



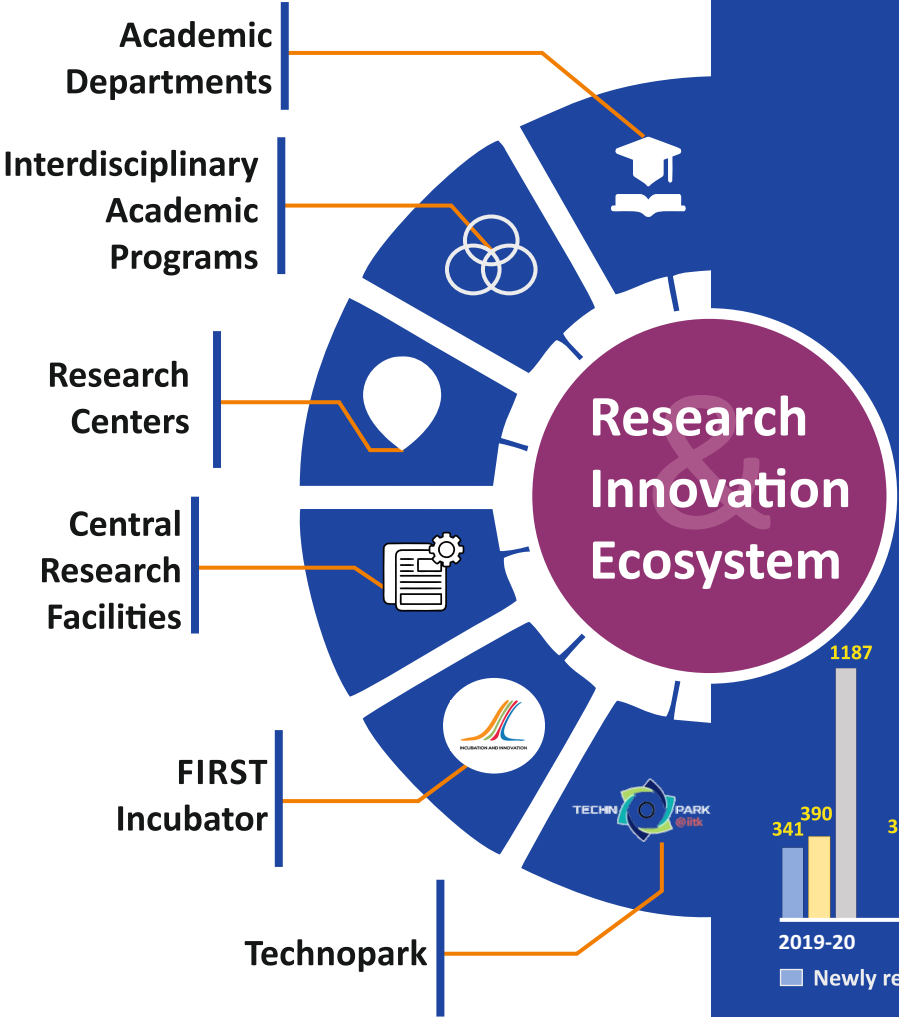
RESEARCH & DEVELOPMENT AT - A - GLANCE

Indian Institute of Technology Kanpur



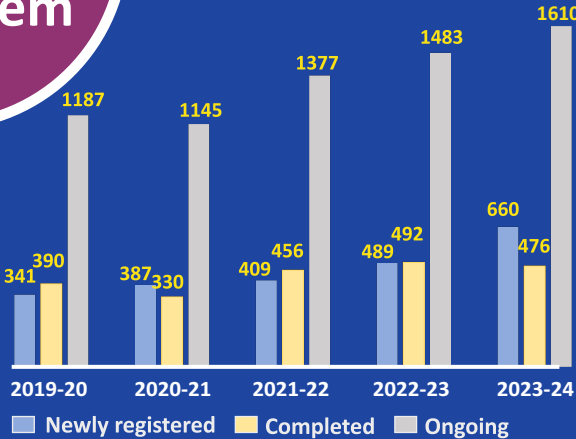
Research @ IITK

The Institute’s research and development activity aims at innovation and technology development through interaction with universities, governments and industries to meet the needs of the society and industry. The Institute faculty, research staff and students conduct research with goals and objectives ranging from intellectual curiosity, addressing contemporary challenges, developing technology, societal benefits or writing scholarly publications.



2023-24

- Projects Registered — 660
- Projects Completed — 476
- Projects Ongoing — 1610
- Total Fund Received — ₹ 342.17cr
- Technology Licensed — 9
- Patents Filed — 132



Number of Projects over last 5 years

Research Centre/ Centre of Excellence

- Advance Center for Electronic System
- Center for Environmental Science & Engineering
- Centre for Cyber Security
- Center of Excellence for Unmanned Aerial Vehicles
- Center for Ganga River Basin Management and Studies
- Center for Developing Intelligent Systems
- Centre for Nanosciences
- Centre for Technology for Sustainable Development
- DIA Centre for Excellence IITK
- Gangwal School of Medical Sciences and Technology
- MedTech IIT Kanpur
- Mehta Family Centre for Engineering Medicine
- National Centre for Flexible Electronics
- 5G Testbed@IIT Kanpur



Research Facilities

- Advance Center for Material Science
- Advanced Imaging Facility
- Imagineering Lab
- Central Glass Blowing
- Central Experimental Animal Facility
- Computer Centre
- Ion beam facility
- Media Technology Centre
- National Wind Tunnel Facility



Major Govt Funding Agency

- Aeronautics Research and Development Board
- Board of Research & Nuclear Sciences
- Central Power Research Institute
- Council of Scientific & Industrial Research
- Defence Research & Development Organisation
- Dept. of Science & Technology
- Dept. of Biotechnology
- Dept. of Atomic Energy
- Dept. of Electronics and Information Technology
- Dept. of Scientific and Industrial Research
- Dept. of Ocean Development
- Dept. of Space
- Indian Space Research Organisation
- Ministry of Human Resource & Development
- Ministry of Earth Sciences
- Ministry of Communications & Information Technology
- Ministry of Environment, Forests & Climate Change
- Ministry of Power
- Ministry of Coal & Mines
- National Aerospace Laboratory
- Science and Engineering Research Board

Leading Funding Agencies

2023-24

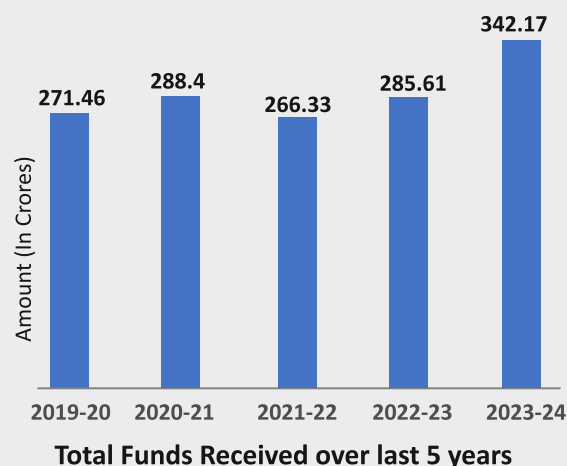
Ministry of Electronics and
Information Technology ----- 60.00 cr

Laurus Labs Limited ----- 31.86 cr

Ministry of Education----- 19.96 cr

UP Government----- 15.30 cr

Wellcome Trust-DBT
Alliance----- 9.98 cr



Key Roles of R&D Office

- Management of funds for sponsored consultancy and testing projects
- Appointment of project staff from R&D funding
- Facilitating the purchase of equipment and consumables from R&D funding
- Legal consultation for MoU vetting
- Providing initiation grants to new faculty members
- Promoting Institute-Industry interactions
- Distribution of salaries for all project staff
- Accommodation arrangements for project staff at the Institute
- Outreach for R&D through newsletters, research magazines, posters, and convocation reports
- Hosting delegates and facilitating lab visits, Institute lectures, and faculty interactions
- Providing logistical support to faculty members for preparing large grant proposals
- Organizing Institute lecture series, CNR Rao Lecture series, National Science Day, and National Technology Day events

Industrial Collaboration

The focus of research at IIT Kanpur is to generate new ideas, to create innovative solutions and to reveal basic principles of matter with an emphasis on using all this knowledge in developing practical engineering and technological applications. In this process institute works closely with the industry partner with the objective of adding value to their products and services and bringing novel solutions for the society at large.

Collaborations

- Industry Sponsored Projects
- Licensing of Patents & Technology Transfer
- Advanced Material Testing Facility
- Short term and Long term internship programme
- Industry Oriented Workshops, Seminar, Conference

Industry Partners



Industrial Cell @ IITK

- Integrated Computational Materials Engineering (ICME) National Hub
- Railway Research Cell
- Unilever Research Cell
- Space Technology Cell
- SAMTEL Center for Display Technology
- BSNL-IITK Telecom Center of Excellence
- Syndicate Bank Entrepreneurship Research & Training
- ONGC Cell

Events & Happening

National Science Day



National Science Day is celebrated in India to mark the discovery of Raman effect by Sir CV Raman. IIT Kanpur celebrated National Science Day for the year 2024 on the theme "Science for a Sustainable

Future", emphasizing the crucial roles that science & technology play in addressing global challenges & fostering a sustainable future for all.

Prof. CNR Rao Lecture Series



The objective of this lecture series is to one faculty member of IIT Kanpur, each year, the honor of delivering a lecture to the institute's community, sharing the excitement of his/her research with them. Prof. Bushra Ateeq, Dept. of Biological Sciences &

Bioengineering was the speaker of 2023.

Institute Lecture Series

The Institute Lecture series was initiated in 1993. It is an avenue to invite expert researchers from various domain like eminent scientists, policy makers, technologist who could talk to the campus community on subjects of broad interest.

The distinguished speakers of 2023 are Prof. Umesh K. Mishra, Prof. Walter Schneider, Prof. Sanjit K. Mitra, Prof. Jagdish Narayan, Dr. Anil K Rajvanshi, Dr. Renu Mehra, Dr. V. Balaji, Mr. Abhay K. Bhushan, Dr. Akhilesh Gupta, Prof. Arnab Rai Choudhuri, Shri Sanjay Dubey, Dr. Dipankar Choudhury, Prof. Edgar Knobloch, Prof. Perumal Nithiarasu, Dr. Vivek Lall, Professor Luiz A. DaSilva, Shri Rajat Verma, Prof. Ganapati D. Yadav, Prof. Venkatasubramanian Ganesan, Rajiv Malhotra and Vijaya Viswanathan, Prof. Subramaniam S. Iyer, Prof. K. Ganapathy, Prof. Rao S. Govindaraju, Prof. H. S. Udaykumar, Prof. T. Venkatesan.

more at <http://www.iitk.ac.in/dord/institute-lecture-series>

IInvenTiv-2024

IIT Kanpur showcased three technologies:

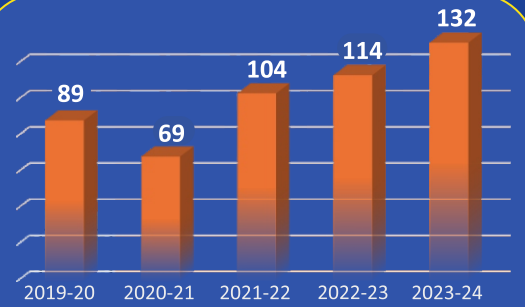
- ❑ Svan M2: quadruped robot research platform
- ❑ Self starting novel J shaped blade vertical axis wind turbine to harvest energy at low to high windspeeds
- ❑ Strips for simultaneous electrochemical detection of total and direct bilirubin in



IIT Kanpur received the 3rd prize showcasing its technological prowess at the "Maa Tuhje Pranam" program on August 15th, 2023, organized by Amar Ujala, in collaboration with the district administration.



Innovation



Number of Patents Filed Over last 5 years

Remarkable milestone by filing a total of **132** Intellectual Property Rights (IPRs) and achieving an exceptional licensing rate of around **14%** to industry partners in **2023-24**.



**Best Assisted
Technology Initiatives**
by Educational Institutes
2023



Stem Impact Award
for 3 consecutive years



IIT Kanpur at a Glance

Campus Area	1055 acres
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Academic Departments	19
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Inter Disciplinary Programmes	3
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Faculty Members	568
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Project Research Staff	917
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Total number of Patent Filed (till date)	1067
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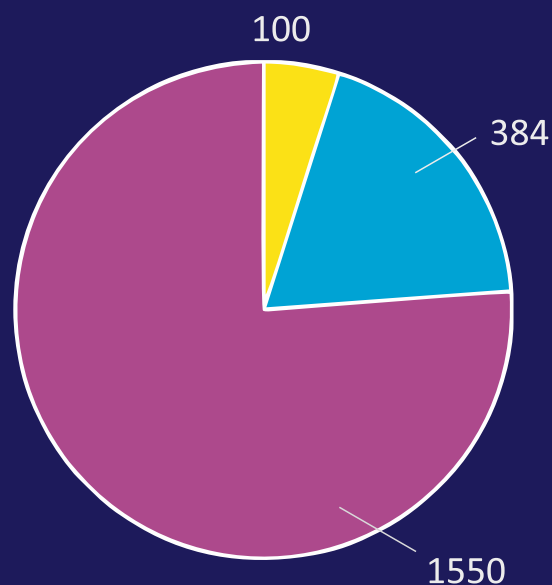
Technologies Licensed (till date)	143
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Publication Profile (2022-23)



journal Conference Books & Book Chapters