



# TECHNOPARK@IITK REPORT 2023-24



IIT Kanpur Research and Technology Park Foundation





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# OVERVIEW

The Ministry of Higher Education, Government of India sanctioned the setting up of research parks in IITs to develop indigenous R&D capabilities, boost industry-academia partnerships and strengthen the research ecosystem in the country. In 2017, the approval was accorded for the establishment of five research parks including one at IIT Kanpur.

IIT Kanpur Research and Technology Park, brand name Technopark@iitk, officially started its operations on 1st March 2019 with the primary intent of promoting industry, IIT Kanpur and government collaborations to create indigenous cutting-edge and cost-effective technologies.

Since its inception, Technopark@iitk has been engaging with industry, big, medium, and small enterprises, and prominent industry associations. In tandem, it actively reaches out to its other stakeholders that include faculties, students, research scholars and R&D organizations. These interactions have helped the company define its vision and key objectives. In the past five years, having reached out to close to 400 companies and having interacted with 200+, Technopark@iitk has evolved and continues to make steady progress towards its objectives.

**400+**

Industrial  
Connects

**28**

Total Member  
Companies

**200+**

Industrial  
Interactions

**15**

Current  
Member  
Companies



# ABOUT TECHNOPARK

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IIT Kanpur Research and Technology Park Foundation is an independent not-for-profit Section 8 company registered on 7th February 2019 under the Companies Act 2013. The company is aimed at promoting and accelerating strategic R&D collaborations between industry and academia with the government being an important stakeholder.

The company is governed by an independent board comprising ex-officio IITK members from IIT Kanpur and other eminent people from the industry.



State-of-the-art architecture spread over 2.5 lakh sq. ft.

Units of 500-10,000 sq. ft.

Meeting and Conference Rooms

120-seater Auditorium

Training Rooms

Cafeteria and Recreational facility



Technopark@iitk celebrated the inauguration of its state-of-the-art Phase 1 Building. The ceremony was distinguished by the presence of Professor Abhay Karandikar, Secretary, Department of Science and Technology, Government of India, who served as the Chief Guest. Shri Awanish Awasthi, Advisor, Chief Minister, Uttar Pradesh, graced the occasion as the Guest of Honor.





# PHASE-1 FACILITY INAUGURATION



**20th APRIL  
2024**



# Event Glimpse...





# WORKSHOP

## INDUSTRY-ACADEMIA COLLABORATIONS OPPORTUNITIES & CHALLENGES



Prof. Ashutosh Sharma



Prof. Sandeep Shukla



Dr. Rajaram Iyer



Prof. Rajiv Jindal



Prof. Nilesh Badwe



Mr. Anuj Awasthi



*Panel Discussion: Role of Technology Parks in furthering  
Industry-Academia Collaborations*

# VISION

To foster Industry-IIT Kanpur collaboration by promoting co-development of cutting-edge technologies in line with the national priorities by leveraging the core competence of IIT Kanpur.

## OBJECTIVES



Increase & accelerate collaborations between IIT Kanpur and industry



Strengthen Industry and Student Engagement



Build a robust R&D ecosystem in collaboration with industries and govt. entities



Develop an R&D ecosystem for MSMEs



Facilitate creation of specialized labs and facilities for specific industrial needs



Train and upskill resources through courses and workshops



Identify and promote potential technologies developed at IITK for lab-to-market transition



# ENGAGEMENT WITH INDUSTRY

Technopark@iitk enables an easy and seamless access to the rich and vibrant ecosystem of research and innovation at IIT Kanpur allowing industries to engage with the ecosystem in a holistic manner. We work closely with the industry to understand and articulate their R&D needs and align them with the research experts at IIT Kanpur.



## OUR OFFERINGS

- \* Define and Articulate Technical Challenges
- \* Engagement with the IITK Students and Research Scholars (through ReWoP)
- \* Identify Domain Experts
- \* Identification of high-end lab infrastructure
- \* Advice on Government Funding Schemes
- \* Office and Lab space for R&D activities
- \* Engagement with the IITK startup ecosystem
- \* Advice on licensing and commercialization of IITK Patents
- \* Interface with IITK Faculty
- \* Access to state-of-the-art Central Research Facilities (CRFs)
- \* Access to courses/workshops & seminars for skills upgradation
- \* Opportunities to participate in Special Interest Group meets and industry events



*"Technopark@iitk is working closely with CII and other industry associations to foster Industry-Academia R&D partnerships and increase industry R&D spending. The coming months will see more activity on this front."*

## MEMBERSHIP MODELS

### INNOVATORS

Residential model wherein companies set up their R&D offices within the research park premises.

### PIONEERS

Virtual model wherein companies can avail several benefits including co-working spaces

### CONSORTIA

Sector-wise consortia wherein consortia members will hold bi-annual meetings with the expert group.

*"Collaboration across a bridge like IITK Research Park is essential for facilitating and accelerating the smooth transfer of innovations that may solve multidisciplinary areas."*

– Dr. Vilas Tathavadkar  
CTO, Aditya Birla Science and Technology Company



*"The institute's commitment to academic excellence and innovation was evident in every aspect of our visit. The state-of-the-art facilities and resources available for research are truly remarkable. Technopark structured our entire visit in such a way that it turned out to be a productive and knowledge-gaining experience."*

– Team, JK Fenner



*"Seeing is Believing. IIT Kanpur has a massive research ecosystem. We are excited to start our R&D operations in Technopark."*

– Mr. Venkatesh Arunachalam  
MD, TVM Signalling and Transportations Systems



*"We were looking for a technology collaborating partner and after detailed research found IIT Kanpur to have that rich ecosystem. It has its own air strip, wind tunnel facility, central research facilities and we could even leverage it to work with the student community through Technopark."*

– Mr. Kiran Vagga  
Founder, TISA Aerospace

# FOCUS SECTORS

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Defence & Aerospace

Healthcare & MedTech

Space Tech

Clean Tech

Agri Tech

Deep Tech

Core Engineering





# FLAGSHIP PROGRAMS



## ReWoP

IITK Students  
tackling **Real World Projects** :

The Industry-Student Connect Program aimed at bridging the existing gap between the available skill pool and the industry requirements by providing round the year internships to students to address industry challenges and translate their learning to practice.

- Out-of-the-Box Solutions for Industry
- Affordable Indigenous Solutions
- Perfect Recruitment Pad for Potential Talent
- Quality Workforce through IITK



**Prof. Raju Kumar Gupta**



**Late Dr. Kanwar Singh Nalwa**



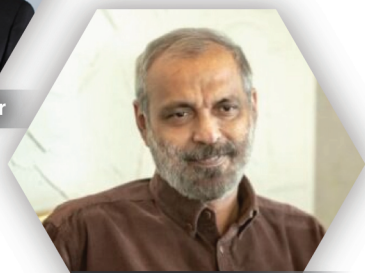
**Dr. Sunil Ashtekar**



**Dr. Vilas Tathavadkar**



**Prof. Sandeep Verma**



**Mr. Sudhanshu Mani**

## FORTECH

Quarterly Industry-Academia talk series, designed to promote two-way flow of information and ideas between industry experts and the IITK research fraternity. It allows experts to share their research, delve into its implications, explore present and future trends, discuss partnership prospects and engage in multifaceted interactions that can bridge the prevailing industry-academia gap.

**'FORTECH' meaning  
'For Technology' or  
'FORTE in Technology'**

**Dr. Vilas Tathavadkar**  
*CTO, Hindalco Industries Ltd.*

**Prof. Sandeep Verma**  
*Department of Chemistry, IITK*

**Dr. Sunil Ashtekar**  
*Polymers Shell Technology Centre, USA*

**Mr. Sudhanshu Mani**  
*Architect of Vande Bharat, Indian Railways*

**Late Dr. Kanwar Singh Nalwa**  
*Sustainable Energy Engineering, IITK*

**Prof. Raju Kumar Gupta**  
*Department of Chemical Engineering, IITK*



# MEMBER COMPANIES

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## INNOVATORS

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**Laurus Labs** is a leading research-driven Indian multinational pharmaceutical and biotechnology company headquartered in Hyderabad. Founded in 2005, the company is heavily R&D driven and invests in cutting-edge research to develop new cures for challenging diseases. The focus areas include Generics API, Generics FDF and Synthesis. (*Member since September 2023*)



**Q-line Biotech** is a leading provider of in-vitro diagnostic (IVD) products and instrumentation since 2013. It offers a diverse range of diagnostic solutions including clinical chemistry analyzers, reagents and rapid tests catering to various medical specialities. The company has two ISO 13485:2016 and GMP certified manufacturing units in Delhi and Lucknow with complete assembly and packaging lines and quality check labs. (*Member since May 2023*)



**Merai Newage** is an Indian medical device company that manufactures clinically researched in-vitro diagnostic kits and surgical needs like vascular intervention devices, orthopedic implants, robotics, endo-surgery, and ENT products. (*Member since March 2024*)



Innovation and Safety

**TVM Signalling and Transportation Systems** are system integrators and solution providers in the Transportation sector, focusing on Railway Signalling, Smart City domains. As a group company of 106+ year old Kyosan Electric Manufacturing, Japan, it has performed 1,000+ turnkey commissioning for the railways of India, Bangladesh, and Malaysia, and provided Signalling Design Engineering Services for the railways of UK, South Africa, and Australia. (*Member since March 2024*)



Perfection in Engineering Plastic

**Injectoplast** is a leading system supplier to the Automotive industry in India and worldwide, providing solutions for modules and systems made of engineering plastics components and assemblies. The company has three manufacturing facilities at Kanpur, Pune and Chennai serving the major automotive car making hubs in India. (*Member since June 2019*)



**TISA Aerospace** is a Hyderabad-based OEM for Unmanned Aerial Vehicles (UAVs) specialized in design and development of Fixed Wing UAVs and Hybrid Drones. The company is a subsidiary of Raghu Vamsi Machine Tools and extends its services to all leading Aerospace and Defence organizations. (*Member since 2022*)



**Cingularity TEC** is a leading industrial and military-grade engineering and manufacturing company specializing in the production of propulsion systems, aircraft structure components and avionics for drone flights. (*Member since September 2022*)





**IHUB NTIHAC** Foundation is a Section-8 not-for-profit company set up under the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS). With the intent of developing a robust cyber-security ecosystem, the company focuses on active research and development in cybersecurity of cyber physical systems across the country. *(Member since December 2020)*



**SkyAI Technologies** is an AI based product development company that specializes in artificial intelligence, computer vision, machine learning, IOT solutions, customized software and enterprise SaaS products. Some of their products include Personalized Recommendation System, Anti-Drones System, Vision-based Precision Landing, On-board Module for Drones, Face Mask Detection, Face Recognition and VIP customer alert and Object Detection in Aerial Images. *(Member since August 2023)*



**Geo Climate Risk Solutions** is a solution provider, consultancy and advisory services firm that focuses on environment and sustainability challenges, climate and natural hazard risk analytics, groundwater impact assessment, GHG emission and environment social governance, geospatial tech integrations, and water and land risk sustainability. *(Member since August 2020)*



**Medetronix** is a medical device manufacturing company specializing in portable medical diagnostic & biosensing devices with an aim to advance electrochemical sensing technologies capable of facilitating multiple real-life health sensing and diagnostics. The company has its presence in Bengaluru as well. (*Member since May 2019*)



**Maraal Aerospace** is a deep tech IITK incubated startup company involved in design, development, and manufacturing of Ultra Long Endurance Fixed Wing Solar UAVs & subsequently High-Altitude Long Endurance Solar powered Unmanned Aerial Vehicles (HAPS). (*Member since 2024*)



**HRMAC Technologies** is an ISO certified MSME enterprise for product designing, fabrication, processing, characterization, modeling, and simulation of advance materials for applications in different industrial sectors. (*Member since 2022*)

## PIONEERS



**JK Cement** is one of India's leading manufacturers of Grey Cement and one of the leading White Cement manufacturers in the World. (*Member since November 2021*)

# R&D IMPACT GENERATED

## Industry R&D Centers Set up

**Laurus Labs:** 27000 sq. ft. Establishing cGMP vector manufacturing facility

**IHUB NTIHAC FOUNDATION:** 27000 sq. ft., Cybersecurity Technology Innovation Hub

**TVM Signalling & Transportation Systems (TSTS):** 1600 sq. ft., Establishing R&D facility to develop new technologies for Railways

**Merai Newage:** 3500 sq. ft., Establishing AI/ML facility

**Q-Line Biotech:** 2700 sq. ft., Establishing R&D facility to develop Med-tech products

**GCRS, Medetronix, SkyAI, Cingularity TEC:** 2500 sq. ft.



*Signing with TVM Signalling and Transportation Systems, 2024*



# Projects Sanctioned

JK Cement - 3

JK Fenner - 1

Merai Newage - 1

Toka Technologies - 1

Technithon International - 1

Discussion stages - 4



# MoUs/NDAs Signed



JK Fenner

Absolute

Jindal Stainless Limited

AVPL International

Aditya Birla Science and Technology Company

# Miscellaneous

- Three Student Awards (under CSR) set up by JK Fenner.
- Full-time hirings by TISA Aerospace (2), Meril Diagnostics (11), Q-Line Biotech (1), Maraal Aerospace (1).
- Sponsorship for Chemineers Society event (2023) by Medetronix.
- Discussions underway for Licensing and commercialization of a patented technology (Bhu Parikshak).
- Showcased the IITK ecosystem at different industry forums and platforms.
- Creation of more job opportunities.

# Products Developed

**LAMAS**, a flagship product of Geo Climate Risk Solutions, is a lake management system that offers continuous monitoring of Lakes Water Area, Degradation Status, Water Quality, Recovery Potential, and Restoration plans. It has recently been chosen by the Ministry of Housing and Urban Affairs for implementation in the city of Ayodhya to diagnose and monitor the historically significant lakes/water bodies (Kunds). An MoU was signed between GCRS and Ayodhya Nagar Nigam, marking a significant step towards enhancing water body management in the region.



**STANFORD SEED PROGRAM** – The company has been selected for **“Stanford Seed Transformation Program”** by the Stanford Graduate School of Business

**ELECTROCHEMICAL SENSORS– Medetronix Labs Pvt. Ltd.**, a leading medical device manufacturing company, using electrochemical sensing technology has developed **a.** Disposable PCB GOLD ELECTRODE and India’s first portable **b.** ELECTROCHEMICAL ANALYSER.

**a.**



**b.**



# MISSION MODE PROJECT

Under the Defence Testing Infrastructure Scheme (DTIS) of the Ministry of Defence, Government of India, world-class Defence testing facilities are being set up in the two Defence Corridors, TIDCO and UPDIC. Of the three domains to be set up in the UP Defence Corridor, two verticals are earmarked for the Kanpur node, Communications and UAS.

Technopark@iitk in collaboration with the DPSUs will host both Communications & UAS test facilities within its new building spread over an area of 18000 sq. ft. The lead industry partners for Communications and UAS verticals are Bharat Electronics Limited (BEL) and Hindustan Aeronautics Limited (HAL), respectively. The facilities will be available for use for startups, industry and academia at fixed user charges.

Technopark@iitk has signed an MoU as well with the UP Expressways Industrial Development Authority (nodal agency for UP Defence Corridor) to offer R&D support to the companies participating in the corridor activities.



*DTIS Meeting for 3 verticals – UPEIDA HQ, 2024.  
(Attended by all stakeholders and representatives of DGQA)*



# BOARD OF DIRECTORS



**Prof Manindra Agrawal**  
Director, IITK



**Prof. Braj Bhushan**  
Deputy Director, IITK



**Mr.Awnish  
Kumar Awasthi**  
Advisor, UP Chief  
Minister



**Mr. Lalit Jalan**  
Chairman,  
3Lines Venture



**Prof. Tarun Gupta**  
Dean, R&D, IITK



**Prof. G. M. Kamath**  
Dept. of Aerospace  
Engg., IITK



**Prof. A.K. Singh**  
Prof-in-Charge, Technopark@iitk

# OPERATIONAL TEAM



**Ms. Reema Mittal**  
Chief Operating  
Officer



**Dr. Piyashee Mallik**  
Senior Project  
Scientist



**Dr. Srivani Vinay**  
Project Scientist



**Mr. Prashant Gupta**  
Deputy Project  
Manager



**Mr. Anil Shukla**  
Deputy Project  
Manager



**Mr. Suraj Sharma**  
Assistant Project  
Manager

*Inviting industry and R&D organizations to leverage  
the world-class research and innovation ecosystem  
at IIT Kanpur.*



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