

## Centres

- Advanced Centre for Electronic Systems
- Centre for Environmental Science and Engineering
- Centre for Cyber Security
- Centre for Ganga River Basin Management and Studies
- Centre for Nano Sciences
- Centre for Technology for Sustainable Development
- Mehta Family Centre for Engineering in Medicine
- National Centre for Flexible Electronics



## Facilities

- Advanced Centre for Material Science
- Advanced Imaging Facility
- Imagineering Lab (Tinkering Lab)
- Central Glass Blowing Facility
- Media Technology Centre
- Central Experimental Animal Facility
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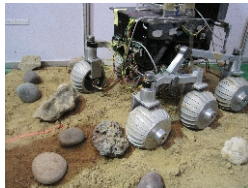


## Students' Initiatives

The students of IIT Kanpur have always participated in the front-line of new and innovative research projects in the numerous fields of interest related to science and technology. The excellence is reflected in various directions starting from UG Research Projects, B. Tech Projects, M. Tech and Ph D research Projects. Some of the recent endeavors in this directions are:

### Lunar Rover

The objective of this project was to develop a 6 wheel Lunar Rover for conducting experiments in kinematic control and vision based navigation on lunar like terrain.



### Formula Racing Car

SAE Club is involved in design and manufacturing of an off-road racing vehicle using institute's in-house facility.



### AUV

Autonomous Underwater Vehicle is being developed by a team of undergraduate students under the Science and Technology Council.



### Pushpak

The team Pushpak is a group of students from Seromodelling club under the Science and Technology Council. They are known for their expertise in designing UAV based solutions.



### Abhyast

A team of students designed an Unmanned Ground Vehicle (UGV) that could successfully perform simple path planning and obstacle avoidance. The endeavour is supported by The Boeing Company, USA



IIT Kanpur, established in 1959, was the fourth oldest among the group of IITs created to set a new benchmark of modern engineering education in the country. The aim of the Institute is to provide meaningful education, to conduct original research of the highest standard and to provide leadership in technological innovation.

## At a Glance

Academic Departments	18
Inter Disciplinary Programmes	5
Faculty Members	497
Project Research Staff	739
Research Establishment Officer	27
Externally funded ongoing R&D Projects (31st March 2021)	1145
Total number of Patents Filed	744
Technologies Licensed	116

### 2020-21

Total Number of Project	319
Total Amount Sanctioned	178 cr

### Research Publications (2020-2021)

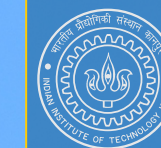
○ Journal	1486
○ Conferences	319
○ Books	18
○ Book Chapter	56

## Contact

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September 2021



[www.iitk.ac.in/dord](http://www.iitk.ac.in/dord)



## Sponsored Research

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 scope and quantum of research has significantly increased today from the earlier mileau of internally funded thesis projects to complex interdisciplinary research programs. 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.

### Office of R&D

- Provide administrative and managerial support for R&D activities
- Management of R&D projects as per norms
- Administer fellowships like INSPIRE, DBT, WELLCOME, NBHM etc
- Technology Development, Patenting and Transfer
- Provide platform for start-ups
- Establish links with funding agencies, potential sponsors
- Promote Institute-Industry interactions
- Publish R&D related periodicals like Research Newsletter, Brochure, Directions - Institute Research Magazine
- Organize Institute Lectures, CNR Rao Lectures, Industry Connect Talk Series
- Agreements and MoUs preparation
- Administer initiation grant to new faculty members

### Contact

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### Major Govt. Funding Agencies

Aeronautics Research and Development Board (ARDB)  
Board of Research & Nuclear Sciences (BRNS)  
Central Power Research Institute (CPRI)  
Council of Scientific & Industrial Research (CSIR)  
Defence Research & Development Organisation (DRDO)  
Dept. of Science & Technology (DST)  
Dept. of Biotechnology (DBT)  
Dept. of Atomic Energy (DAE)  
Dept. of Electronics and Information Technology (DEITY)  
Dept. of Scientific and Industrial Research (DSIR)  
Dept. of Ocean Development (DOD)  
Dept. of Space (DOS)  
Indian Space Research Organisation (ISRO)  
Ministry of Human Resource & Development (MHRD)  
Ministry of Earth Sciences (MOES)  
Ministry of Communications & Information Technology (MCIT)  
Ministry of Environment, Forests & Climate Change (MOEFCC)  
Ministry of Power (MoP)  
Ministry of Coal & Mines (MoCM)  
National Aerospace Laboratory (NAL)  
Science and Engineering Research Board (SERB)

### Leading Funding Agencies of 2020-21

Science & Engineering Research Board	54.49 cr
Department of Science & technology	23.41 cr
Department of Electronics and Information Technology	20.19 cr
Indo-US Science and Technology Forum	13.83 cr
Ministry of Education	11.02 cr

### Number of Newly Registered projects over last 5 Years





# Events & Happening

## National Science day

**National Science Day** is celebrated in India to mark the discovery of Raman effect by Sir CV Raman. On the occasion of National Science Day 2021, IIT Kanpur hosted a virtual event on February 28, 2021. The theme of the year 2021 was 'Energy'. Professors Ashish Garg, Sameer Khandekar and Jishnu Bhattacharya were the speakers of the event.

<https://www.iitk.ac.in/dord/outreach/science-day>

## Institute Lecture Series

The Institute Lecture Series is an avenue to invite expert researchers from various domains like eminent historians, policy makers, technologists and leading scientists who could disseminate to the campus community on subjects of broad interest. Some of our distinguished speakers of 2020-21 were Dr. Parameswaran Iyer, Prof. Eluvathingal D. Jemmis, Prof. Frederic Lefevre, Prof. Harald Schuh, Prof. Anatoli Polkovnikov, Dr. Pravin Bhagwat, Prof. Siddharth Ramachandran, Prof. Maresi Nered, Prof. Kannan M. Krishnan.

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

## Technology Day

**National Technology Day** is commemorated to celebrate the anniversary of first of a series of successful nuclear test (Pokhran II) held on May 11, 1998. IIT Kanpur celebrates National Technology Day every year with a series of invited lectures and an exhibition of the innovations from the institute.

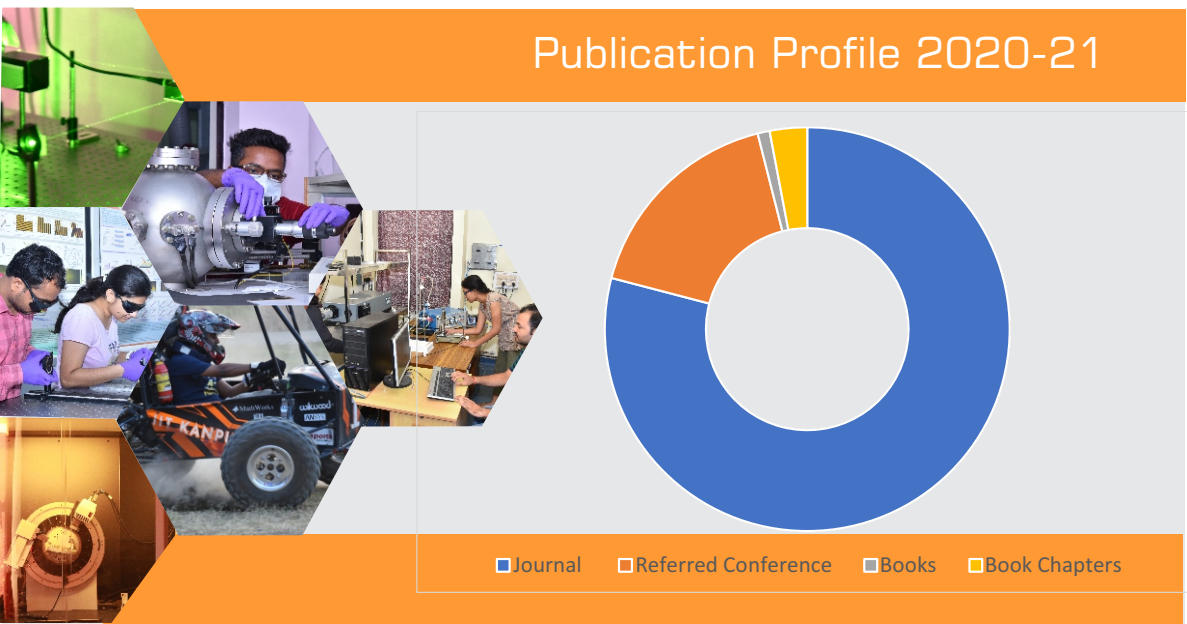
<https://www.iitk.ac.in/dord/outreach/technology-day>

## Prof. CNR Rao Endowed Lecture

The objective of this lecture series is to give 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. Vinod k Singh, Dept. of Chemistry was speaker of 2021. He delivered a talk on 'Chirality in Organic Synthesis'.



more at <http://www.iitk.ac.in/dord/c-n-r-rao-lecture-series>



# 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 partners with the objective of adding value to their products and services and bringing in novel solutions for the society at large.

Collaborations

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

Industrial Cells

- ICME National Hub
- ONGC Cell
- Space Technology Cell
- Unilever Research Cell

Industry Partners

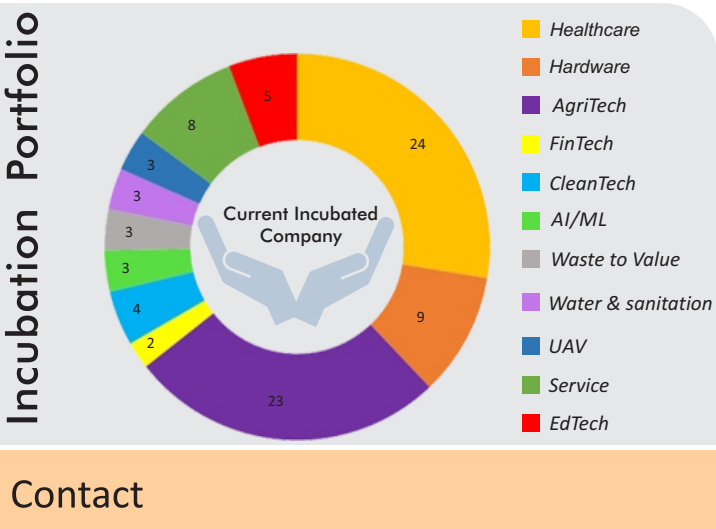
TECHNOPARK@IITK

Technopark@iitk is an independent not-for-profit Section 8 company registered under the Companies Act 2013 and fully promoted by IIT Kanpur. With the vision of deepening the interaction between academia and industry, Technopark@iitk intends to enable industries in co-developing cutting-edge technologies and innovations and creating knowledge-based wealth by leveraging core-competence of IIT Kanpur. It offers intellectual capital, research infrastructure, and flexible offices and laboratory space for industrial partners to co-locate and set up their R&D centers within the research park. The facility was formally inaugurated on 8th April 2019 by the IITK Board of Governors Chairperson, Dr. Koppillil Radhakrishnan. Technopark@iitk started its operations on 1st March 2019 and within a short span of time has successfully managed to host six clients including Injectoplast, a Kanpur-based group with an annual turnover of INR 230 cr. On 6th April, it held its first outreach activity inviting local industries in Kanpur for discussions and collaborations. The event was well attended and has opened doors for big companies as well as MSMEs to take leverage of the intellectual and infrastructural leadership of IIT Kanpur.



Established in the year 2000, Startup Incubation and Innovation Centre (SIIC) is one of the oldest technology business incubators with many success stories under its belt such as Curadev Biopharma, Weather-Risk Advisory, GeoKno, E-spin Nanotech, Aarav Unmanned Systems, Phool, and Nocca Robotics.

With a portfolio of 140 startups that have raised hundreds of crores and generated more than 3000 jobs, SIIC has one of the most vibrant ecosystems in the country that helps the tech innovators to convert their ideas into products.



## Contact

SIDBI Innovation & Incubation Centre, IIT Kanpur  
Email: [siic@iitk.ac.in](mailto:siic@iitk.ac.in)

# Innovation & Incubation

4i Laboratory  
Rapid Prototype Development Lab

Tinkering Lab  
Ideate & Tinker

Mole Incubator  
Power Sector

Motwani Accelerator  
IT & ITeS

SBERTC

Social Incubator

IP Cell

Bio-Incubator

Technology Transfer Office

IAIN Agri Incubator

Medtech Incubation Facility

NOIDA Incubation Extension

## Offerings

- Open to anyone
- Mentoring by Faculty member
- Access to IITK infrastructure
- Dedicated technology transfer office
- Dedicated IP Cell, Legal Cell, Financial and Compliance Consulting Team
- Retainership with Law Firm
- Industry connects
- Industry Interaction Initiatives
- Office & Residential Space
- Finding assistance SEED (level I,II)

## Programmes Offered

- BIG – Bio Ignition Grant
- BIRAC Bio-Incubator
- EIL Innovation grant and Seed Fund Grant
- Invent Social Incubator
- HDFC CSR Initiative
- MoLE Incubator
- MSME Business Incubator
- NIDHI PRAYAS
- NIDHI-EIR -Residence Program
- PRISM Programme
- Startup India Certification

# Academic Programmes

Departments/IDPS	Academic Programmes										
	Ph.D	M.Tech	M.Tech/ B.Tech	MBA	M.Des	M.Sc. (2 Year)	M.Sc. (5 Year)	MS (By Research)	B.S.	BSMS	B.Tech
Aerospace Engineering	●	●	●					●			●
Biological Sciences & Bioengineering	●	●	●								●
Chemical Engineering	●	●	●					●			●
Chemistry	●					●	●		●	●	
Civil Engineering	●	●	●					●			●
Cognitive Sciences	●							●			
Computer Science & Engineering	●	●	●					●			●
Design Programme	●				●						
Earth Sciences	●	●								●	
Economic Sciences	●						●		●	●	
Electrical Engineering	●	●	●					●			●
Humanities & Social Sciences	●										
Industrial & Management Engineering*	●	●		●							
Materials Science & Engineering	●	●	●								●
Materials Science Programme	●	●									
Mathematics & Statistics	●					●	●		●	●	
Mechanical Engineering	●	●	●					●			●
Photonics Science & Engineering	●	●						●			
Physics	●					●	●		●	●	
Sustainable Energy engineering	●	●						●			●

VLFM Programme: Post Graduate Program for Executives for Visionary Leadership in Manufacturing