Future University

215	Thornton Tomasetti
216	ThoughtSpot India Pvt. Ltd.
217	Total Environment
218	TPC Technical Projects Consultants Pvt. Ltd.
219	Transorg Analytics
220	Tredence Analytics
221	Trident Group
222	Turing
223	Twilio
224	Uber
225	UiPath
226	UKG (Ultimate Kronos Group)
227	Unique Identification Authority of India (UIDAI)
228	UnORG Vendor Solutions Private Limited
229	Varuna Marine Service BV
230	Virtusa
231	Visa Inc
232	VMA Architects
233	Vmock
234	VVF India Ltd.
235	Walter P Moore Engineering India Pvt. Ltd.
236	Warner Bros. Discovery
237	Wells Fargo International Solutions Pvt. Ltd.
238	Willings, Inc.
239	Xion Multiventures Pvt. Ltd.
240	Zenon Analytics Pvt. Ltd.
241	Zepto
242	ZL Technologies India Pvt. Ltd.
243	Zomato

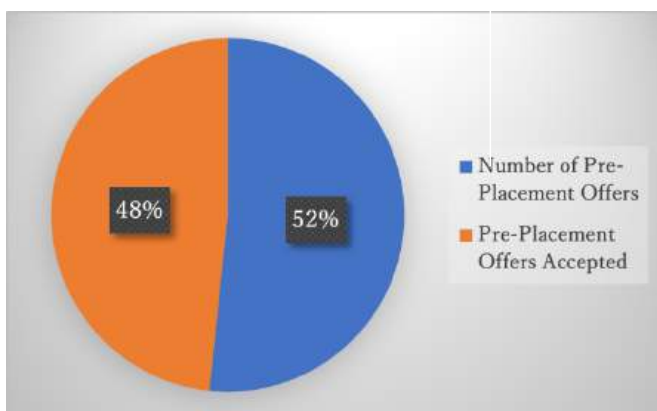
The number of jobs in each sector can vary greatly depending on the region, country, and economic conditions. However, the details of sector wise job offered by companies are given below

Sector	Job Offers	No. of Companies
Academics / Educational	51	13
Analytics / Data Science	67	15
Construction / Infrastructure	26	7
Consulting	88	26
Core	293	74
E-Commerce	79	15
Finance / FinTech	132	24
FMCG	8	4
Govt. / PSU/IT / Software	220	43

Media	6	2
Other	29	9
Trading	5	5

Overall placement statistics provide a comprehensive view of students' success in securing employment

### Program-wise placement statistics



Program	Registered	Participated	Job offers
B.Tech./B.Arch.	965	889	760
BS-MS	5	4	4
IMT	49	45	28
IMSc	59	54	44
M.Tech./MBA/ MURP/M.Arch.	386	378	194
M.Des.	19	19	1
M.Sc.	100	92	28
Ph.D.	-	-	13
Total	1583	1481	1072

\*The placement process for the batch of 2024-25 is still ongoing, and many more offers are expected to come.

### Department-wise placement statistics:

S. No.	Degree	Registered	Effective Placement (A)	Total Offers (B)
1	Architecture and Planning	28	14	15
2	Biosciences and Bioengineering	26	15	16
3	Chemical Engg.	113	75	86
4	Civil Engg.	143	84	87
5	Computer Science Engg.	111	107	115
6	Electrical Engg.	157	137	149
7	Electronics & Communication Engg.	101	91	96
8	Engineering Physics	35	18	18
9	Production & Industrial Engg.	50	32	33
10	Mechanical Engg.	145	112	126
11	Metallurgical & Materials Engg.	56	18	19
	<b>Total B.Arch/B.Tech</b>	<b>965</b>	<b>703</b>	<b>760</b>
12	<b>BS-MS (Chemical Sciences)</b>	<b>5</b>	<b>4</b>	<b>4</b>
13	Int. M.Tech. Geological Technology	27	14	14
14	Int. M.Tech. Geophysical Technology	22	14	14
	<b>Total IMT/BS-MS</b>	<b>54</b>	<b>32</b>	<b>32</b>
15	<b>Int. M.Sc. (Applied Mathematics)</b>	<b>39</b>	<b>34</b>	<b>34</b>
16	Int. M.Sc. (Chemistry)	8	5	5

17	Int. M.Sc. (Physics)	12	5	5
	<b>Total IMSc</b>	<b>59</b>	<b>44</b>	<b>44</b>
1	Architecture and Planning	19	4	4
2	Chemical Engg.	22	10	10
3	Civil Engg.	34	16	17
4	Computer Science Engg.	23	17	18
5	Electrical Engg.	30	14	15
6	Electronics & Communication Engg.	24	14	14
7	Mechanical and Industrial Engineering	44	23	25
8	Metallurgical & Materials Engg.	12	9	9
9	Polymer Science and Engineering	14	7	7
10	Applied Mathematics and Scientific Computing	15	7	7
11	Data Science	17	12	12
12	Artificial Intelligence	13	9	9
13	Dam Safety and Rehabilitation	5	2	2
14	Hydro and Renewable Energy	11	3	3
15	Hydrology	14	6	6
16	Earthquake Engg.	30	14	14
17	Packaging Technology	6	0	0
18	Pulp & Paper Engineering	7	4	4
19	Water Resources Development and Management	11	1	1
20	Bioprocess Engineering	2	0	0
21	Disaster Mitigation and Management	12	0	0
22	Infrastructure Systems	5	0	0
23	Nanotechnology	5	0	0
24	Photonics	6	0	0
25	SSEM	5	0	0
26	MBA	0	16	17
	<b>Total M.Arch/MBA/MURP/M.Tech</b>	<b>386</b>	<b>187</b>	<b>194</b>
<b>1</b>	<b>M.Des. in Industrial Design</b>	<b>19</b>	<b>1</b>	<b>1</b>
<b>1</b>	<b>M.Sc. Appl. Geology</b>	<b>17</b>	<b>3</b>	<b>3</b>
	M.Sc. Biosciences and Bioengineering	10	6	6
	M.Sc. Chemistry	23	10	10
	M.Sc. Economics	7	0	0
	M.Sc. Mathematics	23	6	6
	M.Sc. Physics	20	3	3
	<b>Total M.Sc.</b>	<b>100</b>	<b>28</b>	<b>28</b>
<b>1</b>	<b>Ph.D.</b>		<b>13</b>	<b>13</b>



## PhD student placement:

The Placement and Internship Cell has established strategic collaborations with a diverse array of leading companies across various sectors. Many of these organizations have already engaged with our scholars through internships, placement opportunities, and other academic collaborations. This comprehensive approach is designed to facilitate research-oriented roles for our PhD candidates, aligning opportunities with their individual interests and specializations. As a result of these efforts, the Cell has successfully secured 13 offers to date, with many more anticipated in the near future. These collaborations are instrumental in bridging the gap between academia and industry, enabling our scholars to apply their expertise in impactful and innovative professional environments.

## Internship Report:

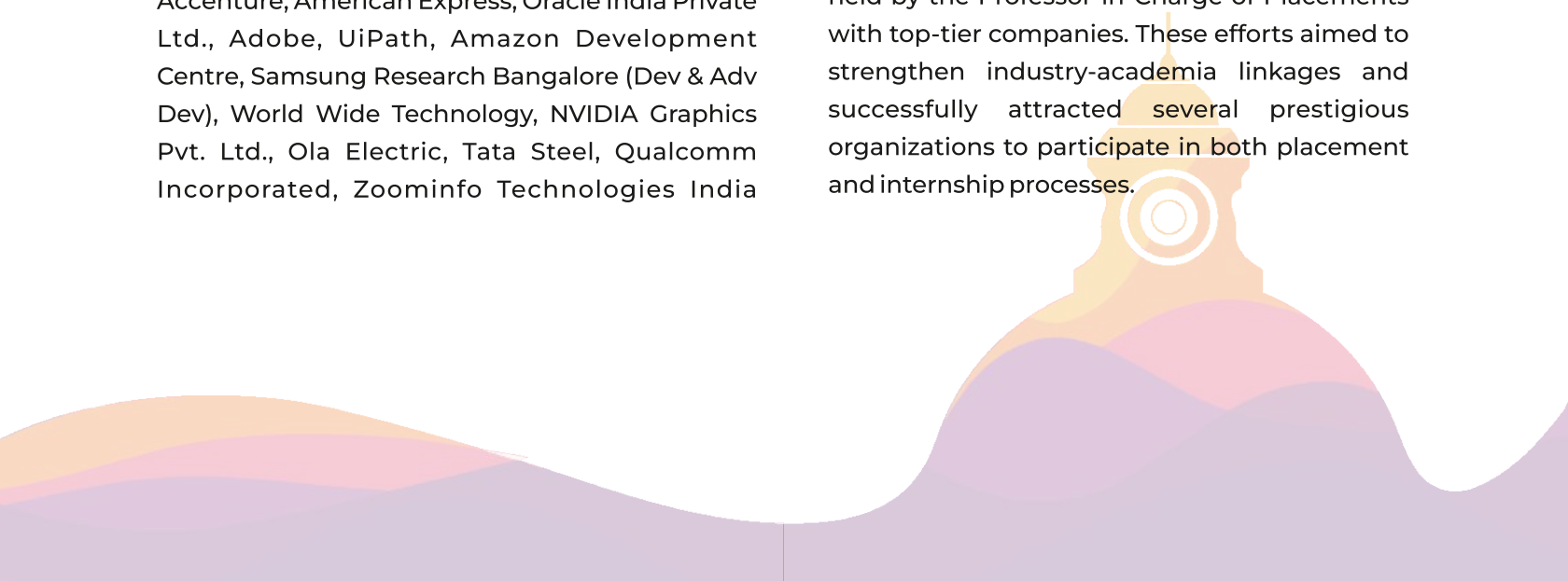
The Placement and Internship Cell successfully secured a significant number of offers for the mandatory summer internships of pre-final year students from esteemed companies such as D. E. Shaw India, JP Morgan Chase, Texas Instruments, Google India, Uber, Quadeye, Quantbox Research, Rubrik India Pvt. Ltd. – Domestic & U.S. Offers, Goldman Sachs, Boston Consulting Group India, Microsoft India Pvt. Ltd., Salesforce, KLA Tencor, Accenture, American Express, Oracle India Private Ltd., Adobe, UiPath, Amazon Development Centre, Samsung Research Bangalore (Dev & Adv Dev), World Wide Technology, NVIDIA Graphics Pvt. Ltd., Ola Electric, Tata Steel, Qualcomm Incorporated, Zoominfo Technologies India

Private Limited, British Petroleum (BP), Barclays, Wells Fargo, Visa, Deutsche India Pvt. Ltd., Cisco, Thoughtspot India Pvt. Ltd., PwC India, National Payments Corporation of India (NPCI), ICICI Bank, Flipkart, Razorpay, Hewlett Packard Enterprise, and Reliance Industries Ltd., among others. A total of 557 internship opportunities were arranged by the office.

## International Placements:

This year, a notable highlight was the recruitment of students for overseas roles by several international companies. Organizations such as Willings, Inc., TechMatrix, SigIQ.ai Inc. (USA), Arsaga Partners, Inc., Morabu Hanshin Industry Co., Ltd., and Varuna Marine Service BV extended offers to students for positions abroad. A total of 12 international offers were made by these firms, reflecting the continued global presence and recognition of the institution's talent pool.

- Despite the absence of some regular recruiters this year due to the prevailing low market scenario, the Placement and Internship Cell successfully compensated by onboarding several new, high-profile companies of equal or greater stature. This strategic expansion of the recruiter base ensured continued access to quality opportunities for students.
- Numerous offline and online meetings were held by the Professor-in-Charge of Placements with top-tier companies. These efforts aimed to strengthen industry-academia linkages and successfully attracted several prestigious organizations to participate in both placement and internship processes.



## INTERNATIONAL RELATION

The International Relations Office at IIT Roorkee plays a pivotal role in advancing the institute's global outreach and reflects its dedication to international academic and research worldwide, supporting student and faculty mobility through various programs while

also working to broaden these global partnerships. The office oversees all international initiatives, including establishing Memoranda of Understanding (MoUs) and detailed Academic Agreements with foreign institutions. It facilitates student exchange programs by assisting in the

selection of exchange students and interns, hosting international delegations, and coordinating visits to overseas institutions. Furthermore, the IR Office collaborates with foreign missions and sponsoring agencies to support international students, ensuring smooth cultural and academic integration. Internally, it manages policy coordination, oversees admission processes, and handles accommodation and visa arrangements for international students and their families in close cooperation with relevant authorities.

### MoUs signed through the Dean IR office

S. No.	MOU Party	Country
1	Illinois Institute of Technology	USA
2	Saitama University	Japan
3	Deakin University	Australia
4	Department of Electrical and Computer Engineering, University of Saskatchewan	Canada
5	Department of Chemical and Biological Engineering, University of Saskatchewan	Canada
6	University of Lorraine	France
7	The University of Sheffield	United Kingdom
8	Far Western University	Nepal
9	Loughborough University	United Kingdom
10	Memorial University of Newfoundland	Canada
11	Memorial University of Newfoundland	Canada
12	Queen's University	Canada
13	Kyoto University Institute for Advanced Study (KUIAS), Kyoto University	Japan
14	IOWA State University of Science and Technology	USA
15	Villanova University	USA
16	"Tashkent Institute of Irrigation and Agricultural Mechanization Engineers" National Research University	Uzbekistan
17	Norwegian Geotechnical Institute (NGI)	Norway
18	University of Oulu	Finland
19	Samarkand State University	Uzbekistan
20	Samarkand State University	Uzbekistan
21	The Vrije Universiteit Amsterdam	The Netherlands
22	Joining and Welding Research Institute (JWRI), Osaka University	Japan

23	IHE Delft Institute for Water Education	The Netherlands
24	Niigata University	Japan
25	Mining and Metallurgy Institute Bor (MMIB)	Serbia
26	Helmholtz-Zentrum Hereon	Germany
27	University of Technology	SydneyAustralia
28	École Centrale de Nantes	France
29	Institute of Technical Sciences of SASA (Serbian Academy of Sciences and Arts)	Serbia
30	Niigata University	Japan
31	Niigata University	Japan
32	RWTH Aachen University	Germany
33	Inonu University	Turkey
34	Sogang University	South Korea
35	University of Trento	Italy
36	University of Patras	Greece
37	EUT+ Partners	Bulgaria, Ireland, Cyprus, Latvia, Spain, Romania, Italy, Germany and France
46	Oregon State University	USA
47	Western Sydney University	Australia
48	College of Engineering, Yonsei University	South Korea
49	Technische Universität Berlin	Germany
50	University of Potsdam	Germany
51	Hochschule für Technik und Wirtschaft Dresden University of Applied Sciences (Renewal of MoU)	Germany
52	Ritsumeikan University	Japan
53	Texas A & M University	USA
54	Universit de Lorraine	France

## Visits/ Meetings of International Delegations:

### Visit of Professor Wataru Horiuchi from Osaka Metropolitan University, Japan

Professor Wataru Horiuchi from Osaka Metropolitan University, Japan, in a significant visit that marked almost three years of the Memorandum of Understanding (MoU) between the two esteemed institutions. This visit reinforced the commitment to expanding the collaborative framework established under the MoU. The visit laid the groundwork for expanding the scope of the MoU, focusing on

interdisciplinary research and mutual academic growth, demonstrating IIT Roorkee's dedication to global academic excellence and innovation worldwide, supporting student and faculty mobility through various programs while also working to broaden these global partnerships. The office oversees all

### Visit of Prominent Faculty from USA/Denmark for Collaboration Discussions

The visiting professors included Prof. Sean T. Roberts from The University of Texas at Austin, USA; Prof. Tobias Weidner from Aarhus University, Denmark; and Prof. P. K. Das from IISc Bangalore. The delegation met to explore opportunities for collaborative initiatives.

### Visit of Prof. Santosh Panda from the University of Alaska Fairbanks, USA

Prof. Panda delivered a talk on titled “Advances in Geospatial Data Science in Natural Resource Applications: Case Studies from Alaska,” where Prof. Panda shared his expertise with students and faculty about how government agencies, businesses, and every other sector of our society benefit from innovations in geospatial science and technology.



### Exploring Collaboration in Critical Minerals Research: Visit from the Monash University, Australia

Prof. Yellishetty, enabling students and faculty to interact with him and gain invaluable insights into this vital field. This engagement provided an excellent platform for students to broaden their understanding and enhance their knowledge in critical minerals research.



### Visit of Prof. Sunil Mithas from the University of South Florida, United States

Prof. Sunil Mithas from the Muma College of Business, University of South Florida, as part of his Vaishvik Bharatiya Vaigyanik (VAIBHAV) Fellowship. Prof. Mithas is currently visiting the Department of Management Studies (DoMS), IIT Roorkee.



### Visit of Prof. Ching-Fu Chen from the National Cheng Kung University (NCKU), Taiwan



### Visit of Prof. Shima Shahab from Virginia Tech, USA



### Delegations from the University of Houston, Texas, USA



### Visit of Dr. Janusz Kozinski from Lakehead University, Toronto, Canada



### Visit from JST and Kyoto University (Japan) Delegates

A delegation from the Japan Science and Technology (JST) and Kyoto University, including Dr. Takashi Konishi, Director, JST; Prof. Ganesh Pandian Namasivayam, Head, IN-CBI, Kyoto University; Mr. Toshimasa Matsumoto, Senior Staff, JST and Mr. Shin Tamaki, Senior Staff, Sakura Science Program Headquarters, JST.

### Visit of Prof. Shreyas Kumar, Texas A&M University, USA

Prof. Shreyas Kumar had an engaging interaction. The discussions centered on enhancing research collaborations in cutting-edge fields such as artificial intelligence, machine learning, data science, cyber security, and telecommunication. Both institutions expressed a strong commitment to fostering joint projects that aim to drive innovation and create a lasting global impact.

### Visit of Dr. Nitin Seth, Director, Indo-French Centre for the Promotion of Advanced Research (IFCPAR/CEFIPRA)



### Partnership with the University of Texas at Arlington, USA

Prof. Subhash C. Singhal, Director of Masters Studies at the University of Texas at Arlington USA, discussed opportunities to explore for collaboration between the two esteemed institutions.



### Fostering Collaboration with Curtin University, Australia

Professor Vishnu Pareek, Distinguished Professor John Curtin, and Professor Jonathan Paxman from the Faculty of Science and Engineering at Curtin University, Australia.



### Visit of delegation from Leiden University, Netherlands, and Technical University of Munich, Germany

A delegation comprising Dr. Akrati Saxena from Leiden University, Netherlands, and Dr. Rachit Khare, Group Leader at the Catalysis Research Center, Technical University of Munich focused on exploring collaboration opportunities with partner universities, particularly in research and academic exchanges.



### Visit of University of Strathclyde Delegation, UK, for Indo-UK SPARC Workshop

The delegation consisted of Prof. Lie Xu and Prof. Agustí E. Álvarez from the Department of Electronic & Electrical Engineering.



### Visit of Prof. Sushant Anand University of Illinois, Chicago

Prof. Anand delivered an engaging lecture at the Department of Chemical Engineering, where faculty and students had the unique opportunity to interact with him. The session included an interactive Q&A segment, fostering insightful discussions and sparking innovative ideas.



### Visit of the Delegates from the University of Miami, United States

Prof. Pratim Biswas, Dean of the College of Engineering & Professor of Chemical, Environmental, and Materials Engineering, and Prof. Ashutosh Agarwal, Professor of Biomedical Engineering, both from the University of Miami, U.S. visited the Department of Chemical Engineering at IIT Roorkee.



### Exploring New Collaborations with the University of New South Wales UNSW Sydney

During his visit, Prof. Joshi engaged in fruitful discussions. The primary agenda of our meeting was to explore potential collaboration avenues between our two esteemed institutions. Our discussions centered on the immense possibilities and benefits such partnerships could bring our institutions.



### Visit of Prof. Mahesh Anand from the Open University, UK in the IR Office





### Expanding Collaborative Horizons with Osaka Metropolitan University, Japan

Prof. Masakazu Iwamura, Associate Professor at the Department of Core Informatics, Graduate School of Informatics, Osaka Metropolitan University, Japan, visited to explore collaborative opportunities.

### Visit of Dr. Srinivas V Kaveri, Director of Research at CNRS, France

### Visit of Dr. Daniel Moraru, Director of the Japan Society of Applied Physics, Tokyo, Japan



### Visit of Delegation from Japan

The distinguished visitors included:

- Prof. Tatsuya Ishikawa, Hokkaido University
- Prof. Kazunari Sako, Kagoshima University
- Prof. Kasama Kiyonobu, Kyushu University



### Visit of Delegation from Serbia

Delegation from the Mining and Metallurgy Institute Bor and the University of Belgrade, Serbia. The delegation included:

- Dr. Stevan Dimitrijević,
- Dr. Silvana B Dimitrijević,
- Dr. Aleksandra Ivanović,
- Srđana Magdalinović



### Visit of Delegation from the Queen's University, Canada



### Visit by Prof. Andrei Andreyev from the University of York, U.K.



### Visit of Dr. Zyta Ziora, Faculty at the Institute for Molecular Bioscience at the University of Queensland, Australia.

She discussed pressing global challenges, including environmental sustainability, wastewater treatment, and innovative solutions for a greener future.



**Visit of Dr. Firas Aljanabi, Coordinator of the Global Water and Climate Adaptation Center from Technical University Dresden, Germany**

Dr. Aljanabi had an insightful discussion to explore potential collaborations and academic exchanges between our institutions.



**Visit of Dr. Elena Pavlyukova, Head, Medical Physics, Russian Academy of Sciences, Russia**



**Visit of Prof. Hari S. Sharma from Amsterdam University Medical Center, The Netherlands**



**Visit of Prof. Shreyas Kumar from Texas A&M University, USA**

Discuss potential collaborations and academic exchanges between the two institutions.



**Visit of Prof. Gopal Achari from University of Calgary, Canada**

to promote collaboration between the UOC and IIT Roorkee.



**Visit of Mr. Per Westholm from Guideline Geo, USA,**





**Visit of Prof. Annette Bayer from UiT The Arctic University of Norway**



**Visit of Prof. Kapil Tahlan from Memorial University of Newfoundland, Canada, Delegation from Kyoto University, Japan**



**The delegates from Japan visited IIT Roorkee to promote collaboration between the Kyoto University, Japan and IIT Roorkee.**



**Visit of Dr. Didier Raboisson and Mr. Aymeric Vo Quang from the French Institute & French Embassy**

## International Visits

### **IIT Roorkee delegation visit to National University of Singapore, Singapore**

The team engaged in productive discussions with esteemed faculty members across various departments, focusing on sustainable technology, energy storage, civil engineering, and advanced materials.

### **Visit of IIT Roorkee delegation to SUTD Singapore University of Technology & Design, Singapore**

A delegation from the Indian Institute of Technology, Roorkee recently visited the SUTD Singapore University of Technology & Design to foster international collaborations in education and research.



### **IIT Roorkee Delegation Engages with the High Commission of India in Singapore**

Discussions were held on fostering International academic and research collaborations, enhancing technological innovation, and promoting cultural exchange.



### **IIT Roorkee Strengthens Research Collaboration with A\*STAR – Agency for Science, Technology and Research, Singapore**

The visit aimed to explore new avenues for research collaboration and technological innovation.



### **IIT Roorkee Delegation Visit to Technische Universität Berlin, Germany**

The delegation from IIT Roorkee visited TU Berlin, Germany, to explore and strengthen academic and research collaborations.



### **Strengthening Global Partnerships: IIT Roorkee Delegation's Visit to Germany**



### **IIT Roorkee Delegation Visits University of Potsdam, Germany**

For marking another milestone in the long-standing collaboration between the two institutions.



### **Strengthening Ties with ASEAN: A Step Towards Greater Collaboration**

The discussions focused on Strengthening Academic and Research Collaborations, and initiating impactful Projects for Common People in ASEAN countries. The valuable insights and support from H.E. Shri Khobragade will significantly enhance IIT Roorkee's connections with top academic institutions across ASEAN.





### **IIT Roorkee Delegation Visit at the Embassy of India in Tashkent, Uzbekistan**



### **IIT Roorkee Delegation Visits University of Twente, Netherlands**

To discuss enhancing scientific collaboration and advancing joint research initiatives.



## **Outlook of other activities by IR**

### **IIT Roorkee Contributes to NITI Aayog Workshop on Internationalization of Higher Education**

The workshop served as a platform to advance India's higher education ecosystem by exploring strategies to enhance global competitiveness, improve curriculum standards, and foster impactful international collaborations.

### **IIT Roorkee Alumni Meet in Singapore – A Celebration of Connection, Collaboration, and Future Endeavors**

Bringing together the global IITR community for an evening of connection and collaboration. The event saw enthusiastic participation from a delegation of IIT Roorkee

### **ASEAN DIA Summit 2025 Hosted by the International Relations Office at IIT Roorkee**

This prestigious event brought together students from ASEAN countries, including, Myanmar, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam. The summit aimed to foster academic and cultural exchange among ASEAN students and India.

### **Heritage Network General Assembly 2024 was organized by IR Office**

This gathering was driven by shared goals, a motivation to collaborate and vision to innovate and support the Heritage Network's mission of fostering education and research cooperation across continents. The Heritage Network had a broad vision to strengthen Higher Education Cooperation (research and training), and develop academic and research exchanges between partner institutions, and foster high-level educational programs in Engineering, Sciences, Design, and Technology between Europe and India.

## **Outbound students**

IIT Roorkee actively encourages students to pursue international exchange opportunities, offering support for academic or internship experiences abroad. Comprehensive semester exchange guidelines are accessible on the International Relations Office website. The institute facilitates smooth credit transfers for both undergraduate and master's students participating in these programs. It also provides support for students to maintain their fellowships or assistantships while conducting research overseas, in accordance with official notifications. Exchange programs announced by the IR Office involve a structured process of application screening and departmental endorsement for nominations. In certain cases, students may apply directly to programs without involving the IR Office. This efficient and student-friendly approach highlights IIT Roorkee's dedication to promoting global exposure and enhancing the academic journey of its students in an increasingly interconnected world.

**Students participation in Exchange Programmes (under MOU) during Academic Year 2024-25**

S. No.	Name of the University	Number of students/ Programmes
1	Technical University, Munich	2
2	Technical University Dresden	1
3	Max Delbruck Center Berlin	1
4	Technical University Berlin	1
5	Technical University of Braunschweig	1
6	Karlsruhe Institute of Technology	1
7	Leibniz University Hannover	1
8	Helmholtz Institute for Pharmaceutical Research Saarland	1
9	University of Stuttgart	1
10	Sorbonne University, France	1
11	The Australian National University	4
12	HSLU	8
13	Technische Universität Dresden	7
14	Technische Universität Darmstadt	2
15	Leibniz Universität Hannover	2
16	RWTH Aachen University	2
17	NTHU	1
18	Queen's University, Kingston	1
19	University of Birmingham	1
20	Heriot-Watt University, Edinburgh, United Kingdom	1
21	Advanced Technology Institute, University of Surrey, United Kingdom	1
22	University of Alberta	2
23	Kyoto University	2
24	Hochschule Luzern	3
25	NYCU, Taiwan	4
26	ESTP	1
27	GeoForschungsZentrum (GFZ) Potsdam , Germany	1
28	Leipzig University	1
29	TUM , Germany	6
	Technische Universität Dresden	1
30	Arizona State University	3
31	Yale University	1
32	INSAIT, Sophia University	1
33	University of Calgary	1
34	University of Alberta	1
35	Université de Montpellier, France	1

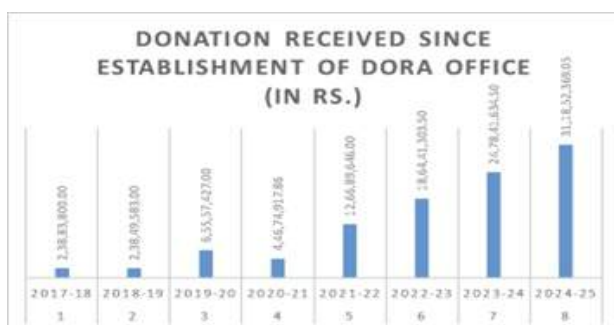


During the 2024–25 financial year, IIT Roorkee welcomed 132 international students from diverse countries, including Nepal, Tanzania, Syria, Ethiopia, Bangladesh, Sudan, Sri Lanka, Myanmar, Indonesia, France, and many more. These students joined the institute across various academic avenues—engaging in coursework,

undertaking innovative project work, pursuing advanced postgraduate studies, and embarking on rigorous Ph.D. research. Their presence enriches the academic environment, fostering a dynamic exchange of ideas, cultures, and expertise, further strengthening IIT Roorkee's global academic community.

## RESOURCE & ALUMNI AFFAIRS

The Office of the Dean of Resources & Alumni Affairs (DORA) is dedicated to fostering and strengthening the relationship between alumni, students, and IIT Roorkee, forming a significant "Golden Triangle." To achieve this, the DORA office organizes a variety of events and initiatives at IIT Roorkee, engaging with alumni to deepen their connection with the institute. The office plays a crucial role in securing financial support from donors and corporate partners. Through donations and CSR funding, DORA facilitates numerous academic, research, and developmental projects at IIT Roorkee, contributing to the institution's growth and excellence. During the financial year 2024-25, IIT Roorkee received a generous total donation of Rs. 31,18,52,369.05. The Institute extends its heartfelt gratitude to its alumni and well-wishers for their unwavering support and contributions. Among the key donors for the year were Power Grid Corporation of India Limited (under CSR), the Alumni of the 1999 Batch, the Alumni of the 1996 Batch, and Shri Sandeep Garg, along with several others. In line with the above, here are some highlights of the activities undertaken during 2024-25:



Graphical representation of fund-raised progress

### Details of MoUs signed in FY 2023-2024

#### A- Corpora Established Out Of Donation Received From Individual/ Batch Donations:

- 1996 Batch Donation
- Dr. Subrata Ray Lecture Series
- Smt. Satya Mohan MCM Scholarship
- Dheera Verma Memorial Scholarship
- Shraman Scholarship
- Surabhi Memorial Gold Medal for Most Outstanding Woman Achiever
- Late Smt. Prakash Wati Singhal Scholarship
- Smt. Mithilesh Singhal Scholarship
- Hari Vaish Gomti Devi Award for Research in Environment
- Hari Vaish Gomti Devi Award for Research in Water Management
- Sujata Varshneya Gold Medal
- Refurbishment of the underground sprinkler system on the IITR football and hockey ground
- HM and EB Robey MCM Scholarship
- Madhu Goyal All Round Excellence Award among 2nd year students
- Madhu Goyal All Round Excellence Award amongst graduating students
- UOR64 BE & UOR66 B.Arch. Scholarship

- Anand Mangal Outstanding Administrative Male Employee Group B & C of the Year Award
- NC Saxena Gold Medal
- Mr. Rakesh Rai Award for the best All-Rounder of the Batch
- Class of 1999- Financial Aid
- Shreyas Kumar Gold Medal for the best student in B.Tech in DS/AI
- Late Shri Sohan Lal Award in Chemical Engineering
- Late Smt. Kamla Devi Award in Paper Technology
- Late Smt. Sneha Lata Gupta Award in Polymer and Process Engineering
- Yogesh and Indu Kansal Financial Aid
- Best student in different genres of debating
- Ambuj Kumar Trophy for the best All -Round Sports person
- Contribution to IIT Roorkee for Development
- Shyam Pushp Financial Aid
- PD Agarwal Gold Medal in Mechanical Engineering
- Ashupriya Jha Award for Cultural Excellence
- Viva Gaur Memorial Internship
- Donation for Asmita
- Ramesh Kumar Sharma Financial Aid
- Dr. Reeta Gupta WiSTEM Full Fee Waiver
- Ramkali (Lala Daaee) MCM Scholarship
- Dr. Ajit Singhvi Conference room
- Alumni 87
- Alphagrep Scholarship Program:
- Sh. Pandit Shiv Dayal Singh Memorial Award for Excellence in Social Services
- Late Shri Virendra Kumar Mittal Memorial Financial Aid
- Raghu Nath Prasad Chaturvedi Memorial Award
- Kulbhushan Swarup Raizada Scholarship
- Addendum- Krishan Gopal Garg Awards
- Ajit Singh Yadav Memorial Awards

## **B-Corpora Received Out of Donation Received from Organizations Under CSR Contributions:-**

- Bridgecon Lab
- Pharmaffiliates Research Stipend & Excellence Award
- Power Grid Centre of Excellence
- Pharmaffiliates contribution for Trophies and Medals for IIT Roorkee Half-Marathon
- HORIBA Talent Hunt Scholarship
- HORIBA funding for Sustainable Farming
- AI.Tech Emerging Scholars Program
- Donation for the enhancement of the Communication Systems Lab
- Pharmaffiliates Funding for “Testing of some novel phytochemical inspired synthetic compounds as anticancer molecules for their use in the cure of breast and prostate cancer”: Installation of lighting, sound system and Furnishing of Auditorium and Installation of CCTV Cameras
- MoU for various purposes at AAD, IIT Roorkee
- MoU with AIESKY Advisory and Consultancy Services Pvt. Ltd.
- Supplementary MoU with National High-Speed Rail Corporation Limited
- 2nd Supplementary MoU with National High-Speed Rail Corporation Limited
- Supplementary MoU with DMI Housing Finance Pvt. Ltd

## **Donations Received in FY 2024-25:**

- Powergrid Centre of Excellence
- Contribution to IIT Roorkee for Development
- 1996 Batch Donation
- Shyam Pushp Financial Aid
- Various Scholarships

- Class Gift by the 1998 Batch
- AI.Tech Emerging Scholars Program
- Upgradation of Laboratories in the Department of Electronics & Communication Engineering at IIT Roorkee
- P K Kapse Auditorium
- Enhancement of Communication Systems Laboratory Department of Electronics and Communication Engineering
- HORIBA Talent Hunt Scholarship
- Class of 1999 - Financial Aid
- Ashupriya Jha Award For Cultural Excellence
- Building Fund for AAD by National High-Speed Rail Corporation (NHSRC) limited, New Delhi
- Yogesh and Indu Kansal Financial Aid
- Hari Vaish Gomti Devi Award
- Pharmaffiliates Funding for "Testing of some novel phytochemical inspired synthetic compounds as anticancer molecules for their use in the cure of breast and prostate cancer"
- Sustainable Waste Management Initiative at IIT Roorkee
- UOR64 BE & UOR66 B.Arch. Scholarship
- Surabhi Memorial Gold Medal for Most Outstanding Woman Achiever in Civil Engineering
- Mr. Rakesh Rai Award for the best All-Rounder of the Batch
- PD Agarwal Gold Medal Ramesh Kumar Sharma Financial Aid
- Krishan Gopal Garg Awards
- Anand Mangal Outstanding Administrative Male Employee Group B & C of the Year Award
- Renovation of Cautley Bhawan
- Shraman Foundation Scholarship
- Best student in different genres of debating
- Smt. Satya Mohan McM Scholarship
- A K Goel Green Energy Prize & Gold Medal
- AlphaGrep Scholarship Programme
- Late Smt. Prakash Wati Singhal Scholarship
- Smt. Mithilesh Singhal Scholarship
- NC Saxena Gold Medal
- Sujata Varshneya Gold Medal
- Refurbishment of the underground Sprinkler System on the IITR Football and Hockey Grounds
- Project Fund for Anushruti Academy for Deaf
- Madhu Goyal All Round Excellence Award
- Ambuj Kumar Trophy for Best All-Round Sportsperson
- Viva Gaur Memorial Internship
- Dr. Ajit Singhvi Conference Room
- Prof. (Mrs.) Poonam Sagar Award in Humanities and Social Sciences
- Ramkali (Lala Daaee) MCM Scholarship
- Pharmaffiliates Research Stipend & Excellence Award
- Professional Development & Innovation Awards Sponsored by Class 1983
- Durga Award Cash Prize
- Late Shri Sohan Lal Award in Chemical Engineering
- Late Smt. Kamla Devi Award in Pulp and Paper Technology
- Late Smt. Sneha Lata Gupta Award in Polymer and Process Engineering
- HORIBA Funding for "Sustainable Farming Project"
- HM and EB Robey McM
- Prof. Subrata Ray Endowment Lecture Series
- Sarojinites for Sarojinites - Merit Cum Means Scholarship
- Arvind Kumar Jain McM Scholarship
- Smt. Darshan Narang Memorial Merit Cum Means Scholarship
- Adarsh Kumar Pradhan McM Scholarship
- Amba Prasad Kalawati Memorial Cash Prize

- Mrs. & Mr. Balwant Singh Scholarship
- Ajit Singh Yadav Memorial Awards
- Prof. C.L. Toshniwal Award in Environmental Engineering
- Er. Ravindra Nath Chaturvedi Scholarship
- Pharmaffiliates contribution for Trophies and Medals for IIT Roorkee Half-Marathon
- Donation for Amita (Class Gift for 1998 Batch)
- Anushruti Academy for Deaf
- Mr. Lakshmi Sampath & Mrs. Shree Ayenger

#### Scholarship

- General Corpus
- Blue Sapphire Jubilee of 1960 Batch
- Prof. (Mrs.) Renu Bhargava Cash Award For Excellence in Environmental Engineering
- Shreyas Kumar Gold Medal for the Best Graduating Student of B Tech DS/AI

#### Schemes to Promote Academic Excellence

The Institute has sponsored a good number of students and faculty members of IITR under the following schemes during 2024-25:

Program/ Scheme	Good International Conference	Travel Support to Students for International Research Internships	Support for IITR Students for Visiting Institutions Abroad	Support for Faculty Visiting Institutions Abroad	Support for Faculty Researchers and Students from Foreign Institutions
BTech/ Barch	01	01	04	-	-
BS-MS	-	-	02	-	-
M.Tech	-	-	-	-	-
M.Arch	-	-	-	-	-
M.Sc.	-	01	01	-	-
MIM	-	-	-	-	-
Ph.D.	94	-	01	-	-
IMT	-	01	-	-	-
IDD	-	-	-	-	-
Researcher	-	-	-	-	-
Faculty Members	-	-	-	-	01
Total	95	03	08	-	01

#### The Endowed Lecture Series:-

The lecture series has been conducted in various department few of them are M.L. Kapoor Endowment Lecture Series, Prof. G.N. Ramachandran Memorial Lecture Series, A.K. Kamal Memorial Lecture Series, J.B. Lal Memorial Lecture Series, O.D. Thapar Memorial Lecture Series and C.V. Raman Memorial Lecture Series

#### DAA, DYAA and OSA Awardees list:

##### (A) Distinguished Alumnus Awardees (DAA):

- Prof. Bhim Singh (1977-BE-Electrical), IIT Delhi
- Prof. Ayodhya Nath Tiwari (1980-MSc-Physics), Professor and Head, Empa- Swiss Federal



Laboratories for Material Science and Technology, ETH-Zurich Switzerland

- Mr. Yuvraj Mehra (1971-BE-Chemical), Managing Principal Consultant, Mehra Consulting Services, Montgomery, Texas, US
- Mr. G. Madhusudan Reddy (1987-ME-Mechanical), Outstanding Scientist & Director Defence Metallurgical Research Laboratory, Kanchanbagh, Hyderabad
- Mr. Sanjay Kumar Agarwal (1987-BE-ECE), Chairman Central Board of Indirect Taxes and Customs
- Mr. Vikas Kumar (1987-BE-Electrical), Managing Director, Delhi Metro Rail Corporation Ltd.
- Mr. Anand Ramamoorthy (1996-BE-Metallurgical and Materials Engineering), Managing Director & Vice President, Micron India
- Mr. Sandeep Garg (1981-BE-Electrical), CEO & Managing Director at Welspun Enterprises Ltd.
- Mr. Ravi Kant Gupta (1981-BE-Civil), CEO & MD Bridgecon Systems Pvt. Ltd, New Delhi
- Mr. Sunil Goyal (1989-BE-E&C), Dy. CEO at Sopra Steria India and CEO at Sopra Banking Software India

### **(B) Distinguished Young Alumnus Awardees (DYAA):**

- Mr. Puneet Jaggi (2010-BTech-Chemical), Founder, Prescinto Technologies, Pune & Co-Founder, Gensol Group, Ahmedabad.
- Mr. Sourabh Gupta (2016-BTech-Metallurgical & Material Engg.), CEO & Co-Founder, Skitai, New York, USA.
- Mr. Abhishek Agarwal (2016-BTech-Industrial), Co-Founder and Director at Farmley, New Delhi.
- Mr. Ghanshyam Pilania (2007-BTech-Metallurgical & Materials Engg.), Materials Scientist, Los Alamos National Laboratory

(LANL), New Mexico, USA.

- Ms. Pooja Devi (2010-MTech-Nanotechnology), Principal Scientist, CSIR-Central Scientific Instruments Organization, Chandigarh.

### **(C) Outstanding Service Awardees (OSA):**

- Mr. Aditya Gupta (1974-BE-Mechanical & 1976-ME-Machine Design), President, Heritage Foundation USA, IITRHF.
- Mr. Vivek K. Varma (1983-BE-Industrial & 1985-ME-Mechanical), Global Service Delivery Executive (EU & US), Nielsen Global Connect, Chicago, USA)

## **Alumni and Corporate Relations Activities**

**HORIBA Talent Hunt Scholarship Ceremony:** A total of 30 students were honored with the HORIBA Talent Hunt Scholarship. HORIBA India's Corporate Social Responsibility (CSR) initiative. HORIBA India, a wholly owned subsidiary of HORIBA, Ltd., Japan, extended a one-time partial tuition fee waiver to these students from 12 different departments in recognition of their academic excellence. Launched in 2023 with the theme 'Together We Grow,' the scholarship program continues to support meritorious students at IIT Roorkee.

**HiLabs AI Quest hackathon:** HiLabs is a leading provider of AI-powered solutions for cleaning dirty data in the US healthcare sector. HiLabs AI Quest hackathon was designed exclusively for IIT Roorkee students to innovate on real-world solutions. The two winners received a pre-placement interview opportunity with HiLabs for a US-based position. AI Quest was organised by HiLabs in collaboration with DORA office and IARC (Institute Alumni Relations Cell).

## Alumni Jubilee Reunion & Get-Together 2024-25

- **Diamond Jubilee Reunion:** Diamond Jubilee Reunion of 1964 & 1965 (B. Arch) Batch. 60 enthusiastic alumni along with their families participated.



- **Ruby Jubilee Reunion:** Ruby Jubilee Reunion of 1984 & 1985 (B. Arch) Batch 160 enthusiastic alumni along with their families participated.
- **Silver Jubilee Reunion:** Silver Jubilee Reunion of 1999 & 2000 (B. Arch) Batch 281 enthusiastic alumni along with their families participated.
- **Golden Jubilee Reunion:** Golden Jubilee Reunion of 1974 & 1975 (B. Arch) Batch 200 enthusiastic alumni along with their families participated.
- **Coral Jubilee Reunion:** Coral Jubilee Reunion of 1989 & 1990 (B. Arch) Batch. 155 enthusiastic alumni along with their families participated.



- **Pearl Jubilee Reunion:** Pearl Jubilee Reunion of 1994 & 1995 (B. Arch). 110 enthusiastic alumni along with their families participated.
- **Blue Sapphire Jubilee Reunion:** Blue Sapphire Jubilee Reunion of 1960 Batch 30 enthusiastic alumni along with their families participated.



- **Alumni Get-Together of Electrical Engg. (PhD):** Alumni Get-Together of Electrical Engg. (PhD) 35 enthusiastic alumni along with their families participated.



- **Alumni Get-Together of Earth Sciences Engg. of 1974 & 1975 Batches:** Alumni Get-Together of Earth Sciences Engg. of 1974 & 1975 Batches. 30 enthusiastic alumni along with their families participated.



- **Alumni Get-Together of the 1980 Batch:** Alumni Get-Together of the 1980 Batch .170 enthusiastic alumni along with their families participated.

## Initiatives with Institute Alumni Relations Cell (IARC)

The DORA Office collaborates with the Institute Alumni Relations Cell (IARC) to implement various initiatives aimed at strengthening alumni-student connections and creating meaningful opportunities for the current student community.

### Events Conducted by IARC



**Ask Me Anything** with  
Bhawana Soni (B. Arch- 2017)



**Alumni Career Talk** with  
Sarthak Sharma  
(B. E.-Mechanical  
Engineering- 2023)



**Alumni Career Talk** by  
Mohit Kumar (IDD- CSE- 2023)

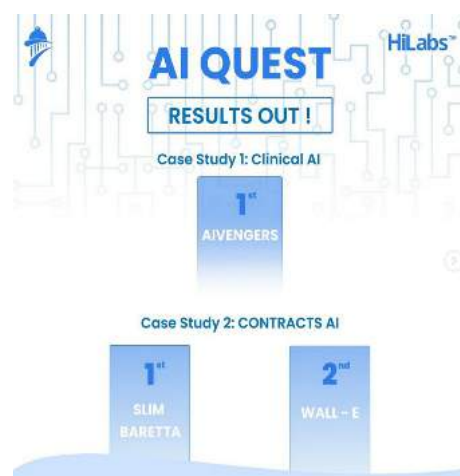


**Alumni Career Talk (ACT)**  
by Harkirat Singh  
(B.Tech.- CS-2018)

### Prize Distribution Ceremony for AI Quest Hackathon:

The concluding ceremony featured the announcement of winners from the top 15 finalist teams, followed by the felicitation of all participants and an inspiring address by representatives from HiLabs. Outstanding

performers were specially recognized for their innovative contributions. A key highlight of the event was the opportunity for all finalist team members to appear for Pre-Placement Interviews (PPIs), leading to two students receiving coveted Pre-Placement Offers (PPOs) to join HiLabs' team in the United States.



### Other Initiatives by IARC

- **Mock Interviews:-** An initiative where IARC connects students with alumni who conduct mock interviews to help them prepare for the internship season. Every year, over 300 students benefit from this guidance and mentorship.
- **Class Song:-** A collaborative initiative between IARC, CineSec, and Choreo Club, where a heartfelt mixtape featuring the graduating batch is created. It serves as a digital memory, capturing the spirit of their IITR journey, and is uploaded to YouTube.
- **Alumni Bigwigs:-** A month-long quiz series celebrating IITR's rich history and notable alumni. Participants engage with fun, riddle-based questions, and winners receive exciting prizes like Netflix subscriptions and Google Play credits.
- **Alumni Newsletter:-** A monthly digital publication from IARC that keeps students informed about the latest alumni achievements, initiatives, and opportunities.



- **R-Land Memoirs:-** A tribute to IIT Roorkee's 175+ year legacy, this initiative features engaging and informative posts about the institution's history and evolution.

## Global Network of IITR Alumni

- DoRA office continues to work on Global Network of IIT Roorkee Alumni to establish an extensive connection with its large number of alumni spread all over the world.
- DoRA Office has succeeded on having approx. 50,000 verified alumni profiles on the Global Network of IIT Roorkee Alumni up to 31.03.2025.
- The DoRA office has so far issued "IIT Roorkee Global Alumni Card" to approx. 13,998 alumni. This card has been highly appreciated by alumni across the globe.
- DoRA office communicates with alumni on a regular basis- Birthday Greetings, Season's Greetings and Marriage Anniversary greetings

are sent to the Alumni.

- The DORA office issues snippets on a monthly basis to the alumni and Donors of IIT Roorkee for the latest updates on events and Alumni-related news.
- Personalized messages of gratitude, accompanied by photos of the awardees receiving their awards, are shared with the donors as a token of appreciation.
- The 'Book My Alumni' section on the DoRA website is regularly updated, reflecting the latest contributions from alumni authors. The DoRA Office has received numerous requests from alumni to feature their publications, highlighting their enthusiasm to stay connected with their alma mater.
- IITRAA EC Election 2024-26 : The DORA Office has successfully conducted elections for Executive Committee 2024-2026 of the IIT Roorkee Alumni Association (IITRAA).

## IIT Roorkee Events

### Chemday-2024:

This year's annual Research Scholars Day of Department of Chemistry, also popularly known as ChemDay, was held on 28th November, 2024. Apart from expert lectures by Prof. M.L.N.Rao (IIT Kanpur) and Prof. Samrat Mukhopadhyay (IISER Mohali), there were oral presentations and posters by the department research scholars followed by prize distribution and an exuberant cultural event. This department event marks the multidisciplinary talent of our research scholars and provides a platform for interaction and collaboration.



### Snoar 2025:

The National Conference of Society for Nitric Oxide and Allied Radicals (SNOAR-2025) was held from 21 to 22 February 2025 at IIT Roorkee. The programme included talks from over 20 distinguished experts, 30 poster presentations, 10 oral presentations and about 60 attendees from various institutes across India.





### CEFIPRA:

The Indo-French Symposium on "Biochar: Black is the New Green" sponsored by CEFIPRA was held from 15-18 February 2025. The symposium brought together nine French delegates, 20 expert speakers, and 50 researchers from across India. Panel discussions on biochar's role in climate change mitigation, technical poster sessions, deliberations on biochar production, applications, market potential, and carbon credits, along with networking opportunities and laboratory visits.



### World Wetlands Day 2025:

World Wetlands Day 2025 aligning with the theme "Protecting Wetlands for Our Common Future" was celebrated. The event highlighted the crucial role of wetlands in biodiversity conservation, climate regulation, and sustainable water management. The event concluded with a vote of thanks, followed by discussions on the importance of wetland preservation. The celebration served as a meaningful platform to emphasize the need for collective efforts in safeguarding these vital ecosystems.



### The Smart India Hackathon (SIH):-

Organized by the Ministry of Education's Innovation Cell (MIC) and AICTE, and hosted by Rethink! The Tinkering lab, IIT Roorkee from 11th to 15th December 2024, as part of its 7th edition. Serving as a Nodal Centre, IIT Roorkee hosted 23 teams with 156 participants and mentors from PAN India, tackling cutting-edge challenges from organizations like NTRO, Government of Himachal Pradesh, and Godrej. Problem statements ranged from AI-based satellite image analysis and precision agriculture to sustainable home appliance innovation. The event reflected the vision of empowering youth and advancing India's self-reliance through innovation and entrepreneurship.



### Foundation Day Celebration

IIT Roorkee marked its 177th Foundation Day on November 25, 2024. On the occasion of the Foundation day, the DORA Office celebrated the Distinguished Alumnus Awards Ceremony and Distinguished Young Alumnus Awards Ceremony, recognizing the outstanding accomplishments of its Alumni. The institute continued to inspire with the "Empowering India - Nurturing Education, Innovation, and Cultural Legacy" event, embodying its commitment to holistic education.



### Ideas:-

It was jointly organized by the Department of Design, IIT Roorkee and Queen's University, Canada in association with the Design Innovation Centre (DIC), IIT Roorkee



### Indo-UK Sparc-workshop :-

The major outcome of the SPARC initiative is to establish strong research collaboration between Indian research groups and world class faculty and research groups in areas at the cutting edge of science or of direct social relevance to India. This workshop is being organized by IIT Roorkee (India), and the University of Strathclyde (UK) as an academic deliverable of the ongoing SPARC project.



### 32<sup>nd</sup> IAHR Symposium :-

This was the first IAHR symposium in India. A total of 128 delegates, including 57 international delegates and 71 Indian delegates, registered to the Symposium from 21 countries. 10 delegates attended the Symposium online. The Symposium was fully supported by industrial partners, mainly the reputed hydraulic machinery manufacturers, and their representative also gave a presentation during the plenary session to demonstrate the strength of Indian industries in this area.

### 68<sup>th</sup> DAE Symposium on Nuclear Physics:-

The aim of this series of symposia is to provide a scientific forum to the nuclear physics community to present their research work and to interact with the researchers in this area. The scientific deliberations of the symposium included plenary talks, oral, poster presentations of contributory paper and theses presentations. In addition, there were talks by selected Young Achiever Award (YAA) nominees. A one-day pre-symposium Orientation Programme was also held on December 6, 2024. The total number of participants was around 400.

### Industry-academia Joint Workshop in Association with CADFEM India

The industry-academia workshop titled "Water Resources and Hydropower Systems Simulation



using ANSYS," in association with CADFEM India. The workshop offered valuable insights into the application of advanced simulation techniques for water resources and hydropower systems. Participants explored the latest ANSYS software tools, learning how to model and simulate complex hydro power systems effectively. Hands-on sessions showcased practical applications, demonstrating how simulation can enhance the efficiency and reliability of hydroelectric systems. Additionally, discussions on emerging trends and digital transformation provided a forward-looking perspective on the future of hydropower system simulation. The session concluded with a vote of thanks, followed by the National Anthem, marking the successful inauguration of both the PEHEM Lab and the workshop.

## International Yoga Day

A seven day yoga camp was organized at Lal Bahadur Shastri Stadium IIT Roorkee from 15th to 21st June 2023 with all common yoga protocols designed by the Ministry of Yoga. The main motto of celebrating the International Yoga Day was to raise awareness about the benefits of practicing yoga among the people. Every year a theme is set for the International Yoga Day. The theme for this year was "Yoga for Self & Society".

## Power System Cybersecurity Hackathon

The "Power System Cybersecurity Hackathon – Protecting the Backbone of Modern Society" was held on 15th October 2024, in association with iHub DivyaSampark and THDC India Limited. The hackathon focused on developing innovative solutions for securing power systems from cyber threats. Participants hailed from IITs, NITs, and various government and private institutions across India and the event spanned over 1.5 months, with multiple online rounds leading to a two-day final event at IIT Roorkee on 14th–15th October.

## Thomso'24 Theme : A Crossroad of Cultures

**Thomso**, IIT Roorkee's flagship annual cultural festival, isn't merely an event; it's a monumental three-day spectacle—a vibrant tapestry woven with the threads of art, music, dance, and unparalleled cultural diversity. Revered as the "Youth Festival of Uttarakhand" since its official recognition by the Government of Uttarakhand in 2005, Thomso stands as an enduring beacon, a dynamic crucible where India's brightest talents, unbounded creativity, and cherished traditions coalesce, drawing an overwhelming tide of participation from every corner of the nation.

**Thomso'24** was meticulously envisioned and brought to life under the evocative theme, "A Crossroad of Cultures." This wasn't just a theme; it was a living embodiment of India's kaleidoscopic regional heritages. Our sprawling campus transformed into a thematic masterpiece, artfully segmented into four distinct zones—North, South, East, and West—each pulsating with the unique cultural heartbeat of its respective region. At the heart of this grand design, the iconic Main Building stood majestic, a powerful symbol of the harmonious intersection where these diverse traditions not only met but celebrated their collective spirit.

To truly amplify its national footprint, Thomso strategically extended its reach through the Karwaan zonal editions. These highly successful pre-fest events in Jaipur, Lucknow, and Chandigarh didn't just generate buzz; they ignited a fervent excitement, laying a robust foundation across North India.

- **Total Participants:** Exceeding an astonishing 3200+
- **Colleges Represented:** An impressive 700+ institutions from across the country
- **States Represented:** A testament to its Pan-Indian appeal, drawing talent from Punjab, Haryana, Jammu & Kashmir, Uttarakhand,

Himachal Pradesh, Uttar Pradesh, Delhi, Rajasthan, Madhya Pradesh, Bihar, Gujarat, and numerous other regions, creating a truly national mosaic.



### Events and Engagement

Within just three exhilarating days, Thomso'24 unfurled an astonishing array of over 100+ events, a dynamic fusion of high-stakes competitions and mesmerizing showcases. The festival's marquee attractions—including the electrifying Footloose, the soulful Sargam, the fiercely contested Battle of the Bands, the pulsating War of DJs, and the breathtakingly glamorous Vogue Finals (a spectacular prelude to the Day 1 Pronite)-captivated audiences. Adding a contemporary edge, the YouTube Fan Connect brought an unprecedented influencer buzz, featuring personalities like Deekila Sherpa, Unnati Tomar, Lakshay Gaur, and Aniket Lama engaging directly with a captivated crowd, bridging the gap between digital stars and their enthusiastic fans.

Beyond the stage, Hero's captivating roadshow, featuring their latest bike releases, was not merely a display but a major spectacle that drew immense crowds and stood out as a vibrant visual highlight of the entire festival.



### Social Impact and Sponsorship

Thomso'24 proudly stood as a testament to powerful collaborations, organized in prestigious association with Vision IAS and IITRAA, and powerfully driven by HERO. Our success was further bolstered by the robust support of our strategic partners, a distinguished roster including banking giants like PNB, SBI, and Canara Bank; leading PSUs such as IOCL, PowerGrid, and GAIL; and our esteemed NGO collaborators—Narayan Seva Sansthan, Sanjeevani, Say Trees, among others. These invaluable alliances were instrumental in significantly amplifying our cultural and societal outreach, ensuring Thomso'24 was not just a celebration of youth and diversity, but also a profoundly inclusive and responsibly executed endeavor.

### Cognizance 2025

Cognizance, partnering with Arsh Yog and Jankalyan Trust (NGO), spearheaded a vital food distribution drive at Swami Vivekananda High School in Shankarpuri, Roorkee. This wasn't merely about providing meals; it was a deliberate effort to spark hope and foster ambition in young minds.

Beyond the nourishment, our team connected with students, imparting crucial lessons on hard work, dedication, and leadership. Our aim was



clear: to inspire the next generation to dream big and relentlessly chase their aspirations.

This event holistically addressed both physical well-being and mental empowerment, laying a foundation for a brighter, more self-reliant future. Cognizance remains dedicated to driving positive change through these collaborations, believing that true development blossoms from compassion, education, and shared responsibility.”



### Namami Gange Initiative: Preserving the Sacred Ganga

Cognizance, IIT Roorkee, in collaboration with Namami Gange, led a major clean-up drive at Chandi Ghat, Haridwar, restoring the area's cleanliness and inspiring responsible waste practices. Through impactful awareness campaigns, we educated locals and pilgrims on river pollution and the importance of community action. With continued support from Namami Gange, we aim to expand our efforts using tech-driven solutions for a cleaner, healthier Ganga.

**HASI: Empowering Women Through Comprehensive Hygiene Awareness**

Team Cognizance, IIT Roorkee, launched the HASI (Health and Sanitation Initiative) under Namami

Gange to raise menstrual hygiene awareness and empower women in underserved communities. Through sanitary pad distribution, door-to-door outreach, and educational sessions, we broke taboos and promoted safe hygiene practices. With strong local support, HASI became a meaningful step toward sustainable change and women's empowerment.

### Vigilance Awareness Week

The IIT Roorkee employees made a commitment to advance probity in public life and to create a society free of corruption as part of Vigilance Awareness Week, which will be observed from 28th October to 3rd November 2024 on the following theme:

“सत्यनिष्ठा की संस्कृति से राष्ट्र की समृद्धि”

“Culture of Integrity for Nation's Prosperity”.

The team at IIT Roorkee commits to upholding a culture of honesty and integrity and strong corporate governance based on openness, responsibility, and justice.



### Institute Lecture Series

1. Prof. Arvind Agarwal, Distinguished University Professor, Department of Mechanical and, Materials Engineering, Florida International University, USA, date: 12-08-2024, Topic: - Multifunctional Coatings and Composite Materials for Lunar and Space Missions

2. Prof. C. Nataraj, Distinguished Professor in Engineered Systems, and Director, Villanova Center for Analytics of Dynamic Systems (VCADS), Villanova University, Villanova, USA., date: 16-08-2024, Topic: - Diagnostics of Engineering & Biomedical Systems A Perspective from Two Decades of Research
3. Er. Himanshu Tilwankar, Director, Envirotech Solutions, Gurgaon, date: 06-11-2024, Topic: - Policy and Regulatory Frameworks for Environmental Protection in India: Special focus for startup
4. Prof. Krishnaswamy Nandakumar, Chief Scientist Energy Research Institute, Shandong Academy of Sciences, Jinan, date: 27-11-2024, Topic: - Perspectives on Manufacturing Innovations in Process Industries
5. Prof. Nigel Wright, Professor of Water and Environmental Engineering, Department of Civil Engineering, University of Birmingham, UK, date: 06-12-2024, Topic: - Interdisciplinary Challenges in Flood Risk Management
6. Er. (Dr.) Abhay Gupta, Director, Skeleton Consultants Pvt. Ltd. Noida/Indore, date: 12-02-2025, Topic: - Engineering Gigantic Statue: Case Study of 351-feet tall Lord Shiva Statue at Nathdwara, near Udaipur, Rajasthan India
7. Prof Prem Kumar, Professor of Information Technology, McCormick School of Engineering, Northwestern University, USA, date: 27-03-2025, Topic: - Engineering Challenges for the Emerging Photonic Quantum Networks
8. Shri Bhagwan Shankar, IAS (Retd.), New Delhi, date: 16-04-2025, Topic: - Diversity of India and its Relevance in framing the Public Policy

## CENTRAL FACILITIES

### Infrastructure

During the last financial year, major infrastructure project namely the construction of 572- Seater Students Hostel (Phase I) at Vigyan Kunj (EWS Scheme) and the Renovation work (Civil, Electrical and Fire & Safety Work) of Ravindra Mess Lounge for Offices/Labs of ISRO, CSST and DIA-Core (DRDO) in IIT Roorkee were completed. Some of the building projects that are ongoing and expected to be completed in the near future are construction of New Academic Block for Chemistry Department, Construction of Western Academic Block, Construction of Mehta Family School of Data Science and Artificial Intelligence (MFSDSAI), including internal EI, HVAC, firefighting, fire alarms, lifts, Audio Visual System, CCTV, and BMS installation & development works Reorganization, Augmentation and Renovation of Academic Spaces at IIT Roorkee : Phase-I of Metallurgical and Material Engineering Department (MMED) and Construction of (G+2)

stories additional transit administrative block on LGSF (Light Gauge Steel Framed) structure technology near Transportation Section.

### Institute Instrumentation Centre

The Institute Instrumentation Centre (IIC) houses a wide range of sophisticated instruments used for high-magnification imaging, material characterization, precision chemical analysis, and more. The Centre is operated by trained technical staff and researchers under the guidance of experienced faculty experts. It has recently expanded with the addition of state-of-the-art equipment to further enhance its capabilities and operational efficiency.

### Usage

Graphical representation of total no. of uses hours on different equipment for financial year 2021-22, 2022-23, 2023-24 and 2024-25 is shown in fig.(a). On various systems, there is significant

enhancement of user hours compared to previous years.

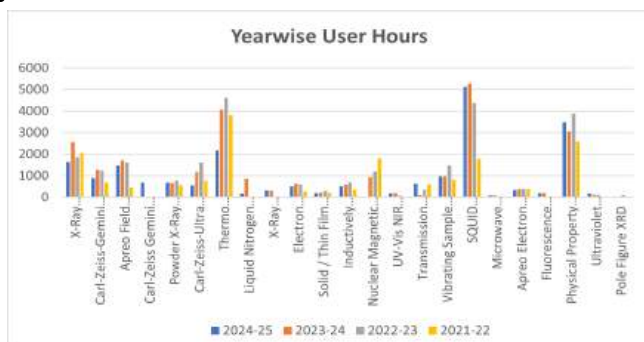


Fig. (a): Graphical representation of total no. of user hours on different equipments for financial year 2021-22, 2022-23, 2023-24 and 2024-25.

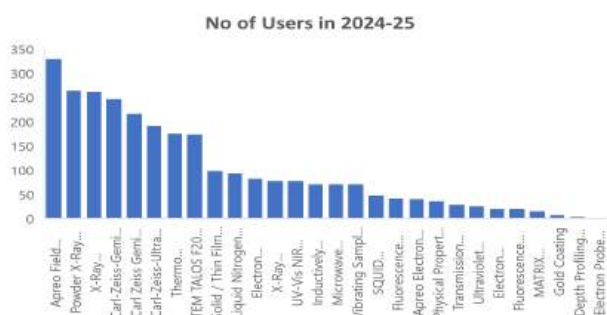


Fig. (a): Graphical representation of no. of users in financial year 2024-25.

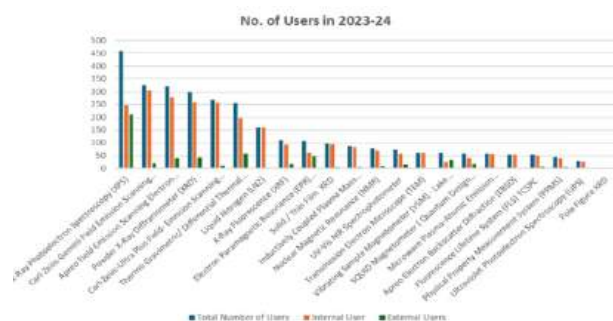
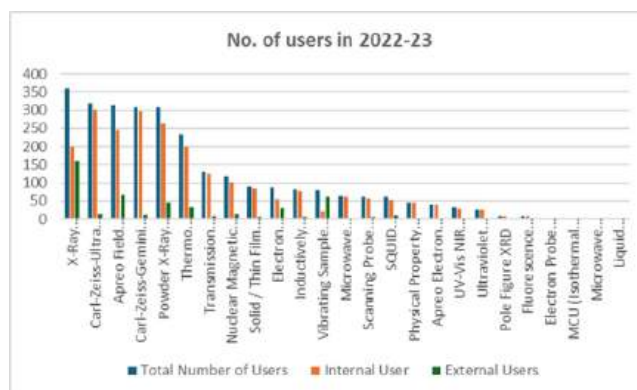


Fig. (b): Graphical representation of internal, external and total no. of users in financial year 2023-24.



external and total no. of users in financial year 2022-23.

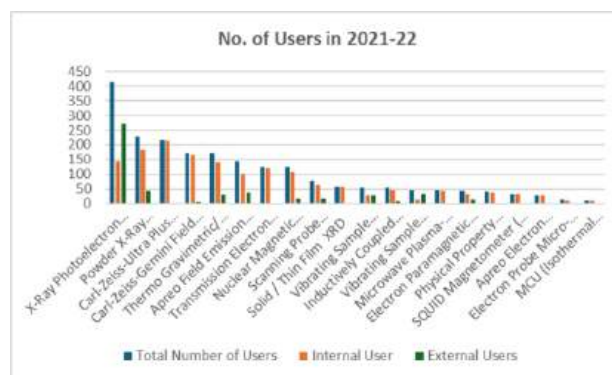


Fig. (d): Graphical representation of internal, external and total no. of users in financial year 2021-22.

## Education And Engagement:-

**National Conference (I-MAT 2024):** The Conference on Innovations in Materials Science and Workshop on Characterization Techniques was held at the Institute Instrumentation Centre, IIT Roorkee. The four-day event began with a two-day conference, followed by a workshop. The workshop focused on instrument demonstrations and hands-on training sessions conducted by experienced technical staff of the centre.

The centre has organized visit of students and faculty members to various high-end instruments of IIC belongs to educational institutions a few are mentioned below:

- Guru Jambheshwar University, Hisar
- Chaudhary Charan Singh University, Meerut



- c) Dev Bhoomi Uttarakhand University
- d) Paramedical Department of COER University, Roorkee.
- e) RPS Degree College, Mahendergarh, Haryana.
- f) Tribunal students

### New Instruments & Upgrades: -

#### 1. Field Emission Scanning Electro Microscope (Carl Zeiss Gemini 560)

Gemini 560 FE-SEM equipped with Oxford EDS provides topographical and elemental information of different types of samples at magnifications from 10X to 10,00,000X. It has good spatial resolution ( $\sim 0.5$  nm) to cater the research needs of the different departments of IIT Roorkee and various external users.



#### 2. High Resolution Transmission Electron Microscope (HRTEM):

Talos F200X is a scanning transmission electron microscope (S)TEM that gives high-resolution (S)TEM and TEM imaging with energy dispersive X-ray spectroscopy (EDS) signal detection. 4 in-column SDD Super-X detectors used to produce 2D/3D chemical characterization with compositional mapping also possible and is performed by 4 in-column SDD Super-X detector with unique



### Research Output & Impact: -

S. No.	Agency	Grant (Lacs)
1	DRDO	250.00
2	DRDO	127.00
3	THDC, Rishikesh	166.1
4	DRDO, NEW DELHI	235.54

### Publication: -

Total	Book	Book Chapters	Paper in Conferences	Paper in Journal	IP filed/Granted
24	0	0	0	21	3

### Strenght

Student	Ph.D	9
	Post Doc	2
Total		11

### Student Achievement: -

1. Mr. Somdatta, visited Poland as an intern at Silesian University of Technology, Gliwice, Poland.
2. Ms. Ananya Bansal, received best poster award at CFSE Research scholar day held at IIT Roorkee
3. Mr. Pramod Kumar, has been awarded with prestigious "Commonwealth Split-Site Doctoral fellowship" for the year 2024.



4. Nitesh Choudhary, receive Best poster award in International Conference on Polymers for Advanced Technology and award in International Symposium on Transforming Waste Management: Circular Economy &

Energy Sustainability, Also in Best poster award in National workshop for carbon materials organised by indian carbon society NWCM 2025 CSIR IIP Dehradun (Guide Prof. Ramesh Chandra, and Prof. Pradip K. Maji)

### Finances & Business:-

F. Y.	User Fees (Rs.)	Operational Cost (Rs)		Maintenance Cost (Rs)	Users (%)	
		Testing Grant	DOC/Non-PLAN		IITR	External Users
2021-22	26,65,117/-	26,45,923/-	84,68,560/-	77,38,390/-	82.3	17.7
2022-23	45,69,032/-	33,96,437/-	1,43,63,880/-	70,78,932/-	83.11	6.9
2023-24	41,28,678/-	29,23,121/-	1,07,64,742/-	42,33,139/-	75.6	24.4
2024-25	36,50,332/-	41,73,210/-	1,34,15,846/-	40,58,741/-	-	-

### Design Innovation Center (DIC)

The Design Innovation Center (DIC), named नोवोन्मेष, at IIT Roorkee is a MoE, Government of India approved center with the basic objective of creating design awareness. It is one of the twenty such centers which are developed under the National Initiative of the Ministry for setting up of DIC, Open Design School and National Design Innovation Network in the country. The center strives to developing design and innovation as a culture while primarily addressing the problems of the North-West Himalayan region. DIC at IIT Roorkee foresees a uniquely impacting culture of design by thinking, knowing and doing. It creates a propelling perspective to integrate design thinking into state-of-the-art engineering, architecture, sciences, technology and management driven academic focus. Envision as a Hub of Design Innovation it creates myriad possibilities for developing an outcome-based paradigm shift in academic culture. This involves developing new models of learning, exposures to local, regional, national and international perspectives, innovating for need, documenting and archiving processes as indigenous repositories of design knowledge and disseminating and sharing of this information in a holistic form. The DIC at IIT Roorkee not only foresees a development of creative problem-solving approach but also intends to fuel its

research mandate through design-based innovation in various sectors aiming to resolving human issues thereby bridging needs and ideation, intellect and technology, expressions and production and above all, fostering a meaningful cycle of progress with sustainability

- “Cylindrical Electrical Extension” (Design Registration) has been accepted

Many events have been organized by center a few of them are International Symposium on “Innovative Design for Excellence, Affordability and Sustainability (IDEAS), International Conference on Design and Manufacturing Technologies (ICDMT), Two Days Workshop for Sugarcane Farmers under the program of One District One Product (ODOP)” One Day Workshop on “Fundamentals of Toy Design” Guest lecture on Thinking Visually for Designers”



## Rethink! The Tinkering Lab

Rethink! The Tinkering Lab at IIT Roorkee is equipped with state-of-the-art facilities designed to foster creativity, innovation, and hands-on learning for both students and faculty. Its primary objective is to bridge the gap between theoretical knowledge and practical applications, encouraging students to develop problem-solving skills and gain real-world experience. By providing a collaborative and participative environment, the lab supports the development of entrepreneurial initiatives and nurtures creativity, teamwork, and innovation. This empowers them to transform their concepts through prototyping into tangible engineering solutions through prototyping.

Academic Courses Supported by Rethink! The Tinkering lab

- Additive Manufacturing (MIN- 601)
- Tinkering & Mentoring (TMI-102)
- Additive manufacturing (MTN- 318)

Startups incubated at TIDES and TIH supported by Rethink! The Tinkering lab

S. No.	Startups
1	Linearized Amplifier Technologies and Services Pvt. Ltd.
2	NanoAI Technology Private Limited
3	Avkalan Labs Private Limited
4	Brainovative Labs Private Limited
5	Mantiswave Networks Private Limited

### Notable Activities: -

- **AR Treasure Hunt at THOMSO (Oct '24):** Immersive campus-wide AR game for 200 participants, blending geolocation, Unity/ARCore, and Niantic Lightship SDK to foster teamwork and problem-solving.
- **Campus Virtual Racing (Oct '24):** Car driving simulator co-hosted with Roorkee Motorsports, engaging 500 users in realistic F1 simulation via Unity and custom gyroscope controls.

- **TMI-102 (Tinkering and Mentoring) (Nov '24)**
- **Smart India Hackathon 2024 (Dec '24)**
- **Conducted Skill India courses under Pradhan Mantri Kaushal Vikas Yojana (PMKVY)**
- **Cognizance** - Robotics & Game-Dev Events (Mar '25): NanoNavigator micromouse and Mystic Pixel XR dev

Various projects have been supported by Tinkering Lab few of them are Gyro-Controlled Multiplayer Racing: C#/Unity mobile game with gyroscope steering and React-based UI-achieved smooth cross-device performance, AR Treasure Hunt Game: Unity AR experience-server-side architecture supports sequential gameplay and real-time leaderboards, Test Portal: Full-stack app for campus-wide online assessments—features proctoring, Channel-i auth, and secure admin panel, MetaFit XR Fitness App: Unity ARCore app with 3D trainer, audio cues, and gamified workouts—integrates Motion Studio animations for realism, Model Assembly/Disassembly Apps: ARCore apps for gesture- and UI-based exploration of technical components-enhanced engineering education, Facilities Simulator in AR: AR tool for real-time facility management simulations-applied in training for manufacturing and logistics, Development of Functional, Cost-Effective, and Sustainable Protective Packaging, 3D Printing and Cell Culture for Tissue Engineering Applications, Analysis of Normal Force in Spherical and Cylindrical Bodies, Low-Cost Handheld Water Purifier for Floodwater Treatment, 3D Figurine Augmentation Using Additive Manufacturing, Earthquake Early Warning Device (EEW System), Low-Cost X-Band RF Source, Capillary Action Study Using Multi-Holed Cuboidal Solid Plates, Automatic Irrigation System Based on Soil Moisture Levels, Smart River Flow Monitoring for Flood and Resource Management and Sonic Crystal-Based Noise Control Using Periodic Structures.

## Tinkering Lab conducted number of events few of them are:-

**TMI-102 (Tinkering and Mentoring):-** Rethink! The Tinkering lab conducted the TMI-102 (Tinkering and Mentoring) course for First-Year Undergraduate Students, showcasing 335 diverse hardware projects with the participation of 1,332 innovators, over 115 faculty members, and more than 35 UG-TAs from various departments. This hands-on course promotes learning and innovation through practical experimentation, guided by mentors who provide support and advice to enhance problem-solving skills and maximize learning potential.



## Mahatma Gandhi Central Library (MGCL)

Mahatma Gandhi Central Library (MGCL) stands as one of the nation's oldest academic libraries, established concurrently with the founding of the Institute in 1847. Initially, it functioned as a modest college library, catering to the needs of approximately 34 students and 6 faculty members with a collection of a few hundred books. The library's resources were significantly enhanced in 1856 when it merged with the Ganges Canal Library, leading to its renaming as the Central Library. In 1862, the library's holdings were further expanded through the acquisition of the Addiscombe College Library collection from the East India Company. Presently, MGCL operates from a modern, centrally air-conditioned facility that boasts state-of-the-art information and communication technology (ICT) resources, encompassing four floors and covering an area of 80,000 square feet.

Over the years, MGCL has been continuously working towards the enhancement of its electronic library resources. It provides access to a wide range of digital databases, e-journals & e-

books from renowned publishers around the world, and many other online research resources like standards, patents, etc. MGCL also takes care of the data-updating activities on 'Shodhganga – a reservoir of Indian theses', 'National Digital Library of India', and 'Common Database of Research Scholars in IITs'. Additionally, MGCL also plays a crucial role in various Institute level reporting and ranking related activities.

The library currently has over 10,500+ registered members. MGCL offers a range of services tailored to meet the varied needs of its users, including access to online resources over the campus network, remote access to the eLibrary of (<https://elibrary.mgcl.iitr.ac.in>), book lending, textbook loans, library memberships, high-speed Wi-Fi, research support services, reprographic services, an online catalogue of library resources, etc. The library is equipped with a substantial number of modern computers that facilitate access to academic information available online. It also caters its users with research support services based on Turnitin, Remote Access, Grammarly and plagiarism related queries. MGCL conducts various training and awareness programs to enhance user knowledge and promote the effective use of library resources.

## Tentative collection

Total number of Books at MGCL	340000
Books added during FY 2024-25	1397
Total number of e-Books	64800
E-Books added during FY 2024-25	872
Journals (Bound Volumes)	65200
Theses & Dissertations	18000+
Electronic Journals/Conference Proceedings (Subscribed by the Library and ONOS)	13346
Full-Text Databases	10
Bibliographic/Citation Databases	15
Archives	07
Standard	04
software/Tools	03
Discovery Services	01

Students can draw up to 7 books (Undergraduate 3, Postgraduate 7 and Research Scholars 7) over for the whole semester. The Institute has access to over 13,346 electronic journals/proceedings, 10 full-text databases, 15 bibliographic/citation databases, 64,800 e-books, 04 standards databases (namely ASTM, IEC, British and Indian Standards), 02 Patent Databases, 7 journals archives, 03 research support software/tools, etc., from several publishers and aggregators through direct IP-based and Remote Access connectivity.

The eLibrary service \_ users. The following is the list of publishers associated with MGCL (<https://elibrary.mgcl.iitr.ac.in>), along with its mobile app mLibrary, is widely used by the ITIR community, offering access to entire electronic resources available to MGCL. Currently, there are over 6,900 registered users, with more than 1,896 active users during the reporting period. The service saw over 330,000 views and downloads of electronic resources, demonstrating its high engagement and importance to users. The following is the list of publishers associated with MGCL

S. No.	Publisher / Source
1	ACS eBooks Library
2	Bloomsbury Architecture Online Library
3	Bloomsbury Design Online Library
4	Bloomsbury Collection
5	CBS eBooks Library
6	CRCnetBase eBooks Library
7	Cambridge University Press Online Library
8	DeGruyter eBooks Library
9	Edward Elgar eBooks Library
10	EBSCO Portal
11	Elsevier ScienceDirect eBooks Library
12	Emerald BME eBooks Library
13	IOP Society eBooks Library
14	Khanna Publishers
15	McGraw-Hill Access Engineering Library
16	McGraw-Hill Education eBooks Library
17	New Age International

18	Oxford Handbooks Online Library
19	Oxford Scholarship Online Library
20	Pearson - Proquest Online Library
21	Sultan Chand & Co
22	Springer Nature Online Library
23	Wiley Online Library
24	World Scientific Online Library
25	SAGE Knowledge Library
26	SAGE eVidya Library

ISO 9001:2015 CERTIFICATION: Surveillance Audit of MGCL's Quality Management System ISO-9001:2015 was completed as per standard norms by the auditors of British Standards Institutions (BSI).

Book Exhibitions on Hindi Pakhwada and Constitution Day

## Continuing Education Centre (CEC)

Continuing Education Centre (CEC) was established in 1955 for the promotion of knowledge up gradation by organizing refresher/specialty courses for executives, working professionals and aspiring individuals. In addition to the knowledge up gradation of experienced professionals, CEC IIT Roorkee courses also offer a launch pad to technology professionals and students in the domains that are most sought after by the industry. Through these courses CEC also provides an opportunity to visit and study at IIT Roorkee for a short duration. Continuing Education Centre offers many programs/courses of both short (up to 3 weeks) and long durations (up to a year) in sponsored as well as open participation mode. Further, during the lockdown period many courses in open participation mode were also launched in online/digital delivery mode jointly (through partnership MoU) with EdTechs to facilitate good outreach, implementation support, and involvement of industry experts to impart industry relevant learning. These courses are also taken by participants worldwide and allow IITR to showcase expertise to a broader audience and open opportunities for collaborations. CEC also conducts the AICTE approved courses through QIP.





Our long term goal is to elevate the Centre's activities and impact through strategic growth and development. Recent MoU's with various Govt. Organizations and leading industries will enable us to deliver targeted training programs for their personnel.

CEC hosted a 10-day's Teachers' Development Workshop from August 21st to August 30th, 2024. This workshop was organized in collaboration with the State Council of Educational Research and Training (SCERT), Uttarakhand, and the Indian Institute of Science Education and Research (IISER), Pune. This residential workshop aimed to build the capacity of teachers from classes VI to X and create Innovation Champions across different districts of Uttarakhand state.

The CEC has signed MoUs with the below organizations to conduct long term open participation courses in online/offline/hybrid mode:

- a) FutureSense
- b) Zerocode
- c) CarbonUturn
- d) EduXLL
- e) Coding Ninjas
- f) Object Automation
- g) Imarticus Learning

This year, the CEC has introduced new sponsored courses for some organizations to enhance their officers skills and knowledge making them more proficient in their current roles and better equipped to take on new responsibilities. Partnering with reputable organizations has enhanced the credibility and reputation of the courses.

- a) Department of Income Tax (Systems), New Delhi

- b) IRDE Dehradun, DRDO
- c) Mera Yuva Bharat (MY BHARAT), New Delhi
- d) Navodaya Vidyalaya Samiti
- e) National Health Mission, Odisha
- f) Tata Tiscon
- g) National Informatics Centre, New Delhi
- h) INSDAG Kolkata
- i) National Institute of Urban Affairs, New Delhi
- j) National Mission for Clean Ganga (NMCG), New Delhi

The CEC has signed MoUs with the below organizations to conduct short term courses:

- a) National Inland Navigation Institute, Patna
- b) Army Training Command (ARTRAC), Shimla

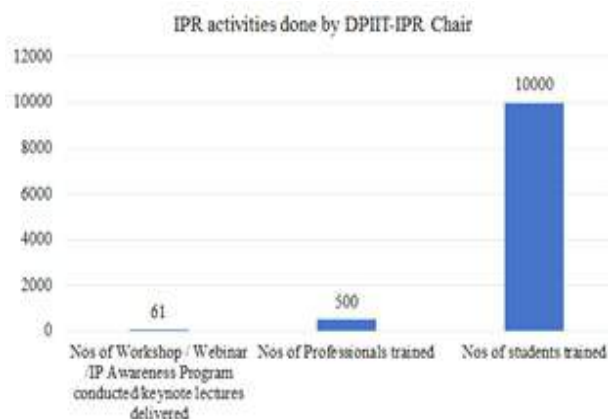


Memorandum of Understanding (MoU) between Army Training Command (ARTRAC), Shimla, and Indian Institute of Technology Roorkee (IIT Roorkee) for conducting a Management Development Programme (MDP).

## DPIIT IPR CHAIR

The IPR Chair, awarded to IIT Roorkee in 2016, is currently held by Prof. Rajat Agrawal. This chair, under the Department for Promotion of Industry and Internal Trade (DPIIT), is tasked with fostering human intellect and capacity building in the field of Intellectual Property Rights (IPR). In addition to its core responsibilities of teaching, research, and raising awareness about IPR, the Chair also undertakes various activities in alignment with the guidelines set by DPIIT, Government of India. The activities conducted in the FY 2024-25 are as follows:

Prof. Rajat Agrawal, PI and Coordinator of the DPIIT IPR Chair, conducted 61 workshops, webinars, and keynote talks during the 2024-25 financial year. These sessions focused on Intellectual Property Rights (IPR) and their effective management. Participants from academia, industry, and various other sectors were sensitized to different aspects of IPR. Through these initiatives, approximately 500 professionals and 10,000 students were trained in the field of IPR.



Few important workshops / webinar / keynote lectures conducted by Prof. Agrawal includes lecture on academic writing & IPR at HNB Garhwal University, Srinagar, Uttarakhand on 14th April 2024, Lecture on Introduction of IPR in the IPR workshop at Women Institute of Technology, Uttarakhand Technical University, Dehradun on 20th April 2024, Lecture "IPR and Environment Sustainability" at Quantum University in IPR

Workshop Sponsored by UCOST, Dehradun on 18th May 2024, Full day lectures session on Innovation and Creativity for Young Executives at BHEL on 20th May 2024, Panel Member in IDEAS 2024 about Policy Intervention for Sustainable Innovation on 19-20 Oct. 2024, Panel and Jury Member at Technology Transfer & I.P Symposium: Fostering Innovation and Collaboration at National Law University, Shillong Meghalaya on 15-16 Nov. 2024, Three days courses on Creativity Crusader at BEL, Bengaluru on 27-29 Nov. 2024 and on 4-6 December 2024, lecture on Study of IPRs: Career in Academics, Administration and Business" at Chanakya National Law University, Patna on 19th Dec. 2024, ICSSR Capacity Building Program at Doon University, Dehradun (7-18 Jan., 2025) as a course Co-PI, NIFTEM, Sonapat organized Campus Immersion for Students of MBA on 12-16 Feb. 2025, Keynote Speaker on IP Management and Commercialization at NITTTR Chandigarh on 25th March 2025.

Prof Rajat Agrawal is member of various National Level Expert committees and Think Tanks formed by the Department for Promotion of Industries and Internal Trade on issues related to IPR. Various Suggestions in the form of detailed report like "inputs on the new National Geography Indication Policy have been provided by the IPR Chair to the Department for Promotion of Industries and Internal Trade, Government of India. In addition to this DPIIT-IPR chair developed a curriculum for students regarding IPR undertaken by the University. In this program, offline and online courses on NPTEL are conducted for UG, PG, PhD, Industry, MBA and other students and professionals. List of courses and numbers of students benefited are listed below:

Title of the Course	Level of Course	Type of Course
Basics of IPR and entrepreneurship (TMI 103)	UG First Year	Offline
Fundamentals of Innovations, and Business Models (IBM-308)	UG	Elective
Innovation Business Models and Entrepreneurship	UG, PG, Pre Ph.D. Industry Personals	Open Learning MOOC- NPTEL

IPR Related Module Innovation and Entrepreneurship (BMN 507)	EMBA	Open Learning (Worldwide)
Intellectual property Portfolio Management	IPPM	Open Learning MOOC-NPTEL

Few important activities carried out in the FY 2024-25 are as follows:

1. On the Occasion of World IP Day, a Poster presentation competition held on World IP Day on theme "Intellectual Property and the Sustainable Development Goals: Building Our Common Future with Innovation and Creativity": In this activity different school were participate. Competition was held in two category; category 1 was for students and category 2 was for teachers. In category 1, 5 students were awarded with certificates and cash prize and in category 2, two teachers were selected for prize money.
2. Online Certificate Course on Intellectual Property: A Source of Innovation, Creativity, Growth and Progress at Indian Institute of Technology Roorkee (15th May 2024 to 4th June 2024)
3. Training of Trainers (TOT) Workshop on Basics of Intellectual Property Rights (IPR) was held on 24-26 August 2024 in the Department of Management Studies, IIT Roorkee: This workshop was opened to faculty members Patent agents, and IP experts presented the, course. There were lectures, case studies, quizzes, and a collaborative work output which was used to provide participation certificates.
4. Awareness Programs were conducted in nearby colleges, wherein, students and faculties were educated about the legal protection of their creative works, innovations, and ideas and empower them to leverage IPR for personal and professional growth.



## Greater Noida Extension Campus Gnec Iit Roorkee

IIT Roorkee GNEC Campus is spread over a across green area of 10.42 acres in the knowledge park II of Greater Noida. This campus is highly secure and well connected through the Noida-Greater Noida Expressway, Yamuna Expressway and the Metro making it an exciting platform to showcase IITR's strength and capabilities in the fields of education, research, consultancy, emerging technologies and incubation, with an aim to accelerate the process of nation building. Being surrounded by a large number of technical institutions and in close vicinity of the expanding industrial hub, IIT Roorkee, through this Extension Centre intends to extend its outreach to the industry and academia.

The GNEC Campus is equipped with computer lab, classroom, conferencing facilities, accommodation facilities, incubation centre and civil lab in Greater Noida, UP.

## Official Language (Hindi) Cell

Official Language Cell was established on 31st January, 2002. Since its inception of its



establishment, the Official Language Cell has not only been committed to comply with the Official Language policies of the Government of India, but has also been eager to promote the implementation of Official Language in the administrative and academic fields of the Institute. The cell plays an important role in Hindi translation of the Institute's Annual Report, Annual Accounts Report, Institute website and all other necessary documents, forms etc. Apart from this, on the occasion of Hindi Day and International Mother Language Day, various competitions and incentive schemes are conducted and prizes are awarded to the faculty members, officers, employees and students of the institute as well as school children. Hindi training is also provided to the staff members every year on optional basis in the language and typing courses of the Central Hindi Training Institute.

**Achievement:** On 29th January, 2025, the Town Official Language Implementation Committee, Haridwar awarded the 3rd prize to the Indian Institute of Technology Roorkee in its 39th meeting of TOLIC for excellent implementation of Official Language in 2023-24.

**Departmental Activities:** The details of various activities performed by the office during the year 2024-25 are following:

- **Institute Official Language Implementation Committee:** The progress of Official Language in the institute is monitored regularly by the committee after every three months. More than 90 Meetings of this committee had been held till 31st March, 2025.
- **Progressive Reports of Hindi:** Quaterly & Half-yearly reports, based on Hindi progress in the institute, are sent every three & six months to Ministry of Education, Regional Implementation Office (North) Ghaziabad & Narakas, Haridwar Secretariat.
- **Hindi Lecture & Workshop:** Official Language Cell organized Hindi Lectures & Workshops on different topics to promote Hindi among the

staff of the institute, so that they might be encouraged to do their official work in Hindi.

- **Participation in NARAKAS Haridwar Activities:** Narakas is a Town Official Language Implementation Committee, which consists of a group of central government offices. IIT Roorkee is also a member of Narakas, Haridwar. The Director & staff of IIT Roorkee participated in meetings, conferences and many other events organized by Narakas, Haridwar from time to time and were also on a big platform.
- **Hindi Function & Competition :** Since 1980 the Institute has been organizing Hindi Day/week/pakhwara every year on 14 September. This year the Cell organized Hindi Pakhwara during 14 Sept. to 01 Oct 2024. During this period, cell organized different types of competitions such a Hindi Translation, Hindi Noting & Drafting, Hindi Essay Writing and other incentive schemes for the staff. The prize distribution ceremony of these competitions was held on 01 Oct 2024. The Chief guest of this function was Dr. Damodar Khadse. Total 49 winners including officers/faculty/employees/ students were awarded in the Hindi Pakhwara function.
- **International Mother Language Day & Competition:** On occasion of International Mother language day 2025, some competitions like Transcreation, Poem writing and Essay writing were organized for the institute students in their own mother tongues, A Poster making competition was organized for school students in two categories, so that kept different languages might be encouraged and alive among IIT community.
- **Publication of Hindi Magazine:** "Praudyogikee Manthan" is a half-yearly Hindi Magazine published by Official Language cell. It consists of articles based on technology, science and research as well as on subjects related to official language, translation, education, sports and health. Three selected articles of each edition are also awarded in Hindi Function.



- **Hindi Language & Hindi Typing Training:** Weekly Classes of Hindi language (Prabodh, Praveen and Pragya) & Hindi typing were organized by the cell. On 11-13 June 2024, Hindi language (Prabodh, Praveen and Pragya) exam were conducted at LHC and on 02 January 2025, a Hindi Typing Exam was conducted in two sessions at the Institute Computer Centre.
- **Hindi Spoken Class:** The Rajbhasha Cell has organized Hindi spoken classes for non-Hindi speaking staff and international students. These classes are still continuing.
- **Hindi Book Exhibition:** On the occasion of Hindi Function, Hindi Book Exhibition was held in Mahatma Gandhi Central library from 17 Sept to 01 Oct 2024. There are around ten thousand Hindi books.
- **Bhartiya Bhasha Utsav:** First time the Cell organized Bhartiya Bhasha Utsav on occasion of birth anniversary of esteemed Tamil poet, writer, an eminent freedom fighter, Shri Subramania Bharati on 11 December 2024. On occasion of Bhartiya Bhasha Utsav, the cell organized Essay and Quiz competitions for staff and students.
- **Rajbhasha Inspection from Ministries:** Two Official Language Inspections of the Institute were conducted by Shri Chhabil Mehar, Deputy Director, Regional Implementation Office (North), Ghaziabad from the Ministry of Home Affairs in August 2024 and by Shri Jagdish Ram Pauri, Director (Official Language), from Ministry of Education in November 2024.
- **Translation:** The Cell has played an important role in the translation of Annual Report, Convocation Report and circulars/orders.

## E-Learning Centre

E-Learning Centre (ELC) was primarily conceived to produce high quality Video/Web/Multimedia based instructional material, syllabus-based content for the National Programme on Technology Enhanced Learning (NPTEL) project.

Over time, its role has expanded to absorb new paradigms of e-learning, train faculty to develop their own e-content and to use e-content developed by NPTEL, train faculty from other institutes to facilitate the streaming of video and web based lectures in their respective institutes, streaming of video lectures round the clock on demand, at IIT-Roorkee creation of question banks, quality control of e-content generation through feedback mechanism and conducting research related to pedagogies in e-learning. During the year 2023-24, E-Learning Centre recorded 24 courses, covering 16 disciplines at IIT Roorkee. During the year, E-Learning Centre provided 215 semester-long courses content to National Programme on Technology Enhanced Learning (NPTEL) which were offered as Massive Open Online Course. The Centre has an archive of 1,079 full semester-long courses. The enrolled viewership of courses through web stood at 6,60,183 for 215 active courses. The Centre has successfully done the live streaming of the Annual Convocation 2024. The Centre has also covered various institute activities such as conferences, inaugural functions, international conclaves and MoU signing ceremonies etc. E-Learning Centre also offers its services in hybrid mode to create video courses for the current semester and shared them with IIT Roorkee students.

## Security Office

Around 300 high resolutions cameras with advanced summarization software (Brief-cam) have been installed around the campus in the 2024-2025. This software allows the user to apply the edge-based filter like people counting, intrusion detection etc so as to make better utilization of CCTV Cameras. The cameras are strategically positioned in public areas such as entrances, roads, common areas, play grounds, residential areas etc. The installation of these cameras has enhanced security measures and turning out crucial to monitor campus activities. Security Drone was also introduced in this year. The Drone has enhanced the operational

capabilities of Security Office during national events e.g. Republic Day, Independence Day etc. and other major events of the institute such as THOMSO and COGNIZANCE. Additionally, the drone is safeguarding the rooftops of the institute. Deployment of the Security-Quick Response Team (QRT) has been ensured in the Campus. Quick response teams have been deployed with patrolling vehicles. In the present arrangement, members of the Quick Response Team Patrol the campus and also address issues on a 24\*7 basis. The advanced CCTV Surveillance has a safer environment for everyone in the campus. The captured footages are utilized, as and when required, for security purposes and to deal with necessary investigations/sensitive issues aroused in the campus. With all entry, exit points, and roads under security surveillance, the campus residents are able to experience improved security and safety.

## Hospital

The Institute has a centrally located Hospital in the campus, which provides facilities for OPD treatment as well as IPD. The Hospital is managed by a team of Allopathic Doctors and Allopathic Contract Doctors. The Hospital has a homothetic unit. For Dental procedures, a qualified dentists is also available. The Hospital provides specialist consultation on appointment basis for ENT, Ophthalmology, Orthopedics, pediatrics, Dermatology, super specialist consultation in Cardiology, Pulmonology and Neurology. The Hospital is an excellent Health facility for the campus population and provide primary care. In case of medical emergencies after providing first aid care patient is transferred to MAX Dehradun in Ambulance available at the hospital. Pulse Polio Immunization is also carried out at IIT Hospital as per government guidelines.

The Hospital offers following facilities:

- OPD Facility (Allopathy)
- Homeopathy Facility

- Dental Facility
- Ward/Indoor Facility
- Minor OT
- Physiotherapy
- Laboratory Services
- Pharmacy
- ECG Services
- Ambulance Services
- Specialist OPD Services

In recent developments at the Institute Hospital, IIT Roorkee, Dr. Disha Srivastava joined as a Dental Doctor in June 2024 on a regular appointment. To enhance patient care, several key medical equipment was procured, including Short Wave Diathermy, Combination Therapy, and Shockwave Therapy machines for the Physiotherapy Unit. Several MOUs were signed with reputed hospitals such as Max, Fortis, Artemis, and others, along with local pathology labs and dental service providers, to offer services at CGHS rates to IIT Roorkee beneficiaries. Furthermore, unserviceable equipment worth ₹2,50,786 was disposed of through a formal tender process.

## Hospital Statistics 2023-24

Patients Attended in OPD	216805
Physiotherapy	18500
Emergency Patients	22310
ECG	1504
X-Ray Radiology	5936
Surgical Dressing	112
Dental Treatment	14812
Pathology Lab Test	238817
Patients Admitted	920

## DEPARTMENTS/CENTRES/SCHOOL

### APPLIED MATHEMATICS AND SCIENTIFIC COMPUTING

At the Department of Applied Mathematics and Scientific Computing (D-AMSC), our mission is to equip students with the knowledge and skills necessary to tackle challenging, real-life problems arising across scientific and multidisciplinary domains. The curriculum and research focus on a blend of mathematical rigor and computational proficiency, preparing students to contribute meaningfully in both academic and applied settings. The faculty at D-AMSC are actively engaged in a broad spectrum of research areas, including numerical differential equations, numerical optimization, data science, and machine learning - striving to advance knowledge while addressing contemporary challenges through innovative methodologies.

Total no. of faculty/ Adjunct/Visiting teaching faculty	5 Regular 1 Joint faculty 1 visiting faculty 1 adjunct faculty
No. of Post Doc. Fellows	00
No. of PMRF	02

#### Academic Activities

Programmes Offered	Students on-roll	Degrees Awarded
M. Tech	24	15
Ph. D	34	06

#### Publication:-

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
Total	1	2	2	18	2	2

#### R & D Activities

Project Status	Total number of Sponsored	Total number of Consultancy
Ongoing	2	NIL
Completed	2	3

#### Webinars/Symposiums/Workshops/Conferences/Colloquium:

The Department has organized various conferences/seminars/workshops/international conferences including One-week workshop, "Initiation into Mathematics", under the aegis of MTTs trust, which is funded by the National Board of Mathematic an International conference on soft computing and Problem solving.



## ARCHITECTURE & PLANNING

The Department of Architecture and Planning imparts high-quality education in the professional fields of Architecture and Planning. It offers the Bachelor of Architecture (B. Arch.), Master of Architecture (M. Arch.), Master of Urban and Rural Planning (MURP) and Ph.D. programs. The B. Arch. program was started in 1956. The Department has the singular distinction of being the first in India to institute a Master's Degree Program, M. Arch. in 1969-70 and another MURP in 1973-74. During this Financial Year, NIRF has ranked the Department No. 1 in the country for architectural education for the fourth year in a row, and it has been ranked 1st by India Today since 2018, seven times in a row.

### R & D Activities:-

The Department has facilities like the Climatology Lab, Computer Lab, and Computerized Design Studios equipped with state-of-the-art equipment and software as well as an Art Lab, and a Workshop. A prestigious lab on Net Zero Emissions, set up under the INDO-UK program, is the latest addition to the Department. Alongside,

Project Status	Total number of Sponsored	Project Amount (in lakhs)	Total number of Consultancy	Consultancy Amount (in lakhs)
New	3	456.91 INR	1	20 INR
Ongoing	11	746.85 INR & 80000 GBP	6	257.5 INR & 10,300 USD
Completed	10	32.88 INR	10	183.34 NR

### Major Facilities:-

Laser Engraver Vega-48 (150Watt)  
PTZ Camera 4K HD Peoplelink Elite 4k

### Student Achievement:

- Mr. Himanshu Wanjari, Mr. Sukhvinder Kaur and Mr. Kaushlendra Singh Ahirwar and Mr. Laxman Nanawath have received the 2nd Runner up position in the Uttam Architect Award 2025 organised by Mangalam Cement Ltd. and IIA Indore. (Guide Prof. Sonal Atreya)

Total no. of faculty/ Adjunct/ Visiting –teaching faculty	Faculty - 19 Visiting Faculty- 2 Adjunct Faculty - 1
No. of Post Doc. Fellows	02
No. of PMRF	06

Dr. Debadutta Parida, Dr. Sameer Ali Abbas Ali, Dr. Navjit Gaurav and Dr. Tanaya Sarmah had joined Architecture and Planning Department IIT Roorkee as an Assistant Professor.

### Academic Activities:-

Programmes Offered	Students on-roll	Degrees Awarded
B. Arch	160	22
M. Arch + M.U.R.P.	49	28
Ph. D ( Full time + Part time)	119	13

seven new labs have been set up in the Department, namely Virtual Reality Lab, SPARSH (Spatial Planning Research), Urban Dynamics Lab, Civic Design Lab, Industrial Design Lab, Fabrication Lab, Built Environment Lab, Laboratory for Inclusive Design, SURREAL Lab and Infrastructure Planning Lab (IPL) to conduct high-end research in various spectrums of architecture and planning

- Manan Monga won the 1st Prize in Cycling to School: Situation Assessment & Planning Strategies during the Institute Research Day (Guide Dr. Shubhajit Sadhukhan)
- Parul Suraia achieved 3rd prize in Investigating Spatial Disparities in Healthcare Accessibility during the Institute Research Day (Guide Dr. Harshit Sosan Lakra & Dr. Tanaya Sarmah)
- Mr. Karthik Mohan received the Best Paper Award at the 11th International ZEMCH Conference 2024 held at VIT Vellore. (Guide Dr. P.S. Chani)



- Ms. Krati A. Maheshwari received the ITPI National Best Thesis Award (women category) for her Master's thesis titled "Strategizing Utilitarian Cyclability in Jaipur City at the 73rd National Town Country Planners Conference held in Trivandrum, Kerala.
- Dr. Namia Islam received financial assistance from Anusandhan National Research Foundation (ANRF), India DST, Gol. to attend the 29th Asia Pacific Tourism Association (APTA) Annual Conference 2024, held in Macao (SAR, China)

### Highlights:-

- Five-year, Institute-wide Memorandum of Understanding (MoU), between the Indian Institute of Technology, Roorkee and RWTH Aachen University, Germany.

### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
<b>Total</b>	0	11	34	43	0	0

## BIOSCIENCES AND BIOENGINEERING

A Centre for Biosciences was started in 1980 and upgraded to a full-fledged academic Department of Biosciences and Biotechnology in 1986. It was renamed the Department of Biotechnology in the year 2002. The department has teaching and research program which encompass various basic and applied aspects of modern biotechnology. The main objective of the Department is to provide academic training and conduct research in the interdisciplinary areas of biotechnology with a particular emphasis on extending the knowledge generated from these studies toward the development of technologies of commercial significance. A B.Tech. (Biotechnology) course was started in 2005. In January 2021, the department was renamed the Department of Biosciences and Bioengineering. Thirty five

### Webinars/ Symposiums/ Workshops/ Conferences/Colloquium:-

The Department has organized various conferences/seminars/workshops/ including international conference including are Roorkee Urban Symposium 2025, Celebrating DAP 67th Foundation Day, Biennial Conference named, 'Roorkee Urban Symposium and Special Lecture – ARCHxTalk: Perspectives on Architecture and Urban Futures



students were awarded Ph. D Degree in the convocation held in 2024. The B.Tech. (Biosciences and Bioengineering) programs with a sanctioned intake of 46 students and M.Tech. (Bioprocess Engineering) programme with a sanction strength of 30 students were admitted. DBT sponsored M.Sc. (Biotechnology) programme with sanction strength of 30 students is also running successfully. Sponsored research projects (supported by DST, SERB, DBT & CSIR etc.) have been successfully completed and twenty-one new research projects with funding from Govt of India.

Total no. of Department faculty	28
Total no. of Visiting faculty	09
No. of Post Doc. Fellows	06
No. of PMRF	04

Dr. Rishikesh Pandey had joined the Department of Biosciences and Bioengineering at IIT Roorkee as an Assistant Professor.

### Academic Activities

1. Offered a new course BEC-513 (computer programming) to the M.Tech SCB program.
2. New course introduced for M.Sc. BEC-535 (Biophysical techniques)

Programmes Offered	Students on-roll	Degrees Awarded
B.Tech	160	36
M.Tech	28	07
M.Sc.	56	22
Ph.D	190	35

### R & D Activities

Project Status	Total number of Sponsored	Total number of Consultancy
New	21	-
Ongoing	60	01
Completed	27	-

### Major Facilities

- Upright Confocal Microscope
- Crystallization Robot
- Elispot Reader
- FluoroMax Plus spectrofluorometer

### Student Achievement

1. Mr. Arpan kayastha, received the best oral presentation at NSC 51 held at VNIT Nagpur. (Guide Prof. Pravindra Kumar)
2. Ms. Mahak Saini research the article titled 'Small Molecule IITR08367 Potentiates Antibacterial Efficacy of Fosfomycin against Acinetobacter baumannii by Efflux Pump Inhibition' was featured on the cover page of ACS Infectious Diseases. (Guide Prof. Ranjana Pathania)

### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
<b>Total</b>	NA	07	19	120	11	01

3. Mr. Arsalan Hussain received the best poster award at the conference "Bacterial Morphogenesis, Survival and Virulence: Molecules, Metabolism, Membranes" at Cape Town, South Africa. (Guide Prof. Ranjana Pathania)
4. Ms. Vedika Jayant Joshi received the Best Paper Award, at the "Students' Academic Conference" under the "Inter IIT Tech Meet 13.0", held at IIT Bombay. (Guide Prof. S.R Yadav)
5. Mr. Soumyadeep Basak was awarded Best Poster Award by the ACS Applied Materials and Interfaces Recognized Nanotechnology Day 2025 at the Centre for Nanotechnology, IIT Roorkee. Also, was awarded the Medical Devices Young Innovator Award 2025 in acknowledgment of exceptional contribution in the field of Microfluidics/Medical Devices during the Microfluidic Expert Forum (Guide Prof. P.Gopinath)
6. Mr. Pritam Singh received best poster presentation award (COMET)-2025, IIT Roorkee. He along with his co-author S. Baxi received Best Oral (industry-oriented research) presentation award in International conference on Bioprocess for Sustainable Environment and Energy (ICABSEE)-2024, NIT Rourkela (Guide Prof. S.Ghosh)
7. Mr. Disharee Mallick received the first prize in the Young Scientist category at the Young Scientist Session during the Biotech Frontiers 2025 International Conference, held in Dehradun. (Guide Prof. Rajesh Kumar)

### Faculty Entrepreneurship details

- Prof. Devesh Bhimsaria, Prof. Jitin Singla and Prof. Rajesh Kumar started the start-up - BIO INFORMATICALS
- Prof. Pranita P. Sarangi: Co-founded Viagnosis Technologies Private Limited under the FEP of IIT Roorkee. Currently, it is incubated at iHUB, IITR.

## CHEMICAL ENGINEERING

The Department of Chemical Engineering was established in 1963 with an undergraduate program in Chemical Engineering. The department currently runs undergraduate (B.Tech.), postgraduate (M.Tech.), and doctoral (Ph.D.) programs in Chemical Engineering. The department has grown and set very high standards in teaching and cutting-edge research.

Total no. of faculty/ Adjunct/ Visiting-teaching faculty	Total no. of Faculty-26
No. of Post Doc. Fellows	08
No. of PMRF	08

### Academic Activities:-

Programmes Offered	Students on-roll	Degrees Awarded
B. Tech	479	145
M. Tech	68	13
Ph. D	109	13

### R & D Activities:-

Project Status	Sponsored	Amount Rs. in lacs	Consultancy	Amount Rs. in lacs
New	16	1102.2	1	15.23
Ongoing	26	1364.62	4	352.0476
Completed	23	2224.07	4	43.424

### Major Facilities:-

- Polyjet 3D Printer



- Thermogravimetric Analysis



### Student Achievement:-

1. Mr. Harmit S Kadu received Shigan Nexgen Topup Fellowship.
2. Mr. Amit Singh received Silver prize for Video Competition organized by Malaysian Ionic Liquids Research Society (MILRS).
3. Mr. Hemant Goyal achieved GYTI Runner up Award 2024
4. Mr. Rajeev Ranjan received Best oral presentation (Certificate of Excellence): Sustainable conversion of CO<sub>2</sub> into valuable chemicals for a circular economy", International Symposium on Transforming Waste Management: Circular Economy & Energy Sustainability (Guide Prof. Prakash Biswas)
5. Ms. Anjali Garg secured Third position out of 28 participants in the 3-Minute Thesis Competition held during Comet'25, IIT Roorkee.
6. Ms. Arisha Sharma received the Best presentation award at Research Scholar Day, IIT Roorkee.
7. Ms. Sonam Kardam received the Best poster award for Characterization of Jackfruit peel for Gasification Process, ICAFM-2024, Tribhuvan University, Nepal, (Guide Prof Shabina Khanam).
8. Ms. Diksha Vats received Commonwealth Split-site Scholarship Award.
9. Mr. Dinesh Patel received SERB OVDF Fellowship for visiting University of Alberta



10. Ms. Srishti Kamboj received Best poster award, at the 3rd International Conference on Advanced Functional Materials & Devices for sustainable development.

#### Faculty Entrepreneurship details: -

- Dr. P Mondal:- Prayas Greentech Pvt. Ltd. is presently focusing on the development of various products including army track-way from waste plastics and water treatment technologies. It has received initiation grant under Nidhi Prayas Scheme for the development of wall tiles from waste plastics and is also registered under Startup India.
- Dr. Siva Mohan Reddy:- NSMR Private has



Raised funding of ₹55 Lakhs for the demonstration of the technology at the pilot scale of 100 L/day. liquid/ gaseous fuels generation from waste (a waste to wealth approach)

#### Webinars/ Symposiums/ Workshops/ Conferences/Colloquium:-

The Department has organized various conferences/seminars/workshops/ international conferences including Global Initiative on Academic Network (GIAN) on the topic 'Small scale intensified two-phase processing' and SPARC-sponsored workshop on "Decarbonization technologies for Chemical and Allied Industries.



#### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
Total	1	4	29	107	9	4

## CHEMISTRY

The Department of Chemistry was established in 1960. Since then, it has provided the highest level of academic education in the country. The focus of teaching and research in the department is centered on interdisciplinary themes that have gained worldwide attention and appreciation.

Total no. of faculty/ Adjunct/ Visiting –teaching faculty	32
No. of Post Doc. Fellows	06
No. of PMRF	12

Dr. Ranjana Bisht, and Dr. Akash Kaithal had joined the Department of Chemistry IIT Roorkee

as Assistant Professors.

#### Academic Activities: -

The department offers four programs: 2-year M.Sc. (admission through JAM); 5-year integrated M.Sc. (admission through JEE); 5-year BS-MS (admission through JEE) with a 4-year BS exit option; and Ph.D. degree. Both the 2-year M.Sc. program and the integrated M.Sc. program involve a research project for one full year as partial fulfillment for the degree award. In the case of the 4-year exit option of the BS-MS program, the research project lasts for one semester.



Details of new courses are as follows:

- CYO-103: Instrumental Methods of Analysis (BS-MS, 3 Credits, Developed by Prof. M. Sankar)
- CYC-351: Artificial Intelligence in Chemistry (BS-MS, 2 Credits, Developed by Prof. Puneet Gupta)
- CYT-501: Computational Approaches to Catalysis & Reaction Design (M.Sc./M.Tech., 3 Credits, Developed by Prof. Puneet Gupta)
- CY-902: Advanced Inorganic Chemistry (BS-MS/MSc, 3 Credits, Developed by Prof. Sayanti Chatterjee)

Programmes Offered	Students on-roll	Degrees Awarded
BS-MS	110	-
M.Sc	86	42
Integrated M.Sc.	15	14
Ph.D		21231

#### R & D Activities: -

The department currently has faculty with expertise in frontier areas of research. Active research in the areas of synthetic organic chemistry and catalysis, domino reactions, reaction methodology, asymmetric synthesis, asymmetric catalysis, transition metal-based catalysis, electrochemistry, organofluorine chemistry and heterogeneous catalysis, energy relevant catalysis, visible light photoredox catalysis, electrochemistry, organic functional materials, polymeric membranes, nano-bio interfacial chemistry, magnetic and optical nanomaterials, coordination chemistry, energy storage, environmental remediation, antimicrobial materials, porphyrin chemistry, supramolecular self-assembly, organic electronics, radiopharmaceuticals, anticancer drug design, bioinorganic and bioorganic chemistry, magnetic materials, porous materials, small molecule design for ROS-mediated photodynamic therapy and prodrug design for targeted chemotherapy, high energy density materials, ultrafast spectroscopy, nonlinear spectroscopy, quantum dots as sensors,

plasmonics, energy harvesting, coacervates, active matter, statistical mechanics of polymers, use of computational methods and in silico analysis to study chemical reactions, modeling and simulations, computational materials science for energy storage, and molecular dynamics simulations is being pursued.

Project Status	Total number of Sponsored
New	14
Ongoing	27
Completed	18

#### Student Achievement: -

- Ms. Meera Khatri was awarded the Best Poster Presentation Award, at “Main Group to Materials -4 (MMM4)” conference held at IIT Bombay, February, 9-12th, 2025.
- Ms. Krishna Pandey was awarded the Best Poster Presentation Award, at “14th International High Energy Materials Conference and Exhibits (HEMCE 2024)” at Thiruvananthapuram, Kerala, February 1, 2024.
- Ms. Prachi Bhatia was awarded the Best Poster Presentation Award, at “14th International High Energy Materials Conference and Exhibits (HEMCE 2024)” at Thiruvananthapuram, Kerala, February 1, 2024.
- Ms. Prachi Bhatia was awarded the Best Poster Presentation Award, at “14th International Workshop on Combustion and Propulsion” at University of Milan, Italy, July 31, 2024.
- Dr. Monojit Nandi, joined as a Technical Officer at Indian Institute of petroleum, Dehradun, Uttarakhand.
- Dr. Devesh Singh, joined as Assistant Professor in the Department of Chemistry, DAV P.G. College, Muzaffarnagar, U.P.
- Ms. Adrija Ghosh was awarded the Best Oral Presentation Award at the XIX J-NOST (7th - 10th October, 2024) IIT Gandhinagar.
- Ms. Arya Singh was awarded the RSC Best Oral Presentation Award at the conference Society for Nitric Oxide and Allied Radicals (SNOAR-2025) held at IIT Roorkee.

- Mr. Vineet joined the POSITION LAB in the Spring Semester 2025, with CSIR-NET All India Rank 2.
- Ms. Barakha Saxena received the Best Poster Presentation Award at "National Conference of Society for Nitric Oxide and Allied Radical" organized by Department of Chemistry and Department of Biosciences & Bioengineering, IIT Roorkee.
- Mr. Divakar Chaudhary was awarded the prestigious Prime Minister's Research Fellowship.
- Mr. Vineet Gunwant received the International Travel Award, ARNF DST.
- Dr. Preeti Gahtori, joined as a Postdoctoral fellow, at University of Alberta, Canada.
- Mr. Saumya Ranjan Mahanta received the Best Poster Award at the DAE-BRNS Conference on Electrochemistry for Industry, Health, and Environment (EIHE) 2025 at BARC Mumbai.
- Ms. Shweta Choudhary received the Best Poster Award at the CRSI-ACS Early Career Researchers' Symposium 2024.
- Mr. Vikas Singh Thakur received the Best Poster Award at the ICFM-2024, organized by IIT Kharagpur.
- Ms. Tejal Dixit, Best Oral presentation award at the Society of Nitric Oxide and Allied Radicals (SNOAR-2025) conducted by IIT Roorkee
- Mr. Kartikay Tyagi, Best Poster Award poster at the Society of Nitric Oxide and Allied Radicals (SNOAR-2025) conducted by IIT Roorkee.
- Mr. Pankaj Singh Patwal received first prize in Poster Presentation during the Institute Research Scholar Day 2025.

- Ms. Nivedita Rana has Secured second position in Career Orientation and Mentorship for Emerging Talent (COMET' 2025) in THREE MINUTE THESIS COMPETITION entitled "Exploring the Photophysical Properties of Functionalized Porphyrins and their Application in Light Harvesting Systems, Photodynamic Therapy and Energy Storage" which was held during 8-9 February 2025 at IIT Roorkee.
- Ahmad received Best Poster award for his poster presentation titled "Porphyrin-Based Covalent Organic Polymer-Wrapped MWCNT Electrodes for Ultra-Stable Aqueous Supercapacitors under Moderate Salt Concentration" at International Conference on Green sustainable Solutions (ICGSS) on 27-28 February 2025 at DBUU, Uttarakhand.

#### Webinars/Symposiums/Workshops/ Conferences/Colloquium:-

The Department has organized various conferences/seminars/workshops/ international conferences including Invited Lecture by Prof. Debabrata Maiti (Shanti Swaroop Bhatnagar Awardee), Open House Science Day, on National Science Day 2025 and Spectroscopy and Dynamics of Molecules and clusters



#### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
Total	0	3	0	169	4	5

## CIVIL ENGINEERING

The Department of Civil Engineering at the Indian Institute of Technology, Roorkee is the oldest and the largest in the country. It was established on November 25, 1847, as the Roorkee Civil Engineering College and was renamed the Thomason College of Civil Engineering in 1854. The department has produced several eminent engineers who have made significant contributions to the planning and execution of Civil Engineering projects in India as well as abroad. The Department offers a four-year course leading to the Bachelor's degree in Civil Engineering, Five years dual degree course, and two-year courses leading to Master's degree in six major specializations of civil engineering (viz. Environmental Engineering, Geomatics Engineering, Geotechnical Engineering, Hydraulics Engineering, Structural Engineering and Transportation Engineering). In total, there are 635 students pursuing a bachelor's degree and 132 students pursuing Master's Degree in the department. These programs are supported by strong doctoral programs in all specializations. More than 314 Ph. D. research scholars are currently working in the department in emerging research areas. There are currently 30 Professors, 05 Associate Professors, 23 Assistant Professors, 01 Emeritus Fellow, 02 Post Doctorate Fellow and 02 Technical Officers working in the department. During the academic year 2024-25, the faculty earned several honors and awards for their achievements. They visited a number of institutions and participated in seminars, symposiums, conferences, and short-term specialist courses. In the year 2024-25, 47 Ph.D. degrees were awarded. The faculty currently have research projects worth Rs. 3264.01 lakhs in progress, and 25 new projects totaling Rs. 2214.44 lakhs. Additionally, the faculty members are involved in consultancy projects amounting to Rs. 4833.65 lakhs. The faculty members are published a total of 137 papers in journals.

Total no. of faculty/ Adjunct/ Visiting –teaching faculty	59
No. of Post Doc. Fellows	02
No. of PMRF	21

Dr. Abhiraj Sharma, and Dr. Ketan Arora, had joined the Department of Civil Engineering, IIT Roorkee as Assistant Professors.

### Academic Activities: -

Programmes Offered	Students on-roll	Degrees Awarded
B. Tech	635	188
M. Tech	132	57
Ph. D	314	47

### R & D Activities: -

Project Status	Total number of Sponsored	Total number of Consultancy
New	25	447
Ongoing	49	15
Completed	25	258

### Major Facilities: -

pH, Conductivity, Dissolved Oxygen Electrode, Peristaltic Pump (05 Nos), Nitrogen gas generator, APCI probe, UV-VIS Spectrophotometer, Refrigerated Centrifuge, Cod Digester, Mild Steel Orbital Shaker Incubator, Thermal Sensor for UAV with Software, Dual Band RTK GNSS Receiver (05 Nos), Soil Pulverizer - Cum Grinder, Acoustic Emission System, Muffle furnace 1500°C, Laboratory Vane Shear Apparatus, Fracture Mechanics Clevis Grips, and Trinocular Microscope with LED illumination

### Student Achievement: -

- Ms. Gopika Das K, selected as the only Asian student in 2024 received funding support from international societies such as IUGG, IGS, IASC, and IACS to participate in the 7th International Summer School in Glaciology, hosted by the University of Alaska Fairbanks (UAF). She also received 3rd position in Oral presentation in 2nd ICM Meet at IIT Bombay 2025.
- Ms. Hempushpa Sahu, received the 'Advanced Research Opportunities Program (AROP)' fellowship for a research project from RWTH Aachen University, Germany. The fellowship is for a duration of 6 months, from July 2024 to December 2024.



- Mr. Deepak Verma, and Ms. Rasheeda Soudagar, received the Geoscience and Remote Sensing Society travel grant of USD 1725 to attend the 44th annual International Geoscience and Remote Sensing Symposium (IGARSS 2024), held July 7-12, 2024, at the Megaron Athens International Conference Center, Greece.
- Mr. Kumar Rishabh Gupta, received the Student Travel Grant of 2000 USD by EAG and GS to present his research work entitled "Mobility of multispecies solute transport through porous media" at the 2024 Goldschmidt Conference held from August 18-23, 2024 at Chicago, USA. He also received ANRF (DST) International Travel Award, Govt. of India and AGU Student Travel Grant by American Geophysical Union (AGU) to present his research work entitled "Exploring Multispecies Solute Dynamics in Saturated Porous Media: A Simulation and Moment Analysis Approach" at the AGU 2024 Fall Meeting held December 9-13, 2024 in Washington D.C., USA.
- Ms. Khin Thinn Soe received the ISSMGE Foundation Travel Grant from the International Society for Soil Mechanics and Geotechnical Engineering to attend the XVIII European Conference on Soil Mechanics and Geotechnical Engineering (ECSMGE) held in Lisbon, Portugal on August 26-30, 2024.
- Mr. Murapaka Swamy Naidu, was awarded the ISSMGE Foundation Travel Grant from International Society for Soil Mechanics and Geotechnical Engineering to attend XVIII European Conference on Soil Mechanics and Geotechnical Engineering (ECSMGE) in Lisbon, Portugal on August 26-30, 2024.
- Mr. Sushant Rahul participated in the prestigious International School for Landslide Risk Assessment and Mitigation (LARAM-2024) organized by the University of Salerno, Italy. Being among the 40 PhD students worldwide chosen for this distinguished summer course, he attended and successfully completed the program from September 9 to 20, 2024 in Salerno, Italy.
- Mr. Sarvesh Kumar Verma, received a €2400 travel grant from the International Association of Cryospheric Sciences (IACS) and the University of Oslo to attend the 3rd Machine Learning Workshop in Glaciology at the Finse Alpine Research Station, Norway, September 6-12, 2024. Also, presented a talk on "Mapping glaciers and lake bathymetry using satellite remote sensing," at the 13th Summer School on Advanced Training in Land Remote Sensing, organized by the European Space Agency (ESA) at the University of Innsbruck, Austria, September 16 - 20, 2024.
- Mr. Pawan Singh, received €1500 in financial support to attend the Debris-Covered Glacier Workshop in Klosterneuburg, Vienna, Austria, on November 28-29, 2024. He presented his work on "Ice Cliff Backwasting Rates from Hourly to Daily Timescales: A Case Study from Machoi Glacier, Western Himalaya."
- Mr. Sahil Kundal, received the 2024 IEEE GRSS IDEA Professional Development Microgrant, with a maximum value of USD 500. Also, selected for the NCKU LiDAR Winter School 2025, Taiwan.
- Ms. Leena Dhruwa, received a travel support grant of USD 250 to present her paper entitled "LiDAR technology for efficient and accurate large-scale mapping and cadastral surveying" in the IEEE International India Geoscience and Remote Sensing Symposium InGARSS 2024 held on December 2 - 5, 2024.
- Ms. Snigdha Pandey, received the ANRF (DST) Young Scientist International Travel Support, Govt. of India, to present her research work entitled "Assessing Distance-Based Dispersion models for simulating Solute Transport in heterogeneous porous media" at the AGU 2024 Fall Meeting held from December 09-13, 2024 at Washington D.C., USA.
- Ms. Manisha Yadav, received the Best Paper Award for her paper titled "Deformation response of Shallow Rectangular Tunnel Embedded in Saturated Sand Subjected to Seismic Loading" in Parallel Session during 8th International Conference on Recent



Advances in Geotechnical Earthquake Engineering and Soil Dynamics, held December 11-14, 2024 at IIT Guwahati.

- Mr. Shubham Chajed, received the "IGS-Ahmedabad Chapter Young Geotechnical Engineer (YGE) Award" for the best paper published during the immediate past Indian YGE conference. The award-winning paper is titled "AE Event Count Based Damage Evolution and its Application in Micromechanical Damage Plasticity Model."
- Mr. Abhishek Srivastava, and Mr. Usman Aliakbar Mohseni received the Commonwealth Split-Site Scholarship, Commonwealth Scholarship Commission (UK), 2024, to carry out a part of his Ph.D. research work at the University of Bath, England.
- Mr. Aditya Kumar Thakur, received Travel Grant of 1900 USD for ISPRS Technical Commission IV Symposium 2024, October 22-25, 2024, Fremantle, Perth, Australia
- Mr. Srujan Chalavadi, received the ISRM Best Paper Award: General Category for the paper "Seismic Behaviour of Tunnels in the Indian Himalayas" presented at ISRM 2024 International symposium, ARMS13, September 2024, New Delhi, India.



### Faculty Entrepreneurship details:-

- Prof. Amit Agrawal:- Founded a scientific spin-off – PARIMITRA Pvt Ltd. In May 2024. The spin-off secured a grant of Rs. 30. Lakhs under DISHA program by Drishti TIH IIT Indore.
- Prof. Siddhartha Khare:- Bhoomicam Startup received 1.33 Cr in March 2025 in Equity based funding under Department of Science and Technology DAIL Scheme from IIT Bhilai Innovation and Technology Foundation (IBITF)

### Webinars/Symposiums/Workshops/Conferences/Colloquium:

The Department has organized various conferences/seminars/workshops/ international conferences including Short Term Course on Mix Design and Quality Control Practices in Pavement Construction, ITR-MoRTH Stakeholders' Meet on Instrumentation & Real-Time Monitoring of Hill Slopes & Special brainstorming session on "Cost-Effective Long-Term Remedial Measures of Landslides Prone Areas in Hilly Regions, UAV for Landslides: Learn Application of UAV in Monitoring Landslides, 46th Training Course under Pradhan Mantri Gram Sadak Yojana on "Capacity Building for FDR Roads in Uttar Pradesh, DRONE4S: Drone Technology Lab for Sustainability and Student Hackathon, Workshop on Applications of Driving Simulators and VR in Advanced Road Safety Research and many more



### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
Total	06	10	59	138	08	01

## COMPUTER SCIENCE & ENGINEERING

The Department of Computer Science and Engineering at the Indian Institute of Technology Roorkee, promotes innovation-centric education and performs cutting-edge research. The department continuously endeavors to create and sustain an academic environment conducive to the highest level of research and teaching. The goal is to develop human resources with sound knowledge of theoretical, systems, and application aspects of Computer Science & Engineering. The department also facilitates the development of academia-industry collaborations and societal outreach activities. The Department has strong research groups in the broad areas of Computer Networks and Cyber Security, Computer Architecture, Algorithms, Artificial Intelligence and Machine Learning, Cloud Computing and Internet of Thing (IoT), Data Analytics and Natural Language Processing, Vision and Image Processing, Theory and Software Engineering.

Total no. of faculty/ Adjunct/ Visiting –teaching faculty	22
No. of Post Doc. Fellows	03
No. of PMRF	04

Dr. Rajat Sadhukhan, Dr. Awanish Pandey, Dr. Raghvendra Singh Rohit and Dr. Akash Kaith Aparajita Khan, had joined the Department of Computer Science and Engineering, IIT Roorkee as Assistant Professors.

### Academic Activities:

#### New courses introduced-

1. CSL-530 – “Design and Analysis of Symmetric Cryptosystems” was offered in Spring 2025. The course provides theoretical and hands-on training with the design and security analysis of the symmetric key cryptographic algorithms.
2. CSL-506: Program Analysis and Testing
3. CSL-555: Complexity Theory
4. CSL-540: Modern processor design and optimization

Programmes Offered	Students on-roll	Degrees Awarded
B. Tech	110	
M. Tech	29	
Ph. D	2 (Supervisor) + 1 (Co-supervisor) by Prof. A. Khan	

### R & D Activities: -

Project Status	Total number of Sponsored	Total number of Consultancy
New	5	0
Ongoing	10	3
Completed	7	3

### Major Facilities: -

1. Centralized high-performance computing server equipped with an AMD 9th Generation 128-core processor, 512 GB RAM, and NVIDIA RTX A4000 GPU, with provisions for additional multi-GPU expansion via high-bandwidth PCIe slots. The server includes 4 TB SSD for high-speed data processing and 10 TB HDD for extended storage.
2. AMD Ryzen 9 7950X3D 16-core processor,
3. Nvidia RTX A6000 48 GB,
4. RAM 128GB,
5. 4TB SSD

### Student Achievement:

1. Pranav Singh Chib received, Google India Travel Grant (USD 3,000) for attending NeurIPS 2024
2. Uppala Vivek Narayan received IndiaAI Fellowships (Guide Prof. Pravendra Singh).
3. Manan Garg received the IndiaAI fellowship (Guide Prof. Aparajita Khan)
4. Aman Swaraj received ANRF Travel Grant (Guide Prof. Sandeep Kumar Garg).
5. Hem Chandra Joshi received Samsung Research Fellowship (Guide Prof. Sandeep Kumar Garg).
6. Mr Mithilesh Pandey received Best Poster award on Research scholar's day (Guide Prof. Sandeep Kumar Garg).

**Faculty Entrepreneurship details:-**

- Prof. Raksha Sharma registered a software tool as Urja Analytics Limited. She is working as non-executive director with 50% stake.

**Publication:**

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
<b>Total</b>		2	0	26	31	92

**DESIGN**

The vision of the Department of Design is to evolve as a unique entity focusing on design and innovation culture based on human-environment engagement in collaborative partnerships with society, industry, and other stakeholders. The basic objectives of establishing a Department of Design at IIT Roorkee are:

- To create a culture of innovation and creative problem-solving.
- To impart design-based education and create an ambiance of systematic design practice.
- To facilitate interdisciplinary design-focused education, research, and entrepreneurial activities with a focus on creating commercial opportunities.
- To develop Documentation and Archival Repository of Design Innovation practices at the grassroots level.
- To build an environment of handshaking between academia and the industry to address relevant societal issues through co-creation and their transform them into products.

Total no. of faculty/ Adjunct/Visiting teaching faculty	Core Faculty- 03 Visiting Faculty- 01 Joint Faculty- 13
No. of Post Doc. Fellows	01
No. of PMRF	03

**Webinars/Symposiums/Workshops/ Conferences/Colloquium:-**

The Department has organized various conferences/seminars/workshops/ international conference including CSE Research Scholar Day and Google DeepMind

Dr. Madhan Kumar Vasudevan and Dr. Ranjit Konkar had joined Design department, IIT Roorkee as Assistant Professor and visiting Faculty.

**Academic Activities**

Department of Design introduced the Bachelor of Design (B. Des.) program in the academic session.

Programmes Offered	Students on-roll	Degrees Awarded
B. Des.	18	0
M. Des.	39	30
Ph. D	32	0

**R&D Activities**

Project Status	Total number of Sponsored	Total number of Consultancy
New	3	NIL
Ongoing	6	2
Completed	1	0

**Student Achievement**

- Ms. Syed Ifrah, awarded with IGCS and DAAD fellowships and AROP fellowships by RWTH Aachen University, Aachen, Germany
- Mr. Abhishek Srivastava and Mr. Ankush Kumar received Best Paper Recognition at Unmesh 2025, DRDO, MoD, GoI conference. (Guide Prof. Sonal Atreya)
- Mr. Kamlesh Arya, received a Recognition certificate from Gramya Vikah Mancha.
- Mr. Vrashal Verma and Mr. Nikhil Chauhan



received Best Poster Award at the IDEAS-2024 conference hosted by Queen's University and IIT Roorkee.

### Highlights

1. To offer rich academic, professional, and cross-cultural experiences and to promote long-lasting local and global community engagement, Queen's University, Canada and IIT Roorkee, India, collaborated to create the next generation of creative leaders and community builders. QES 2025, which is administered by Universities Canada (UnivCan) and funded by the Rideau Hall Foundation (RHF), provides funding for initiatives that emphasize climate change adaptation, responses, and resilience.
2. The Department of Design in collaboration with the Department of Mechanical and Aerospace Engineering, Tribhuvan University Nepal hosted an international workshop on

'Design Thinking and Advanced Engineering Materials for Extreme Environments'.

3. IIT Roorkee signed three significant MoUs with the Indira Gandhi National Centre for Arts (IGNCA) and the Uttarakhand Tourism Development Board (UTDB) championed by the Department of Design (under the headship of Prof. Apurbba Sharma and Prof. Inderdeep Singh), and initiated by Prof. Smriti Saraswat with contributions from students of IITR.

### Webinars/ Symposiums/ Workshops/ Conferences/Colloquium:-

The Department has organized various conferences/seminars/workshops/ international conferences including Pre-Conference Meetup #RoadToUXI24, "One District One Product" initiative (Bhagwanpur Region), Human Interface in Higher Education through Arts in Pedagogy and Bio-Inspired Design (Biomimicry Hackathon).



### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
Total	0	6	11	1	1	2

## EARTHQUAKE ENGINEERING

The Department of Earthquake Engineering is an interdisciplinary department that was established with the aim of training manpower in the specialized field of Earthquake Engineering to deal with the problems posed by strong earthquakes for engineering infrastructure.

Total no. of faculty/ Adjunct/ Visiting –teaching faculty	16
No. of PMRF	04

### Academic Activities: -

The Department of Earthquake Engineering offers postgraduate M.Tech (admission through GATE/sponsorships) and Ph.D (through



selections/ sponsorships) programs in following specializations:

- Soil Dynamics
- Structural Dynamics
- Seismic Vulnerability and Risk Assessment

Programmes Offered	Students on-roll	Degrees Awarded
B. Tech	NIL	NIL
M. Tech	30	29
Ph.D	05	06

#### R & D Activities: -

Project Status	Total number of Sponsored	Total number of Consultancy
New	04	10
Ongoing	08	10
Completed	01	06

#### Major Facilities: -

Development of a large-scale uni-axial shake table test facility of size 5.0 m x 7.2m with a payload capacity of about 100 tonnes. This facility will be ideal for performing seismic simulation and vibration tests on full-scale models as well as on assemblies for earthquake and vibration resistance. The shake table will be equipped with a data acquisition system with multiple accelerometers, displacement transducer, strain gauges and other transducers on the table as well as on the model/specimens during the test. The actuator data with instrumented structural data will be useful for numerical simulation and validation/calibration of analytical modeling.



1. Debris flow modeling facility has been developed in the department
2. Offshore foundation testing facility has been developed in the department

#### Student Achievement: -

- Ms. Nadia Mubarak visited the university of Birmingham UK as a visiting researcher for 6 months.
- Ms. Aashima Sharma and Prof. P.C. Ashwin Kumar (Guide) were part of the team with India welds that received first prize award at the 2nd CII National Corrosion Management Practices – Competition & Awards. Team was recognized in the category "Addressing Corrosion through Better Material Selection / Alternate Material".

#### Highlights:-

Rathore, G., Kumar, A., Jakka, R.S., Sharma, M.L., and Kamal, K. (2024) "A Strong Ground Motion Sensor", Patent No: 496293, technology transferred to Seismic Hazard and Risk Investigations Pvt Ltd.

#### Webinars/ Symposiums/ Workshops/ Conferences/Colloquium:-

The Department has organized various conferences/seminars/workshops/ international conferences including Workshop on Numerical Applications of OPTUM Geotechnical Software, IGS Webinar Series on Challenges and Opportunities in Offshore Geotechnics in India and PRIME Lecture Series



**Publication:**

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
<b>Total</b>		05	43	49	03	04

**EARTH SCIENCES**

The geological studies in the university date back to the middle of the nineteenth century when Colonel Sir Proby Cautley (who was responsible for establishing the Thomason Engineering College) was elected as a Fellow of the Royal Society, London, for his pioneering work on the vertebrate fossils of the Shivalik Ranges. Later Henry Benedict Medlicot, who was also admitted as a Fellow of the Royal Society in 1877, occupied the Chair in Geology and Experimental Sciences at Thomason College. The Department of Earth Sciences, formerly the Department of Geology and Geophysics, was established in 1960. During the span of six decades, the department has become one of the foremost centres of research, postgraduate training and consultancy in the field of Earth Sciences. The department has been the recipient of financial aid under the prestigious Special Assistance and COSIST programmes of UGC (Ministry of Human Resources and Development, Govt. of India).

<b>Total no. of faculty/ Adjunct/ Visiting –teaching faculty</b>	<b>26</b>
No. of Post Doc. Fellows	01
No. of PMRF	08

Dr. Arun Singh had joined the Earth Science Department, IIT Roorkee as an Assistant Professor.

**Academic Activities: -**

The Department offers a diverse range of academic programs and courses designed to provide comprehensive knowledge and practical skills in various subfields of Earth Sciences. New Courses Introduced in 2024-25: Carbon Sequestration, Planetary Geosciences, Global Geophysics, Geology for Engineers, Geology of Petroleum.

Programmes Offered	Students on-roll	Degrees Awarded
Integrated M.Tech. (Geological Technology)	151	25
Integrated M.Tech. (Geophysical Technology)	158	36
M. Sc. (Applied Geology)	37	17
Ph. D	120	15

**R & D Activities: -**

The Department focuses on a wide range of research areas, including: Geophysical Signal Processing Applications for Earth Systems, Biostratigraphy, Organic Evolution, and Paleoclimate Studies, Crustal Deformation and Transient Behavior Analysis Using GPS Data, Electromagnetic and Magnetotelluric Methods, Engineering Geology, Forward and Inverse Modeling of Resistivity Data for Groundwater Prospecting, Forward and Inverse Modeling of Seismological Data, Gravity and Magnetic Prospecting, High-Pressure and High-Temperature Laboratory Investigations, Himalayan Tectonics and Orogeny, Integrated Reservoir Characterization, Metamorphic and Precambrian Tectonics, Oceanography and Paleoceanography, Ore Deposit Geology, Remote Sensing and GIS, Rock Physics and Petrophysics, Sedimentology and Basin Analysis, Seismic Hazard Assessment, Seismic Signal Processing for Hydrocarbon Exploration, Seismic Travel Time and Attenuation Tomography, Strong Motion Seismology, Structural and Deformation Geology, Subsurface Investigations Using Ambient Noise Studies.

Project Status	Total number of Sponsored	Total number of Consultancy
New	02	11
Ongoing	07	
Completed	24	15

**Major Facilities:-**

- Direct Shear Test Apparatus with DAQ and Analysis Module
- Servo-Controlled Static Triaxial Compression Test Machine
- Mini-Seis III Fullwave Form and Combined and Manual Vibrometer Standard Triaxial Geophone
- Palynological Microscope
- Microwave Digestion System Multiwave 5000 50 Hz Package

**Student Achievement:-**

- Mr. Soumyaranjan Behera has been awarded a travel grant for presenting his paper at the prestigious EGU Assembly 2025 in Vienna.
- Mr. Abdul Latheef TP was awarded a DAAD bilateral hosted research fellowship starting at GFZ Potsdam, Germany.
- Mr. Dhruv Pathania qualified the UPSC combined Geo-scientist examination and joined the Geological Survey of India.
- Ms. Nora Carolin has been awarded the CSIR Research Associateship.
- Mr. Shubham Pathak has been awarded the prestigious DAAD WISE 2024 award for fully funded summer research internship (offline-mode) in Germany at Institute of Applied Geosciences - General Geology KIT - Karlsruhe Institute of Technology.
- Mr. Rajrishi Saud received a Gold Medal at Aarohan, IIT Ropar Lawn Tennis.
- Mr. Aditya Kumar was awarded the ONGC Scholarship.
- Mr. Tanveer Ali Dar was awarded the Best PhD Thesis award by the Indian National Chapter of the International Association of Hydrogeologists (INC-IAH)
- Mr. Prahlada Mittal received 2024 the Future Research Talent Award from Australian National University.
- Mr. Mridul Sharma secured an AIR of 21 in Geophysics, GATE 2025.

**Highlights:-**

- Development of SeisRTM Software in collaboration with CDAC and ONGC under the National Supercomputing Mission (NSM) as part of the "Make in India" initiative. This advanced Reverse Time Migration (RTM) software is designed to deliver high-resolution 2D and 3D seismic images of complex geological subsurfaces using large seismic datasets.
- Ongoing research collaboration with Universite Laval, Canada on a thematic project on sulfur isotope signature of Archean gold deposits.

**Webinars/Symposiums/Workshops/Conferences/Colloquium:-**

The Department has organized various conferences/seminars/workshops/ international conferences including Workshop on "seismic modelling and migration using SeisRTM software suite" was organized in collaboration with CDAC, Expert lecture on "Advances in Geospatial Data Science in Natural Resource Applications: Case Studies from Alaska" and Guest lecture on "Checking the pulse and taking the temperature: how do springs respond to environmental stresses?"





**Publication:**

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
<b>Total</b>			05	17	48	01

**ELECTRICAL ENGINEERING**

The Department of Electrical Engineering at Thomson College in the year 1897, and was one of the earliest such specializations in the world when the discipline itself was in its infancy. The first batch of Electrical Engineering students graduated in 1900 from the Thomason College of Engineering. For a few years, between 1923 and 1946, a special committee had recommended that the College should be converted into a purely Civil Engineering Institution, however another special committee favoured the reopening of the disciplines of Mechanical and Electrical Engineering. The present Department of Electrical Engineering came into being in 1946 and the first batch of electrical engineering graduated Initially, the Department offered courses with options in both Electrical and Electronics & Telecommunications Engineering. Subsequently in 1964, the department was enlarged to have only Electrical Engineering, and a separate department of Electronics & Communication Engineering was created. Presently the Department conducts courses at both undergraduate and postgraduate levels and provides excellent facilities to carry out research work for Ph.D. degree and sponsored/ consultancy projects.

<b>Total no. of faculty/ Adjunct/ Visiting –teaching faculty</b>	<b>36</b>
No. of Post Doc. Fellows	04
No. of PMRF	09

Prof. Asha Sharma, Prof. Satish Shamsundar Belkhode, Prof. Parikshit Paree, Prof. Kishor Bhaskarrao Nandapurkar had joined Electrical Engineering Department as an Assistant Professors

**Academic Activities**

The department offers a four-year undergraduate program (B.Tech.) in Electrical Engineering and runs four postgraduate (M.Tech.) program in Electrical Drives & Power Electronics, Power System Engineering, Systems & Control, Instrumentation & Signal processing and Electric Vehicle Technology. In addition to this, the department offers two Integrated Dual Degree program of 5 years duration, B.Tech. (Electrical Engineering) and M.Tech. (Instrumentation & Control), B.Tech. (Electrical Engineering) and M.Tech. (Power Electronics). Besides this, the doctor of philosophy (Ph.D.) program is a flagship program of the department's research.

Programmes Offered	Students on-roll	Degrees Awarded
B. Tech	694	170
M. Tech	108	50
Ph. D	191	25

**R & D Activities**

Project Status	Sponsored 02	Amount Rs. in lacs	Consultancy	Amount Rs. in lacs
New	06	166.02	06	18
Ongoing	21	1001.91	21	464.68
Completed	28	1971.04	15	42.33

**Major Facilities**

- Intell Xeon W7, 256GB RAM and One NVIDIA 4500 ADA
- (24GB) GPU
- High-precision portable power analyzer (Fluke Norma 5004)
- OPEL-RT HIL Simulator (OP4512)
- Battery Cell Simulator along with real time simulator in the FIST Laboratory



- OPAL-RT 4152
- Grid Emulator of 15kW rating
- OPAL-RT 4152

### Student Achievement

- Mr. Kaushik Halder, received Best Paper Award at IEEE 28th International Conference on System Theory, Control and Computing (ICSTCC), Palace Hotel, Sinaia, Romania
- Mr. Himansh, Mr. Kaushik Patil, Mr. Raj Abhinav and Mr. Srijan Varshney received Best BTP Award.
- Mr. Shourya Sharma has received Best Paper Award for his paper at 2024 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES)
- Mr. R. Adithya Rishi, Mr. Sandeep Chandal, Mr. Darabala S. Mahendra, Mr. Ayush Dhaker received Best Tinkering Project Award
- Ms. Nikhila Patil received Best R&D project Award at the INUP User's meet 2024 at IIT Bombay.
- Mr. Peeyush Kumar, Mr. Shubham, Mr. Vishal Babu and Mr. Yash received the Professional Development And Innovation Award (Best Innovator UG) at Convocation 2024
- Mr. Suvra Pattanayak received Best Innovative Project in "Power System Cybersecurity

### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
Total	1	0	106	84	0	0

## ELECTRONICS AND COMMUNICATION ENGINEERING

Department of Electronics & Communication Engineering was established in 1964 to offer Bachelor of Engineering degree in Electronics & Communication and Master's of Engineering degrees in (a) Advanced Electronics and (b) Applied Electronics & Servomechanisms. In 1968,

Hackathon: Protecting the Backbone of Modern Society.

### Highlights

- International Collaboration under Southeast and South Asia and Taiwan Universities Presidents' Forum (SATU), National Cheng Kung University (NCKU), Taiwan with Professor Li Wang, Department of Electrical Engineering, NCKU, Taiwan.

### Notable Activities

- FIST Sponsored EV Technology for Clean Transportation Laboratory.

### Webinars/Symposiums/Workshops/ Conferences:-

The Department has organized various conferences/seminars/workshops/ international conferences including Efficient Power Management Techniques and Digital control of Power Converters for EV and Renewable Applications, AI and Robotics, Communications, Interaction, Health Management of Oil-Filled Transformers-Why and How, Silicon and WBG Power Semiconductors for Power Electronics - Trends, Impacts and Challenges and Advances in Constrained Nonlinear Optimization: Theory and Applications

the postgraduate program was restructured with specializations in the areas of Communication Systems, Control and guidance, Microwaves and Radar, and Solid-State Electronics. Two new undergraduate and postgraduate programs in Computer Science and Technology were started in 1982. Keeping in view the activities of the Department, the name was changed to the Department of Electronics and Computer

Engineering. In January 2013, a separate Department of Computer Science and Engineering was carved out and the department was again renamed the Electronics and Communication Engineering. At present, the department has 39 full time faculty members and offers one B. Tech. program in Electronics & Communication Engineering and five full time M. Tech. programs viz. M. Tech. in Microelectronics & VLSI (MeV), Communication Systems, RF & Microwaves (RFM) Engineering, Terahertz Communication & Sensing (TCS) and Semiconductor Technology. The department also offering a separate M Tech program special designed for professionals working in the area of VLSI. The Department has state of art characterization facilities covering the range from DC to 1.1 THz. The M. Tech. in THz Communication & Sensing is first program offered by any Indian academic institution to directly address the need the telecommunication technology for beyond the 2030 era. Faculty members and research scholars of the department are actively engaged in cutting-edge research in all aspects of electronics and communication engineering. The department has up to date infrastructure and human resources to handle traditional as well as future research challenges driving the revolution in the technological area of semiconductor as well telecommunication technology. The threads essential for combining semiconductor and telecommunication technology together i.e. the research in Cyber Physical Systems (CPS) are part of the core research activities of the department.

The Department has strong research groups in the broad areas of:

1. Communication, Network & Signal Processing
2. RF and Microwaves
3. Microelectronics and VLSI
4. Terahertz Communication & Sensing
5. Smart Electronic Systems and Sensors

<b>Total no. of faculty/ Adjunct/ Visiting –teaching faculty</b>	<b>39</b>
No. of PMRF	13

Prof. Amita Giri had joined Electronics and Communication Engineering Department as an Assistant Professor.

### Academic Activities

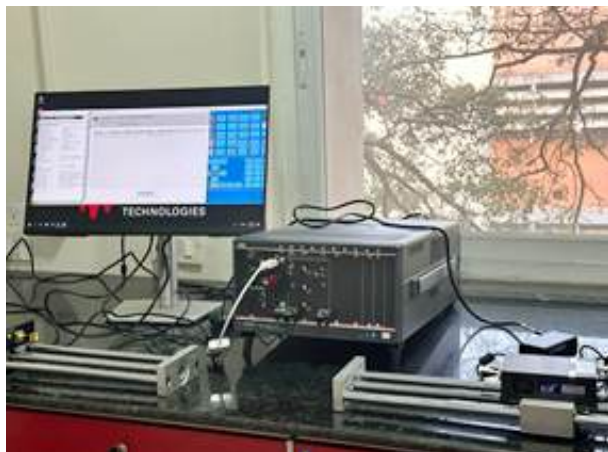
The department has strong background of RF and microwave; Communication, Network & Signal Processing; and Microelectronics and VLSI. It also proposes an M.Tech Programme on 'Terahertz Communication and Sensing' which will provide the academic competencies to meet the challenges related to THz Engineering. In addition the Department also offers Joint M. Tech in Semiconductor Technology with Taiwan Universities

<b>Programmes Offered</b>	<b>Students on-roll</b>	<b>Degrees Awarded</b>
B. Tech	474	127
M. Tech	87	36
Ph. D	216	25

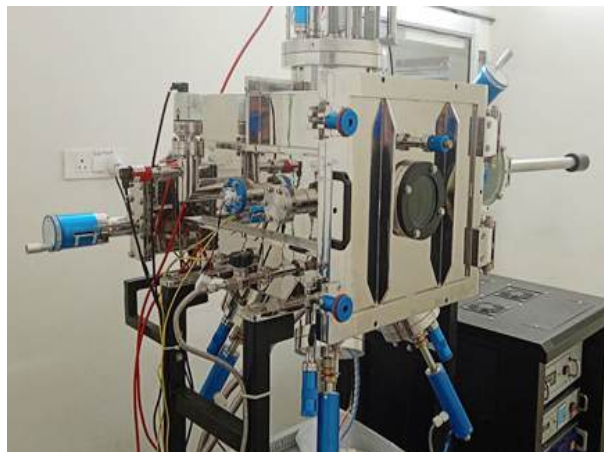
### R & D Activities

- **Indigenous Technology Development:** Faculty members and students of the ECE department are actively engaged towards its developing indigenous technology and its commercialization through either start-ups or directly transferring it as product to other industries.
- **Training of Manpower:** The Department of ECE is committed to train technical manpower through academic and research programs to cater to the manpower requirement of industries. We are contributing significantly in preparing employable graduates and post graduates in the areas of semiconductor, telecommunication, defense and space industries. The Department is also focussing to address the issues of low cost electronic test and measurement equipment in social, agricultural and medical sectors.

## Major Facilities



**Sub-THz Communication Test Bench**



**Multi-target DC/RF sputtering system added to Microelectronics Laboratory**

## Student Achievement

- Mr. Abhishek Kumar, Ms. Srishti Singh, Mr. Hari Shanker, Mr. Manoj Kumar, Mr. Jay Singh Amrutha Mr. Subrahmannian, Ms. Ayshika Kapoor, Mr. Nehete Hemkant, Ms. Suman, Kumar Sheelvardhan, Mr. Kaintura Aradhana, Ms. Smriti Singh and Mr. Jothishwaran CA have been selected for the PMRF Fellowship.
- Mr. Chinmay Nagpal and his team emerged as National Winners in the E-Waste category of Trash to Treasure Hackathon.

## Webinars/Symposiums/Workshops/Conferences:-

The Department has organized various conferences/seminars/workshops/ international conferences including Prof. A. K. Kamal Memorial Lecture Series, Mini Workshop on VLSI Testing, SERB Karyashala on ``AI for Human Brain Computer Interaction, SPARC workshop on "Spintronic Devices and Hardware Security and IEEE EDS Distinguish Lecture: Third Breakdown: The Discovery and Its Applications in HKMG Generation CMOS and NVM -

## Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
<b>Total</b>	NA	NA	51	63	NA	NA

## HUMANITIES AND SOCIAL SCIENCES

The Department of Humanities and Social Sciences, IIT Roorkee (erstwhile University of Roorkee), was established in 1966 with a vision to integrate human values and social concerns with technical education. Over the years, it has developed into a lively department, encompassing teaching and research programs

in English, Economics, Psychology, Sociology, Fine Arts, and related inter & cross-disciplinary subjects. The department runs two academic programmes a two-year M.Sc. in Economics and a five-year BS-MS in Economics. One of the notable achievements in recent years has been of the expansion in research activities and exchanges of ideas, facilitated by the constant surge of discussions, consultations and publications in esteemed and high impact journals.

<b>Total no. of faculty/ Adjunct/ Visiting –teaching faculty</b>	<b>32</b>
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Prof. Aviral Marwal had joined Humanities Department as Assistant Professor.

### Academic Activities: -

- Course outlines of PCCs for BS-MS (Economics)**

HSC-201: Advanced Microeconomics, HSC-203: Advanced Macroeconomics, HSC-205: Introduction to Econometric Theory, HSC-202: Elementary Development Economics, HSC-204: Advanced Econometric Theory.

- Course outlines of HSSECs**

HSS-201: Introduction to Sociology, HSS-202: Human Behavior at Work, HSS-203: Introduction to Economics, HSS-204: Introduction to Abnormal Psychology, HSS-205: Introduction to Cognitive Science, HSS-206: Introduction to Social Psychology, HSO-101: Power and Politics in Contemporary India: Issues and Approaches, HSO-102: Society, Culture and Development, HSO-103: Science, Technology and Society, HSO-104: Industrial Sociology, HSO-105: Cognitive Ergonomics, HSO-106: Dimension of Human Behavior, HSO-107: Positive Psychology, HSO-108: Gender and Culture Studies, HSO-109: Disability and Literature, HSO-110: Women's Writing, HSO-111: Film & Literature, HSO-112: Medical Humanities, HSO-113: Creative Writing in English, HSO-114: Partition Literature, HSO-115: Canadian Literature - Perspectives on Postcolonialism, HSO-116: Fiction of Indian Diaspora, HSO-117: Psychological Basis of Behavior, HSL-901: Computational Aspects of ASTADHYAYI, HSL-902: Introduction to

Computational Linguistics, HSL-533: International Finance, Research Methodology, Art of Fiction, Soft Skill

<b>Programmes Offered</b>	<b>Students on-roll</b>	<b>Degrees Awarded</b>
(B.Sc-M.Sc Eco.)	137	Nil
(M.S. Eco.)	31	10
Ph. D	250	39

### R & D Activities: -

<b>Project Status</b>	<b>Total number of Sponsored</b>
New	1
Ongoing	9
Completed	4

### Student Achievement: -

- Ms. Sangjukta Roy received the Best paper award at the 2024 annual INMS Three-day conference, at IIT Madras. (Guide Prof Binod Mishra)
- Ms. Swarali Sahasrabudhe, has been awarded the 'Best Paper Award' in the General Management and Strategy track at the Global Business Research Conference 2025, at the Indian Institute of Foreign Trade (IIFT), New Delhi.
- Ms. Anisha E served as a Visiting PhD Fellow at the Bremen International Graduate School of Social Sciences (BIGSSS), Germany, Funded by BIGSSS.
- Ms. Mrinalini Raj, was awarded- with Charles Wallace Research Grant, for research visit to the United Kingdom.
- Ms. Sohini Sarkar, received a Travel Grant for the International Convention for Asia Scholars (Guide Prof. Smita Jha)

### Publication:

	<b>Book Published</b>	<b>Book Chapters</b>	<b>Paper in conferences</b>	<b>Paper in Journal</b>	<b>IP (Patent/ Design/International Patent/ PCT) filed</b>	<b>IP (Patent/ Design/International Patent/ PCT) granted/Registered</b>
<b>Total</b>	NA	5	34	55	NA	NA



## HYDROLOGY

The Department of Hydrology is one of the 23 academic departments at the Indian Institute of Technology Roorkee. Established with the launch of the International Post Graduate Course in Hydrology in 1972, it became the first such program in a developing country. Currently, the courses offered by the Department are supported by the Government of India and UNESCO. The Department is staffed by nine full-time faculty members, each specializing in areas such as surface water hydrology (floods and droughts), water resources systems, watershed management, geo-hydrology, groundwater geophysics, stochastic hydrology, hydro-informatics, environmental hydrology, atmospheric physics, and climate change.

<b>Total no. of faculty</b>	<b>08</b>
<b>Total no. of faculty (Adjunct/ Visiting –teaching faculty)</b>	<b>03</b>
No. of Post Doc. Fellows	04
No. of PMRF	07

### Academic Activities

<b>Programmes Offered</b>	<b>Students on-roll</b>	<b>Degrees Awarded</b>
M. Tech	26	22
Ph. D	13	07

### R & D Activities

<b>Project Status</b>	<b>Total number of Sponsored</b>	<b>Total number of Consultancy</b>
New	07	13
Ongoing	12	17
Completed	05	16

### Major Facilities

- The Learning Studio Facility features the state-of-the-art digital infrastructure for the hands-on or Virtual/Hybrid/physical meeting.
- A large Experimental Setup to Study Seepage through Earthen Dams is sponsored by the CWC through ICED.

### Student Achievement

- Dr. Divya Sardana received an ANRF international travel grant by EGU General Assembly.
- Ms. Nagashree G. E. received the Future Environmental Leader Scholarship from the Institute for Integrated Management of Material Fluxes and of Resources (UNU-FLORES), Dresden, Germany. She also participated in Ecohydrology Summer School.
- Ms. Bhavya Swami, Mr. Pankaj Patidar, Ms. Akansha Faujdar, Mr. Saurabh Kumar, Ms. Diksha, Ms. Spandan Naskar and Mr. Jaswant Singh received Goldschmidt Geochemistry International Conference Early Career Grant from the European Association of Geochemistry
- Ms. Pragya Badika received the Digital Green Talent Award from the German Federal Ministry of Education and Research
- Ms. Akansha Keshariya received a UNESCO Travel Grant from the World Groundwater Congress-IAH
- Mr. Jaswant Singh received International Travel Support thorough CSIR Foreign Travel Grant.
- Mr. Ajay Gupta received a Commonwealth split-site fellowship
- Ms. Spandita Mitra received an APARC Grant
- Dr. Ravikumar and Dr. Ravikumar Guntu received the Excellence in Doctoral Research Award
- Mr. Nikunj Mangukiya, Ms. Bejagam Vijaykumar and Ms. Sujata Kulkarni received International Travel Support
- Ms. Pragya Badika received the Future Environmental Leader Scholarship

### Highlights

- The Indian Institute of Technology Roorkee (IIT Roorkee) and Samarkand State University (SamSU) have collaborated to enhance to launch a Joint Master's Degree Program (JMDP) and foster research and collaboration

in hydrology, environmental science, sustainable energy, and the Sustainable Development Goals.

- The Memorandum of Understanding was signed between the Indian Institute of Technology Roorkee, India, and BAIF Development Research Foundation and IIT Roorkee on January 24th, 2025.
- The Memorandum of Understanding was signed between the Indian Institute of Technology Roorkee, India, and Bhubaneswar Municipal Corporation (BMC) and IIT Roorkee to create drainage master plan for Bhubaneswar city.
- The Memorandum of Understanding was signed between the Indian Institute of Technology Roorkee, India, and Helmholtz-Zentrum Hereon, Germany, to further strengthen collaboration in advanced membrane science research and applications.
- The Memorandum of Understanding was signed between the Indian Institute of Technology Roorkee, India, and International Water Management Institute (IWMI), Sri Lanka

(under CGIAR) and IIT Roorkee on March 6, 2025

### Webinars/ Symposiums/ Workshops/ Conferences/Colloquium:-

The Department has organized various conferences/seminars/workshops/ international conferences including Indo-German School Workshop, Pravaaha 2025 , BIS Standards Club Workshop, International Workshop Fostering Deep Membrane Science Research for Desalination, Brine Reclamation, and Resource Extraction (MemSci-Brine) and "Groundwater Resource Assessment Using Geophysical Tools and Techniques



### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
<b>Total</b>		02	54	94	03	02

## HYDRO AND RENEWABLE ENERGY

Department of Hydro and Renewable Energy (HRED) has been offering education through MTech. programmes in "Renewable & Hydro Energy Systems" and "Environmental Management of Rivers and Lakes" as well as through short-term national and international training courses in the above areas. Apart from the above, the department has a vibrant PhD program encompassing all areas of renewable energy, hydropower, and environmental management of water bodies. At the UG level, not only does the department offer elective subjects

on Renewable Energy, but it also offers a minor program in Renewable Energy Technology to B.Tech. students at the Institute. HRED is carrying out research, development, and training advisory services to provide key inputs for the full realization of renewable energy potential in different areas such as hydro, solar, wind, and biomass through its diverse interdisciplinary faculties and well-equipped laboratories specific to each of the areas. HRED has expanded its reach to the areas of green hydrogen, batteries, electric vehicles, and grid integration including both theoretical and experimental research activities supported by several funding sources.

<b>Total no. of faculty/ Adjunct/ Visiting –teaching faculty</b>	<b>18</b>
No. of Post Doc. Fellows	02
No. of PMRF	04

Prof. Ravita Lamba and Prof. Pranjali Sharma Joined the Hydro and Renewable Energy Department as Assistant Professors.

### Academic Activities:-

The department offers MTech. programmes in “Renewable & Hydro Energy Systems” and “Environmental Management of Rivers and Lakes” and PhD program. At the UG level, the department offer elective subjects on Renewable Energy and offers a minor program in Renewable Energy Technology to B.Tech. students at the Institute. The department has started a new B. Tech program in Energy Engineering starting from the academic year 2024-25.

Programmes Offered	Students on-roll	Degrees Awarded
B.Tech	20	-
M. Tech	37	21
Ph.D	69	09

### R & D Activities:-

Project Status	Total number of Sponsored	Amount (₹) in lakhs	Total number of Consultancy	Amount (₹) in lakhs
New	8	829.47	30	277.18
Ongoing	21	4083.10	81	1460.48
Completed	5	265.48	63	556.00

### Major Facilities:-

- a) Purchase order placed for a ~35 lakhs modular electric machines setup to provides a state-of-

the-art electric machines training and research facility for UG, PG, and PhD students

- b) Purchase of Raymarine Dragonfly-7 pro for bathymetry
- c) Purchase of Optima Biogas analyzer by MRU
- d) Installation of Multi-cultivator
- e) Laminar Flow cabinet
- f) UV-Vis Spectrophotometer

### Student Achievement:-

- Mr. Sunil K Sethy received Financial grant recommended for support by the Anusandhan National Research Foundation (ANRF) to attend an international scientific conference (SERB).
- Mr Nitish Prasad: secured 3rd Prize on National Space Day IIT Roorkee

### Webinars/ Symposiums/ Workshops/ Conferences/Colloquium:-

The Department has organized various conferences/seminars/workshops/ international conferences including Workshop on “Estimation of carbon footprints and GHGs emissions from surface waters, on-site sanitation systems and water treatment facilities”, Expert talk on “Biomass Power: Operation and Regulatory Aspects”, Expert talks on “Energy transition in Hard-to-abate sectors” and “Energy transition in Hard-to-abate sectors”, Plenary talk on “Energy transition towards the end of fossil fuels era” at International Summit on Renewable Energy (INSORE), workshop on Strategic Plan for Research Activities and many more

### Publication:

Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
3			4	2	

## MANAGEMENT STUDIES (DOMS)

The Department of Management Studies provides high-quality education in business management, offering programs such as the Master of Business Administration (MBA), PhD, and Executive MBA (EMBA). Recognized as a leading centre for management research, the department consistently ranks among the top 20 business schools in the country for research output, as per the NIRF rankings. It is also consistently placed in the 251-300 band in the QS rankings. With over 135 research scholars, the department fosters an environment conducive to management research excellence. It subscribes to a wide range of databases to support this research. Additionally, nearly all faculty members offer online courses through the NPTEL scheme, along with various long-term courses on multiple Edtech platforms. The department also organizes numerous industry-oriented Management Development Programs (MDPs), both sponsored and open to public participation, and undertakes several sponsored projects with societal impact.

Total no. of faculty/ Adjunct/ Visiting –teaching faculty	Total No. of Faculty	Prof. of Practice/ Adjunct
	23	04
No. of Post Doc. Fellows	1	
No. of PMRF	0	

Prof. Prachi Jain and Prof. Nishant Garg had joined the Management Studies department as an Assistant Professors.

### Academic Activities:-

The department of management studies imparts high quality education in the professional fields of business management and offers Masters in Business Administration (MBA), The Executive MBA (EMBA) & PhD. At present, 157 students are pursuing MBA, 100 students are pursuing E-MBA, while 150 PhD. Scholars are pursuing research in the department. In year 2024-25, 82 students were awarded MBA Degree, while 23 students have received PhD degree. The department has subscribed large number of databases for excellence in research.

### R & D Activities:-

Project Status	Sponsored	Amount Rs. in lacs
New	9	234.73
Ongoing	15	73.23
Completed	13	166.33

### Major Facilities:-

- A YouTube channel by DPIIT -IPR chair, IIT Roorkee, which is dedicated to promoting Intellectual Property Rights (IPR) awareness and education.
- SHUNYA Lab: Research lab for large scale optimization modelling for energy transition.
- **Decision Science Lab**
- Consumer Behaviour Lab with Eye Tracker Facility



Link of YouTube Channel:

[www.youtube.com/@IPRCHAIRIITROORKEE](http://www.youtube.com/@IPRCHAIRIITROORKEE)

### Major Collaboration

Sponsoring Agency	Category
International Sustainable Energy Foundation, Austin, Texas	International Collaboration
EFKON India Pvt. Ltd, & STRABAG Infrastructure and Saset Solutions Private Limited (EFKON-STRABAG)	Corporate/Industry
Institute for Energy Economics and Financial Analysis, Lakewood, USA	International Collaboration
Rekhi Foundation for Happiness	Corporate/Industry
Container Corporation of India Limited, New Delhi CONCOR	Public Sector undertaking
DST funded Indo-French (CEFIPRA) Collaborative project	International Collaboration
University of Indonesia	Collaboration Collaboration

### Student Achievement:-

- Mr. Abhigyan received a prestigious PhD Research Internship at TCS Research under the mentorship of one of the Principal Scientist at TCS Innovation Labs, TCS Research. Internship.



- Ms. Sakshi Tiwari received the Best Paper Award at 30th International Conference on IT Application and Management held in Nepal.
- Mr. Harish received the Best paper award at 2nd International Conference on “Emerging Management Trends & Innovative Approaches for Sustainable Development: Embracing Design Thinking Solutions” organized by SOIL School of Business Design (SSOBD), in collaboration with Politecnico di Milano (Polimi), Milan campus, Italy.

### Webinars/Symposiums/Workshops/Conferences/Colloquium:-

The Department has organized various conferences/seminars/workshops/ international conferences including BEL Industry Talk on “defense systems, Business-to-Government (B2G) models, career transitions from college to corporate, and how different business functions interconnect” by Mr. Ranjit Karamchandani, Senior DGM – Operations Monitoring & Analytics at BEL and an esteemed alumnus of DoMS, IIT Roorkee along with Mr. Bhanu Prakash Srivastava, Director of other units at BEL, and Mr. Ambrish Tripathi, GM and Unit Head of BEL Kotdwar. Training of Trainers (TOT) on Basics of IPR for faculty members of higher educational institute involved in teaching at UG/PG level. Online

Certificate Course on Intellectual Property: Source of Innovation, Creativity, Growth and Progress at Indian Institute of Technology Roorkee, Flipcart Guest lecture on “Managing Employee Relations in E-commerce: Challenges and Best Practices” by Mr. Dhiraj Singh, Director – HR (Employee Relations) at Flipkart, Guest lecture on “Due Diligence in Acquisitions and the role of Dedication, Commitment, and Hard Work in achieving success” by Mr. Pitamber Shrivani, esteemed alumnus (IITR EE, 1986) and former MD & CEO of GE T&D India Ltd., Technical session by Mr. Sandeep Sanghal, Founder & CEO of TAP Global on “business turnaround, growth strategies, and navigating market volatility”. As part of the BackToDoMS Alumni series, DoMS, IIT Roorkee hosted Mrs. Vasudha Gupta Sharma, Co-Founder of VervEta Projects Pvt. Ltd., for a guest lecture on “Sustainability: The New Competitive Advantage,” highlighting how businesses can drive growth through sustainable strategies. Workshop at DoMS, IIT Roorkee on “Accelerating Customer-Centric Digital Transformation & Innovation: Ensuring Outcome-Driven Programs,” offering practical insights into driving impactful, customer-focused digital initiatives by Mr. Sachin Singhal, Director at KPMG. Campus Emersion programs were conducted for EMBA students, and students of NIFTEM-K with invaluable insights into leadership, business strategy, technology, and innovation.



### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
Total	-	-	24	29		

## MATHEMATICS

The Department of Mathematics attained its present status as an independent department in 1960. Growing steadily, the department runs its own Undergraduate and Postgraduate programs in Mathematics. The department also offers Ph.D. degrees in various areas of Pure and Applied Mathematics, Operations Research and Statistics. The department collaborates with different national and international organizations in various fields of mathematics. Besides the institute's central computing facilities, the department has a state-of-the-art computer laboratory. The faculty members publish high-quality research publications and are involved in sponsored and consultancy research.

Total no. of faculty/ Adjunct/ Visiting –teaching faculty	31
No. of Post Doc. Fellows	2+1 (NBHM)
No. of PMRF	2

Prof. Gargi Ghosh and Prof. Rahul Kumar had joined the Department of Mathematics as an Assistant Professors.

### Academic Activities

- The Department offers a five-year Integrated UG/PG program in Mathematics, and a dual degree BS-MS (Mathematics and Computing) program since last four academic sessions replacing the five-year Integrated UG/PG program. It also runs its traditional two-year MSc (Mathematics) program.
- The Department offers a two-year PG program in Mathematics, and Ph.D. program in Mathematics.

Programmes Offered	Students on-roll	Degrees Awarded
B. Tech / BS-MS / Integrated M.Sc.	239	38
M. Tech / M.Sc.	73	36
Ph. D	106	26

### R & D Activities

The department has a strong and dedicated team of faculty members with expertise in various areas

of Pure and Applied Mathematics. With a vast strength of about 100 PhD scholars, many of them admitted through the funding from various sponsored research projects, the department showcases very active participation in R&D activities.

Project Status	Total number of Sponsored	Total number of Consultancy
New	7	0
Ongoing	18	0
Completed	24	1

### Highlights

- Eight UG/PG students from the Department of Mathematics have qualified GATE 2025 in Mathematics and related disciplines. Among them, three students secured ranks within 20.
- The job placement of students from the Department is always among the highest in the country both in terms of salary packages and the status of the hiring companies. This year, 34 out of 41 students from the UG institute program were selected through the in-house placement process.
- Various faculty members of the Department are engaged in collaborations with the universities/institutes including ,University of Oxford, UK, University of Edinburgh, UK, University of Nottingham, UK, TU Berlin, Germany, CNRS, France, Savoie Mont Blanc University, France, Monash university, Australia, Sussex university, UK, University of Bio, Chile, Bonn university, Germany, University of Oslo, Norway, RICAM, Austria, KAUST, Saudi Arabia, University of Alberta, Lisbon Portugal, IST Lisbon Portugal, Weierstrass Institute, Berlin, Germany, Free University, Berlin, Germany

### Webinars/Symposiums/Workshops/Conferences/Colloquium:-

The Department has organized various conferences/seminars/workshops/ international conferences including An Indo-French Workshop on "Innovative Numerical Methods for Modern Engineering Problems, The Teacher Enrichment Workshop (TEW) on Linear Algebra and Matrix

Groups, conducted by the National Centre for Mathematics (NCM), Workshop on Differential

Equations sponsored by ANRF (SERB) and INYAS and International day of Mathematics (Pi Day)



### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
Total	0	0	18	110	0	0

## Mechanical and Industrial Engineering

The Department of Mechanical Engineering came into being in the year 1946 and the first batch of Mechanical Engineers graduated in the year 1949. The department was renamed the Department of Mechanical & Industrial Engineering on its silver jubilee in 1974 when an undergraduate programme in Industrial Engineering was started. At present it offers both undergraduate and postgraduate courses in various facets of Mechanical and Industrial Engineering. The department offers Master of Technology courses in Machine Design Engineering, Production and Industrial Systems Engineering, Thermal System Engineering, Welding Engineering and CAD, CAM and Robotics. The department has laboratory and workshop facilities with modern sophisticated

equipment to carry out research in all areas related to Mechanical and Production & Industrial Engineering. The faculty actively participates in sponsored research and consultancy work.

Total no. of faculty/ Adjunct/ Visiting-teaching faculty	46 1 Adjunct
No. of Post Doc. Fellows	Nil
No. of PMRF	8

Prof. Anuj Bisht, Prof. Nitish Arya and Prof. Saurabh Sharma, had joined the Dept. of Metallurgical and Materials Engineering, IIT Roorkee as an Assistant Professor.

### Academic Activities

Programmes Offered	Students on-roll	Degrees Awarded
B. Tech	848	211
M. Tech	108	48
Ph. D	237	18

### R & D Activities

Project Status	Total number of Sponsored	Total Outlay	Total number of Consultancy	Total Outlay
New	24	103,17,49,000/-	25	2,34,07,090/-
Ongoing	37	55,08,67,200/-	29	2,56,01,299/-
Completed	41	16,63,15,000/-		



### Major Facilities

Pradeep Kapse Auditorium, with a sitting capacity for 160 persons



Centralized smart rack server room for un-interrupted laboratory power supply and smart computer lab

New committee room/digital engagement lounge for online/offline centralized smart rack server room for un-interrupted laboratory power supply and smart computer lab.



### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
Total	2	4	12+	234+	12	6



Presentation facility "Seminar Room MIED, East Block

Departmental space booking Mobile App- "MIED MEET"

### Student Achievement

- Mr. Atul Kumar Harmukh, was honored with the Best Oral Presentation Award at the '2024 International Conference on Defence Technology (ICDT 2024)', held in Xi'an, China.

### Webinars/Symposiums/Workshops/ Conferences/Colloquium:-

The Department has organized various conferences/seminars/workshops/ international conferences including 32nd IAHR symposium of Hydraulic machinery and system.



## METALLURGICAL & MATERIALS ENGINEERING

The Department of Metallurgical and Materials Engineering at IIT Roorkee proudly marks over 60 years of academic excellence, nurturing a dynamic community of students, faculty, and staff who drive innovation and push the boundaries of metallurgical and materials engineering. The Department offers B. Tech program in Metallurgical and Materials Engineering, M. Tech program in three disciplines: Industrial Metallurgy, Materials Engineering and Computational Materials Engineering. The Department also nurtures a vibrant research ecosystem, supporting research scholars pursuing Ph. D. in pioneering areas. The acclaimed faculty pursues front-line research in metallurgical and materials engineering, covering major areas of materials synthesis and processing, materials characterization, comprehensive materials testing, materials recycling, simulation and modeling.

Total no. of faculty/ Adjunct/ Visiting –teaching faculty	28
No. of Visiting faculty	01
No. of Post Doc. Fellows	02
No. of PMRF	07

Prof. Pinku Roy, had joined the Dept. of Metallurgical and Materials Engineering, IIT Roorkee as an Assistant Professor.

### Academic Activities:-

Programmes Offered	Students on-roll	Degrees Awarded
B. Tech	314	93
M. Tech	29	07
Ph.D	94	11

### R & D Activities:-

Project Status	Total number of Sponsored	Amount (₹) in lakhs	Total number of Consultancy	Amount (₹) in lakhs
New	14	909.99	1	16
Ongoing	29	1463.30	1	16
Completed	Nil	0	1	17

### Major Facilities:-

The following major facilities were established in the year 2024-25:

- Computer control Electronic Universal Testing Machine
- Lab Scale Gel/Melt Spinning Unit
- Rolling / Sliding & Sliding Tribometer with Essential Pre-Requisites
- Single Stage Gas Gun for Testing Ballistic Performance.

### Student Achievement:-

- IIM-ATM 2024 Best poster /oral presentations awarded to Mr. Basitti Hitesh, Mr. Ganesh Bhandari, Mr. Kapil Dev Sharma and Dr. Parvender Kumar
- IIM SAIL Gold Medal (Certificate of Appreciation) awarded to Mr Jagadeesh Naduri
- India AI Fellowship awarded to MTech student Mr. Pranjal Sharma by the Meity, Gov. of India
- Jyoti Ranjan Sahoo-1st Poster prize in the 20th International Conference on Texture of Materials held in METZ, France, 30th June-6th July.
- Resources, Conservation & Recycling 2024 Most Cited Paper Award, awarded to Mr. Shaila Mir and Prof. Nikhil Dhawan, a comprehensive review on the recycling of discarded printed circuit boards for resource recovery.

### Highlights:-

- Collaboration with Prof. Francesco Maresca, the Netherlands on Alloy design of high-entropy alloys.
- Collaboration with Prof. Nikita Stepanov and Prof. Sergey Zhrebtssov, Russia on Metastable Ti-alloys.
- Collaboration with Prof. Katsushi Tanaka, Japan on Deformation Mechanism of High-entropy Alloys.
- India-Slovenia bilateral project collaboration with Prof Mitjan Kalin, University of Ljubljana, Slovenia on Materials for Electrical Sliding Contact Applications.

- Digitalized and Sustainable Approaches for Reusing, Repairing, Recycling Permanent Magnets from Electronic Wastes, India-UK Collaborative R&D for Industrial Sustainability 2023.
- Engineering Research Skills for Increasing the Resource Efficiency of Energy Materials from Bauxitic Minerals – a development plan. British Council (Going Global Partnerships - Industry-Academia Collaborative Grant.

### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
<b>Total</b>	Nil	2	4	65	2	4

## PAPER TECHNOLOGY

Located at IIT Roorkee's Saharanpur Campus, nestled in the Shivalik foothills, the Department of Paper Technology traces its roots to 1964 as the School of Paper Technology, supported by the Royal Swedish Government. Now part of IIT Roorkee, the department offers a specialized M.Tech. in Paper and Packaging Technology. The program aligns with industry needs, focusing on paper, packaging, and allied chemical/process industries. Research spans environmental management, energy-efficient production, advanced pulping/bleaching, secondary fiber processing, black liquor utilization, biotechnology applications, and development of value-added products via nanotechnology and advanced coatings.

Total no. of faculty/ Adjunct/ Visiting –teaching faculty	08
No. of Post Doc. Fellows	01
No. of PMRF	03

Prof. Ramjee Subramanian joined Paper Technology Department, IIT Roorkee as Professor of Practice.

### Academic Activities:

Programmes Offered	Students on-roll	Degrees Awarded
M. Tech	23	24
Ph. D	32	09

### R & D Activities: -

Project Status	Total number of Sponsored	Amount (₹) in lakhs	Total number of Consultancy	Amount (₹) in lakhs
New	02	8.37 Crore		
Ongoing	02	8.37 Crore	01	5469015
Completed	02	4400000	46	21787085

### Major Facilities:

The following equipment installed in DPT Microprocessor Vacuum Leak Tester, Elmendorf Tearing Tester Make- IDM, Fume Hood, Peel Strength Tester, All Clear Dessicator Vacuum 300 Mm, Hot Air Oven, Ph Meter (With 3 Point Calibration), Water Bath Shaker, Oil Free Vacuum Pump, Digital Magnetic Stirrer, Digital Ph Meter, COD Digestion Apparatus, Radwag Analytical Balance, Digital Pipette Single Channel (2-20ul), Digital Pipette Single Channel (20-200ul), Digital Pipette Single Channel (10-1000ul), Dissolved Oxygen Meter, Water Bath Shaker, Oil Free Vacuum Pump With Pressure Gauge, Double Beam UV-Spectrophotometer.

### Student Achievement: -

- D. Singh, V. Rastogi at IIT Guwahati (Dec 2024) received Best Paper Presentation (2nd Prize) for work on PHB bioplastic from pineapple leaves.
- Ahuja et al. at IRDC-2024, Roorkee received Best Poster Presentation (2nd Prize) for sustainable packaging aligned with SDGs,
- Samiksh Bisht, Prof. Kirtiraj K. Gaikwad at ISPI-

2025 (Mar 2025) received Best Oral Presentation.

- Dimple Singh at International Conference, IIT Guwahati (Dec 2024) received Best Student Paper.
- Annu Kumari at IIP-ISPI 2025, New Delhi received Best Poster (EURO200 Voucher).
- Prachi Jain at COMET 2025, IIT Roorkee received Third Prize (Poster).
- Prachi Jain for attending 4th International Microbial Food & Feed Conference, 2025 received MIFFI Travel Award.

### Innovations & Industry Engagement:

SIES SOP Star Award 2025 to Pradeep Kumar for ethylene scavenger tech using sillimanite, SIES SOP Star Award 2025 to Patil Tejaswini Dhanaji for Edible straws from Millets, Mission LiFE Selection: Kodoffee LLP (Bhushan P. Meshram) for sustainable packaging innovation, Wikipedia Recognition: Kodo millet-based edible cups featured in the "Edible Packaging" section, Showcase at BIS Carnival 2025: Kodoffee LLP



The DPT at IIT Roorkee is establishing India's first CRM at SRE Campus, with an MoU signed



Inauguration four labs at DPT

presented before Hon. CM of Uttarakhand, International Industry Exposure: Shefali Tripathi awarded IGSTC Ph.D. Fellowship; worked at Dr. Oetker, Germany, on sustainable pizza packaging.

### Other highlights: -

1. CRM Centre at IIT Roorkee, Saharanpur Campus: The Department of Paper Technology is establishing India's first Certified Reference Material (CRM) Centre for paper testing at the Saharanpur Campus. An MoU with STIPL was signed.
2. Inauguration of Advanced Labs:- Four advanced labs-Energy & Environment Audit, Packaging Material Testing, Food & Pharmaceutical, and Distribution Dynamics-were inaugurated at DPT, Saharanpur Campus.
3. TV Interview – DD Urdu:- An interview titled Rozgar se Kamyabi Tak -Career in paper Technology was aired on DD Urdu, highlighted career opportunities in the field.



DPT and BIS jointly organized a workshop and BIS Chemical Division meetings



Prof K.K. Gaikwad, Young Scientist Award 2025



**Publication:**

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
<b>Total</b>	1	05	01	58	08	01

## POLYMER & PROCESS ENGINEERING

The Department of Polymer and Process Engineering at IIT Roorkee has been marked by significant achievements across education, research, and industry collaborations. The department continued to deliver top-tier academic programs, with faculty excelling in teaching, mentoring, and curriculum development. Both undergraduate and postgraduate courses were enhanced, incorporating the latest industry trends and research insights.

<b>Total no. of faculty/ Adjunct/ Visiting –teaching faculty</b>	<b>16</b>
No. of Post Doc. Fellows	03
No. of PMRF	08

Prof. Kuljeet Kaur, had joined as Assistant Professor while and Prof.. Mohan Gupta joined as Adjunct Faculty . Prof. Sanket Deshmukh and Prof. Vinod Kumar Shahi also joined the Polymer and Process Engineering department, IIT Roorkee as visiting faculty.

**Academic Activities**

New M.Sc. (Polymer Sc.) Course has been approved by the Department, and it will be run once the Senate approves it.

Programmes Offered	Students on-roll	Degrees Awarded
M. Tech	33	21
Ph. D	60	06

**R & D Activities:-**

Project Status	Total number of Sponsored	Amount (₹) in lakhs	Total number of Consultancy	Amount (₹) in lakhs
New	05	282.736	N/A	0
Ongoing	18	886.22	02	24.3
Completed	06	211.408	N/A	0

**Major Facilities: -**

The laboratory is equipped with advanced instruments, including a High-Pressure Membrane Cell, High-Pressure Pump for Crossflow Membrane Setup, Densitometer, Friction Tester, Laboratory Ball Mill, Water Bath, Pump with 3-phase Induction Motor, Jar Test Apparatus (6 Jars), TGA, and DSC.



Compression Molding Machine



3D Printer



Vacuum Oven



### Student Achievement:

Mr. Hariome Sharan Gupta, Ms. Nitesh Chaudhary, Mr. Abhishek Verma, Mr. Aaditya Pandey, Mr. Salaman Ahamad, Mr. Tushar Kanti Maiti, Ms. Chhavi Verma, Ms. Shakshi Bhardwaj, Mr. Abhinav Kumar Singh, Ms. Kumari Priya, Mr. Nasir Ali, Mr. Shiva Singh, Mr. Vikash, Mr. Subhadeep Saha, and Ms. Pragya Tiwari were recognized with various prestigious awards including Best Paper/Poster/Oral Presentation Awards, International Travel Grants (ANRF, SERB, CSIR), DAAD-KOSPIE Fellowships, and academic honors like the Shyam S. Biyani Cash Award and Departmental Gold Medal for their outstanding achievements in research and academics.

### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
<b>Total</b>		01	03	37	62	1402

### Physics

The Department of Physics at IIT-Roorkee was established in 1960. Since inception, the department is engaged in high-quality teaching at both, undergraduate and graduate levels, and cutting-edge research in fundamental as well as technologically crucial areas. The department houses state-of-the-art experimental facilities and teaching laboratories.

<b>Total no. of faculty/ Adjunct/ Visiting-teaching faculty</b>	<b>40/01/01</b>
No. of Post Doc. Fellows	01
No. of PMRF	08

Prof. Abhishek Nag, Prof. Manjari Garg had joined the Dept. of Physics, IIT Roorkee as an Assistant Professor.

### Academic Activities

The Department of Physics offers B.Tech. in Engineering Physics, BS-MS (Physics), Integrated M. Sc. (Physics), M. Sc. (Physics), M. Tech. in Photonics and M. Tech. in Solid State Electronic Materials. Further, the Department offers M. Tech.

### Highlights:-

The department secured a DST-FIST project on photolithography and received approval for a major FIST grant worth ₹2.07 crore. Prof. N.C established significant international research collaborations. Mishra with scholars from Khalifa University (UAE), Academia Sinica (Taiwan), and Kyung Hee University (South Korea); Prof. Gaurav Manik with King Mongkut's University of Technology North Bangkok and Khalifa University; and further collaborations were formed with Prof. Amit Bhatnagar (LUT University, Finland) and Prof. Rajesh Mahadeva (Khalifa University, UAE). Additionally, MoU was signed between IITR (Prof. Sham S.R.) and Jainidhi Bitumen Specialities Pvt. Ltd., Kolkata, on November 5, 2024, worth ₹4 lakhs.

in Semiconductor Technologies jointly with the Department of Electronics and Communication Engineering, IIT Roorkee, and three Taiwanese universities, to prepare skilled man-force for future semiconductor industries in India. Furthermore, the Department runs a well-recognized Ph.D. program.

<b>Programmes Offered</b>	<b>Students on-roll</b>	<b>Degrees Awarded</b>
B.Tech	205	40
M.Tech	18	12
Ph. D	207	37
M.Sc.	56	24
Int. M.Sc.	19	16
BS-MS	84	-

### R & D Activities

The Department of Physics is engaged in state-of-the-art research in most of the contemporary areas of specialization such as Atmospheric Physics, Atomic and Molecular Physics, Condensed Matter Physics, High-Energy Physics, Nuclear Physics and Optics and Photonics.

Project Status	Total number of Sponsored Project
New	7
Ongoing	24
Completed	40

### Major Facilities

- Nanofabrication facility including Clean Room (class 100 and Class 1000), Electron-beam Lithography (EBL), ICP-Reactive- Ion Etching (ICP-RIE), High Resolution Digital Microscope.
- Delta Mode System (Model 6221/2182A) to drive advancements in next-generation spintronic technologies.
- Tabletop ion accelerator developed in Roorkee. It's a low energy machine and can cater for energetic ion beams of H, He, N, O and Ar beams from 10 keV up to 50 keV.
- Inverted microscope.
- HPC cluster.

### Student Achievement

- Ms Shikha Rathi, joined postdoctoral position at Sorbonne University, France. (Guide Prof. Lalita Sharma)
- Mr Aloka Kumar Sahoo, joined postdoctoral position at Helmholtz Institute, Jena, Germany. (Guide Prof. Lalita Sharma)
- Mr. Himanshu Sharma received SERB INTERNATIONAL TRAVEL AWARD in "The 57th Zakopane Conference on Nuclear Physics "Extremes of the Nuclear Landscape", Zakopane, Poland.

- Ms. Jhuma Pan, received Best Poster Award in Photonics-2024 conference, held in IIT Kharagpur, India. (Guide Prof. Sachin Kumar Srivastava)
- Mr. Sachin was awarded Postdoctoral fellowship in Zonda group in Czech Republic, Europe, and later appointed as Assistant Professor, Physics, at NIT Bhopal. (Guide Prof. Ajay)
- Mr. Ranajit Barman, was awarded the "International Program Associate (IPA)" fellowship to work at RIKEN, Japan for two years. (Guide Prof. Rajdeep Chatterjee)

### Webinars/Symposiums/Workshops/Conferences/Colloquium: -

The Department has organized various conferences/seminars/workshops/ international conferences including 65th IEEE Magnetics Distinguished Lecture, 2nd Workshop on Space Weather Science and Opportunities & 3rd Indian Space Weather Conference



### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
Total		01	26	119	5	5/1

## Water Resources Development and Management

The Department of WRD&M is a balanced blend of academicians and field engineers. The faculty is experienced in planning, design, construction, operation, and maintenance of water resources development projects (viz., hydropower, irrigation management, and flood control management). It helps in the implementation of application-oriented academic programs. Since its creation in 1955, the department has trained over 3108 serving engineers from 57 countries. The department offers postgraduate training (P.G. Dip./ M.Tech.) in Water Resources Development and Irrigation Water Management.

Total no. of faculty/ Adjunct/ Visiting-teaching faculty	18
No. of Post Doc. Fellows	Nil
No. of PMRF	5

Prof. Ellora Padhi and Prof. Anshul Yadav had joined Department of Water Resources Development and Management, IIT Roorkee as Assistant Professor.

### Academic Activities

New Course Developed: Water and Society (WRS-501)

Programmes Offered	Students on-roll	Degrees Awarded
B. Tech	-	-
M. Tech	128	62
Ph. D	77	13

### R & D Activities

Groundwater and contaminant hydrology, Water quality, Optimal remediation system design, Artificial Recharge, Rainwater harvesting, Conjunctive water use planning, Managed aquifer recharge and its impacts on groundwater quantity and quality, Integration of experimental, numerical and data-based modeling in groundwater management studies and Water Footprint Accounting.

Project Status	Total number of Sponsored	Total number of Consultancy
New	11	1
Ongoing	17	3
Completed	9	14

### Major Facilities

- Total organic carbon (TOC) analyzer, Microwave Digester, Laminar flow, BOD Incubator, Auto clave, Digital Titrator, Digital hot plate, Development of River Engineering lab, Two experimental flumes are installed and fully functional, Three flow meters are installed, Two ultrasonic velocity sensors are installed, Two ultrasonic water level sensors are installed, One pitot tube and U-tube manometers are installed, RGB Camera for UAV (Idea Forge), SPAD Meter SPAD502 (Konika Minolta), Canopy temperature Infrared Radiometer (Apogee), Polytector III S and Multi-spectral drone
- A bidirectional power supply unit rated at 15kW (SM15K series) has been installed in the laboratory to support advanced experimental studies.
- A new Greenhouse Gas Emissions and Nutrients (GeN) Lab has been proposed. This lab will be helpful for the students to test the GHG emissions from agricultural soils, water bodies, and industrial stacks.
- Gas Chromatograph

### Student Achievement

- Mr. Kartikkumar D Jadhav, received ANRF International Travel Support (ITS) to attend EGU2025 conference. Also he received Early Career Scientist's Travel Support (ECSTS) to attend EGU2025 conference, Vienna, Austria
- Mr. Ajit Kumar, received Best paper award on "Potassium Retention and Transport in Agricultural Soils Under Treated Wastewater Irrigation" in IGWC2025, Roorkee. He also received Early Career Scientist's Travel Support (ECSTS) to attend EGU2025 conference, Vienna, Austria
- Mr. Dev Anand Thakur received the DAAD fellowship (Germany) and Commonwealth splits it fellowship (United Kingdom) for conducting a part of his Ph.D. research at GFZ, Germany and University of Birmingham, UK, respectively.
- Mr. Vaibhav Tripathi, received a travel grant from the World Meteorological Organization,

to attend the HIWeather Final Conference 2024 held in Munich, Germany.

- Mr. Rahul Deopa received Best paper award from the National Institute of Disaster Management, Ministry of Home Affairs at the Young Leaders Conclave
- Mr. Yogesh Kumar Kushwaha, received the India Water Foundation's Water Transversality Global Awards 2024 under the Leading Product in Agriculture category.
- Mr. Barada Prasanna Nayak, received a travel grant under SERB international travel scheme to attend 22nd international Seminar on Hydropower Plants 2024 at Vienna, Austria.
- Mr. Sunny Sardar Sonandkar, was awarded the Commonwealth Split-Site (PhD) Scholarship 2024-25 to embark on an enriching academic journey at Loughborough University, UK.
- Mr. Sunny Sardar Sonandkar, received an Outstanding Poster award in Institute Research Day 2024.
- Mr. Mukund Narayanan, received the prestigious CLIFF-GRADS (The Climate, Food and Farming, Global Research Alliance Development Scholarships Programme) research scholarship worth 14,000 USD.
- Ms. Jayantifull Hoojon has been selected for the summer school to be held at the University of Novi Sad, Serbia.

### Highlights

- Inauguration of Renovated & Modernized PEHEM

### Webinars/ Symposiums/ Workshops/ Conferences/Colloquium:-

The Department has organized various conferences/seminars/workshops/ international

### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
Total	0	4	28	50	3	2

conferences including workshop on ISRO's Satellite Data Hub "BHOONIDHI Portal", "Management and Mitigation of Risks in Hydro-Power Plants and Dam Projects for Sustainable Development, "Water Built Environment & Emergency Preparedness" in four separate batches for Civil Engineering professionals working, Regional Workshop on "Role of Weather Forecasting for Sustainable Agriculture, A one-day workshop on "Importance of Weather Forecasting for Sustainable Agriculture, "Impacts of Climate Change on Glacial Lake Outburst Floods (GLOFs)" under the Aegis of Bharat Singh Chair for Water Resources.



Inauguration ceremony of the PEHEM Laboratory



Group Photo (Director, Faculties – WRDM and Scholars - PEHEM)



## CENTRE FOR NANOTECHNOLOGY

Centre for Nanotechnology was established in December 2005 as one of the Centres of Excellence. The faculty members associated with the Centre are involved in developing state-of-the-art facilities at the institute and vigorously pursuing interdisciplinary research on various current aspects of Nanoscience and Nanotechnology. A wide range of sophisticated equipment related to nanotechnology has been made operational at the Centre as well as at IIC involving multidisciplinary faculty members. In view of the major impact of 'Nanoscience' on a vast range of Science and Technology, the M.Tech programme in 'Nanotechnology' was started in 2008. This course is aimed at providing basic knowledge to B.Tech/M.Sc students about various concepts of nanoscale materials, their synthesis, characterization, novel properties, applications and future perspectives. Being a multidisciplinary area, a number of electives have been designed to impart knowledge on modeling and simulation, physics, chemistry, biological and technological aspects of nanomaterials. Besides, it provides students with a practical training in advanced methods for the synthesis, characterization and elucidation of different nanostructures. This expertise could be utilized to fabricate novel materials and nanodevices.

Total no. of faculty/ Adjunct/ Visiting –teaching faculty	Core faculty: 03; Joint faculty: 20
No. of Post Doc. Fellows	03
No. of PMRF	06

Dr. Ankush Kumar and Dr. Rajesh Kumar Ulaganathan joined the Centre of Nanotechnology, IIT Roorkee as the new core faculty.

### Academic Activities: -

Programmes Offered	Students on-roll	Degrees Awarded
M. Tech	15	09
Ph.D	50	06

### R & D Activities: -

Project Status	Total number of Sponsored	Amount Rs. in lakhs	Total number of Consultancy	Amount Rs. in lakhs
New	5	197.95	N/A	0
Ongoing	6	304.18	1	5.9
Completed	2	82.2		N/A0

### Major Facilities:

- CVD for thin film and nanostructure growth
- Electrospinning for nanofiber fabrication
- Electrical, optical, and structural characterization of nanomaterials

### Student Achievement:

- Mr. I. Ahmad and Mr. M. Tasleem received the Best Poster Award at International Conference on Green sustainable Solutions (ICGSS).
- Ms. Aakanksha Pathak received the Best Oral presentation Award at the "Conference on Translating Pharmaceutical Innovations to Reality 2025".
- Ms. Kiran Sebastian K was awarded the Best Poster Award by the RSC Nanoscale during Nanotechnology Day 2025, IIT Roorkee. she was also awarded the prestigious Japan Science and Technology (JST) Young Indian Researcher Program (YIRP) 2024 which is a unique opportunity to work in a Japanese University with a faculty member for up to one year. The awardee is currently enrolled as a Guest Research Associate in the World Premier International Research Center Initiative, Institute for Integrated Cell-Material Sciences (WPI-iCeMS), Kyoto University under the mentorship of Prof. Ganesh Pandian
- Mr. Omal Surya S was awarded the Best poster award at IIT Roorkee.
- Harish Ganesan received Appreciation award for the oral presentation, at "Indo-Japan Symposium on Nanotheranostics (2024) InJaNA".

- Dr. Damini Verma was selected for the Women in Space and Allied Science Leadership Program (WiSLP), launched by DST in collaboration with the British Council. she was also awarded DBT CTEP international travel grant for oral talk presentation at 18th International Conference on Biomedical Engineering (ICBME 2024) held at National University of Singapore, Singapore. She was also selected as a Guest Editor for Springer Nature' Discover Electrochemistry Journal.
- Mr. Akshay Kumar Salunke received 'the Royal Society of Chemistry-Nanoscale' oral presentation prize at nanotechnology day.
- Mr. Parmod Kumar received the 'ACS-Applied nanomaterials' poster presentation prize at nanotechnology day.

#### Other highlights:

- IIT Roorkee and Kyoto University inaugurated a Joint-Research Lab in Kyoto, Japan with a focus on Healthy Aging

#### Faculty Entrepreneurship details: -

Advanced Membrane Horizon (MemH) Private Limited, a startup incubated at IIT Roorkee, was founded by Prof. Bhaskar Jyoti Deka, Assistant

#### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
<b>Total</b>		2	30	169	9	3

## CENTRE FOR PHOTONICS AND QUANTUM COMMUNICATION TECHNOLOGY

The Centre for Photonics and Quantum Communication Technology aims to carry out frontier research with specific objectives including, but not limited to, the development of components, devices, and systems for photonics, quantum communication, and allied technologies. The Centre also aims to create

Professor in the Department of Hydrology and Joint Faculty at the Centre for Nanotechnology. The company specializes in developing advanced membrane technologies for water treatment, wastewater management, and industrial applications, reflecting the institute's commitment to research-driven entrepreneurship.

#### Webinars/Symposiums/Workshops/ Conferences/Colloquium:-

The Centre has organized various conferences/seminars/workshops/ international conferences including Nanotechnology Day, Prof. Vijaya Agarwal Memorial Lecture, International Workshop titled "Fostering Deep Membrane Science Research for Desalination, Brine Reclamation, and Resource Extraction MemSci-Brine 2024 and many more expert lectures



skilled manpower required for the implementation and advancement of these technologies in industry and academia, which will be carried out by running relevant academic programs and courses.

<b>Total no. of faculty/ Adjunct/ Visiting –teaching faculty</b>	<b>12</b>
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#### Academic Activities

Programmes Offered	Students on-roll	Degrees Awarded
Ph.D	12	Nil

**R & D Activities**

Project Status	Total number of Sponsored
New	01
Ongoing	04
Completed	04

**Publication:**

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
<b>Total</b>		1	3	12		

**CENTRE FOR SPACE SCIENCE AND TECHNOLOGY**

The Centre envisions that IIT Roorkee will rise to prominence in the field of space science and technology through by conducting frontier research with defined aims of developing proof-of-concept designs, mechanisms, and systems related to Space Technology. By promoting academic advancement, training, development of human resources, entrepreneurship, and innovation in the field of space science and technology, the Centre will play a vital role in shaping the revolutionary technological landscape of the nation.

<b>Total no. of faculty/ Adjunct/ Visiting –teaching faculty</b>	<b>13 Joint &amp; 4 Visiting</b>
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**Academic Activities**

M. Tech. & Ph.D. in Space Science and Technology

Programmes Offered	Students on-roll
B. Tech	-
M. Tech	11
Ph.D	8

**R&D Activities**

Design of antennas and microwave subsystems for space applications, Array signal processing, Nuclear radiation detectors and Radiation induced effects in space materials, Space & Atmospheric Physics, Space weather, Sun-Earth Interaction, magnetosphere-ionosphere energy coupling, Commons, Space debris governance

**Major Facilities**

Arbitrary Function Generator: 2-Ch, 25 MHz Sinewave frequency

and management, Space Regulations, Outer space and Space economy, Near Earth Space: Earth's Ionosphere, Mesospheric Chemistry and Dynamics, Atmospheric Gravity Waves, Optical Instruments: Active and Passive Remote Sensing, Airglow Photometer, Airglow Imager, Airglow Spectrometer, Sodium Lidar, Image Analyses: Allsky Imager, Optical and Thermal Image Processing, Planetary Science: Investigation of the Atmosphere of Venus and Mars, Atmospheric and Space Physics: Atmospheric Turbulence, Solar and Stellar Convection, Geo- and Astrophysical Turbulent Flows, Direct Numerical Simulations, Computational Fluid Physics, Magnetohydrodynamic Turbulence, Molecular Modelling, Interstellar Chemistry, Polarimetric Radar based remote sensing, SAR image denoising, segmentation and classification, and SAR interferometry, Guided elastic waves, Non-Destructive Evaluation, Finite and Spectral finite elements for elastic wave propagation, Inflatable Space Structures, Space Deployment Mechanism, Composite and smart materials, Mathematical Modeling, VLSI for wireless communication, RF IC Design, Circuit and system design for Satellite communication, Analog CMOS IC design and its application in RF and microwave, Processing-Microstructure-Property Relations in Advanced Materials for Space Applications, Satellite & Earth Stations, Satellite Payloads Mechanical Design.

Project Status	Total number of Sponsored
New	12
Ongoing	12
Completed	1

### Major Facilities

- Analog Discovery 3 Pro Bundle (Qty1)
- 2. DCS-B VLSI Based Digital Communication Training System (Qty1)
- Aerosol Size Distribution (Qty1)
- Micropsocessor Flame Photometer (Graphical Display) (Qty1)
- All in One PC (Qty10)
- Interactive Panel R86E with OPS (Qty1)

### Webinars/Symposiums/Workshops/Conferences/ Colloquium:-

The Centre organized the 4th Global Ceramic Leadership Roundtable on Ceramics for Frontier Sectors: Emerging Advances and Prospects, CerAP2024, 2nd Workshop on Space Weather Science and Opportunities, 3rd Indian Space Weather Conference and International Conference on Space for Sustainability: Science, Technology, Education and Policy (S2:STEP2025 & IPSC-2025) & 6th Indian Planetary Science Conference (IPSC-2025)



### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
Total	0	0	5	22	0	0

## CENTRE FOR SUSTAINABLE RURAL DEVELOPMENT (CSRSD)

The establishment of a new center for the Centre for Sustainable Rural Development (CSRSD) has been approved by the Board of Governors vide resolution in its 67th meeting held on 27th July 2023. This Centre aims to create “The Next Generation Villages” by leveraging science and technology across various disciplines. The Centre focuses on agriculture and water management, food preservation and processing, rural innovation and product development, renewable energy sources, waste management, strategic planning, and entrepreneurship, apart from academic and community-oriented programs.



### Highlights:-

NHPC Limited, Faridabad has sponsored a project on “Empowering Rural Communities: Sustainable Planning for Future Development in Meerpur and Beladi-Salhapur Villages, Haridwar, Uttarakhand”.



Prof. R.D. Garg, Professor, Civil Engineering Department, is the Principal Investigator (P.I.) and Prof. Ashish Pandey, Department of Water Resources Development and Management is the Co-P.I. of the project.

### Webinars/Symposiums/Workshops/ Conferences/Colloquium:-

The Centre has organized various conferences/seminars/workshops/ international conferences including a one-day workshop on “Empowering Rural Communities: Sustainable Planning for Future Development” was held on December 13, 2024, at APJ Abdul Kalam Block, IIT Roorkee. The Workshop jointly organized by the Centre for Sustainable Rural Development & Regional Coordinating Institute (RCI), Unnat Bharat Abhiyan (UBA), IIT Roorkee and supported by NHPC - A CSR initiative, the event brought

together experts and farmers to promote sustainable agriculture, water management, and rural livelihood development. The workshop witnessed enthusiastic participation from 25 farmers of Meerpur & Beldi-Salhapur villages and featured insightful sessions on organic farming, waste management, and the role of Farmer Producer Organizations (FPOs) in building climate-resilient communities.



## CENTRE FOR TRANSPORTATION SYSTEMS (CTRANS)

CTRANS is a Centre of excellence of IIT Roorkee in the area of Transportation and infrastructure. The Centre aims to evolve a holistic approach to the study of transport & management systems. CTRANS is primarily a multi-disciplinary initiative with the collective participation of engineers, architects, planners, scientists and researchers from Science & Technology, Humanities and social science, architecture & planning and management backgrounds. The aim of CTRANS is to promote multi-disciplinary research and education for manpower development in transportation systems encompassing all modes of transport such as Road Transport, Non-motorized Transport (NMT), Rail Transport, Inland Water Transport, Air Transportation, Freight & Logistics Transport etc.

<b>Total no. of faculty/ Adjunct/ Visiting –teaching faculty</b>	<b>15</b>
No. of PMRF	2

Prof. Dhivyabharathi and Prof. Tushar Pramod Choudhari had joined the Centre of Transportation System, IIT Roorkee as an Assistant Professor.

### Academic Activities:-

CTRANS is pleased to announce the revision of its M.Tech program, now titled M.Tech in Transportation Systems Management, replacing the existing M.Tech in Infrastructure Systems which has been running since July 2013, after approval by the Senate. This change aligns with NEP 2020 and evolving industry demands, largely emphasizing both transportation management and transportation infrastructure. This change follows extensive discussions with alumni and industry experts during SynerGIA 2023. The curriculum introduces new cutting-edge courses such as Transportation Systems Analytics, Public Transport Operations & Management, Transportation Logistics, Transport & Health, and Design of Inclusive Transportation ensuring a multidisciplinary, hands-on approach to address emerging industry and government needs. PhD programmes are being undertaken in the identified related areas of research, open to bright and dedicated candidates. The Centre shall organize Training Programmes as well as specialist courses to train the manpower in the various specialized areas of Transportation Systems. The various Teaching/Research and other organizations will be approached for deputing in-service teachers/engineers/

professionals. The Centre will run the M.Tech. programmes in future. These programs in modular / sponsored mode as well as through open admissions in Transport Infrastructure Systems, Rail Engineering and Transport Economics will be launched in the near future.

Programmes Offered	Students on-roll	Degrees Awarded
B. Tech	NA	NA
M. Tech	19	8
Ph.D	22	3

### R & D Activities:

The Sponsored Research & Development and Consultancy Projects are undertaken in the related areas of Transportation System. There is a scope of potential funding from the Ministries/Departments of Government of India. Government Corporations / Undertakings/ Authorities etc. The consultancy activities are undertaken by the faculty in the multidisciplinary areas at the Centre. The facilities available at this Centre as well as of other departments are utilized to attract consultancy projects. Recently All India Council for Technical Education (AICTE) sanctioned a Multi-institutional Nationally Co-ordinated Project on "Integrated Development of Public Transport System". This project is Coordinated at CTRANS. Department of Science & Technology, Government of India has sponsored a research project on "Design and Analysis of Urban Multimodal Mass Transport System".

Project Status	Total number of Sponsored	Amount Rs. in lacs	Total number of Consultancy	Amount Rs. in lakhs
Ongoing	3	95,99,330	NIL	NIL
Completed	3	68,24,000	9	2,60,14,000

IIT Roorkee has signed a MoU with CLA Global-Indus Value Consulting Pvt Ltd. To undertake joint research projects, industry projects, joint supervision and to improve the placement of students. Following the MoU, a joint project of Rs. 3.6 crore on 'Estate Master Planning 2054 for Syama Prasad Mukherjee Port Kolkata, under the Ministry of Shipping, Government of India has been started. The project is being executed under the leadership of Prof. Uttam Kumar Roy. few more initiatives are in pipelines.

### Webinars/Symposiums/Workshops/Conferences/Colloquium:-

The Centre has organized various conferences/seminars/workshops/ international conferences including Expert lecture by Prof. Ashish Verma (Professor of Transportation Systems Engg. at Indian Institute of Science (IISc), Dr. Sandeep Agrawal (Professor in the Department of Earth and Atmospheric Sciences, University of Alberta), Dr. Nayan Sharma (PROFESSOR of EXCELLENCE at Guwahati University to spearhead Brahmaputra River studies with Climate Resilient strategies), Dr. Meghna Verma (RIM) and ThinkQuest-2024

### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
Total	0	5	9	11	0	0

## CENTRE OF EXCELLENCE IN DISASTER MITIGATION AND MANAGEMENT

The Centre aims to achieve excellence in critical areas of education and research on par with

international standards. Regional issues, especially Earthquakes, Tsunamis, Floods, Cyclones, Fires, Avalanche, Landslides, Cloudbursts, and their early warnings are other focus areas. The courses offered in the Centre are a two-year post-graduate specialization course in Disaster Mitigation and Management and the

doctoral programme focussing on Earthquake, Landslide, Cyclones, Floods, tsunamis, Cyber Crime, Avalanche, Fire, Industrial disaster, CBRN (chemical, biological, radiological, and nuclear), and Geomatics Technology. The Centre has 11 joint faculty members and three core faculty members specializing in disaster-related domains. The Centre has three Visiting Professors. The interdisciplinary nature of the Centre supports various research and consultancy projects through sponsored funding from Govt. of India and other National and International funding agencies.

Total no. of faculty Adjunct/ Visiting-teaching faculty	03-Regular 11-Joint Faculty 03-Visiting Professor
No. of PMRF	06

### Academic Programmes:

Programmes Offered	Students on-roll	Degrees Awarded
M.Tech	21	128
Ph.D	51	21

### R & D Activities:

Project Status	Sponsored	Amount Rs. in lacs	Consultancy	Amount Rs. in lacs
New	02	170.94	05	115.60
Ongoing	12	806.76	09	979.20
Completed	00	00	1	7.12

### Major Facilities: -

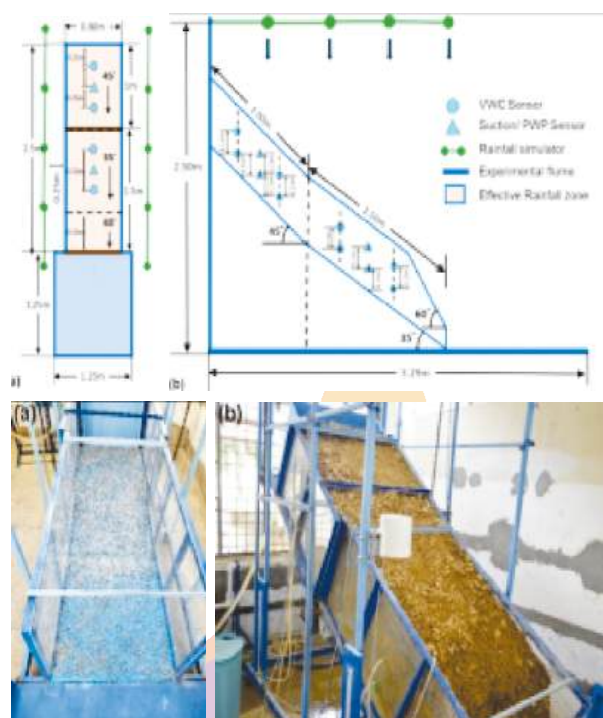
1. The High-Altitude Turbulent Flux Observation Site in Ranichauri, Uttarakhand, India has been developed with state-of-the-art instruments to conduct the study of exchange of heat, momentum, moisture, and carbon fluxes between the Earth surface and atmosphere. This site is a critical facility for studying land-atmosphere interactions in the Himalayan region, supporting the improvement of NWP models.



2. A reduced-scale flume apparatus with artificial rainfall simulator is developed for simulating rainfall-induced debris slides and to understand the failure mechanisms. The instrumentation was enhanced with moisture content sensors and matric suction sensors during 2024–2025.

Schematic diagram of experimental flume fabricated and the position of sensors: (a) Top view, and (b) front view.

- (a) Front view of experimental flume setup with kankar stones glued at the bottom, and (b) Side view of experimental flume with material filled and sensors installed.





**Student Achievement:-**

Mr. Anandu Prabhakaran working under Prof. Piyush Srivastava was awarded the prestigious Raman-Charpak Fellowship 2024 in the Atmospheric Sciences, Earth Sciences and Environmental Sciences category to continue his doctoral studies on Forest Fires France for a duration of six months. (Guide: Prof. Piyush Srivastava)

**Highlights:-**

- Collaboration with Hokkaido University, Japan in projects related to Landslide Early Warning Systems.
- Collaboration with the University of Plymouth in projects related to flash flood and sediment disasters.

**Webinars/ Symposiums/ Workshops/ Conferences/ Colloquium:-**

The Centre has organized various conferences/

seminars/workshops/ international conferences including International Day for Disaster Risk Reduction (IDDRR-2024) on the theme 'Empowering Next Generation for Resilient Future', Centre's First Research Scholar Day System for Unprecedented Rainfall-induced Landslide Early Warning Techniques (SURE-ALERT), Disaster Management and Resilient Infrastructure in Changing Climate and Environmental Risks, World Meteorological Day 2025 celebration at India Meteorological Department, MoES, GoI, National Stakeholders Meeting on Weather and Climate Services and 150th Foundation Day of the India Meteorological Department, Centre of Excellence in Disaster Mitigation and Management (CoEDMM) IIT Roorkee attended the International workshop on Financing Disaster Risk Management in India organized by World Bank in New Delhi Renewable Energy: Technology, Deployment, Grid Integration, Policy and Regulations etc.

**Publication:**

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
Total	0	02	10	14	NIL	NIL

**CENTRE FOR INDIAN KNOWLEDGE SYSTEMS**

The centre aims to promote interdisciplinary research on all aspects of IKS and disseminate IKS knowledge for further innovations and societal applications. At UG and PG levels, the centre offers credit courses related to an overview of IKS, Sanskrit language and Yoga. In terms of research,

the centre is involved in various fields such as computation for text in Indian languages, tribal studies, Yoga, Indian Psychology, Management, Indian architecture, health and wellness from the Indian perspective.

Total no. of faculty Adjunct/ Visiting-teaching faculty	10-Joint Faculty and 1-Visiting Professor
No. of Post Doc. Fellows	0
No. of PMRF	0



Shri Anil Kumar Sukumara Pillai, had joined as a Visiting Faculty in the Centre for Indian Knowledge Systems, IIT Roorkee.

### Academic Activities

Following courses are offered by the centre.

- IKS-102: Introduction to IKS (2-credit) for UG first year students in Spring session
- IKO-101: Sanskrit for Communication (3-credit) for UG second year students in Autumn session
- IKO-102: Consciousness Studies in Samkhya and Yoga Sutras (3-credit) for UG second year students in Autumn session
- IKS-501: Introduction to IKS (2-credit) for PG first year students in Autumn session
- IKS-502: The Philosophy of Yoga (2-credit) for PG first year students in Autumn session

### R & D Activities

Project Status	Total number of Sponsored
New	1
Ongoing	2
Completed	1

### Highlights

- Received an ICSSR sponsored research project "Empirical Research and AI-Driven Web-Tech Solutions for Affirmative Action Schemes and Academic Support for

### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
Total			1	2		

## INTERNATIONAL CENTRE OF EXCELLENCE FOR DAMS

The Centre has been established with a close collaboration between IIT Roorkee and Central Water Commission, MoJS. The Centre runs Master's and PhD. Programs in Dam Safety and Rehabilitation for Indian and Overseas Dam Officers. ICED has been established at IIT Roorkee

Marginalized and Disadvantaged Students in Undergraduate Institutions" with Prof. Ram Manohar Singh as a PI and two experts as a Co-PI. The sanctioned amount is Rs. 22 lakhs.

- Signed MoUs with Uttarakhand Sanskrit University, Haridwar and Dev Sanskriti Vishwavidyalaya, Haridwar to work in IKS domains of mutual interest.
- Prof. Rashmi Gaur (Dept. of HSS) donated a corpus of Rs. 5,00,000/- in the name of "Viva Gaur Memorial Internship". The annual internship will focus on supporting bright students in carrying out research/academic work on topics related to Indian Knowledge Systems.

### Webinars/ Symposiums/ Workshops/ Conferences/ Colloquium:-

The Centre has organized various conferences/seminars/workshops/ international conferences including Webinar on "Electromagnetic Resonance of Biomaterials and Samkhya: A Study of Prime Symmetry and Resonance Frequencies and Webinar on "An odyssey into the universe of Consciousness

on April 11, 2023 in a very close collaboration between IIT Roorkee and Central Water Commission, MoJS, by faculty members of the Department of Hydrology, Civil Engineering, Earthquake Engineering and other Departments of IIT Roorkee and CWC and National and International experts. The focus areas of the Centre are Seismic hazard mapping and analysis, Reservoir sedimentation & silt control and management, Inflow forecasting for dams,

Comprehensive risk assessment and longer run-Complete life cycle of dams. The main objectives of center are:-

- To run Master's and Ph.D. programs in Dam safety and rehabilitation for Indian and overseas dam officers.
- To conduct fundamental and applied research in Dam engineering and develop world-class research labs.
- To develop partnerships with leading organisations in India and overseas.
- To run short-term programs and provide consultancy to dam owners in India and abroad.

Total no. of faculty Adjunct/ Visiting-teaching faculty	08 Professor of Practice/ Visiting Professor
No. of Post Doc. Fellows	04
No. of PMRF	-

### Academic Activities

Programmes Offered	Students on-roll	Degrees Awarded
B. Tech	0	0
M. Tech	26	228
Ph. D	07	-

### R & D Activities

Project Status	Total number of Sponsored	Total number of Consultancy
Ongoing	9	9

### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
Total	Nil	Nil	04	19	Nil	Nil

## MEHTA FAMILY SCHOOL OF DATA SCIENCE AND ARTIFICIAL INTELLIGENCE

The Mehta Family School of Data Science and Artificial Intelligence (MFSDSAI) at IIT Roorkee is one of the institute's youngest academic units, established in 2021 with generous support from the Bhupat & Jyoti Mehta Family Foundation. We

### Highlights

ICED has signed MoUs with the following organizations:

1. Damodar Valley Corporation, Kolkata
2. Bhakra Bias Management Board (BBMB), Chandigarh
3. Western Sydney University, Australia
4. NGI Norway
5. NHPC Ltd, Sector 33, Faridabad
6. THDC India Limited Rishikesh

### Webinars/ Symposiums/ Workshops/ Conferences/Colloquium:

The Centre has organized various conferences/ seminars/workshops/ international conferences including 4-days Short Term Training Program on Reservoir Sedimentation, Assessment and Management of Seepage in Dams, Seismic Hazard Mapping of Dams.



are dedicated to advancing education and research in AI and ML, offering a diverse range of courses across all academic levels. The school offer a B.Tech. course in Data Science and AI, two M.Tech. programs in Data Science as well as in Artificial Intelligence, and PhD program.

Total no. of faculty Adjunct/ Visiting-teaching faculty	27
No. of Post Doc. Fellows	0
No. of PMRF	1

Prof. Teena Sharma and Prof. Chetan Ralekar has joined the Mehta Family School of Data Science and Artificial Intelligences, IIT Roorkee as a Visiting Faculty.

### Academic Activities

Programmes Offered	Students on-roll	Degrees Awarded
B. Tech	124	-
M. Tech	88	24
Ph. D	22	-

### Publication:

	Book Published	Book Chapters	Paper in conferences	Paper in Journal	IP (Patent/ Design/International Patent/ PCT) filed	IP (Patent/ Design/International Patent/ PCT) granted/Registered
Total	03	0	16	37	0	1

## IIT ROORKEE INITIATIVES

### ANUSHRUTI ACADEMY FOR THE DEAF

The Anushruti Academy for the Deaf (AAD), established in 1989 within the IIT Roorkee campus, is a social initiative of IITR to support hearing-impaired children. AAD provides education from Pre-Nursery to Grade 12, focusing on early intervention, speech, and auditory training. It follows a unique "Community-Based Model," relying on individual and organizational contributions while maintaining autonomy without government grants. Alongside academics, AAD offers vocational training in skills like tailoring, cooking, and computer skills, fostering self-reliance. Equipped with advanced audiology facilities, the school conducts free hearing assessments and interventions, empowering students to transition to mainstream schools and society with confidence.

The school has expanded its building by adding six new classrooms along with washrooms on the first floor. Additionally, a full staircase has been constructed to connect the ground floor to the first floor, and a ramp is currently under

### R & D Activities

Project Status	Total number of Sponsored	Total number of Consultancy
New	05	02
Ongoing	11	01
Completed	06	01

construction to serve as an emergency exit. The school has also installed four Interactive Flat Panels and plans to acquire more for other classrooms.

### CPR TRAINING

On 24.04.2024, a COLS (CPR) activity was conducted at AAD by Dr. Sudhi Agrawal and Dr. Madhurima Yadav. Students from class V to XII participated in this life-saving activity, learning how to assist someone experiencing a cardiac attack. Principal Mrs. Vibhuuti Saini and the teachers also attended and acquired this vita skill.



### AWARENESS ON FIRE SAFETY

On 22.05.2024, Mr. Vishwanandan, the Safety



Officer of IITR, and his team conducted a fire safety demonstration for the children and staff of AAD, instructing them on how to extinguish a fire in case of an emergency. They showed each fire accident and how to deal with it. Children themselves did all practicals conducted by the safety officer.



On July 12, 2024, Prof. Gaurav Raheja (IIT Roorkee) and Dr. Jitendra Aggarwal (Sarhak Educational Trust) visited AAD, engaging with students on career aspirations. Dr. Aggarwal pledged to include them in Sarhak's skill training program, now more accessible with a new branch in Haridwar.



On July 27, 2024, Ms. Debjani Ghosh, President of NASSCOM, visited AAD while attending IITR's Convocation 2024 as Chief Guest. She praised the teachers' dedication and emphasized the value of listening and speaking skills. She encouraged integrating coding and AI tools into learning and advised the administration to enhance vocational courses for student empowerment.

## EDUCATIONAL TRIP

On September 28, 2024, 60 students and 12 staff visited the Regional Science Centre, Dehradun.

The trip was an exciting and educational experience, with teachers explaining various scientific concepts. It was a highly enriching and enjoyable excursion for the students.



## UPDATE ON RECENT CAREER AND ACADEMIC PURSUITS OF FORMER STUDENTS

Recently and in the past, several students from our school have completed their 12th class and are now pursuing the following paths:

1. Ms. Sana is currently getting training to work as a makeup artist in a parlour.
2. Ms. Priyanka Pal is employed at Trends Store, Roorkee.
3. Ms. Sarla is pursuing her graduation (BA) at Methodist Degree College, Roorkee.
4. Ms. Manvi Rana is completing her post graduation (MBA) at COER College, Roorkee.
5. Mr. Om Bansal is working as an Art Teacher in Anushruti Academy for the Deaf, IIT Roorkee.



## FANCY DRESS COMPETITION

On October 26, 2024, three enthusiastic AAD students—Bareera, Aarav (Nursery), and Sidra (KG)—participated in a fancy dress competition at NIH. Their creativity and excitement were commendable, earning them participation certificates. The event boosted their confidence in a fun-filled setting, and we are proud of their spirited involvement.



Ms. Sana  
(on the left)

Ms. Priyanka Pal

Ms. Manvi Rana

Mr. Om Bansal



Ms. Sarla (marked by Red arrow)

## DIVYA KALA MELA-MEGA EXIBITION CUM JOB FAIR

On December 19, 2024, our students and staff enthusiastically attended the Job Fair and Exhibition at India Gate, New Delhi, organized by



the Government of India. The event provided valuable career exposure, networking opportunities, and interactive workshops. Renowned companies like IDEA, Amazon, and Flipkart engaged with attendees, offering insights into career pathways. The experience was inspiring and motivating for all participants.



## UNNAT BHARAT ABHIYAN (UBA)

It is a flagship initiative of the Ministry of Human Resource Development, Government of India, aimed at bringing transformative change in rural India through the active involvement of higher education institutions. Under this initiative, IIT Roorkee has adopted five villages in Haridwar district: Beladi-Salhapur, Gopalpur, Rithaura Grunt, Meerpur-Muwazarpur, and Puranpur. These villages vary in size, population, and socio-economic backgrounds but share common challenges related to agriculture, livelihood, and rural development. The initiative focuses on leveraging the technical knowledge and innovative capacities of students and faculty to improve the quality of life in these villages through sustainable practices, capacity building, and entrepreneurial support. Each village presents unique opportunities for community engagement, making them ideal for piloting and implementing impactful rural development models.

### Candle Making initiative

- Under the Unnat Bharat Abhiyan (UBA), a candle-making initiative was launched in five villages—Beladi, Gopalpur, Meerpur, Rithaura-

Grunt, and Puranpur—to promote women's empowerment through skill development and income generation. Building on last year's success, SHG women led the initiative by investing, producing, managing, and selling decorative candles. They received training and sold their products at events like Thomso and Diwali, fulfilling multiple orders and earning profits. The project fostered entrepreneurship, boosted confidence, and encouraged community collaboration. Increased ownership by the women in managing stalls and finances marked a shift toward self-reliance. The initiative proved both sustainable and impactful, highlighting its long-term potential.



## Alovera Gel making

- The Aloe Vera Gel Initiative, launched under Unnat Bharat Abhiyan, aims to promote sustainable livelihoods by empowering SHG women through aloe vera cultivation and gel production. Designed to boost eco-friendly entrepreneurship, the project offers an alternative income source while encouraging sustainable farming. After a positive response from women in Puranpur and Rithaura, 275 aloe vera plants were distributed at subsidized rates. This initiative fosters self-reliance, agricultural awareness, and long-term community development.

## Self-defence Training Camp

- As part of the Unnat Bharat Abhiyan (UBA) initiative by IIT Roorkee, a self-defense training camp was held at the Senior Secondary Government School in Daluwala village. Over

80 girls from classes 6 to 12 participated, learning essential self-defense skills to boost confidence and ensure safety. The session was led by Mr. Abhishek, a trainer from IIT Roorkee, with support from his students. This initiative highlighted UBA's commitment to empowerment, safety, and skill development in rural communities.



Date: October 19, 2024  
Venue: Daluwala Mazbata School

Total girls participated in self defence camp

## Bracelet making initiative

- As part of the Unnat Bharat Abhiyan by IIT Roorkee, the Bracelet Making Initiative was introduced to empower rural women through a simple, creative, and low-investment activity. After assessing feasibility and market potential, the project was launched with enthusiastic participation. Bracelets crafted by the women were sold at THOMSO'24, providing them income and recognition. The initiative aimed to enhance skills, boost confidence, and support sustainable livelihoods.



Ms Kumkum describing all the varieties of bracelets to be made.

## Resin Art initiative

- The Resin Art Initiative, launched under the Unnat Bharat Abhiyan. It aims to empower



women of the Meerpur and Rithaura village SHG by equipping them with creative skills to produce marketable resin-based products. Resin art involves using epoxy resin mixed with pigments and embellishments to create unique, durable items like jewelry, coasters, and wall décor. With rising demand driven by personalization trends, social media appeal, and the gift market, resin art offers a high-margin, sustainable business model. Required materials include resin, pigments, molds, tools, and safety gear. Products can be sold through online platforms, local markets, IITR campus outlets, and events like Saras Mela.



Resin Art prepared by S. S. Verma

## DIVERSITY AND INCLUSION COMMITTEE (DInC)

The Board of Governors, IIT Roorkee approved the establishment of the Diversity and Inclusion Committee (DInC) in its 64th meeting on March 8, 2022. The objectives of DInC are to enrich the institution's culture, strengthen engagement among faculty, non-faculty, and students, and attract diverse talent. The committee comprises representatives including faculty, non-faculty, technical and management professionals from various departments, as well as national and international student representatives. Operating under the motto "Fostering Excellence through Diversity and Inclusion," this initiative reflects IITR's dedication to cultivating an inclusive environment where every individual's contributions are recognized and valued. Through proactive efforts, DInC aims to promote respect, understanding, and collaboration,

reinforcing both academic excellence and social cohesion within the institution.

In academic year 2024-25, the Diversity and Inclusion Committee (DInC) conducted a variety of interactive activities and awareness programs aimed at promoting a culture of diversity and inclusion within the IITR community.

The details are as follows:

- i. Orientation programs were conducted in August 2024 and January 2025 on Diversity and Inclusion for undergraduate, postgraduate, and PhD students of IITR, emphasising on the importance of embracing differences and fostering inclusivity.
- ii. DInC in collaboration with SAADRI, Hindi Cell, and CRY IITR, organized a School Safety Program on 11 May 2024 for educating school students about hazards, vulnerabilities, and risks. Around 70 students from classes 6 to 9 from nearby schools participated in the initiative. The program focused on raising awareness about disaster preparedness and introduced students to the targets and priorities of the Sendai Framework for Disaster Risk Reduction (SFDRR). Special lectures and interactive sessions were conducted on critical topics such as heat waves, water management, and fire safety. Additionally, the IIT Roorkee Fire Safety Department provided hands-on training in rescue methods, allowing students to gain practical experience using different fire extinguishers and firefighting tools. Through this engaging and informative event, students were equipped with essential safety knowledge and skills to better respond to emergencies.





- iii. DInC conducted a comprehensive Diversity and Inclusion Survey in August 2024 to collect valuable feedback from students and staff, intending to identify opportunities to enhance diversity and inclusivity in campus. To gain a broader perspective, the survey was further extended to the unorganized manpower staff within IITR, ensuring that voices from all segments of the campus community were heard. This initiative aimed to assess the existing inclusivity landscape and gather insights for developing more effective strategies to foster a welcoming and equitable environment for everyone.
- iv. DInC proudly hosted "Cultural Crossroad, Where Global Diversity Meets Unique Abilities" on 23 October 2024, a vibrant event showcasing talents worldwide. This spectacular event brought together a fusion of traditional dances, musical performances, and artistic expressions, creating an unforgettable celebration of cultural diversity and unity. With an array of captivating performances, the event highlighted the richness of global

traditions while fostering a spirit of inclusivity. Cultural Crossroad served as a platform for students to engage with diverse talents and perspectives, reinforcing the values of respect and mutual appreciation. The enthusiastic participation of national and international students played a crucial role in making this initiative successful, further strengthening the institution's commitment to diversity and inclusion. Through such initiatives, IIT Roorkee continues to uphold its vision of creating an inclusive and equitable environment where every individual's unique abilities and cultural heritage are valued and celebrated.

- v. DInC collaborated with MUNarchy' 25, IIT Roorkee's Model United Nations event from 17-19 January 2025, organized by IRMUN Society. The event with theme "The Reign of Diplomacy" provided a platform to the students to engage in UN-style debates, enhancing their skills in public speaking, research, and negotiation. A key highlight was 'Chhatra Sansad', a social conference empowering youth from nearby villages to address grassroots issues like education, sanitation, and fair farm pricing. The event also featured the All India Stakeholders Meet (AISM) on re-evaluating equal opportunity criteria for marginalized communities and the United Nations Human Rights Commission (UNHRC) session on protecting rights of women and minority in war-affected regions. In partnership with IRMUN, MUNarchy'25 fostered meaningful discussions on global





and social issues, reinforcing diplomacy, inclusivity, and youth empowerment while equipping students with essential leadership skills.



- vi. DInC also collaborated with SPIC MACAY IIT Roorkee, in organizing Virasat '25 from 27th Jan to 9th Feb 2025. The annual festival is dedicated to preserving and promoting India's rich heritage and cultural traditions. As part of this vibrant celebration, a diverse range of workshops and performances were conducted, offering participants a deep connection with India's artistic and cultural legacy. The festival featured engaging sessions on Puppetry, Carnatic Violin, and Koodiyattam, along with a mesmerizing Sitar recital. Additionally, an Iconic Movie Screening showcased cinematic heritage, while a Talk Session and Holistic Food Festival provided insights into traditional wisdom and wellness practices. Through Virasat '25, IIT Roorkee reaffirmed its commitment to fostering cultural appreciation and inclusivity, creating an immersive platform for students and faculty to explore and celebrate India's diverse artistic traditions.

#### **ASMITA** (A Skill Management, Improvement, and Training Academy)

Empowering Women. Creating Opportunities.

ASMITA is more than just a training center — it's a symbol of progress and empowerment for



women. Located right on campus, the academy is dedicated to uplifting women, especially from underprivileged backgrounds, by helping them gain economic independence through meaningful employment.

At ASMITA, skill development is tailored to meet every individual where they are:

- Skilled women and girls are connected to relevant job opportunities.
- Semi-skilled individuals receive focused training to enhance and refine their abilities.
- Beginners are introduced to the basics of stitching, embroidery, and various handicrafts-giving them the tools to build confidence and expertise.

With every class and every stitch, ASMITA is shaping brighter futures.

Beyond vocational training, ASMITA extends its mission with compassion by offering free

education to marginalized women, girls, and boys. This initiative has led to notable progress in both academic performance and personal growth. According to school teachers, all children involved have shown impressive improvement, actively participating in extracurricular activities and becoming more confident and expressive.

## Adult Literacy Section

Since 2013, the Adult Literacy Section has been conducting regular classes, primarily attracting women aged between 30 and 50 years who seek foundational literacy skills. Over the years, there has been a steady increase in enrollment, with women joining from various parts of the campus community. Currently, classes are held eight times per month for the registered students.

In the academic year 2024–2025, the program has shown encouraging progress. There are five students enrolled this year, all of whom are actively engaging with the syllabus.

Key highlights of this year's focus include:

- Emphasis on reading aloud short paragraphs and stories to improve fluency and confidence.
- Continued practice in alphabet recognition.
- Regular involvement in reading, writing, and recitation activities, with noticeable improvement in Hindi.
- Introduction of informal letter writing in Hindi to enhance written communication skills.

The students are consistently practicing and demonstrating growth in their literacy journey.

## Teaching Section

The new teaching session started on 15th April 2024.

A new classroom was set up right on the same premises, complete with 2 computers, a printer, a projector with a screen, and all the necessary furniture. New air conditioners were also installed,

making the whole teaching and learning experience way more comfortable.

On average, there were about 22 students in the class, and they've shown amazing progress in both their studies and overall understanding."

## Gift, Stitching, Masala, and Dosa Batter Sections

The Gift Section continues to expand its range of handcrafted products, offering items such as cushion covers, table runners, bags, jewelry kits, and saree covers. A recent addition—beautifully painted coasters—has been well received and adds a creative touch to the collection.

In the Masala Section, a variety of spice blends are carefully prepared, including special herbal colors made for the Holi festival. These products have gained popularity both within and beyond the IIT campus for their quality and authenticity.

Meanwhile, the DOSA Batter Section consistently produces fresh, high-quality dosa batter on a weekly basis. Renowned for its taste and texture, it remains a customer favorite.

With hands-on training programs, semi-skilled folks get the chance to level up their abilities, while those with no experience learn the basics of stitching, embroidery, and other crafts. Some even went on to open their own boutiques after finishing the training!

A generous donation of ₹1,01,802.49 by Mr Pramit Gupta (USA) has been dedicated to infrastructure improvements and the enhancement of facilities at ASMITA.





Distribution of Certificates



Nail Art Workshop



Memento to External Examiner in teaching Section



Students of Stitching Section

## Skill India – Yoga Wellness Trainer under PMKVY

The Skill India – Yoga Wellness Trainer program, conducted under the Pradhan Mantri Kaushal Vikas Yojana (PMKVY), was a specialized training initiative aimed at developing certified yoga professionals to promote health and wellness within communities. The Skill India Training Centre at IIT Roorkee - Rethink! The Tinkering Lab

& Institute Sports Council (ISC) successfully conducted the course from July 2024- Jan 2025, with a batch of 30 trainees. This program provided participants with the skills and certification needed to build careers in the wellness sector, while also contributing to the nation's vision of holistic well-being and preventive healthcare.



## Skill India – Additive Manufacturing (3D Printing) Under PMKVY:-

The Skill India – Additive Manufacturing (3D Printing) program, conducted under the Pradhan Mantri Kaushal Vikas Yojana (PMKVY), was a specialized training initiative aimed at imparting advanced skills in 3D printing—a transformative technology in modern manufacturing. The Skill India Training Centre at IIT Roorkee - Rethink! The Tinkering Lab successfully delivered the program from July to October 2024, with a batch of 19 trainees. The course aimed to foster innovation and build technical capacity in this emerging domain, marking a significant step toward empowering skilled professionals in additive manufacturing.



# INSTITUTE ACCOUNTS

Summary of Balance Sheet

Summary of Total Income & Expenditure

Details of MoE Expenditure

Details of other Account

- Sponsored Research Projects

- Consultancy and Testing Projects

- General Corpus Fund

- Endowment Corpus Fund

- Donations Received

- Grant/Assistance Received from GOI

- Receipt from Seminar and Conference

## SUMMARY OF BALANCE SHEET AS AT 31ST MARCH 2025

Amount in Rupees

Sources of Funds	Schedule	Current Year	Previous Year
Corpus/Capital Fund	1	5,36,82,80,654	4,33,56,34,026
Designated/Earmarked/Endowment funds	2	9,22,89,57,648	7,84,74,95,795
Current liabilities & Provisions	3	23,99,48,59,858	22,48,20,89,659
Un-Secured loan	3A	2,62,30,57,712	2,58,81,69,126
<b>Total</b>		<b>41,21,51,55,872</b>	<b>37,25,33,88,606</b>
Application of Funds	Schedule	Current Year	Previous Year
<b>Fixed Assets</b>	4		
Tangible Assets		19,23,60,27,337	18,58,04,45,453
<b>Intangible Assets</b>		7,75,13,562	14,64,38,793
<b>Capital Works-In-Progress</b>			
Investments From Earmarked/ Endowment Funds	5	4,73,77,57,503	3,54,53,81,699
Long Term		7,50,40,65,178	6,56,64,46,185
Short Term			
<b>Investments - Others</b>	6	3,13,04,45,203	3,21,69,45,203
<b>Current Assets</b>	7	4,70,94,12,554	3,33,98,87,821
<b>Loans, Advances &amp; Deposits</b>	8	1,81,99,34,535	1,85,78,43,451
<b>Total</b>		<b>41,21,51,55,872</b>	<b>37,25,33,88,606</b>

## Summary of Total Income & Expenditure 2024-2025

(Rs. in Lakh)

Head of Accounts	Opening Balance	Allocation	Internal Receipts	Total Available fund	Expenditure during the year
MoE Main /TSA	0.00	82515.03	3109.97	85625.00	85625.00
PM Research Fellowship	0.00	1852.13	0.00	1852.13	1852.13



(Rs. in Lakh)

Head of Accounts	Opening Balance	Allocation	Internal Receipts	Total Available fund	Expenditure during the year
ASEAN Fellowship	0.00	35.77	0.00	35.77	35.77
Misc. (UGC)	10.61	0.00	18.09	28.70	0.71
CSIR	41.05	4.68	0.80	46.53	27.71
FEE	1436.11	0.00	17917.99	19354.10	15917.09
BRP	380.02	0.00	806.35	1186.37	693.58
National Scholarship	237.09	817.66	8.19	1062.94	836.33
Government of India	255.44	153.94	205.69	615.07	397.72
<b>Total</b>	<b>3268.89</b>	<b>80053.87</b>	<b>24688.63</b>	<b>99401.08</b>	<b>105651.06</b>

## Details of MoE Expenditure

(Rs. in Lakh)

S.No.	Head of Accounts	Expenditure 2024-25
<b>1.</b>	<b>Equipment</b>	
(i)	Replacement of obsolete equipment & modernization of laboratories	7375.15
(iii)	Office equipment/Automation	942.95
<b>2.</b>	<b>Up gradation of Computing facilities</b>	177.69
<b>3.</b>	<b>Up gradation of Networking &amp; Multimedia Facilities</b>	2394.64
<b>4.</b>	<b>Strengthening of library</b>	746.34
<b>5.</b>	<b>Renovation/Extension of Buildings (including support services)</b>	
(i)	Furniture- (For Hostels, Departments, Admi offices etc.	518.71
(ii)	STC & DIA	95.55
(iii)	Renovation/ Modernization works of Toilets	353.42
(iv)	Kitchen equipments for Himalayan Bhawan	259.89
(v)	SITC of Lifts	48.28
(vi)	Construction of Administrative Building	819.00
(vii)	Others renovation / modernization works	486.81
(viii)	Waterproofing work in dept., residences & hostel at IITR	196.37
(ix)	New Hostel Vigyan Kunj Roorkee (EWS)	1240.00
(x)	Renovation of James Thomson Building at IITR	30.04
(xi)	Roads for Roorkee /Saharanpur Campus	67.93
(xii)	Renovation of Departments	576.80
(xiii)	AC for Faculties in Roorkee & SRE Campus	450.11
(xiv)	Sports related work	64.44
(xv)	Mehta family school of DS&AI (Building)	489.00
(xvi)	Wheel chair lifts	45.14
(xvii)	Renovation of Guest House	4.98
(xviii)	Greater NOIDA	15.84
	<b>TOTAL</b>	<b>17399.08</b>

(Rs. in Lakh)

S.No.	Head of Accounts	Expenditure 2024-25
<b>6.</b>	<b>Establishment Expenses</b>	
(i)	Pay & Allowance	25465.20
(ii)	OTA and Honorarium	2.52
(iii)	LTC	222.32
(iv)	Children Education Allowance	165.73
(v)	Medical Expenses	934.51
(vi)	Professor Development Allowance (PDA)	557.57
(vii)	Reimbursement (Tele-Internet)	79.46
(viii)	Retirement benefit	2567.71
	<b>TOTAL</b>	<b>299,95.02</b>
<b>7.</b>		
(i)	Departmental Operating Costs	2794.81
(ii)	Contingency	362.72
(iii)	Student amenities /course/ Other Educational Expenses	719.09
<b>8.</b>	<b>Assistantship/ Fellowship/ Merit-cum-Means</b>	<b>9233.01</b>
<b>9.</b>	<b>Maintenance Expenses</b>	
(i)	Electric & Equipment Maintenance	1604.24
(ii)	Water Power & Fuel/Electricity	2688.10
(iii)	Property Tax	26.89
(iv)	Repair & Maintenance of Estate/Furniture/Vehicle	3023.41
<b>10.</b>	<b>Other Expenses</b>	<b>1158.93</b>
<b>11.</b>	<b>Pension &amp; Pensionary benefits</b>	<b>9904.14</b>
<b>12.</b>	<b>Outsourcing admin &amp; Estate, Security</b>	<b>5283.77</b>
<b>13.</b>	<b>HEFA Interest paid</b>	<b>1431.79</b>
	<b>TOTAL</b>	<b>38230.90</b>
	<b>Grand Total</b>	<b>856,25.00</b>

## Details of Other Account

### General Corpus Fund

(Rs. in Lakh)

Description	Amount
Opening Balance (Including FDR)	510,62.49
Receipts/Trfd from various A/c	62,82.98
Payments (Including loan)	12,49.84
Closing Balance (Including FDR)	560,95.63

## Endowment Corpus Fund

(Rs. in Lakh)

Description	Amount
Opening Balance (Including FDR)	97,57.16
Receipts/Trfd from various A/c	68,95.65
Payments (Including loan)	32,65.42
Closing Balance (Including FDR)	133,87.39

## Donation Received

(Rs. in Lakh)

Scheme/Programmes	Amount Received
Donation Received	61,02.42
<b>TOTAL</b>	<b>61,02.42</b>

## Grant/Assistance received from GOI

(Rs. in Lakh)

Scheme/Programmes	Amount Received
STAC	98.041
CMR	13.32
EDCIL	
DBT	42.58
Other	205.69
<b>TOTAL</b>	<b>359.63</b>





## Chief Wardens & Wardens/Faculty Advisor

### Azad Bhawan

Prof. S. P. Pradhan (ChW)  
Prof. Ritesh Kumar (W)  
Prof. Vishvendra Singh Poonia (Wel. W)

### Cautley Bhawan

Prof. Tarun Sharma (ChW)  
Prof. Ashutosh Sharma (W)  
Prof. Rhythm Singh (Wel. W)

### Ganga Bhawan

Prof. Ankik Kumar Giri (ChW)  
Prof. Deepak Kumar Ojha (W)  
Prof. Rhythm Singh (Wel. W)

### Govind Bhawan

Prof. Bishnu Prasad Das (ChW)  
Prof. Neetesh Kumar (W)  
Prof. P. Vinod (Wel. W)

### Jawahar Bhawan

Prof. Basant Yadav (ChW)  
Prof. Nitin Khandelwal (W)  
Prof. Hemant Kumar (Wel. W)

### Himalaya Bhawan

Prof. Basant Yadav (ChW)  
Prof. Nitin Khandelwal (W)  
Prof. Hemant Kumar (Wel. W)

### Kasturba Bhawan

Prof. Sarbani Banerjaa (ChW)  
Prof. Kritika Kothari (W)  
Prof. Sugandha Maheshwary (Wel. W)

### Vigyan Bhawan (Girls)

Prof. Pranita Sarangi (ChW)  
Prof. Swastika Banerjee (W)  
Prof. Indra Gupta (Wel. W)

### Vigyan Bhawan (Boys)

Prof. Partha Pratim Roy (ChW)  
Prof. Ankit Agrawal (W)  
Prof. Vishvendra Singh Poonia (Wel. W)

### Radha Krishnan Bhawan

Prof. Gaurav Sharma (ChW)  
Prof. Piyush Srivastava (W)  
Prof. Tarun Gangwar (Wel. W)

### Rajendra Bhawan

Prof. D. Bharat (ChW)  
Prof. Saurabh Sharma (W)  
Prof. Ashish Yadav (W)  
Prof. Hemant Kumar Suman (Wel. W)



**Rajiv Bhawan**

Prof. Uday Singh (ChW)  
 Prof. Shamik Basak (W)  
 Prof. Tarun Gangwar (Wel. W)

**Ravindra Bhawan**

Prof. Akhilesh Kumar Mishra (ChW)  
 Prof. Mohit Prakash Mohanty (W)  
 Prof. P. Vinod (Wel. W)

**Sarojini Bhawan**

Prof. Harshit Sosan Lakra (ChW)  
 Prof. Aparajita Singh (W)  
 Prof. Shruti Sengupta (Wel. W)

**EWS Hostel**

Prof. Shubhajit Sadhukhan (ChW)  
 Prof. Aruni Mahapatra (W)

**Himgiri Apartments**

Prof. Ram Jiware

**K.I.H., A.N.K. & Married Hostels**  
**(GP,MRC,DSB,Azad Wing & QRST Block,**  
**Vikas Nagar)**

Prof. P. K. Sharma (ChW)

**Malviya Bhawan & Indira Bhawan, SRE Campus**

Prof. Pradip K. Maji (ChW)  
 Prof. Kuljeet Kaur (W)  
 Prof. Sham Sunder (Wel. W)

\*(ChW)-Chief Warden, (W)-Warden, (Wel.W)-Wellness Warden

**Faculty Advisor, Cultural Society/Spic**  
**Macay/Cinema Club**

Prof. Ram Manohar Singh

**Faculty Advisor, NCC & NSS**

Prof. Dharmendra Pratap Singh

**Faculty Advisor, Himalayan Explorer Club**

Prof. Ajanta Goswami

**Chairman, Sports Council (ISC)**

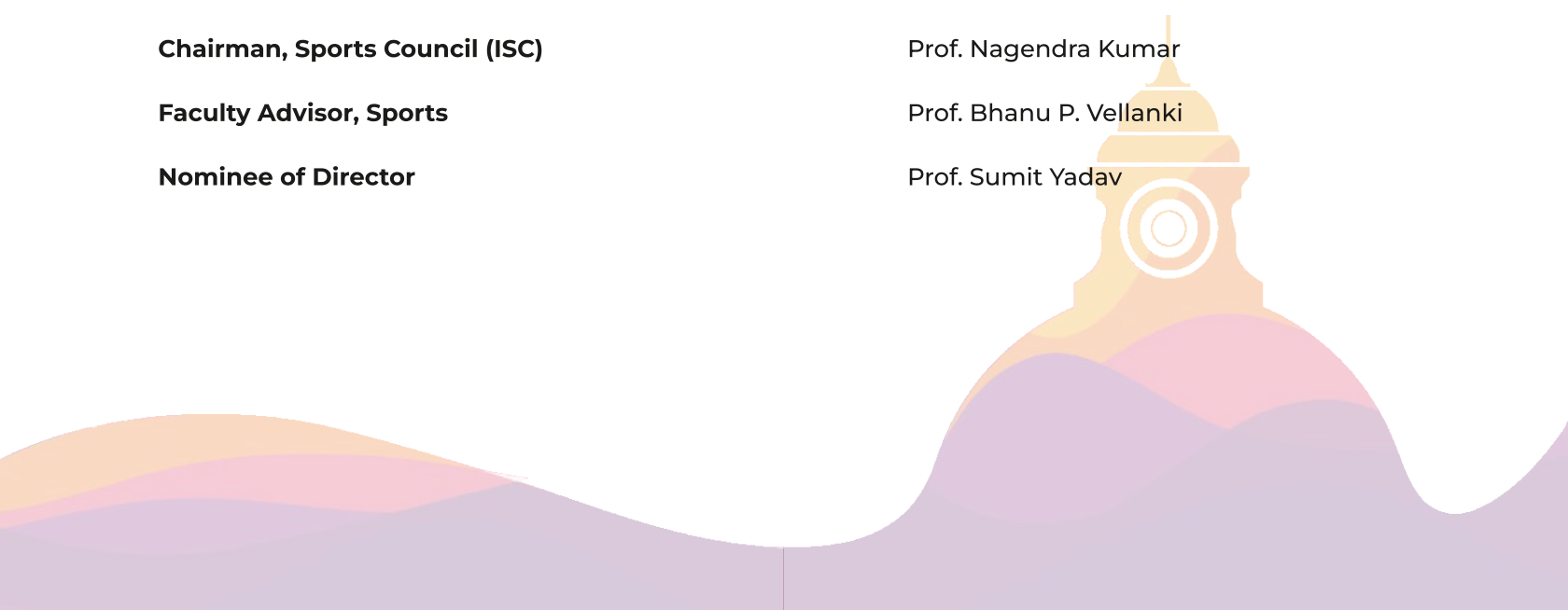
Prof. Nagendra Kumar

**Faculty Advisor, Sports**

Prof. Bhanu P. Vellanki

**Nominee of Director**

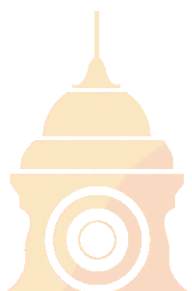
Prof. Sumit Yadav



## Head of Departments

- **Prof. Mahua Mukherjee**  
Department of Architecture and Planning
- **Prof. Millie Pant**  
Department of Applied Mathematics and Scientific Computing
- **Prof. Sanjay Ghosh (w.e.f. 1.02.2024)**  
Department of Biosciences and Bioengineering
- **Prof. Prasenjit Mondal**  
Department of Chemical Engineering
- **Prof. Rama Krishna Peddinti**  
Department of Chemistry
- **Prof. Narendra Kumar Samadhiya**  
Department of Civil Engineering
- **Prof. R. Balasubramanian**  
Department of Computer Science and Engineering
- **Prof. Apurbba Kumar Sharma**  
Department of Design
- **Prof. B. K. Maheshwari**  
Department of Earthquake Engineering
- **Prof. Sandeep Singh**  
Department of Earth Sciences
- **Prof. Bhavesh R. Bhalja**  
Department of Electrical Engineering
- **Prof. Sanjeev Manhas**  
Department of Electronics and Communication Engineering
- **Prof. Smिता Jha**  
Department of Humanities and Social Sciences

- **Prof. Sumit Sen**  
Department of Hydrology
- **Prof. Sanjeev Kumar Prajapati**  
Department of Hydro and Renewable Energy
- **Prof. Rajat Agarwal**  
Department of Management Studies
- **Prof. Maheshanand**  
Department of Mathematics
- **Prof. Akshay Dvivedi**  
Department of Mechanical and Industrial Engineering
- **Prof. B. V. Manoj Kumar**  
Department of Metallurgical and Materials Engineering
- **Prof. Kirtiraj K. Gaikwad**  
Department of Paper Technology
- **Prof. Abhijit Maiti**  
Department of Polymer and Process Engineering
- **Prof. Vipul Rastogi**  
Department of Physics
- **Prof. Thanga Raj Chelliah**  
Department of Water Resources Development and Management
- **Prof. Sanjeev Kumar**  
Mehta Family School for Data Science & Artificial Intelligence (MFSDSAI)
- **Prof. Anbanandam Ramesh**  
Centre of Transportation System (CTRANS)
- **Prof. M. Sanker**  
Centre for Nanotechnology





- **Prof. Sateesh Kumar Peddoju**  
Institute Computer Centre (ICC)
- **Prof. Pravindra Kumar**  
Institute Instrumentation Centre (IIC)
- **Prof. Amit Dhiman**  
Centre of Excellence in Disaster Mitigation and Management (COEDMM)
- **Prof. Ajay Wasan**  
Centre for Photonics and Quantum Communication Technology (CPQCT)
- **Prof. Soumitra Satapathi**  
Center for Sustainable Energy (CFSE)
- **Prof. S.H. Upadhyay**  
Centre for Space Science & Technology (CSST)
- **Prof. Anil K. Gourishetty**  
Centre for Indian Knowledge Systems for Holistic Advancement (IKSHA)
- **Prof. Ashish Pandey**  
Centre for Sustainable Rural Development (CSR D)
- **Prof. M. L. Sharma**  
International Centre of Excellence for Dams (ICED)
- **Prof. Karun Rawat**  
Centre for Semiconductor Design and Technology (CSDT)



## DETAILS OF PUBLICATIONS STATISTICS

S.No.	DEPARTMENT/CENTRES	BOOK/ BOOK CHAPTER	CONFERENCES/ JOURNALS Articles	INTELLECTUAL PROPERTY FILED	IP GRANTED
1	Department of Architecture and Planning	0/2	2/21	4	1
2	Department of Applied Mathematics and Scientific Computing	0/0	0/13	0	1
3	Department of Biosciences and Bioengineering	1/5	0/123	17	17
4	Department of Chemical Engineering	0/6	0/98	10	5
5	Department of Chemistry	0/6	0/183	11	2
6	Department of Civil Engineering	3/7	6/209	7	2
7	Department of Computer Science and Engineering	0/2	0/13	15	1
8	Department of Design	0/1	1/2	4	2
9	Department of Earthquake Engineering	0/0	0/21	5	5
10	Department of Earth Sciences	0/2	0/62	2	0
11	Department of Electrical Engineering	1/3	1/28	16	6
12	Department of Electronics and Communication	1/2	0/66	21	5
13	Department of Humanities and Social Sciences	0/1	0/26	0	0
14	Department of Hydrology	0/2	1/49	3	0
15	Department of Hydro and Renewable Energy	0/6	0/41	3	0
16	Department of Management Studies	0/2	1/56	5	1
17	Department of Mathematics	0/2	2/108	0	0
18	Department of Mechanical & Industrial Engineering	0/15	0/167	12	6
19	Department of Metallurgical and Materials Engineering	0/0	1/72	5	0
20	Department of Paper Technology	0/0	0/35	6	6
21	Department of Polymer and Process Engineering	1/8	1/49	14	4
22	Department of Physics	0/1	5/229	16	7
23	Department of Water Resources Development and Management	0/1	0/54	5	1
24	Centre of Excellence in Disaster Mitigation & Management	0/1	0/3	1	1
25	Centre for Nanotechnology	0/0	0/8	9	4
26	Centre for Photonics and Quantum Communication Technology	0/0	0/0		
27	Centre for Transportation System	0/1	0/1		
	Total	7/77	21/1737	191	77

## Organisation



**Prof. Kamal Kishore Pant**  
Director



**Prof. Udai Pratap Singh**  
Deputy Director



**Prof. D.S. Arya**  
Dean, Administration



**Prof. Rahul Dev Garg**  
Dean, Resources and Alumni



**Prof. Deepak Khare**  
Dean, Finance & Planning



**Prof. A.K. Sharma**  
Dean, Faculty Affairs



**Prof. Akshay Dvivedi**  
Dean, Sponsored Research &  
Industrial Consultancy



**Prof. Barjeev Tyagi**  
Dean, Students' Welfare



**Prof. Naveen Navani**  
Dean, Academic Affairs



**Prof. Inderdeep Singh**  
Dean, Infrastructure



**Prof. Vimal Chandra Srivastava**  
Dean, International Relations



**Prof. Sujay Chattopadhyaya**  
Dean, Saharanpur Campus



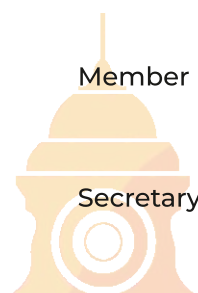
**Mr. Prashant Garg**  
Registrar



**Mr. G. K. Rastogi**  
Finance Officer

## FINANCE COMMITTEE

Padma Shri B.V.R. Mohan Reddy Chairperson, Board of Governors, IIT Roorkee & Executive Chairman, Cyient Limited Hyderabad	Chairperson
Prof. K.K. Pant Director Indian Institute of Technology Roorkee	Member
Additional Secretary (TE) Ministry of Education Government of India Department of Higher Education New Delhi	Member
Additional Secretary & Financial Advisor Ministry of Education Government of India Department of Higher Education New Delhi	Member
Principal Secretary to Government of Haryana Technical Education Department Chandigarh	Member
Prof. U.P. Singh Department of Chemistry Indian Institute of Technology Roorkee	Member
Dean, Finance & Planning (Ex-Officio) Indian Institute of Technology Roorkee	Member
Sri Prashant Garg Registrar Indian Institute of Technology Roorkee	Secretary





## BUILDING & WORKS COMMITTEE

Prof. K.K. Pant Director Indian Institute of Technology Roorkee	Chairman
Prof. U.P. Singh Department of Chemistry Indian Institute of Technology Roorkee	Member
Dean, Infrastructure Indian Institute of Technology Roorkee	Member
Sri Surendra Singh Ex-Additional Director General, CPWD Flat No.B604, Prince Apartment 54 IP Extension, Patpatganj, Delhi - 110092	Member
Sri Rakesh Gupta Ex-Sr. Executive Director, NBCC (India) Ltd. B-603 Vidyut Apartment Plot N 81 IP Extension Patpatganj Delhi – 110092	Member
Prof. C.S.P Ojha Department of Civil Engineering Indian Institute of Technology Roorkee	Member
Prof. Akhil Upadhyay Department of Civil Engineering Indian Institute of Technology Roorkee	Member
Prof. Barjeev Tyagi Department of Electrical Engineering Indian Institute of Technology Roorkee	Member
Institute Engineer Indian Institute of Technology Roorkee	Member
Dean, Finance & Planning Indian Institute of Technology of Roorkee	Special Invitee
Sri Prashant Garg Registrar Indian Institute of Technology Roorkee	Secretary

## ADMINISTRATION / OFFICERS

Chairman, Board of Governors

Director

Deputy Director

Dean, Administration

Dean, Faculty Affairs

Dean, Sponsored Research and Industrial Consultancy

Dean, Academic Affairs

Dean of Students Welfare

Dean, Finance & Planning

Dean, Resources and Alumni Affairs

Dean, Infrastructure

Dean, International Relations

Dean, Saharanpur Campus

Associate Dean Innovation and Incubation (ADII)

Associate Dean Faculty Affairs

Associate, DoSW (Bhawans & Mess)

Associate, DoSW (Students Wellness)

Associate, DOSW (Students Activities)

Assoc. Dean Corporate Interaction (ADCI)

Associate Dean, Infrastructure (Electrical & AC)

Associate Dean, Infrastructure (Civil)

ADOAA (IT Systems & Admission)

ADOAA (Curriculum)

ADOAA (Evaluation)

Associate Dean Infrastructure (Projects)

Professor -in-Charge, Transportation

Professor-in-Charge, Placement & Internship Cell

Professor-in-Charge, Guest House

Professor-in-Charge, Safety

Professor-in-Charge, GNEC

Professor-in-Charge, Archives

Shri B. V. R. Mohan Reddy

Prof. Kamal Kishore Pant

Prof. Udai Pratap Singh

Prof. D. S. Arya

Prof. Ashwani Kumar Sharma

Prof. Akshay Dvivedi

Prof. Naveen Kumar Navani

Prof. Barjeev Tyagi

Prof. Deepak Khare

Prof. R. D. Garg

Prof. U. K. Sharma (upto 31.07.2024)

Prof. Inderdeep Singh (w.e.f. 01.08.2024)

Prof. Vimal Chandra Srivastava

Prof. Sujay Chattopadhyay (upto 21.03.2025)

Prof. Millie Pant (w.e.f. 22.03.2025)

Prof. Vivek Kumar Malik

Prof. Anand Bulusu

Prof. Pradeep Kumar Jha

Dr. Avlokita Agarwal

Prof. M. V. Sunil Krishna

Prof. Sai Ramudu Meka

Prof. Anubrata Dey (upto 31.07.2024)

Prof. Jeevanand S. (w.e.f. 01.08.2024)

Prof. E. Rajasekar

Prof. A. Swaminathan (upto 26.04.2024)

Prof. Meenakshi Rawat (w.e.f. 27.04.2024)

Prof. Meenakshi Rawat (upto 26.04.2024)

Prof. Falguni Pattanaik (w.e.f. 27.04.2024)

Prof. N. K. Navani (upto 04.04.2024)

Prof. Pradeep Srivastava (w.e.f. 05.04.2024)

Prof. P. C. Ashwin Kumar (upto 30.04.2024)

Prof. Sanjay Chikermane (w.e.f. 01.05.2024)

Prof. Sudhakar Subudhi (upto 31.01.2025)

Prof. Harsh Chauhan (w.e.f. 01.02.2025)

Prof. Kaushik Pal

Prof. Yogesh Kumar Sharma (upto 30.04.2024)

Prof. Sanjeev Kumar (w.e.f. 01.05.2024)

Prof. Amit Dhiman (upto 05.01.2025)

Prof. Ankit Bansal (w.e.f. 06.01.2025)

Prof. R. Balasubramanian

Prof. Ram Sateesh Pasupuleti (upto 31.12.2024)

Professor-in-Charge, Security  
 Professor-in-Charge, STEP/TIDES  
 Professor-in-Charge,  
 Inclusion and Accessibility Services (IAS)

Coordinator, Intellectual Property Rights Cell

Coordinator, Incubation Centre for Construction  
 Technology in Building and Roads  
 Chairman, Hindi Cell

Chief Vigilance Officer  
 Liaison Officer for SC/ST  
 Liaison Officer (OBC)  
 Nodal Public grievance Officer for Centralized  
 Public Grievance Redress and Monitoring System  
 Students' Ombudsperson  
 Prof-in-Charge, Career Development Cell  
 Officer-in-Charge, GNEC  
 Professor-in-Charge, Ranking Committee  
 Coordinator, Continuing Education Centre  
 Coordinator, E-Learning Centre  
 Coordinator, IITR-NBCC, R&D, GNEC  
 Coordinator, National Centre for Honey  
 Authentication and Food Safety

Registrar  
 Finance Officer  
 Joint Registrar

Deputy Registrar

Assistant Registrar

Prof. Navjit Gaurav (w.e.f. 01.01.2025)

Prof. A. S. Maurya

Prof. S. K. Manhas

Prof. E. Rajasekar

Prof. Vivek Kumar Malik (Associate Dean  
 Innovation and Incubation)

Prof. Bhupinder Singh

Prof. K. M. Singh (upto 25.09.2024)

Prof. Avinash Parashar (w.e.f. 26.09.2024)

Prof. Tanuja Srivastava

Prof. Prof. Arindam Biswas

Prof. Ram Jiwari

Prof. C. S. P. Ojha (upto 28.02.2025)

Prof. Ramasre Prasad (w.e.f. 01.03.2025)

Prof. Basheshwer Prasad

Prof. Rajat Rastogi

Shri Ravi Kumar Chauhan

Prof. Meenakshi Rawat

Prof. Kaushik Ghosh

Prof. Ranjana Pathania

Prof. Sonlisa Ray

Prof. Naveen Kumar Navani (w.e.f. 04.10.2024)

Shri Prashant Garg

Shri G. K. Rastogi

Dr. Suman Kumar (On Lien at JNU, New Delhi)

Dr. Sheeba Ramola

Shri Abhishek Kumar

Shri Sanjeev Kr. Jainth (Deputation w.e.f.  
 20.12.2024)

Maj. (Retd.) Reeti Upadhyay

Shri Lokesh Verma

Shri Manish Kumar Bhomia

Shri Anbu R.

Shri Jitendra Dimri (w.e.f. 26.09.2024)

Mrs. Bibi M. Barbhuiya

(On Deputation at Brahmaputra Board,  
 Guwahati)



Shri Dileep Kr. Toppo  
Shri Jain Singh  
Shri Lalit Kumar  
Dr. Manoj Bhatt  
Shri Bane Singh Meena (on Lien at JNU)  
Shri V. Vijayaraj  
Shri Mahavir Singh  
Shri Jyoti Gurung  
Shri Aditya Chauhan  
Shri Mayank Pratap Singh  
Shri Deepanshu  
Shri Sahil Sardana  
Mrs. Anita Chauhan  
Shri Lekhraj  
Shri Alagu Sundar A (w.e.f. 17.10.2024)

## Institute Works Department

Institute Engineer

Institute Architect

Executive Engineer

Assistant Executive Engineer

Shri Ajay Sharma  
Lt. Col. Deepak Kr. Thakur (w.e.f. 24.09.2024)  
Shri Bhavneesh Lal

Shri Nepal Singh  
Shri Anil Kr. Barnwal  
Shri Trilok Nath Tiwari  
Shri Anshul Pal  
Shri Pradeep Kr. Dauhare  
Shri Om A. Verma (On Deputation at AIIMS, Rishikesh)  
Shri Narendra Singh Rana  
Shri Neeraj  
Shri Mayur Sharma  
Shri Jitendra Meena

## Mahatma Gandhi Central Library

Chairman, Library Advisory Committee

Librarian

Deputy Librarian

Assistant Librarian

Prof. Mahendra Singh (upto 31.01.2025)  
Prof. G. J. Chakarapani (w.e.f. 01.02.2025)  
Dr. C. Jayakumar (Retired on 30.04.2024)  
Dr. Sanjeev Kumar Sunny  
(Acting Librarian w.e.f. 01.05.2024)  
Dr. Amarendra Kr. Sharma (w.e.f. 25.10.2024)  
Shri Ramniwas Soni  
Dr. Rimai Atonring  
Shri Sakhawat Hussain



## Hospital

Chairman/Chairperson, Hospital Advisory Committee

Chief Medical Officer

Medical Officer

Prof. Indra Vir Singh

Dr. M. K. Jha

Dr. (Smt.) Vandana Suhas Khobragade

Dr. Rao Farman Khan

Dr. Alok Anand

General Duty Medical Officer

Dr. Anant Choudhary

Dr. Vibhu Sharma

Dr. Vipin Kumar

Dr. Ravi Kumar Gupta

Dr. Shyamasri Chakraborty Dey

Dr. G. Chandana

Dr. Sadhana

Dr. Suresh Kumar Meena (w.e.f. 29.07.2024)

Medical Officer (Dental)

Dr. Disha Srivastava (w.e.f. 27.06.2024)



## APPENDIX I 3 – AWARDS TO STUDENTS

### Medals and Awards (AY 2023-24)

#### Institute Level Medals and Award (Main Ceremony)

**ACHINTYA NATH,**

**B.Tech. (Computer Science and Engineering)**

**President Gold Medal** for securing the highest CGPA amongst the B.Tech./ B.Arch./ IDD/ Int. M.Sc./ Int. M.Tech. graduating students admitted through JEE (Advanced).

**PARTH SARTHI MISHRA,**

**B.Tech. (Electronics and Communication Engineering)**

**Director Gold Medal** for the best all-round performance amongst the B.Tech./ B.Arch./ IDD/ Int. M.Sc./ Int. M.Tech. graduating students admitted through JEE (Advanced). The student is expected to maintain a minimum CGPA of 9.0.

**UJJAWAL KUMAR DUBEY,**

**B.Tech. (Computer Science and Engineering)**

**The President of India Dr. Shankar Dayal Sharma Gold Medal** for the excellence in the field of Social Service amongst graduating UG/PG students. The student is expected to maintain a minimum CGPA of 8.0.

**AKSHAT AGARWAL,**

**B.Tech. (Computer Science and Engineering)**

**Institute Silver Medal** for securing the second highest CGPA amongst the B.Tech./ B.Arch./ IDD/ Int. M.Sc./ Int. M.Tech. graduating students admitted through JEE (Advanced).

**RIDDHAM SADANA,**

**Integrated M.Tech. (Geophysical Technology)**

**Institute Bronze Medal** for securing the third highest CGPA amongst the B.Tech./ B.Arch./ IDD/ Int. M.Sc./ Int. M.Tech. graduating students admitted through JEE (Advanced).

**BHUSHAN PUSHIRAM MESHRAM,**

**M.Tech. Packaging Technology**

**Professional Development and Innovation Award** for the Innovative project/thesis in the final year amongst the graduating UG and PG students of engineering/architecture under the category of Best Innovation.

**APURBA PRASAD PADHY,**

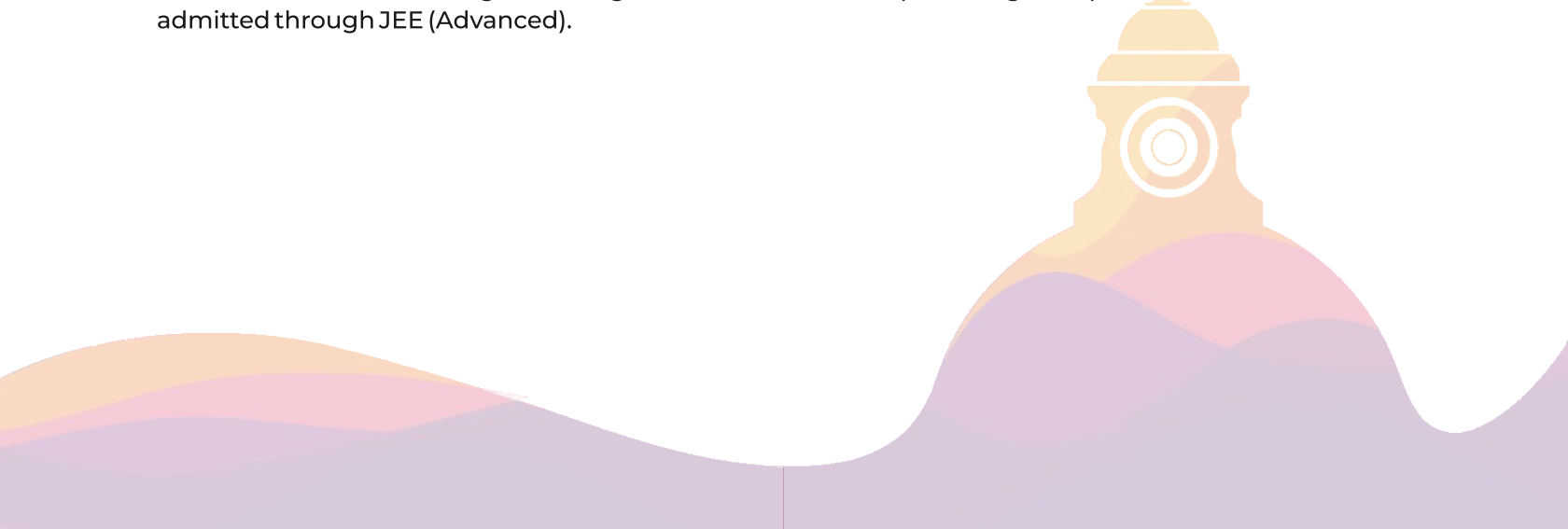
**B.Tech. (Electronics and Communication Engineering)**

**Singhal's Tech for Society Award** for meaningful, relevant, innovative, impactful and commercially viable project as a part of the final year curriculum amongst the graduating B.Tech. students.

**ABHIMANYU PATHANIA,**

**M.Tech. Renewable and Hydro Energy**

**A K Goel Green Energy Prize and Gold Medal** for significant contribution towards green/ renewable energy sector amongst the graduating UG/PG (including Ph.D.) students.



## Institute Level Medals and Award (Award Ceremony)

1. **Avantika Verma,**  
**Bachelor of Architecture**  
**Smt. Chandravati Gold Medal** for securing the highest CGPA amongst the graduating students of B.Arch.  
**Best Project Award** for best project amongst the graduating students of B.Arch.  
**Smt. Kailash Kambo Award** for securing the highest CGPA amongst the graduating students of B.Arch.  
**Everest Award of Excellence** for securing the highest CGPA amongst the B.Arch. graduating students.  
**Architect Yash Pal Gupta Award of Excellence** for securing the highest CGPA amongst the B.Arch. graduating students.
2. **Pranjal Naithani,**  
**Bachelor of Architecture**  
**Service Oriented Natural Science Innovation and Application (SONIA) Excellence Award** for significant contribution towards development of rural India either in the form of a final year project or part of any other initiative at IIT Roorkee amongst the graduating students of M.B.A., B.Arch., M.Arch., M.U.R.P., M.Sc. Economics and Integrated M.B.A. programmes.
3. **Paarangi Chawla,**  
**B.Tech. (Biosciences and Bioengineering)**  
**Mrs. Mavis Bertha Wilkinson Gold Medal** for securing the highest CGPA amongst the graduating students of B.Tech. (Biotechnology).
4. **Riya Sahai**  
**B.Tech. (Biosciences and Bioengineering)**  
**Om Bala Thapar Cash Prize** for the best all-round performance amongst the graduating UG girl students. The student is expected to maintain a minimum CGPA of 8.0.
5. **Saana Tandon,**  
**B.Tech. (Chemical Engineering)**  
**Kapil Garg Gold Medal** for securing the highest CGPA amongst the graduating students of B.Tech. (Chemical Engineering).  
**Best Project Award** for the best project amongst the graduating B.Tech. students of Department of Chemical Engineering.  
**Prof. Ranvir Singh Shastry Cash Prize** for securing the second highest CGPA amongst the graduating girl students of all B.Tech. programmes.  
**Prem Prakash Gupta Cash Prize** for securing the highest CGPA amongst the graduating students of B.Tech. (Chemical Engineering).
6. **Guru Nigam Das,**  
**B.Tech. (Chemical Engineering)**  
**Aastha Mukul Dixit Prize** for the best engineering project and most innovative work in the final year amongst the graduating students of B.Tech. (Chemical Engineering).
7. **Vandna,**  
**B.Tech. (Chemical Engineering)**  
**Sarojini Naidu Cup** for the excellence in academics and sports amongst the B.Tech./ B.Arch./ IDD/ Int. M.Sc./ Int. M.Tech. graduating students admitted through JEE (Advanced). The student is expected to maintain a minimum CGPA of 8.0.
8. **Saket Vardhan,**  
**B.Tech. (Chemical Engineering)**  
**Bagchi Prize for Environmental Sustainability** for outstanding work in the final year project with the most significant contribution and benefit in environmental sustainability.

9. **Rohini Shrivastava,  
B.Tech. (Polymer Science and  
Engineering)**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of B.Tech. (Polymer Science and Engineering).

10. **Vansh Mehra,  
B.Tech. (Polymer Science and  
Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Polymer Science and Engineering).

11. **Gadamsetty Naga Venkata Siva Sai  
Ganesh,  
Integrated M.Sc. Chemistry**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of Integrated M.Sc. Chemistry.

12. **Saurabh Singh Negi,  
Integrated M.Sc. Chemistry**

**Best Project Award** for the best project amongst the graduating students of Integrated M.Sc. Chemistry.

13. **Kashvi Singh,  
B.Tech. (Civil Engineering)**

**Manmohan Das Seth Gold Medal** for Securing the highest CGPA amongst the graduating students of B.Tech. (Civil Engineering).

**Smt. Rama Devi Krishna Bhatnagar Cash Prize** for securing the highest CGPA amongst the graduating girl students of all B.Tech. programmes.

**Prabhakar Swarup Civil Engineering Award** for securing the highest CGPA amongst the graduating students of B.Tech. (Civil Engineering).

**Shri Shiv Nandan Swaroop and Avadh Narayan Bhatnagar Cash Prize** for securing the highest CGPA amongst the graduating students of B.Tech. (Civil Engineering).

**Rai Bahadur Sohan Lal Bhatia Medal** for securing the highest CGPA amongst the graduating students of B.Tech. (Civil Engineering).

**Col. Bajpai Cash Prize** for securing the highest CGPA amongst the graduating female students of UG programmes.

**Prof. (Mrs.) Renu Bhargava Cash Award for Excellence in Environmental Engineering** for securing the highest marks in the compulsory subjects related to Environmental Engineering and securing overall CGPA of 8.0 and above after final year amongst the graduating girl students of B.Tech. (Civil Engineering).

**Madhusudan Dayal Mithal Medal** for securing the highest CGPA amongst the graduating students of B.Tech. (Civil Engineering).

14. **Ankit Kumar,  
B.Tech. (Civil Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Civil Engineering).

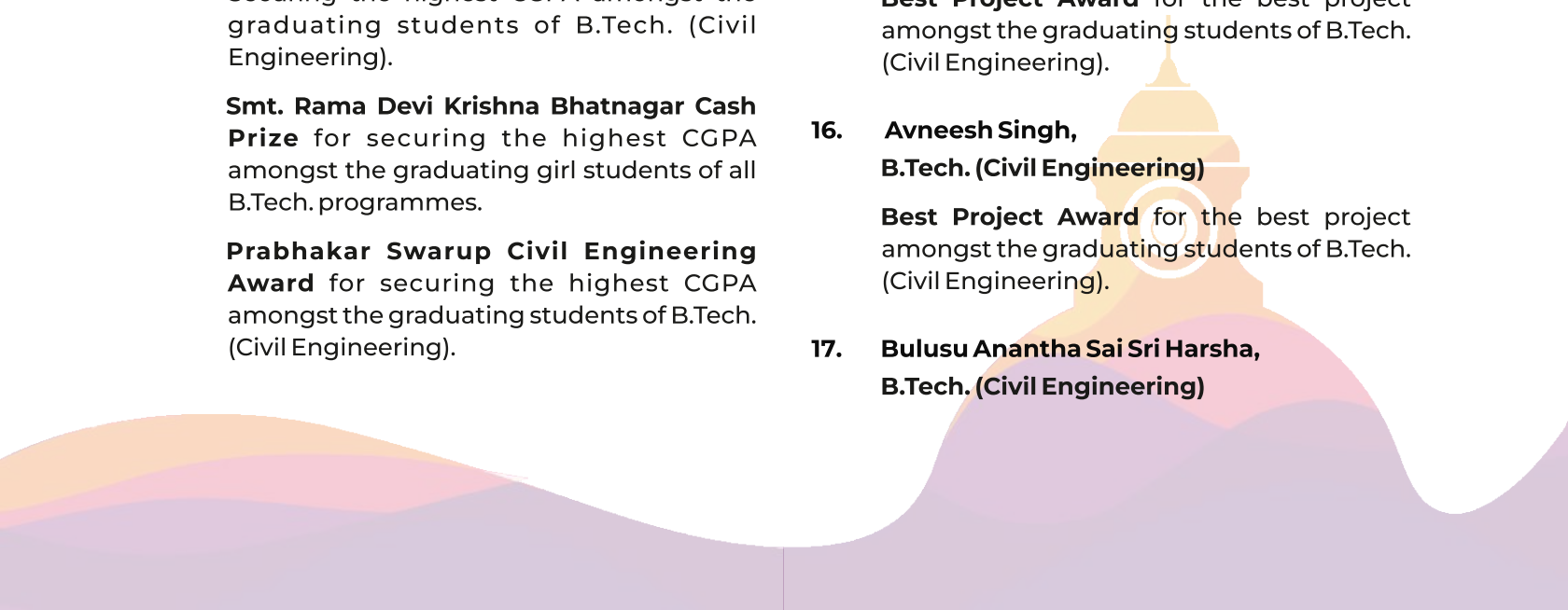
15. **Ashwini Kumar,  
B.Tech. (Civil Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Civil Engineering).

16. **Avneesh Singh,  
B.Tech. (Civil Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Civil Engineering).

17. **Bulusu Anantha Sai Sri Harsha,  
B.Tech. (Civil Engineering)**





**Best Project Award** for the best project amongst the graduating students of B.Tech. (Civil Engineering).

**18. Dheeraj Chouhan,  
B.Tech. (Civil Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Civil Engineering).

**19. Hritvik Kaushik,  
B.Tech. (Civil Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Civil Engineering).

**20. Karande Chetan Bapu,  
B.Tech. (Civil Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Civil Engineering).

**21. Karande Chetan Bapu,  
B.Tech. (Civil Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Civil Engineering).

**22. Mohit Kumar Meena,  
B.Tech. (Civil Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Civil Engineering).

**23. Nitesh Morya,  
B.Tech. (Civil Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Civil Engineering).

**24. Palash Bhatnagar,  
B.Tech. (Civil Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Civil Engineering).

**25. Pintesh Kumar Meghwal,  
B.Tech. (Civil Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Civil Engineering).

**26. Prathamesh Raghunath Patil,  
B.Tech. (Civil Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Civil Engineering).

**27. Puneet Saini,  
B.Tech. (Civil Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Civil Engineering).

**28. Rahul Goyal,  
B.Tech. (Civil Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Civil Engineering).

**29. Manik Goyal,  
B.Tech. (Civil Engineering)**

**Kunal Kaushal Award** for All-Round Excellence for the overall excellence in the field of cultural activity, entrepreneurship and leadership. The minimum CGPA requirement is 7.5.

**30. Manuvansh Rai,  
B.Tech. (Civil Engineering)**

**Prof. C.L. Toshniwal Award in Civil Engineering** for securing the highest marks in the compulsory courses of Environmental Engineering amongst the graduating students of B.Tech. (Civil Engineering). Tie will be broken on the basis of overall CGPA.

**31. Sugandha Gupta,  
B.Tech. (Civil Engineering)**

**Vinay Krishna Cash Prize** for securing the second highest CGPA amongst the graduating students of B.Tech. (Civil Engineering).

**Shreyas Kumar Class of 1998 Gold Medal** for the Best All-Round Graduating Student from IIT Roorkee in B.Tech and B.Arch. branches, applications is open to candidates with a CGPA of 9.0 or higher at the end of the pre-final semester.

**Shri M.A. Rao Cash Prize** for securing the second highest CGPA amongst the graduating students of B.Tech. (Civil Engineering).

**32. Vanshika,  
B.Tech. (Civil Engineering)**

**Kunal Kaushal Award for All-Round Excellence** for the overall excellence in the field of cultural activity, entrepreneurship and leadership. The minimum CGPA requirement is 7.5.

**33. Achintya Nath,  
B.Tech. (Computer Science and Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Computer Science and Engineering).

**Dr. A.N. Khosla Medal** for securing the highest CGPA amongst the graduating B.Tech. students.

**Rai Bahadur Sohan Lal Bhatia Cash Prize** for securing the highest CGPA amongst the graduating students of B.Tech. (Computer Science and Engineering).

**34. Ishu Gupta,  
B.Tech. (Computer Science and Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Computer Science and Engineering).

**35. Paritosh Kabra,  
B.Tech. (Computer Science and Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Computer Science and Engineering).

**36. Surya Prakash G,  
B.Tech. (Computer Science and Engineering)**

**Professional Development and Innovation Award** for innovative project in the final year amongst the graduating UG students of engineering/architecture under the category of Judges' Choice.

**37. Anshul Alok Gharde,  
B.Tech. (Computer Science and Engineering)**

**Professional Development and Innovation Award** for innovative project in the final year amongst the graduating UG students of engineering/architecture under the category of Judges' Choice.

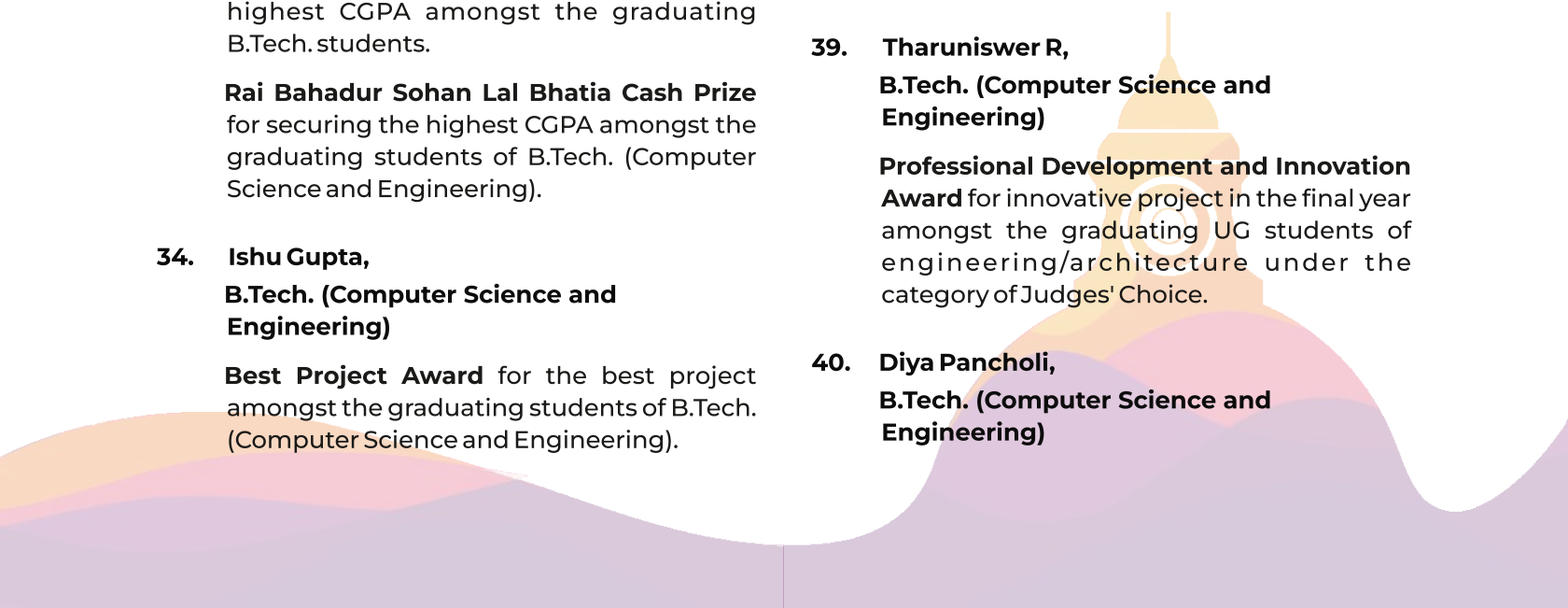
**38. Sagiraju Ram Prabhas Varma,  
B.Tech. (Computer Science and Engineering)**

**Professional Development and Innovation Award** for innovative project in the final year amongst the graduating UG students of engineering/architecture under the category of Judges' Choice.

**39. Tharuniswer R,  
B.Tech. (Computer Science and Engineering)**

**Professional Development and Innovation Award** for innovative project in the final year amongst the graduating UG students of engineering/architecture under the category of Judges' Choice.

**40. Diya Pancholi,  
B.Tech. (Computer Science and Engineering)**



**Laxmi Devi and Shri Banadri Das Cash Prize** for excellent overall performance amongst the B.Tech./ B.Arch. graduating female students. The student is expected to maintain a minimum CGPA of 8.0.

**41. Richa,  
B.Tech. (Computer Science and Engineering)**

**Smt. Kaushalya Arya Cash Prize** for the excellent overall performance amongst the B.Tech./ B.Arch. graduating female students. The student is expected to maintain a minimum CGPA of 8.0.

**42. Pragyansh Chaturvedi,  
B.Tech. (Computer Science and Engineering)**

**Shri M.A. Rao Cash Prize** for the second best all-round performance amongst the B.Tech./B.Arch./IDD/Int. M.Sc./Int. M.Tech. graduating students admitted through JEE (Advanced). The student is expected to maintain a minimum CGPA of 9.0.

**43. Riddham Sadana,  
Integrated M.Tech. (Geophysical Technology)**

**Frau Odillie Schiffer Gold Medal** for securing the highest CGPA amongst the graduating students of Integrated M.Tech. (Geophysical Technology).

**Best Project Award** for the best project amongst the graduating students of Integrated M.Tech. (Geophysical Technology).

**Kedar Nath Agarwala, I.S.E Memorial Trophy and Cash Award** for academic excellence and outstanding community service amongst the graduating UG/PG students. The student is expected to maintain a minimum CGPA of 8.0.

**44. Kanishka Hans Sugotra,  
Integrated M.Tech. (Geological Technology)**

**Best Project Award** for the best project amongst the graduating students of Integrated M.Tech. (Geological Technology).

**45. Akriti Jain,  
B.Tech. (Electrical Engineering)**

**Smt. Sukh Devi Kulshreshtha Gold Medal** for securing the highest CGPA amongst the graduating students of B.Tech. (Electrical Engineering).

**Air Cmde S.C. Mehra Scholarship** for securing the highest CGPA amongst the graduating female students of B.Tech. (Electrical Engineering).

**Durga Award** for excellent overall performance amongst the B.Tech./ B.Arch. graduating female students. The student is expected to maintain a minimum CGPA of 8.0.

**46. Srijan Varshney,  
B.Tech. (Electrical Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Electrical Engineering).

**47. Himanshi,  
B.Tech. (Electrical Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Electrical Engineering).

**48. Kaushik Patil,  
B.Tech. (Electrical Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Electrical Engineering).

49. **Raj Abhinav,**  
**B.Tech. (Electrical Engineering)**  
**Best Project Award** for the best project amongst the graduating students of B.Tech. (Electrical Engineering).
50. **Peeyush Kumar,**  
**B.Tech. (Electrical Engineering)**  
**Professional Development and Innovation Award** for innovative project in the final year amongst the graduating UG students of engineering/architecture under the category of Judges' Choice.
51. **Shubham,**  
**B.Tech. (Electrical Engineering)**  
**Professional Development and Innovation Award** for innovative project in the final year amongst the graduating UG students of engineering/architecture under the category of Judges' Choice.
52. **Vishal Babu,**  
**B.Tech. (Electrical Engineering)**  
**Professional Development and Innovation Award** for innovative project in the final year amongst the graduating UG students of engineering/architecture under the category of Judges' Choice.
53. **Yash,**  
**B.Tech. (Electrical Engineering)**  
**Professional Development and Innovation Award** for innovative project in the final year amongst the graduating UG students of engineering/architecture under the category of Best innovation.
54. **Priyansh Rathi,**  
**B.Tech. (Electronics and Communication Engineering)**  
**Shri Hari Chand Nagalia Gold Medal** for securing the highest CGPA amongst the graduating students of B.Tech. (Electronics and Communication Engineering).
55. **Anshul Gusain,**  
**B.Tech. (Electronics and Communication Engineering)**  
**Best Project Award** for the best project amongst the graduating students of B.Tech. (Electronics and Communication Engineering).
56. **Prantaneel Debnath,**  
**B.Tech. (Electronics and Communication Engineering)**  
**Best Project Award** for the best project amongst the graduating students of B.Tech. (Electronics and Communication Engineering).
57. **Chirayu Mor,**  
**B.Tech. (Electronics and Communication Engineering)**  
**Hari Krishna Mittal Leadership Award** for significant contribution towards enhancing the entrepreneurship culture at IIT Roorkee amongst the graduating UG/PG (including Ph.D.) students.
58. **Shrey Agrawal,**  
**B.Tech. (Electronics and Communication Engineering)**  
**Class of 98, Tejwani Gold Medal** for the best B.Tech. Project in the Department of Electronics and Communication Engineering based on its innovation, depth and potential impact. The student is expected to maintain a minimum CGPA of 9.0 at the end of the pre-final semester.
59. **Apurba Prasad Padhy,**  
**B.Tech. (Electronics and Communication Engineering)**  
**Dr. A.S. Arya Cash Prize** for excellent overall performance amongst the B.Tech./ B.Arch. graduating male students. The student is expected to maintain a minimum CGPA of 8.0.



**60. Sahil Goyal,  
Integrated M.Sc. Applied Mathematics  
(MSM)**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of Integrated M.Sc. Applied Mathematics (MSM).

**61. Shri Lal Raghudevram Singh,  
Integrated M.Sc. Applied Mathematics  
(MSM)**

**Best Project Award** for the best project amongst the graduating students of Integrated M.Sc. Applied Mathematics (MSM).

**62. Vaibhav Sharma,  
B.Tech. (Mechanical Engineering)**

**Shri Vidya Dutt Gold Medal** for securing the highest CGPA amongst the graduating students of B.Tech. (Mechanical Engineering).

**63. Abhyudaya Nerwat,  
B.Tech. (Mechanical Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Mechanical Engineering).

**64. Mundhe Sushant Uttam,  
B.Tech. (Mechanical Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Mechanical Engineering).

**65. Tej Varun Gorlamudiveti,  
B.Tech. (Mechanical Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Mechanical Engineering).

**66. Yash Gupta,  
B.Tech. (Mechanical Engineering)**

**Best Project Award** for the best project

amongst the graduating students of B.Tech. (Mechanical Engineering).

**67. Ansh Saini,  
B.Tech. (Mechanical Engineering)**

**Professional Development and Innovation Award** for innovative project in the final year amongst the graduating UG students of engineering/architecture under the category of Judges' Choice.

**68. Bakshi Hrishikesh Shirish,  
B.Tech. (Mechanical Engineering)**

**Professional Development and Innovation Award** for innovative project in the final year amongst the graduating UG students of engineering/architecture under the category of Judges' Choice.

**69. Harsh Pal,  
B.Tech. (Mechanical Engineering)**

**Professional Development and Innovation Award** for innovative project in the final year amongst the graduating UG students of engineering/architecture under the category of Judges' Choice.

**70. Parth Sharma,  
B.Tech. (Mechanical Engineering)**

**Professional Development and Innovation Award** for innovative project in the final year amongst the graduating UG students of engineering/architecture under the category of Judges' Choice.

**71. Ashwin Korade,  
B.Tech. (Mechanical Engineering)**

**Rural India Technology Based Upliftment (RITU) Excellence Award** for Significant contribution towards development of rural India either in the form of a final year project or part of any other initiative at IIT Roorkee amongst the graduating student of B.Tech./Int.M.Sc./M.Tech., and dual degree programmes. It is to be awarded to maximum two deserving teams.

**72. Kinshu Kumar,  
B.Tech. (Mechanical Engineering)**

**Rural India Technology Based Upliftment (RITU) Excellence Award** for Significant contribution towards development of rural India either in the form of a final year project or part of any other initiative at IIT Roorkee amongst the graduating student of B.Tech./Int.M.Sc./M.Tech., and dual degree programmes. It is to be awarded to maximum two deserving teams.

**73. Ms. Nikita,  
B.Tech. (Mechanical Engineering)**

**Rural India Technology Based Upliftment (RITU) Excellence Award** for Significant contribution towards development of rural India either in the form of a final year project or part of any other initiative at IIT Roorkee amongst the graduating student of B.Tech./Int.M.Sc./M.Tech., and dual degree programmes. It is to be awarded to maximum two deserving teams.

**74. Ayan Shree,  
B.Tech. (Mechanical Engineering)**

**Rural India Technology Based Upliftment (RITU) Excellence Award** for Significant contribution towards development of rural India either in the form of a final year project or part of any other initiative at IIT Roorkee amongst the graduating student of B.Tech./Int.M.Sc./M.Tech., and dual degree programmes. It is to be awarded to maximum two deserving teams.

**75. Vaishnavi Gupta,  
B.Tech. (Mechanical Engineering)**

**P.K. Kapse Award** to Medhavi Girl for obtaining the highest CGPA amongst the graduating girl students of B.Tech. (Mechanical Engineering).

**76. Harsh Pandey,  
B.Tech. (Production and Industrial Engineering)**

**Shri Anand Kumar Jain Gold Medal** for securing the highest CGPA amongst the graduating students of B.Tech. (Production and Industrial Engineering).

**77. Navodit Rai,  
B.Tech. (Production and Industrial Engineering)**

**Best Project Award** for the best project amongst the graduating B.Tech. (Production and Industrial Engineering).

**78. Nikita Bansal,  
B.Tech. (Production and Industrial Engineering)**

**Best Project Award** for the best project amongst the graduating B.Tech. (Production and Industrial Engineering).

**79. Sameer Raj,  
B.Tech. (Production and Industrial Engineering)**

**Best Project Award** for the best project amongst the graduating B.Tech. (Production and Industrial Engineering).

**80. Samarth Shirish Gudwala,  
B.Tech. (Production and Industrial Engineering)**

**Best Project Award** for the best project amongst the graduating B.Tech. (Production and Industrial Engineering).

**81. Rylan Christopher Fernandes,  
B.Tech. (Metallurgical and Materials Engineering)**

**Frau Gertrude Felden Gold Medal** for securing the highest CGPA amongst the graduating students of B.Tech. (Metallurgical and Materials Engineering).

**Mrs. Leila Saxena Memorial Cash Prize** for securing the highest CGPA amongst the graduating students of B.Tech. (Metallurgical and Materials Engineering).

82. **Maneet Raj Gupta,**  
**B.Tech. (Metallurgical and Materials Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Metallurgical and Materials Engineering).

83. **Prathamesh Dinesh Satpute,**  
**B.Tech. (Metallurgical and Materials Engineering)**

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Metallurgical and Materials Engineering).

84. **Pahul Singh Sawhney,**  
**B.Tech. (Metallurgical and Materials Engineering)**

**N.S. Agarwal Innovation Award** for innovative work in their field amongst the graduating UG students.

85. **Arnav Arora,**  
**B.Tech. (Engineering Physics)**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of B.Tech. (Engineering Physics).

**Best Project Award** for the best project amongst the graduating students of B.Tech. (Engineering Physics).

86. **Manav Dharewa,**  
**Integrated M.Sc. Physics**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of Integrated M.Sc. Physics.

87. **Susmit Walve,**  
**Integrated M.Sc. Physics**

**Best Project Award** for the best project amongst the graduating students of Integrated M.Sc. Physics.

88. **Deeksha Sharma,**  
**M.U.R.P.**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.U.R.P.

**Smt. Kailash Kambo Award** for securing the highest CGPA amongst the graduating students of M.U.R.P.

89. **Wendy Lalnunpari Halliday,**  
**M.U.R.P.**

**Br. C. Selvam and Mrs. X. Espirith Selvam Award** for the project work related to betterment of rural India or the design/construction of buildings for an NGO amongst the graduating students of M.Arch. or M.U.R.P. programme of the Department of Architecture and Planning.

90. **Anusha Vijayan,**  
**M.Arch.**

**Smt. Kailash Kambo Award** for securing the highest CGPA amongst the graduating students of M.Arch.

91. **Kadali Volga,**  
**M.Arch.**

**Service Oriented Natural Science Innovation and Application (SONIA) Excellence Award** for significant contribution towards development of rural India either in the form of a final year project or part of any other initiative at IIT Roorkee amongst the graduating students of M.B.A., B.Arch., M.Arch., M.U.R.P., M.Sc. Economics and Integrated M.B.A. programmes. It is to be awarded to maximum two deserving teams.

92. **Kritika Garg,**  
**M.Sc. Biotechnology**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.Sc. programme of Department of Biosciences and Bioengineering.

**93. Kolanuvada Nikhil Sai Varma,  
M.Tech. Bioprocess Engineering**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.Tech. programme(s) of Department of Biosciences and Bioengineering.

**94. Dadhania Rushit Rajeshbhai,  
M.Tech. Chemical Engineering**

**Smt. Prem Lata Nagalia Gold Medal** for securing the highest CGPA amongst the graduating students of M.Tech. programme(s) of Department of Chemical Engineering.

**95. Shruti Goel,  
M.Sc. Chemistry**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.Sc. programme of Department of Chemistry.

**Dr. Hari G. Garg Cash Prize** for securing the highest CGPA amongst the graduating students of M.Sc. Chemistry.

**96. Ohm Dhaval Soni,  
M.Tech. Environmental Engineering**

**Shri Suresh Chandra Kapoor Gold Medal** for securing the highest CGPA amongst the graduating students of M.Tech. programme(s) of Department of Civil Engineering.

**Prof. C.L. Toshniwal Award** in Environmental Engineering for securing the highest CGPA amongst the graduating students of M.Tech. Civil Engineering with specialization in Environmental Engineering.

**Kathpalia Award for Environment** for best dissertation in the area of environmental aspects amongst the graduating students of M.Tech. Civil Engineering.

**97. Dushyant Prithvi Prakash,  
M.Tech. Geospatial Engineering**

**Amba Prasad - Kalawati Memorial Cash Prize** for securing the highest CGPA amongst the graduating students of M.Tech. Civil Engineering with specialization in Geospatial Engineering.

**98. Shadani Priyanka Jaipaldas,  
M.Tech. Geotechnical Engineering**

**Tara Chand Kanti Devi Cash Prize** for securing the highest CGPA amongst the graduating students of M.Tech. Civil Engineering with specialization in Geotechnical Engineering.

**99. Anshul Maurya,  
M.Tech. Transportation Engineering**

**Sunita Bahadur Memorial Medal** for securing the highest CGPA amongst the graduating students of M.Tech. Civil Engineering with specialization in Transportation Engineering.

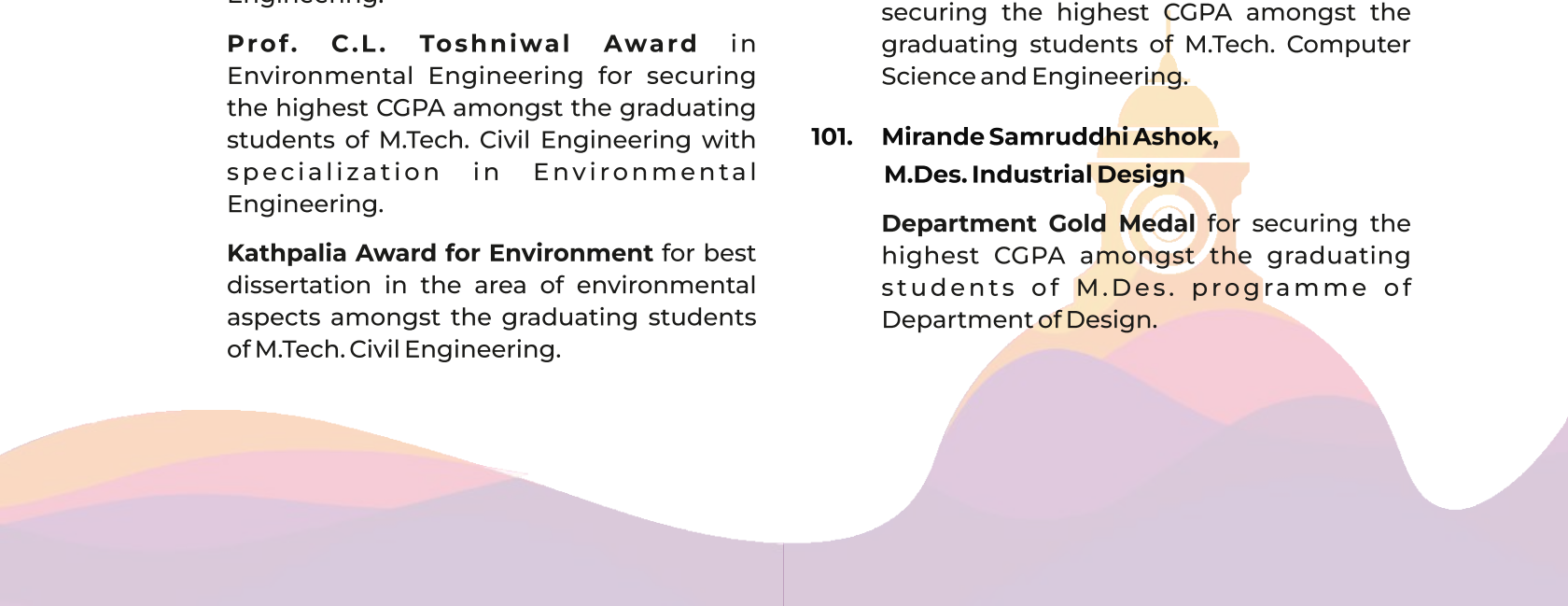
**100. Mridul Tyagi,  
M.Tech. Computer Science and  
Engineering**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.Tech. programme(s) of Department of Computer Science and Engineering.

**Tarun Goyal Memorial Cash Prize** for securing the highest CGPA amongst the graduating students of M.Tech. Computer Science and Engineering.

**101. Mirande Samruddhi Ashok,  
M.Des. Industrial Design**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.Des. programme of Department of Design.





**102. Asawa Aishwarya Santosh,  
Masters in Innovation Management**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of Masters in Innovation Management programme of Department of Design.

**103. Suchitra Kumud,  
M.Tech. Disaster Mitigation and Management**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.Tech. programme(s) of Disaster Mitigation and Management.

**104. Shikha Chaubey,  
M.Sc. Applied Geology**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.Sc. programme of Department of Earth Sciences.

**105. Shubham Tiwari,  
M.Tech. Soil Dynamics**

**The Indian Service of Engineers Cash Prize** for securing the highest CGPA amongst the graduating students of M.Tech. Soil Dynamics.

**106. Akshay Kumar,  
M.Tech. Structural Dynamics**

**Smt. Lalit Kishori Gold Medal** for securing the highest CGPA amongst the graduating students of M.Tech. programme(s) of Department of Earthquake Engineering.

**The Indian Service of Engineers Cash Prize** for securing the highest CGPA amongst the graduating students of M.Tech. Structural Dynamics.

**107. Prateek Kumar,  
M.Tech. System and Control**

**Mr. Bevan Ross Wilkinson Gold Medal** for

securing the highest CGPA amongst the graduating students of M.Tech. programme(s) of Department of Electrical Engineering.

**108. Gorla Pavan Kumar Reddy,  
M.Tech. Communication Systems**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.Tech. programme(s) of Department of Electronics and Communication Engineering.

**Laxmi Devi and Shri Banadri Das Cash Prize** for securing the highest CGPA amongst the graduating students of M.Tech./M.Arch./M.U.R.P. programmes

**109. Ahana Saha,  
M.Sc. Economics**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.Sc. programme of Department of Humanities and Social Sciences.

**110. Tejash Singh,  
M.Tech. Environmental Management of Rivers and Lakes**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.Tech. programme(s) of Department of Hydro and Renewable Energy.

**111. Sudheer Kumar Singh,  
M.Tech. Environmental Management of Rivers and Lakes**

**Chhattisgarh State Power Generation Corporation Hydro Award** for securing the highest CGPA amongst the graduating students of M.Tech. Environmental Management of Rivers and Lakes. The student is not receiving any award of similar or higher amount.

112. **Anish Kumar Verma,**  
**M.Tech. Environmental Management of Rivers and Lakes**

**Electrosteel Award Cash Prize** for the best dissertation amongst the graduating students of M.Tech. Environmental Management of Rivers and Lakes.

113. **Meenakshi Mittal,**  
**M.Tech. Environmental Management of Rivers and Lakes**

**Meenakshi Power Award** for securing the highest CGPA amongst the graduating female students of M.Tech. Environmental Management of Rivers and Lakes.

114. **Abhimanyu Pathania,**  
**M.Tech. Renewable and Hydro Energy**

**Electrosteel Award Cash Prize** for the best dissertation amongst the graduating students of M.Tech. Renewable and Hydro Energy.

115. **Avnish Yadav,**  
**M.Tech. Renewable and Hydro Energy**

**A.K. Goel Hydropower Award** for the best dissertation in Hydropower subject amongst the graduating students of Department of Hydro and Renewable Energy. The student is not receiving any award of a similar or higher amount.

116. **Urvi Singh,**  
**M.Tech. Renewable and Hydro Energy**

**Chhattisgarh State Power Generation Corporation Hydro Award** for securing the highest CGPA amongst the graduating student of M.Tech. Renewable and Hydro Energy. The student is not receiving any award of similar or higher amount.

117. **Vartika Dubey,**  
**M.Tech. Renewable and Hydro Energy**

**BSHPC Cash Prize** for securing the highest

CGPA amongst the graduating students of M.Tech. Renewable and Hydro Energy.

**Meenakshi Power Award** for securing the highest CGPA amongst the graduating female students of M.Tech. Renewable and Hydro Energy.

118. **Sagar Gupta,**  
**M.Tech. Watershed Management**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.Tech. programme(s) of Department of Hydrology.

**Laxmi Devi and Shri Banadri Das Cash Prize** for securing the highest CGPA amongst the graduating students of M.Tech./M.Arch./M.U.R.P. programmes.

119. **Varun Bhasin,**  
**M.Tech. Dam Safety and Rehabilitation**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.Tech. programme(s) of International Centre of Excellence for Dams.

120. **Sabyasachi Singh,**  
**M.B.A.**

**G M Singhvi Memorial Gold Medal** for securing the highest CGPA amongst the graduating students of Master of Business Administration.

121. **Avipsa Patra,**  
**M.Sc. Mathematics**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.Sc. programme of Department of Mathematics.

**Dr. A.N. Khosla Medal** for securing the highest CGPA amongst the graduating students of M.Sc./ M.Tech. (Science) programmes.

**122. Nisheeth Bhardwaj,  
M.Tech. Production and Industrial Systems  
Engineering**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.Tech. programme(s) of Department of Mechanical and Industrial Engineering.

**123. Ayush Sharma,  
M.Tech. Data Science**

**Prof. Kumkum Garg Gold Medal** for securing the highest CGPA amongst the graduating students of M.Tech. programme(s) of Mehta Family School of Data Science and Artificial Intelligence.

**124. Gandhi Manav,  
M.Tech. Artificial Intelligence**

**Mrs. Chander Mohini Kapoor and Jeewan Kapoor Merit Prize** for securing the highest CGPA amongst the graduating students of M.Tech. Artificial Intelligence.

**125. Shivankit Vasudeva,  
M.Tech. Materials Engineering**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.Tech. programme(s) of Department of Metallurgical and Materials Engineering.

**126. Md Salman Rashid,  
M.Tech. Packaging Technology**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.Tech. programme(s) of Department of Paper Technology.

**Shyam S Biyani Cash Award** for securing the highest CGPA amongst the graduating students of M.Tech. Packaging Technology.

**127. Lingala Lakshman Rao,  
M.Tech. Packaging Technology**

**Rural India Technology Based Upliftment (RITU) Excellence Award** for significant contribution towards development of rural India either in the form of a final year project or part of any other initiative at IIT Roorkee amongst the graduating students of B.Tech., Int. M.Sc., M.Tech. and dual degree programmes. It is to be awarded to maximum two deserving teams.

**128. Harshaa,  
M.Sc. Physics**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.Sc. programme of Department of Physics.

**129. Tanay Shukla,  
M.Tech. Photonics**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.Tech. programme(s) of Department of Physics.

**130. Pragya Tiwari,  
M.Tech. Polymer Science and Engineering**

**Department Gold Medal** for securing the highest CGPA amongst the graduating students of M.Tech. programme(s) of Department of Polymer and Process Engineering.

**Professional Development and Innovation Award** for innovative project in the final year amongst the graduating UG and PG students of engineering/architecture under the category of Best Woman Innovator.

**Shyam S Biyani Cash Award** for securing the highest CGPA amongst the graduating students of M.Tech. Polymer Science and Engineering.

**131. Oshin Agarwal,  
M.Tech. Infrastructure Systems**

**Department Gold Medal** for securing the highest CGPA amongst the graduating

students of M.Tech. programme(s) of Transportation Systems.

**Shri Ravi Mohan Mangal Cash Prize** for securing the highest CGPA amongst the graduating students of M.Tech. Infrastructure Systems of Transportation Systems. The minimum CGPA requirement is 8.5.

**132. Nawaraj Pokhrel,  
M.Tech. Irrigation Water Management**

**S K Kumar Gold Medal** for securing the highest CGPA amongst the graduating students of M.Tech. programme(s) of Department of Water Resources Development and Management.

**Dr. A.N. Khosla Medal** for securing the highest CGPA amongst the graduating students of M.Tech. programmes of Department of Water Resources Development and Management.

**133. Yomif Dereje Sime,  
M.Tech. Drinking Water and Sanitation**

**Kathpalia Award for Environment** for best dissertation in the area of environmental aspects amongst the graduating students of M.Tech. programmes of Department of Water Resources Development and Management.

