

IIT Kanpur
Research and Technology Park Foundation

Aimed at Fostering and Deepening
Strategic R&D Collaborations between
Industry and IIT Kanpur

Impact Report 2024-25

TECHNOPARK@IITK





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Infrastructure



130
Seater Auditorium

30
Seater Training Rooms



60
Seater Conference Room



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 Foundation, with the 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.

The year **2024-25** was a milestone year for Technopark@iitk as it shifted its operations to its new Phase 1 building, from the transit facility, located within the campus. The state-of-the-art facility spread over 2.5 lakh sq. ft. is equipped with modern amenities like 130-seater Auditorium, 30-seater Training Rooms, 80-seater Conference Room, Meeting Rooms and varied sized R&D spaces. Currently, the research park houses **R&D offices of 23 companies** – 15 fully operational and 8 in the setting up stages.

81,519 sq. ft
Total Space Occupied

25
Current Member Companies

Vision

To foster industry-academia collaboration by co-developing cutting-edge technologies and innovations in line with national priorities and knowledge-based wealth creation by leveraging the core competence of IIT Kanpur.

Objectives

Increase & accelerate R&D collaborations between IIT Kanpur and industry.

Strengthen Industry-Student Engagement.

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

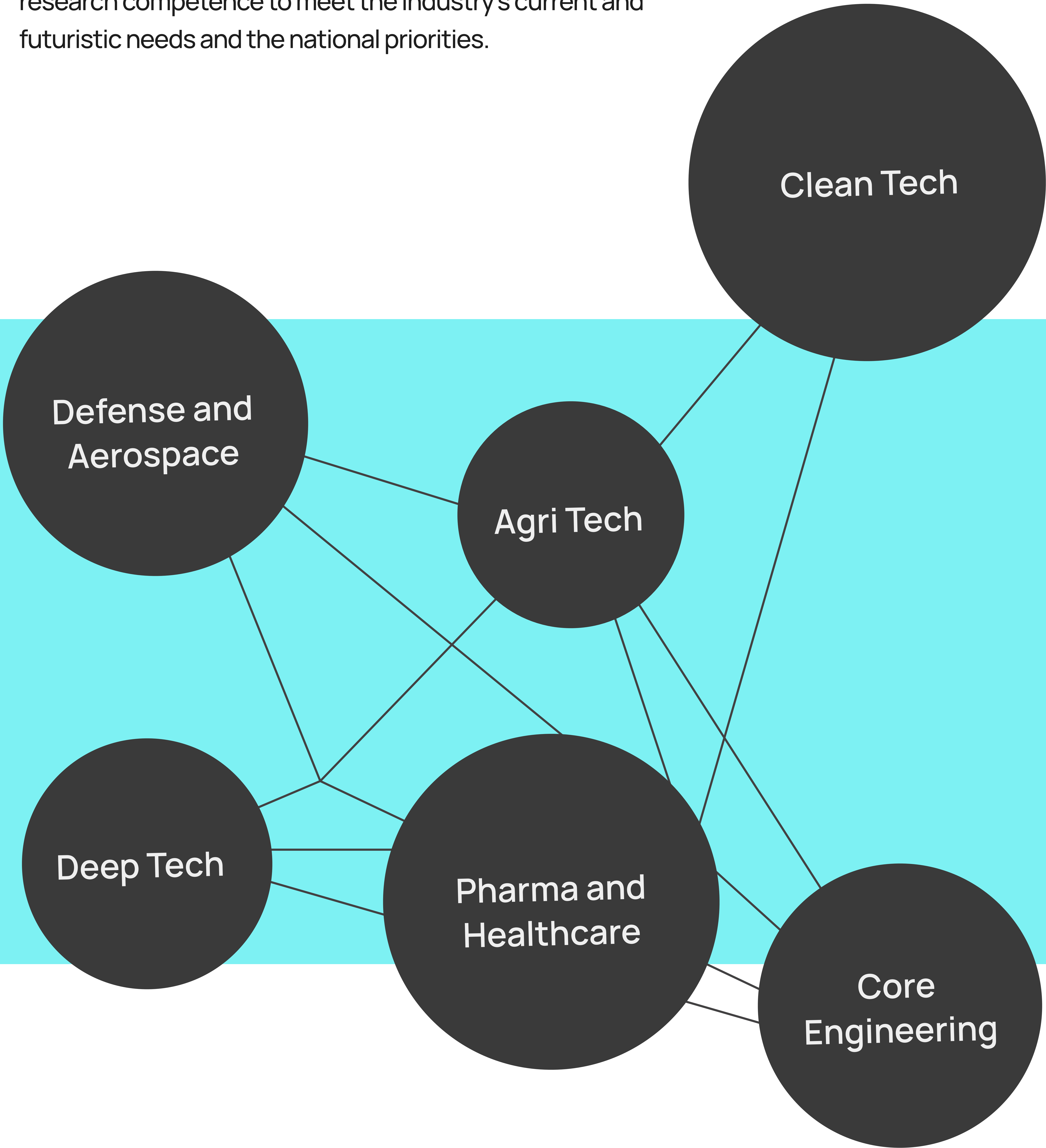
Facilitate the creation of specialized labs for industrial needs.

Train and upskill resources through courses and workshops.

Develop an R&D ecosystem for MSMEs.

Key Focus Areas

Though Technopark@iitk is **Technology Agnostic**, it has identified a few focus sectors aligned to the IIT Kanpur core research competence to meet the industry’s current and futuristic needs and the national priorities.



Industry Engagement Models

The year **2024-25** witnessed a significant rise in participation from Kanpur-based and outstation industries, reflecting a growing recognition of the advantages of co-locating at Technopark@iitk to harness IIT Kanpur’s research expertise. Of the 25 current member companies, 13 have joined Technopark@iitk’s growing R&D ecosystem last year. Based on the nature of the engagement model, the companies are segregated in to different categories.

INNOVATORS

Residential Memberships enabling companies to set up their R&D offices within the research park.

PIONEERS

Virtual Annual Memberships enabling companies to resolve their R&D needs without setting up offices.

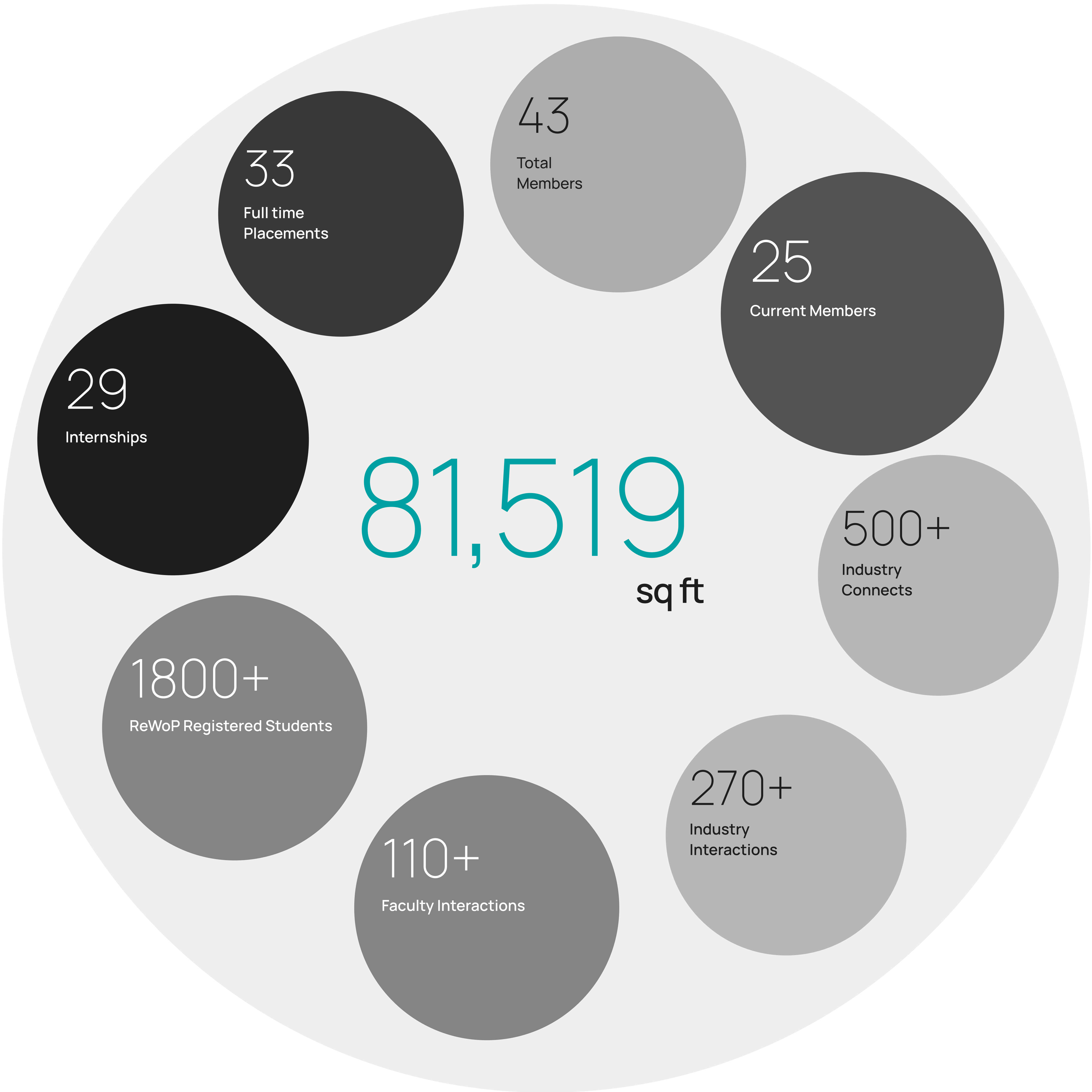
ENABLERS

Centres of Excellence, Common Testing Labs set up to strengthen the overall R&D ecosystem.

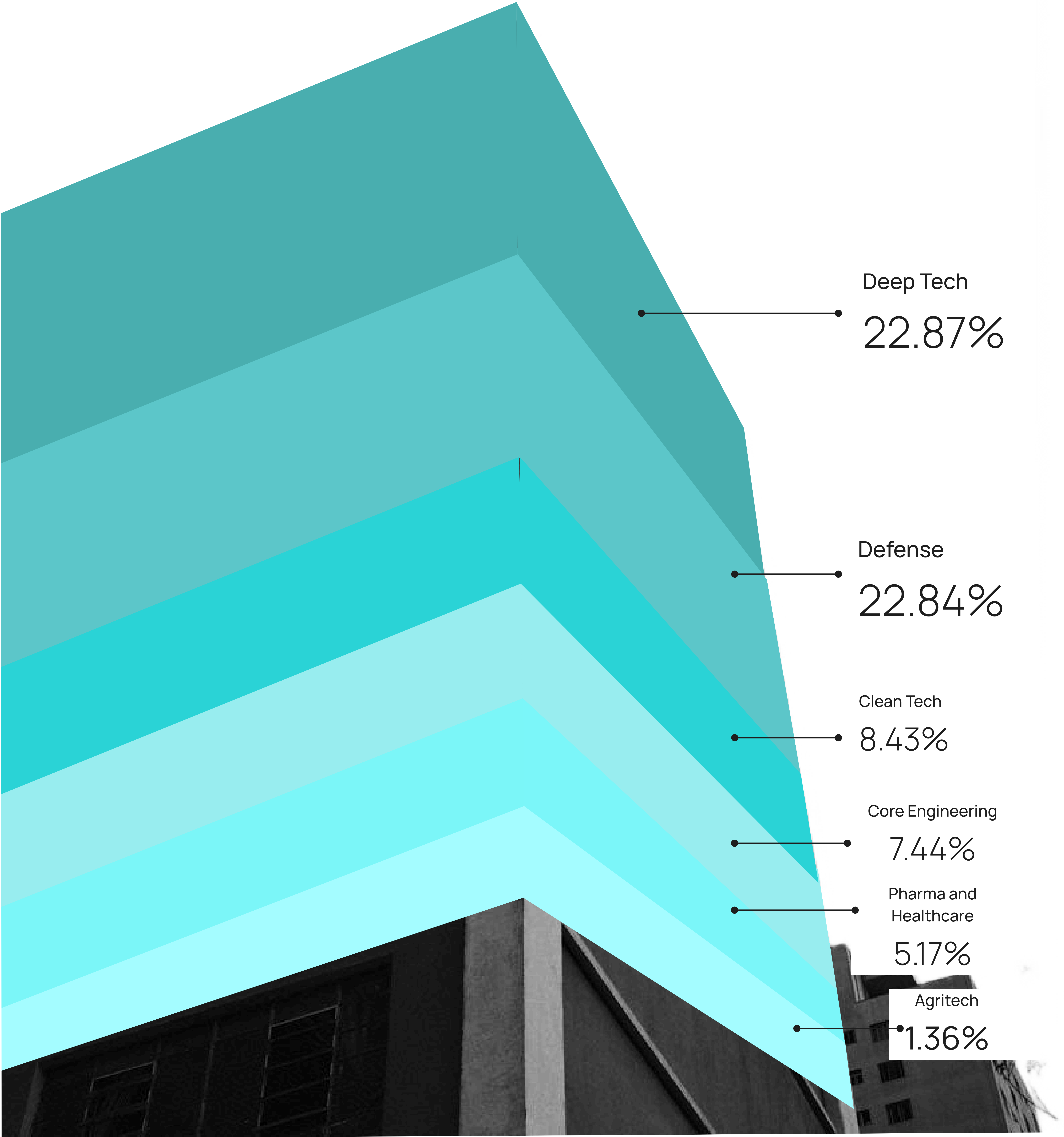
CONSORTIA

Sector-wise Consortia to promote high-end Industrial Research through biannual meetings with expert groups.

Highlights 2024-25



Space Utilization





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 Ventures



Prof. Tarun Gupta
Dean, R&D IITK



Prof. G.M. Kamath
Dept. of Aerospace Engineering



Prof. A.K. Singh
Prof-In-Charge, Technopark@iitk



Member Companies

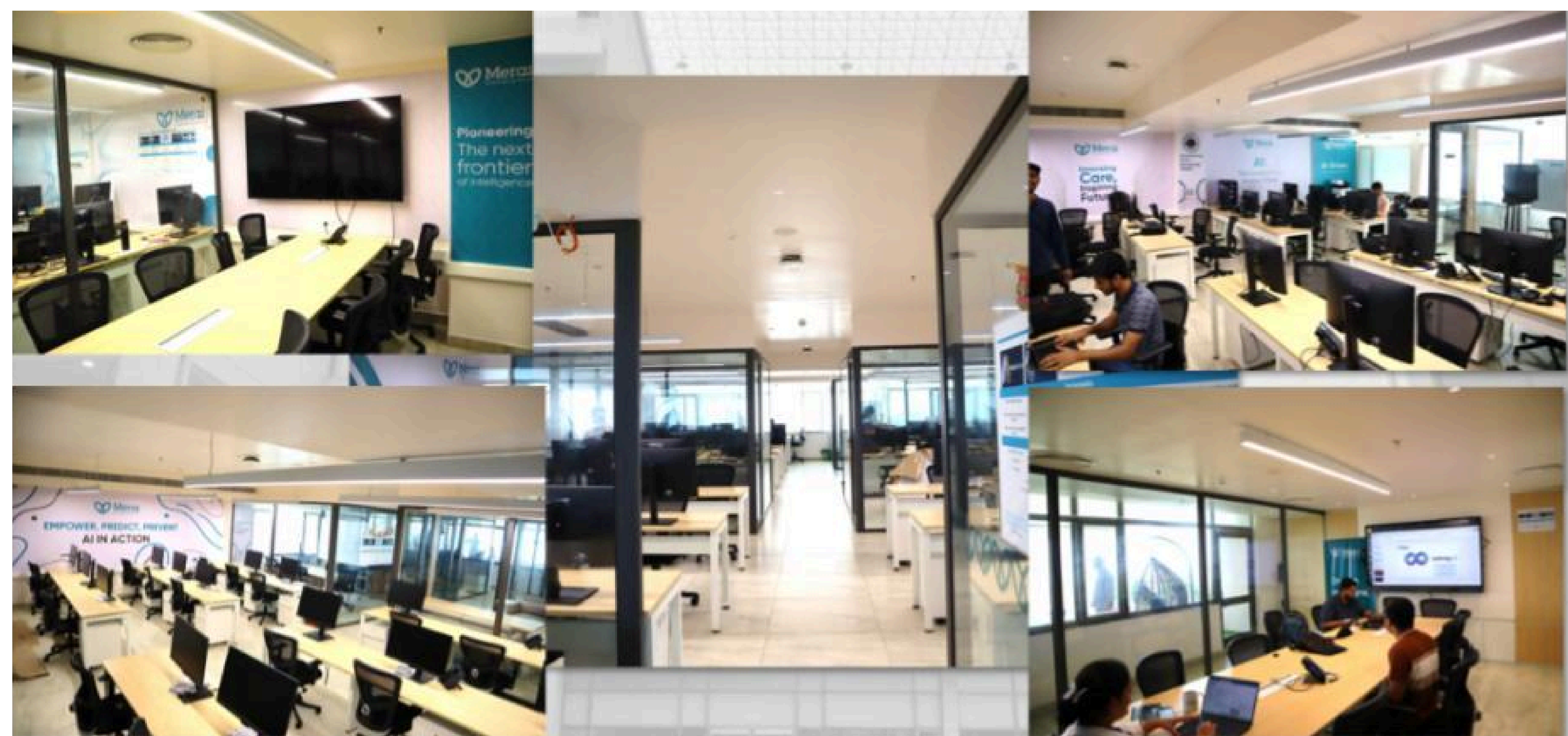


Impact Generated

Technopark has established KOIN metrics to comprehensively evaluate the R&D impact of each member company. This strategic approach ensures a transparent and detailed assessment, providing the organization with a clear understanding of the fruitful collaborations and contributions in the realm of research and development. There are several collaboration modes available for the companies to engage with the IIT Kanpur R&D ecosystem.

For 1000 sq. ft. space, 100 KOINS are to be earned mandatorily. The member companies are incentivised for exceeding the targets.

Modes of Engagement	Koins Earned
Sponsor Research Projects	100 / inr 1M
Consultancy Projects	125 / inr 1M
Royalty paid to IITK for using IITK IP	200 / inr 1M
sponsor Ph.D students	100 / year
Sponsor Mtech/M.S. students	50 / year
Joint Ph.D. Guidance	50 / year
Joint MTech/M.Sc. guidance	25 / year
Joint BTech/M.Sc. guidance	20 / year
Teaching by Industry personnel at IITK	2 / hour
IITK Faculty giving lectures to company staff	5 (per inr 25,000 paid to faculty)
Continuing education expenses by company to IITK	5 (per inr 25,000 spent)
Part time employment for B.tech/M.tech/M.S./Ph.D.	5 / month
Full time employment for B.tech/M.tech/M.S./Ph.D.	50 only once
Joint Project in collaboration with IITK Faculty	20 for inr 1 million
Joint Publication and Patent	20
Instituting Chair Professor	200 / year
Educational Infrastructure Endowment	100 (for inr 2 million)
Supporting a Technical Event -INR 50000/- (capped @ 50% of the mandatory annual KOIN requirement)	5



3364 sq. ft. of R&D setup to expand research in the areas of AI/ML (computer vision), medical imaging, medical applications through NLP/LLM, drug discovery and software application development.

8

IITK students offered internship

13

IITK students hired in 2024 on full-time role

16

IITK students and many more joining from other IITs in June 2025

Headquartered in Vapi, Gujarat, the company is a subsidiary of an Indian multinational medical device company designing, manufacturing and distributing clinically relevant, state-of-the-art and best in class medical devices.

Ongoing collaboration with **Prof. Tushar Sandhan** in the domain of Artificial Intelligence and Robotics to drive industry-leading developments. The projects cater to radiology, chest X-Ray analysis (focusing on major abnormalities detection), cardiology based on Tavi operation, drug discovery, medical imagery).



1634 sq. ft. of R&D office to conduct collaborative research on drone communication systems and SWARM drone technologies for agricultural applications.

First project undertaken with **Prof. Ketan Rajawat** (SPiN Lab, IIT Kanpur) to develop indigenous UAV design, applications, and automation, impacting industries.

Collaborated with AICTE to set up Aero-vision labs across **50** polytechnic institutes in India.

Headquartered in Gurugram, the company set up in 2016 is pioneering cutting edge R&D in drone technology, precision agriculture, geospatial intelligence, defense and other drone-based solutions such as mapping, scanning, and surveillance.



TVM Signalling And Transportation Systems



Hired Dr. Mahendra Gohil, PhD student from the Department of Mechanical Engineering, to head TSTS R&D office in Technopark.

1606 sq. ft.

R&D set up to undertake cutting edge research in Railways domain.

2

Internships offered to IITK students.

7

full-time employees hired from local colleges in Kanpur, reinforcing its commitment to nurturing regional talent and strengthening industry-academia ties.

Headquartered in Bangalore, the group company of 106+ year old Kyosan Electric Manufacturing Company Ltd., Japan, is a System Integrators and Solution Providers in the Transportation sector, focusing on Railway Signalling and Smart City domains.

Ongoing discussions with [Prof. Bishakh Bhattacharya](#).



MTX Labs



216 sq. ft. of R&D setup to design and develop products and offer technical training programs in the electrochemical industry.

Launched [MedPstat 1.0](#), a state-of-the-art handheld potentiostat and electrochemical analyzer developed in collaboration with IITK. The device is developed with a vision of making the most affordable, precise & portable electrochemical devices in India.

Long-standing R&D collaboration with [Prof. Sri Sivakumar](#) and [Raj Pala](#) from the Department of Chemical Engineering.



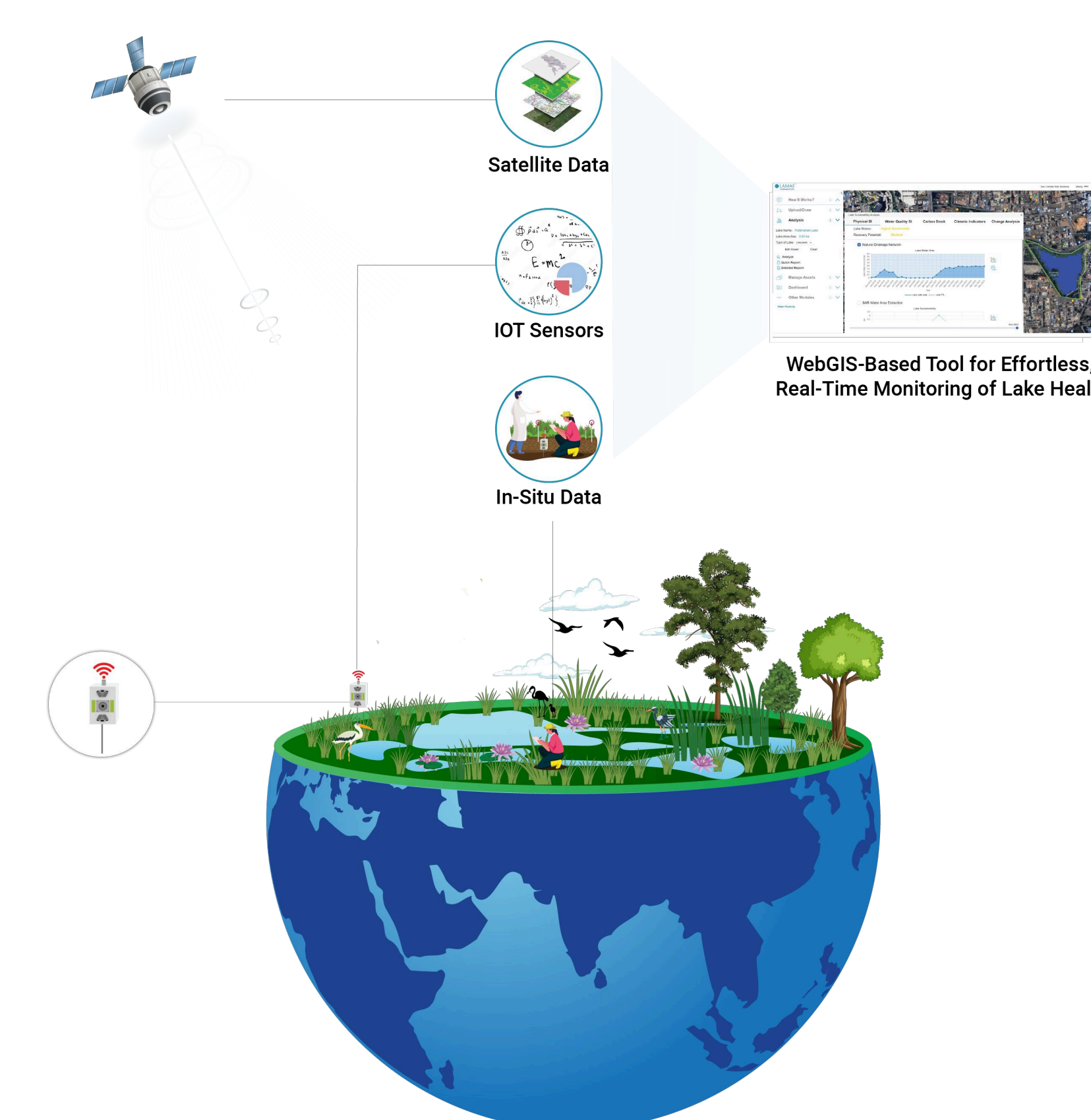
Headquartered in Bengaluru, the company is transforming the electrochemical industry by developing portable devices and leveraging miniaturization and wireless technologies to make electrochemical solutions more accessible, cost-effective, and efficient for a wide range of applications.



217 sq. ft. of R&D setup to research and develop innovative solutions for environmental challenges.

LAMAS (Lake Management System), its flagship product, designed and developed in collaboration with **Prof. Rajiv Sinha**. LAMAS deployed in Ayodhya, UP in collaboration with the Uttar Pradesh government authorities and in other states.

Selected for Cohort 6 of ImagineH2OAsia and the Stanford seed program.



Headquartered in Visakhapatnam, the company is a solution provider, consultancy and advisory services organization primarily focusing on challenges related to environment and sustainability and offering solutions to governments, institutions, corporates, industries, multi-lateral, bilateral funding partners and donor agencies, and non-governmental organizations



430 sq. ft. of R&D setup to develop AI enabled software solutions.

2 Internships offered to IIT Kanpur Students.

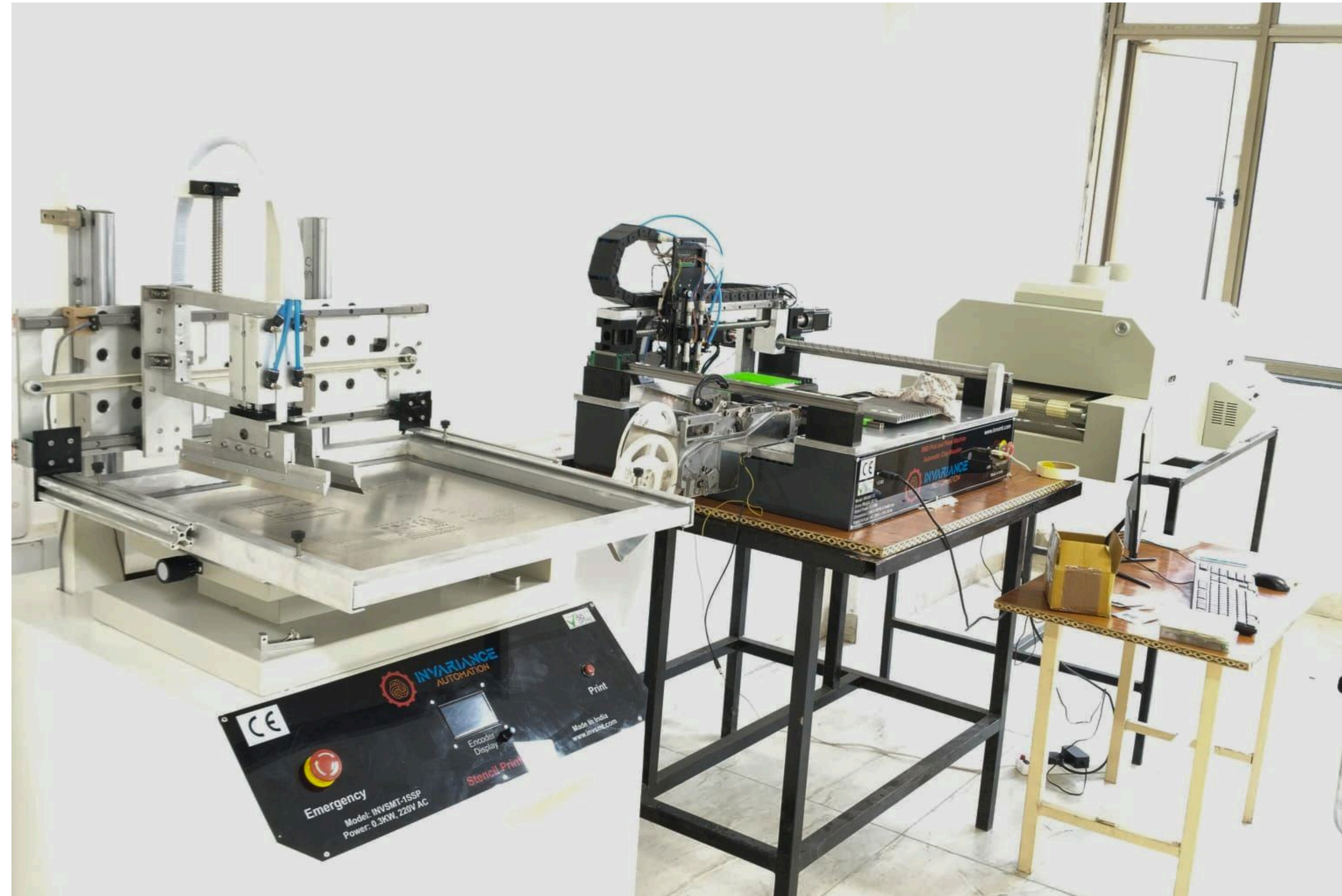
Local jobs generated with all the employees recruited locally from Kanpur.

Joint patent filed with **Prof. Indranil Saha** from the Department of Computer Sciences titled “**System for detection and localization of drones in real-time and method thereof**”

Headquartered in Kanpur, the company is a software solutions provider with specialization in artificial intelligence, computer vision, machine learning, IOT solutions, customized software and enterprise SaaS products.



Invariance Automation



1620 sq. ft. of R&D office to set up a cutting-edge R&D centre for developing AI- and ML-integrated high-precision machinery for SMT manufacturing

Successfully set up a **dedicated PCB Assembly Line** for Surface Mount Devices (SMD).

The assembly line includes: Stencil Printer for precise solder paste application; Pick-and-Place Machine for accurate and rapid component placement; Pre-reflow manual inspection; Reflow Oven ensuring perfect solder joints; and Automated Optical Inspection (AOI) for stringent post-reflow quality control.

Incubated initially at IIT Kanpur in 2020, the company is now advancing to Technopark@iitk for the next phase of its growth.

The company's founders are currently pursuing PhDs in Electrical Engineering at IIT Kanpur. is developing AI- and ML-integrated high-precision machinery for SMT manufacturing.

AXIOT Informatics

285 sq. ft.

of R&D setup to initiate collaborations in embedded systems, motor controllers, railway sensors & isolators, & clean energy. Plans to offer internships and hire students.

Headquartered in Gujarat, Axiot Informatics is the sister company of Axis Solutions Ltd, a leading manufacturer for the comprehensive range of systems and products and from complex measurement and analytical technology to automation, control, communication & IoT products and systems.



Injectoplast

A leading supplier to major OEMs, Injectoplast has emerged as an independent powerhouse in automotive engineering plastics component supply that delivers cutting-edge solutions consisting of modules and systems crafted from engineering plastic components and assemblies.

With an R&D footprint of **217** sq. ft., the company is heavily using the testing and material characterization facilities offered by Advanced Center for Materials Science at IIT Kanpur.

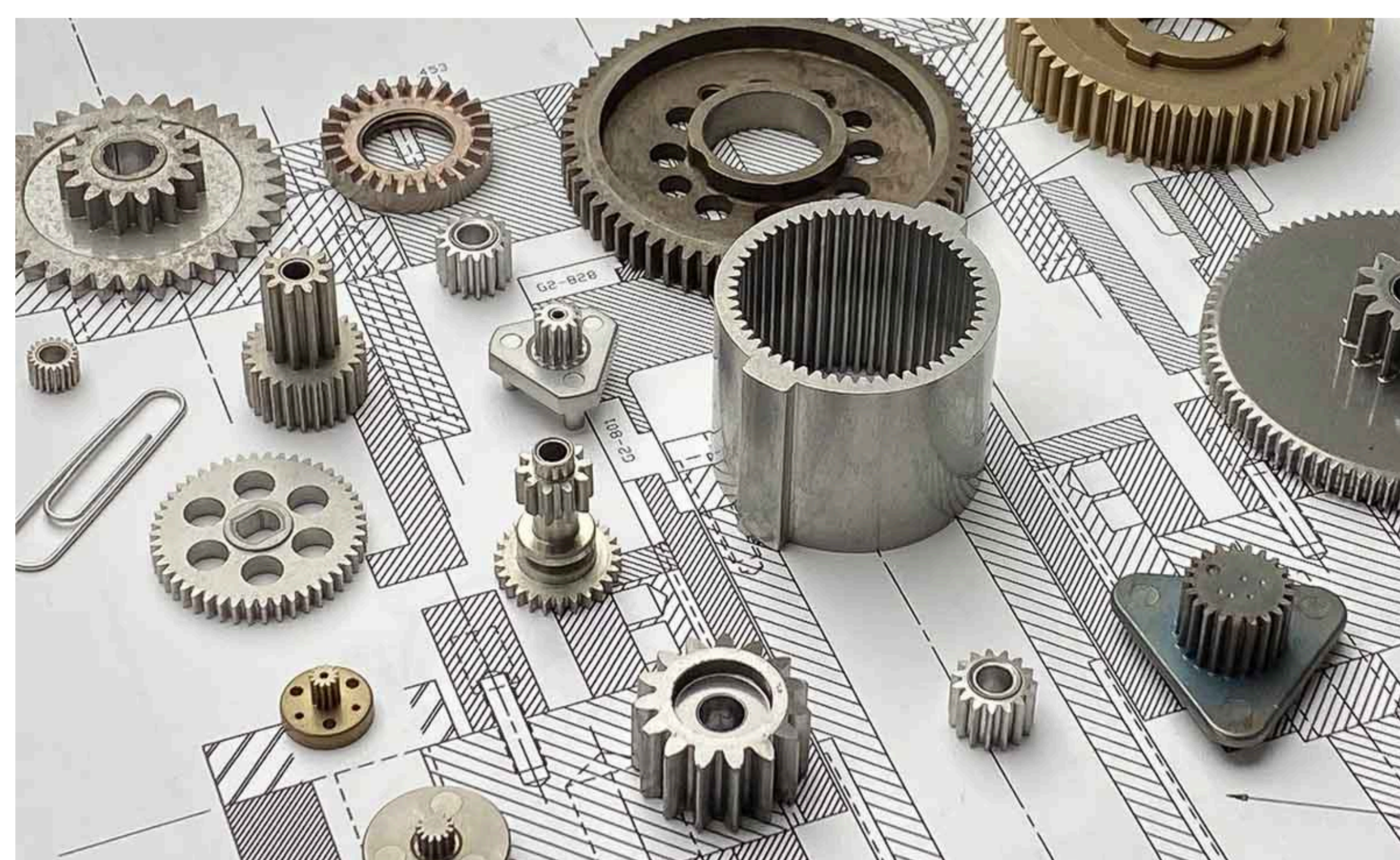


RMV Group Of Companies



2998 sq. ft. of R&D set up to house three of the RMV Group Companies (Capital Airgun Manufacturing, RMV Machines and Tools Industry, and RVB Shorlube) for material analysis and design prototyping of upcoming defence components and assemblies.

Plans to establish an **NABL-certified laboratory** to meet the material testing requirements of both researchers and industry stakeholders.



Headquartered in Kanpur, the RMV Group is the first Kanpur-based resident partner of Technopark@iitk working in high-end manufacturing in defence, firearms, and automotive technology.

Ongoing collaboration with **Prof. Anish Upadhyaya**.



Treacle Technologies



4

Internships provided to IITK Students

Treacle Tech Pvt. Ltd. is leveraging IITK R&D infrastructure through Technopark@iitk to unleash the power of Deception Technology; Active Defence; Early Warning System of Network; Identity and Access Management (IAM), Penetration testing, Vulnerability Management, Incident Response, Security Orchestration, Automation, and Response (SOAR), Security Information and Event Management (SIEM), and Security Awareness Training. Some of their flagship products include **AI-Based i-Mirage Proactive Defense System, Dynamic and Machine Learning-Based Honeypots, Deception-Based Early Warning i-Mirage**.



DREAM Aerospace



2998 sq. ft. of R&D set up.

The company has offered internships to 8 IITK students.

DREAM Aerospace is collaborating with IITK to develop clean and efficient propulsion methods and state-of-the-art testing facilities to ensure optimal performance under real and simulated space conditions.



Lenek Technologies



1040 sq. ft. of R&D set up.

Lenek Technologies is working on developing an AI enabled handheld x-ray imaging system for Tuberculosis detection. The project is a collaboration between the Indian Council of Medical Research and IIT Kanpur.



TISA Aerospace



Tisa Aerospace, a division of Raghu Vamsi Machine Tools Pvt. Ltd. based in Hyderabad, focuses on precision technology for the design, development, and manufacturing of advanced UAVs and loitering munitions. The company collaborates with IIT Kanpur on R&D for aerospace components, including fixed-wing and VTOL UAVs, under the guidance of Prof. Saderla from the Department of Aerospace Engineering



MARAAL Aerospace



With an R&D footprint of **2638** sq.ft. , the deep-tech company is specialized in the design, development, and manufacturing of solar-powered fixed-wing drones with an endurance of 12 to 16 hours. These drones are engineered for diverse applications including Intelligence, Surveillance, and Reconnaissance (ISR), High-Altitude Pseudo Satellites (HAPS), maritime scientific missions, search and rescue operations, mapping, environmental monitoring, and Agri-Tech solutions. The company is actively collaborating with Prof. G. Kamath on the end-to-end development of both the prototype and the future production model.

Pioneers



JK Fenner (India) Limited

JK Fenner (India) Limited is a market leader in the design and manufacturing of Oil Seals, Hoses, Gear Boxes, Power Transmission Belts, FEAD Systems, Moulded Rubber Products, and EV components for both automotive and industrial sectors.

The company is actively engaging with IIT Kanpur through CSR-funded research projects, internships for high-performing 3rd and 4th year B.Tech. students, hackathons, and collaborative R&D. The company is also exploring investments and partnerships with startups incubated at IIT Kanpur.



JK Cement

JK Cement is one of the largest white cement producer in the world, The company has an installed capacity of 24.34 million tons per annum (MnTPA) for grey cement, positioning it among the top cement manufacturers in the country.

JKC plans to set up a Centre of Excellence at Technopark@iitk to develop innovative technologies for decarbonisation of the cement industry and embrace digitization. In the past the company has collaborated with [Profs. K.V. Harish](#), [Raju Kumar Gupta](#), [Tarun Gupta](#) and [M K Tiwari](#) in the areas of [Chlorine bypass dust](#), [False air in pyro process](#), [Argon Oxidisation Decarburization](#) and [Sustainable Cement Manufacturing](#).

Enablers



Airawat Research Foundation (E) is a Center of Excellence in Artificial Intelligence for Sustainable Cities initiated by the Ministry of Education under the mission 'Make AI in India, Make AI work for India' by the Ministry of Housing and Urban Affairs, GoI. The centre is focussed on developing AI-driven technologies for air quality, urban mobility, flood forecasting, critical infrastructure monitoring, and energy optimization.



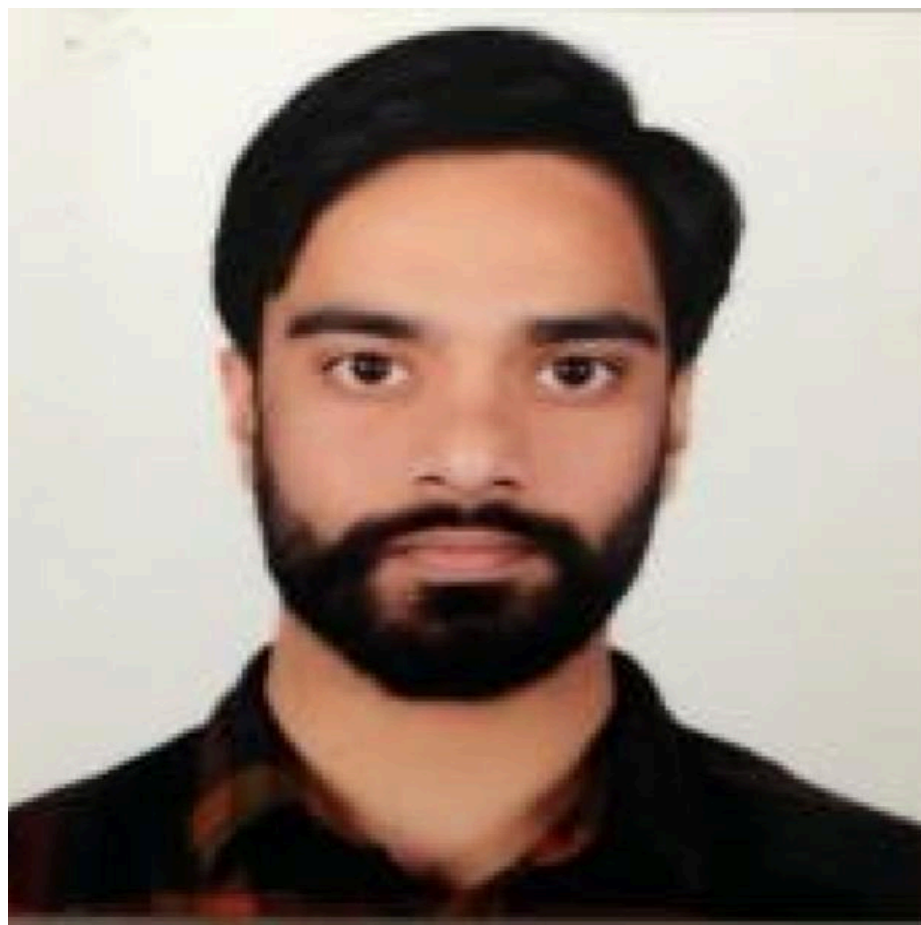
NMTronics Center of Excellence for Electronics Manufacturing and Skills Development (E) is planned to facilitate development in semiconductor technologies, embedded systems, Internet of Things (IoT), and Artificial Intelligence (AI). This centre will generate support for IIT Kanpur's course curriculum, provide advanced certification programs for industry professionals, and serve as a New Product Introduction (NPI) site for startups and small businesses in the field of electronics manufacturing.



Cybersecurity and Cyber Security of Cyber-physical Systems (C3i) Hub (E), under the National Mission on Interdisciplinary Cyber-Physical Systems, drives translational research in cybersecurity, supports deep-tech startups, and plays a pivotal role in protecting national cyberinfrastructure. Recently, C3i Hub has been upgraded to Technology Translational Research Park (TTRP) to foster ecosystems that enable the transformation of research into market-ready solutions.

Faculty-Industry Collaborative

Besides its member companies, Technopark@iitk actively engages with every organization that approaches it with serious R&D objectives. Over the past year, Technopark@iitk has engaged with nearly 30 companies, facilitating around 50 interactions between industry partners and IITK faculty members. These engagements collectively accounted for approximately 2,160 dedicated man-hours.

	Prof. Ketan Rajawat AVPL International		Prof. Nilesh Badwe NMTronics		Prof. Tushar Sandhan Merai Newage
	Prof. Rajiv Sinha Geo Climate Risk Solutions SatSure		Prof. Tanmay Mathur Toka Technologies		Prof. Indranil Saha SkyAI Technologies
	Prof. K Harish JK Cement		Prof. R Gupta JK Cement		Prof. Tarun Gupta JK Cement
	Prof. M K Tiwari JK Cement		Prof. S. Sivakumar MTX Labs		Prof. Raj Pala MTX Labs
	Prof. K Kulkarni ABSTC		Prof. A K Singh ABSTC		Prof. Gautam Deo ABSTC
	Prof. A. Updhyay RMV Group		Prof. H. Zafar Merai Newage NMC Genetics		Prof. S Pydi NMC Genetics

Defence Testing Infrastructure



11, 500 sq. ft	Led by a consortium including HAL, BEL, BEML, YIL, GIL, and Endure Air Systems.
Unmanned Aerial System	
9000 sq. ft	Led by HAL, BEL, and AWEIL.
Communications	

Agreements with UAS (Defence) Testing Foundation (HAL) and Communication (Defence) Testing Foundation (BEL) were formally signed with Technopark in November 2024 marking a landmark collaboration. These SPVs are supported by UPEIDA and Technopark@iitk and will be complemented by ancillary office spaces and infrastructure, contributing to the quality and reliability of indigenous defence technologies. This state-of-the-art facility creates a powerful synergy between industry and academia--on the one hand, it empowers IITK researchers with cutting-edge equipment, and on the other hand, MSMEs leveraging this facility can tap into IITK's technical expertise to overcome their R&D challenges.

Technopark@iitk plays a strategic role in bolstering India's defence ecosystem under the Ministry of Defence's Defence Testing Infrastructure Scheme (DTIS). Of the three defence verticals allocated to the UP Defence Industrial Corridor, two Defence Testing Facilities (DTFs), worth Rs 100 cr., are being established at Technopark@iitk:

International Partnership



In a significant move towards strengthening the R&D collaboration ecosystem, Technopark@iitk has entered into a partnership with **NMexus™**. NMexus™ is an SPV (Special Purpose Vehicle) between the **New Mexico Partnership** and **Stup LLC** created to facilitate companies' entry and expansion into the State of New Mexico.

The partnership will boost business growth and R&D development for the technopark companies. The collaboration will assist the Technopark@iitk companies in accessing and thriving in the United States market through a structured, low-cost soft-landing program designed for their needs. At the same time, any company referred by NMexus™ will be able to avail Technopark@iitk services for exploring R&D collaborations with the IITK ecosystem through a carefully structured, cost-effective engagement model.



Prof. Tushar Sandhan
(Dept. of Electrical
Engineering)

"This partnership represents a significant step forward—leveraging IIT Kanpur's robust research infrastructure and Merai Newage's strength in product commercialization. Such a bridge between academia and industry has the potential to greatly enhance the innovation ecosystem.

Technopark@iitk opens new avenues for faculty whose research can now transition into tangible products, and for students to gain hands-on exposure through internships and direct industry engagement. This smooth transition from academia to industry fosters growth, accelerates product development, and strengthens market readiness—benefiting researchers, students, and the broader ecosystem."

People Speak

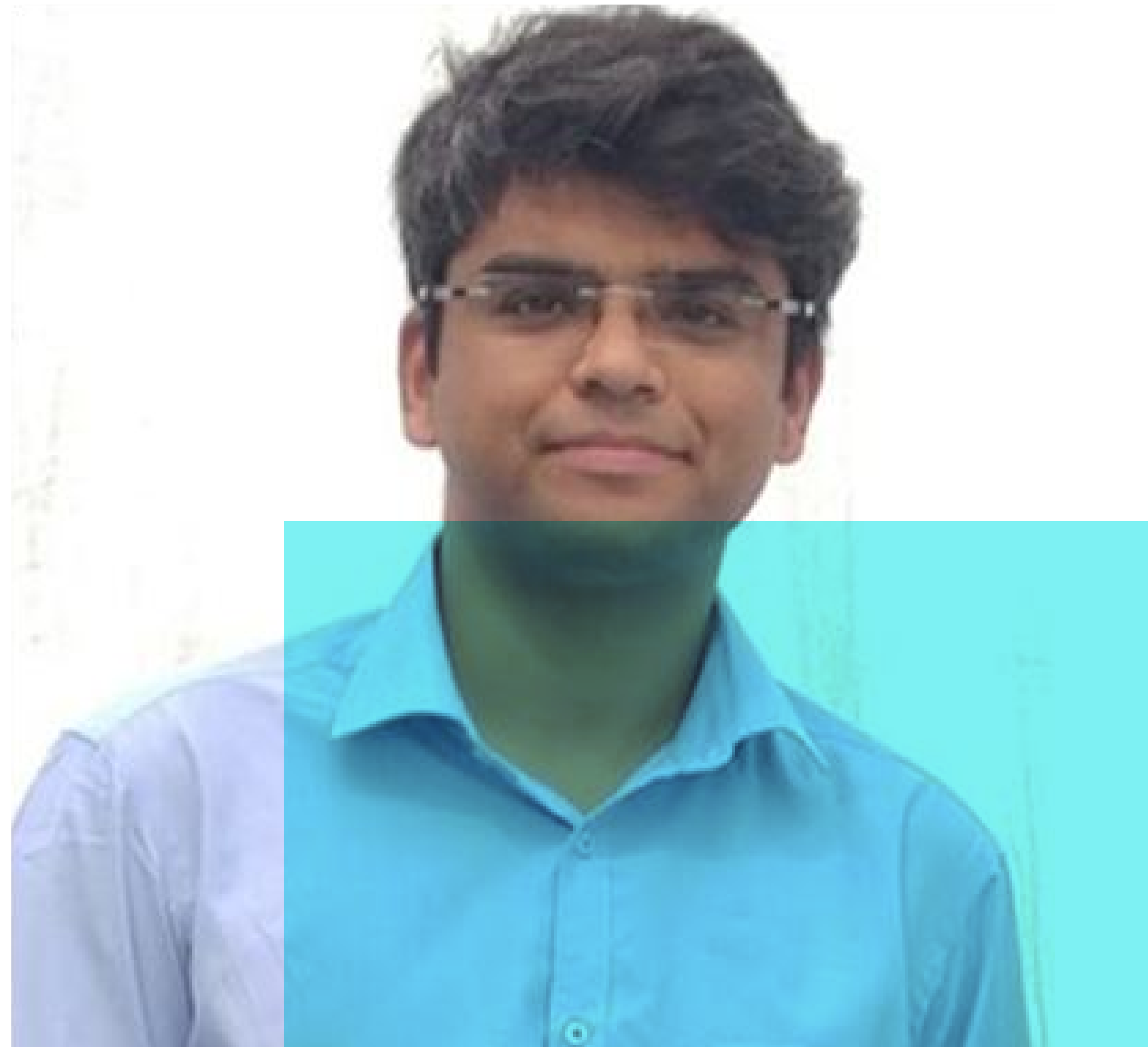


Prof Indranil Saha
(Dept. of Computer
Science & Engineering)

"I have had the privilege of being associated with SkyAI since its inception at IIT Kanpur Technopark. I jointly filed a patent with SkyAI at the Indian Patent Office, based on our work developing a computer vision-based system for detecting and localizing drones at long distances.

The IIT Kanpur Technopark's vibrant ecosystem provides an ideal environment for startup growth, encouraging collaboration among companies and enabling mutual benefit through shared expertise. The support and infrastructure provided by Technopark have been instrumental in translating academic ideas into commercially viable products, ultimately benefiting our country."

People Speak



Dr. Mahendra Gohil
(Technical Project
Manager, TSTS)

"It was through Technopark that I discovered the opportunity at TVM Signalling and Transportation Systems Private Limited. Working on innovative projects provided invaluable hands-on learning experiences, allowing me to develop practical insights into AI-driven automation and creative solutions to complex challenges in the railway sector.

I highly recommend the Technopark@iitk to all students. It is a fantastic platform to work on meaningful projects, connect with industry leaders, and gain real-world experience. It is an opportunity that can truly shape your career and open doors to amazing possibilities."



Dr. Arunava Karmakar
(Founder ,
Invariance Automation)

"Technopark is playing a vital role in enabling rapid prototyping, co-development, and testing of advanced automation technologies through our association. The availability of an on-campus workshop, round-the-clock power supply, robust security, and a clean, well-maintained environment further enhances the value of being located at Technopark.

For Invariance, the association has not only so far supported progress toward our stated goals but also opened up new collaboration opportunities with other on-campus companies—an added advantage of being at Technopark."

People Speak



Mr Madhav Singhania
(Joint MD and CEO, JK
Cement)

"IIT Kanpur's Technopark stands at the forefront of innovation, seamlessly bridging the gap between academic brilliance and industrial demands. This visionary platform has not only fostered pioneering research but has also provided industry-ready, practical solutions that go beyond theory. At JKCement, we have reaped significant benefits from the cutting-edge research and collaborative atmosphere cultivated at Technopark, which has enabled us to break new ground in cement technology and develop more sustainable, forward-thinking solutions.

Technopark is a true hub of progress, where talent is nurtured, and interdisciplinary collaboration thrives-fostering growth across industries. I applaud IIT Kanpur for this remarkable initiative and look forward to continued partnerships that will undoubtedly shape the future of industrial innovation in India."



Amit Agarwal
(CFO, JK Fenner)

"We deeply appreciate the cooperative spirit and forward-thinking approach that IITK Technopark brings to the table. Working with such a prestigious partner will be inspiring and productive. JK Fenner highly values this partnership and we are excited to continue building on this successful partnership in the future."

Meet The Team



Prof. A.K. Singh
Professor-In-Charge



Ms. Reema Mittal
Chief Operating Officer



Dr. Piyashee Mallik
Associate Manager, R&D



Mr. Anil Shukla
Deputy Project Manager



Mr. Prashant Gupta
Assistant Manager, Accounts



Mr. Suraj Sharma
Senior Functional Lead

Empowering Innovation, Enabling Growth!

OUR CORE VALUES



*Technology is the key
to productivity and
competitiveness*

*Industries can reap rich
reward by investing in
technology*

*Academia is a key stakeholder in
boosting economic growth*

*Research and Technology Parks help leverage
their strengths and address the challenges*



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



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