



IIT KANPUR
Indian Institute of Technology Kanpur



SAMANVAY

CORPORATE NEWSLETTER

VOLUME 1

MESSAGE FROM THE DEAN OF RESOURCES AND ALUMNI



Prof. Amey Karkare

**Dean,
Resources and Alumni,
IIT Kanpur**

Dear Esteemed Readers,

It is both an honor and a privilege to present to you the inaugural edition of our Industry Newsletter, a platform that signifies the strengthening of the symbiotic relationship between IIT Kanpur and our distinguished corporate partners.

At IIT Kanpur, we are steadfast in our belief that "Together We Grow." This guiding philosophy underscores our commitment to fostering societal impact through the strategic integration of Corporate Social Responsibility (CSR). CSR serves as a conduit through which leading corporations can weave social and environmental considerations into the very fabric of their business operations, thereby contributing to the economic, environmental, and social betterment of society at large.

We extend a cordial invitation to corporations and enterprises to become catalysts of meaningful social change. The Institute offers an array of opportunities for corporate entities to make substantive contributions, whether through supporting academic and research initiatives, advancing sustainability efforts, or spearheading transformative projects that resonate with both the Institute and the broader community.

By engaging in these collaborative endeavors, we can together create lasting value, empower future generations of innovators and leaders, and contribute to the greater good, shaping a sustainable and equitable future.

I look forward to the continued partnership and the remarkable strides we will achieve together.

With warm regards,

Prof. Amey Karkare

INSTITUTE NEWS

The Hon'ble Vice President of India, Shri Jagdeep Dhankhar, visited IIT Kanpur to deliver a thought-provoking address on "Role of Innovation in the Development of India." The event was graced by Smt. Anandiben Patel, Hon'ble Governor of Uttar Pradesh, and other distinguished leaders, with faculty, staff, and students in attendance.



IIT Kanpur celebrated its 65th Foundation Day, marking a legacy of innovation and excellence with Hon'ble Defence Minister Shri Rajnath Singh Ji as the Chief Guest. The ceremony also honored 18 distinguished alumni with prestigious awards, celebrating their impactful contributions to academia, industry, and society.





A PROUD MOMENT FOR IIT KANPUR COMMUNITY

Heartfelt congratulations to our esteemed alumni on being awarded the **Padma Shri 2025** for their extraordinary contributions.



Dr. Pawan Goenka
(BT/ME/1975)



Prof. Ashutosh Sharma
(BT/CHE/1982)

KEY INITIATIVES

Gangwal School of Medical Sciences & Technology

IIT Kanpur is establishing the "Gangwal School of Medical Sciences and Technology", to converge its technology and innovation competencies with medical sciences to catapult the Institute the league of global institutions that are driving advancements in human biology and healthcare through technology interventions. This will be achieved through eleven 'Centers of Excellence' on biomedical research as part of the School and a Super- Specialty Hospital as an extension of these Centers. GSMST will also have a 500-bed superspecialty hospital.

Focus Areas

Train and nurture next-generation-driven medical professionals with a strong foundation in technology:

- Biomedical Devices & Robotics
- Digital Health & AI
- Engineering-driven Medical Education
- Connecting with Armed Forces/ Global Medical Schools
- Driving Innovation in Medical Practice



Kotak School of Sustainability

The Kotak School of Sustainability, India's first fully integrated sustainability school, was inaugurated at IIT Kanpur in collaboration with Kotak Mahindra Bank.

The Kotak School of Sustainability marks a significant stride in IIT Kanpur's mission to lead in sustainability-focused education and research. With Kotak Mahindra Bank's CSR support, the School aims to integrate scientific, economic, and social dimensions of sustainability, fostering innovation and preparing leaders equipped to address complex environmental challenges.



Focus Areas

- **Sustainability in Education:** Integrate sustainability across disciplines, develop new courses, and expand to national curricula
- **Community & Innovation:** Foster local solutions, encourage innovation through startups, and promote collective well-being
- **Research & Technology:** Advance clean air, water, and waste management using AI, drones, and sensor networks
- **Policy Impact:** Translate research into policy, with data-driven recommendations and field evaluations

NEW CORPORATE PARTNERSHIPS

Citadel Securities

The strategic collaboration was signed to support of the establishment of the Translational and Transformational Training and Investigations Lab at IIT Kanpur's Department of Computer Science and Engineering, in order to increase the Department's capacity in the interconnected areas Of



- a. High Performance Computing, Data Science and Data Visualization,
- b. Translational Artificial Intelligence, Machine Learning and Intelligence Systems and
- c. Computer Architecture Design and Hardware Security

ICICI Foundation



The joint agreement aims at bringing a paradigm transformation in the space of public healthcare by combining technology, medical research and innovation. The project involves development of MedTech devices, improving point-of-care (POC) services and strengthening the public healthcare capacity. Further, it will help in detection of chronic diseases through AI integrated devices. The project will be housed in the IIT Kanpur campus.

ITC

The Partnership was signed to develop Moisture-Resistant Paper Packaging Solutions, focusing on enhancing resistance to water vapor ($< 0.2 \text{ g/m}^2/\text{day}$) and oxygen transmission, while ensuring heat sealability, antimicrobial properties, and smooth machine runnability for packaging applications.

Given the inherent limitations of paper in terms of strength and barrier properties, the initiative aims to address these challenges to enable its effective use in packaging.



JK Fenner

The mutual agreement was signed to explore sustainable alternatives to chloroprene rubber (CR) in the manufacturing of wrapped V-belts. Historically, CR has been the material of choice due to its excellent resistance to oil, heat, and abrasion. However, growing environmental and health concerns related to CR production have spurred the need for alternative materials and technologies.

The primary objective of this initiative is to eliminate CR in wrapped V-belts and identify viable, sustainable substitutes. Active research will focus on developing compounds that address the environmental and sourcing challenges associated with CR, ensuring performance and durability while paving the way for a more sustainable future for the industry.



Airbus

The joint agreement was signed with Airbus, under which Airbus will provide educational scholarships to support five female students from the Institute pursuing M.Tech courses for a duration of two academic years, as outlined in the terms of the agreement.

AIA Engineering

The binding agreement aimed at the construction of a new hostel tower in Hall of Residence-16 for boys. This initiative goes beyond providing housing as it establishes a pivotal center for learning, development, and collaboration among our esteemed students. The tower will stand as a testament to architectural modernity and environmental sustainability.



AIA Engineering Limited

INDUSTRY VISITS

NHPC, Titan, Alkem, Siemens, Tata Tech, Portescap, Deutsche Bank, Sandvik, BPL, NMtronics, EY Foundation, ITC, Zydus, Tower Research, IPCA Lab, Granules, are largely looking to explore partnership and synergies in the area of MedTech, Sustainability, future materials, energy efficient solutions, startup incubation, student development & scholarships, drug development, sensors, advance computing, AI integration in large scale problems.



एन.एचपीसी
NHPC



TITAN



Portescap
A REGAL REXNORD BRAND

SIEMENS

 **Deutsche Bank**

 **SANDVIK**

 **EY Foundation**

 **TATA TECHNOLOGIES**


ITC Limited


Dedicated To Life


ALKEM

START-UP NEWS

Manastik Technologies: With CSR grant support from Boehringer Ingelheim India, Manastik Technologies is undertaking pilot deployment and validation of their tele-neurorehab app – ‘Manastik’ focused on multidisciplinary dementia care and diagnosis. The app has been endorsed by the Indian Federation of Neurorehabilitation and is the nation’s first holistic rehabilitation solution for dementia, providing effective home-based care for the elderly.



Terraqua UAV: Terraqua UAV, supported by NTT DATA and helmed by Prof. Rajiv Sinha of the Dept. of Earth Sciences, IIT Kanpur has developed a state-of-the-art flood monitoring and disaster response system which is currently under its pilot deployment. The project focuses on flood-prone areas along the Ganges in the Kanpur region, aiming to develop real-time monitoring and predictive models to enhance community resilience. By leveraging high-resolution imagery and GIS tools, the project will provide critical insights for early flood warnings, rescue operations, and future planning to the local authority.

Baud Resources: Baud Resources, supported by Skoda Auto Volkswagen India Pvt. Ltd. has developed a sustainable gravity-based energy storage solution, which serves as a green alternative to fossil fuels and aims to contribute towards global net-zero commitments. With support from Skoda Auto Volkswagen India Pvt. Ltd., a pilot plant for their innovative gravity-based energy storage solution, is under deployment at IIT Kanpur.



IMPACTFUL PROJECTS SUPPORTED THROUGH CSR

Bhu-Parikshak

Bhu-Parikshak refers to a soil testing kit developed by the Indian Institute of Technology Kanpur. Bhu-Parikshak is a handheld device that measures various soil properties such as pH, electrical conductivity, and organic carbon content. The device uses simple, low-cost sensors and can provide results within a few minutes. This tool is useful for soil scientists, researchers, and farmers to quickly assess soil health and make informed decisions about fertilizer application and irrigation management. It has the potential to improve crop yields and reduce the environmental impact of farming practices.



Affordable Multi Fingered Prosthetic Hand

SIIC incubated company BIONICLI is a user-customized prosthetic hand for people with upper limb amputation that can achieve 14 grip patterns and is water-resistant, matches the anatomy of other limb, requires minimal user training and costs 80% less than the imported products in the market.

The prosthetic hand's advanced design enables complex tasks, such as grasping non-prismatic or delicate objects like an egg. It features a single-degree-of-freedom system for self-locking fingers, integrated actuators, surface EMG sensors, and compliant joints made via 3D printing for durability. Biomimicry and precise 3D-scanned sockets ensure a user-friendly experience, with enhanced dust and water resistance for longevity.



EVENTS

IITK Samanvay 2024

IIT Kanpur hosted Samanvay 2024, a one-day event fostering collaboration between academia and industry, with participation from over 50 corporate leaders, researchers, and academicians. Dr. Ram Sewak Sharma, Chairman of ONDC, and Mr. SP Shukla, Chairman of Mahindra Agri, emphasized bridging the gap between the two sectors in a globalized world.



CSR Box 2024

IIT Kanpur participated in CSR Box 2024, a premier event promoting corporate social responsibility and partnerships. The institute's stall attracted significant attention, showcasing innovative projects like sustainable energy solutions, advanced healthcare, and rural development initiatives, highlighting its dedication to societal impact. The event spotlighted IIT Kanpur's successful collaborations with corporates, leveraging academic research for impactful CSR initiatives. It also provided a platform for networking, fostering potential partnerships to expand the institute's expertise.



VOICES FROM INDUSTRY

Dr. A. S. PRASAD

General Manager, Integrated Rack Solutions



Vertiv takes pride in associating with IIT Kanpur and Shiksha Sopan for making a difference in the lives of the underprivileged in the country through CSR initiative. Education, sustainability and Energy are themes for Vertiv for our CSR funding and we look forward to partnership with IIT Kanpur for further work in all these tracks.

Mr. RAFIQ SOMANI

Area VP India & ASEAN Sales



IIT Kanpur's unwavering focus on social responsibility, deep understanding of the community's needs, and commitment to creating meaningful change have been invaluable in propelling our collaborative journey for CSR activities. Through CSR funding, Ansys has enabled the IITK team to promote and drive systematic and thorough research among postgraduate students in the domains of science, technology, engineering and medicine aimed at promoting Sustainable Developments Goals.

MR. DHEERAJ SAXENA

Director, Global Engineering, Portescap, Regal Rexnord



This collaboration with IIT Kanpur is a testament to a shared vision of advancing healthcare solutions through cutting-edge research. Together, we aim to explore new frontiers in medical technology, blending Portescap's industry expertise with the academic, rigor and innovative spirit of IIT Kanpur.



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