Infinite

IMPACT . 2024 - 2025

OFFICE OF THE DEAN, ALUMNI & CORPORATE RELATIONS, IIT BOMBAY

Infinity Corridor

Symbolizing infinite possibilities, infinite growth,
continued journey to excellence

The 450-meter-long Infinity Corridor at IIT Bombay, built in the 1960s,
is one of the longest and most acoustically unique
academic corridors in the world.

Connecting the Institute's iconic buildings,
this hallowed passage echoes with generations of engineering ingenuity
that have played a pivotal role in shaping the nation.
It continues to symbolize infinite growth and possibilities in the
Institute's journey toward excellence.

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MESSAGE FROM THE *Director*

Dear Esteemed Alumni and Industry Partners,

Your steadfast support has created an infinite impact across IIT Bombay, shaping the Institute's journey in pioneering research, transformative education, and groundbreaking innovation. Your commitment to the Institute has ensured that it stands tall as a hub of academic excellence, inspiring new generations of students and researchers to dream bigger and reach higher.

I am reminded daily, that as an Institute, our greatest strength lies in the partnership between the Institute and its alumni and industry collaborators.

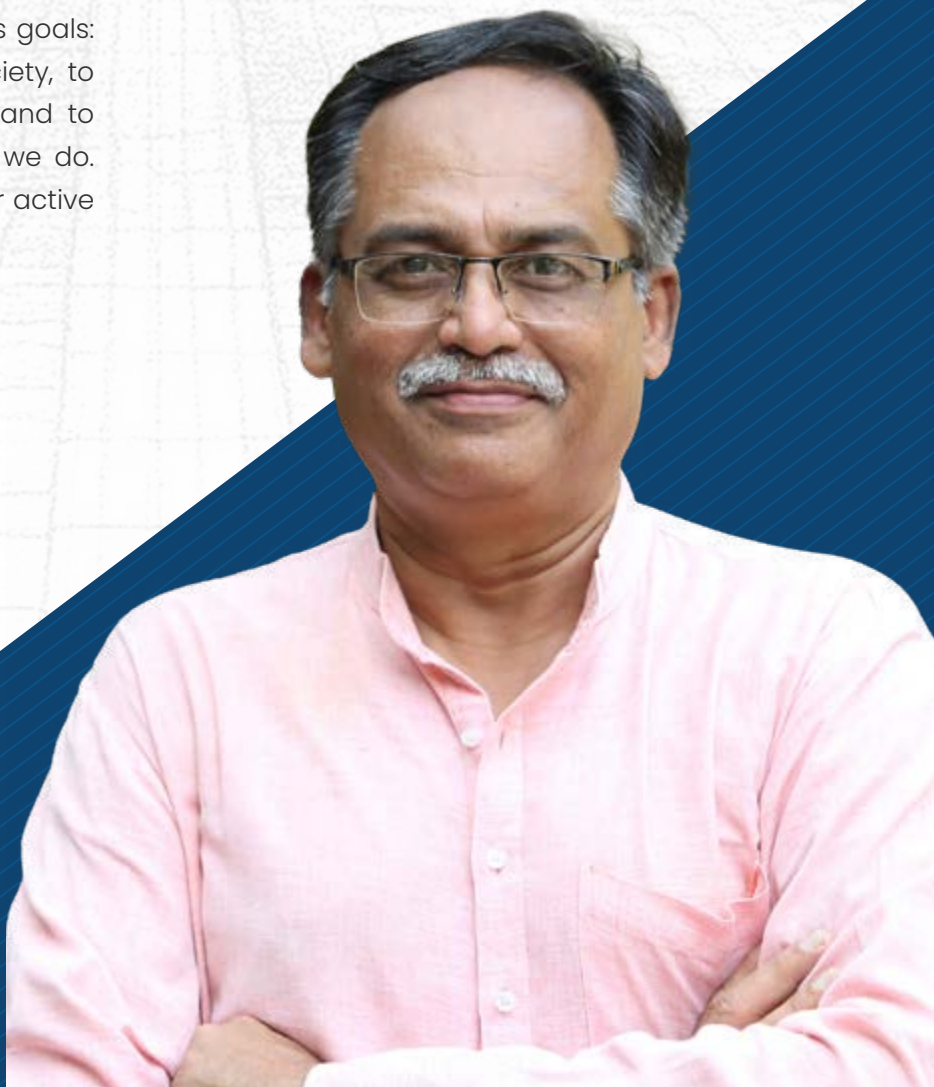
Looking to the future, we have ambitious goals: to expand IIT Bombay's impact on society, to strengthen our role in nation-building, and to embed sustainability at the core of all we do. None of this can be realized without your active involvement, which remains as crucial as ever to our shared mission.

At this juncture, I would like to specially acknowledge and appreciate IITBHF and IITBAA. Their unwavering commitment and leadership have played a pivotal role in strengthening the Institute's efforts, ensuring that our vision translates into lasting impact.

Together, let us build a culture that empowers trailblazers, including scientists, creators, change makers, and visionaries, who will carry the spirit of IIT Bombay into the wider world and shape a future of progress and possibility.

With warm regards and
heartfelt gratitude,

Prof. Shireesh B. Kedare
Director, IIT Bombay



Prof. Ravindra D. Gudi
Dean - Alumni and Corporate Relations
Institute AI & ML Chair Professor

MESSAGE FROM THE *Dean*

Dear Alumni & Corporate Partners of IIT Bombay,

At IIT Bombay, impact is not an outcome—it is a tradition. Born of questions that dared and ideas that soared, this tradition has carried us from modest beginnings to one of India's highest-ranked global institutions.

Yet, our journey has never been solitary. Every milestone has been propelled by changemakers like you, for whom *जानम् परमम् ध्येयम्* is more than a motto—it is a mission.

This year reflects the extraordinary impact of our alumni and partners—through bold initiatives, achievements, and unwavering support. The stories in this Annual Report capture your influence: people and purpose, spark and scale, legacy and leadership.

Our global standing mirrors this pursuit of excellence: IIT Bombay is ranked 129th worldwide in QS 2026, and 28th globally in Engineering & Technology in QS 2025. Alumni worldwide advance technology, medicine, sustainability, entrepreneurship, and governance, building IIT Bombay's brand and inspiring students daily. Within the Institute, faculty push frontiers of knowledge, while new Centres of Excellence and research facilities address societal needs—enabled by alumni generosity and industry partnerships. The efforts of IITBHF and IITBAA add immeasurably to this collective mission, and I extend heartfelt appreciation to both for their support.

As my tenure as Dean ACR concludes, I look back with pride on what we have built together. It has been an honour to serve and to witness your generosity. I now hand over to Prof. Upendra Bhandarkar ('95 batch), a senior Mechanical Engineering faculty member, former Associate Dean R&D, and a seasoned leader. I am confident that you will extend him the same partnership.

Looking ahead, let us walk the Infinity Corridor together—with inquiry, innovation, and collaboration—towards a future of excellence, and enduring impact for IIT Bombay.

17
DEPARTMENTS

31
CENTRES/ PROGRAMMES/ ACADEMIC FACILITIES

3
SCHOOLS

3
INTERDISCIPLINARY PROGRAMMES

STUDENT STRENGTH **14,000+**

FACULTY **750+** FULL TIME **121** WOMEN FACULTY

INSTITUTE RANK IN INDIA No.**1** IN THE LAST 4 OUT OF 5 YEARS

IN MARCH 2025, IIT BOMBAY WAS RANKED **28th**
IN ENGINEERING AND TECHNOLOGY IN THE QUACQUARELLI SYMONDS (QS) WORLD UNIVERSITY RANKINGS BY SUBJECT FOR 2025.

Institute At A Glance

Turning Technology Into Impact

A SHARED VISION FOR INDIA, FOR HUMANITY

India enters the next decade with aspirations as vast as its scale. The nation seeks to deliver universal healthcare, harness clean and affordable energy, build resilient infrastructure, and pioneer technologies that empower people. These goals reflect both ambition and necessity. To achieve them, India must rely on institutions that combine scientific depth with social purpose, and research with real-world impact.

IIT Bombay has become one of those institutions. Over 65 years, it has produced generations of engineers, scientists, and entrepreneurs who shaped the country's progress. Today, it is also a hub of discovery in areas that define India's future: artificial intelligence and supercomputing, semiconductors and photonics, MedTech and biosciences, sustainability and clean energy, quantum science and cybersecurity. Its role is not only to imagine solutions but to deliver them at scale, creating innovations that improve lives across the country.

This work has many foundations. The government continues to be the largest supporter, anchoring national missions and funding large-scale research. What accelerates this progress is the commitment of IIT Bombay's alumni, donors, and corporate partners. Their generosity adds the momentum that allows the Institute to explore bold ideas, seed new centres, and create opportunities that might otherwise have remained out of reach.

Every breakthrough carries the imprint of this wider community. From contributions across a range of causes, philanthropy has been the catalyst for growth. Each act of giving, whether large or modest, reflects a belief that progress is a shared responsibility. Together they form a culture of support that strengthens both people and ideas.

The impact of this generosity is visible across many domains. Alumni support has helped accelerate healthcare innovations, advanced clean energy solutions, and nurtured entrepreneurship that translates research into enterprises. Corporate partners have aligned their commitments with national priorities, ensuring that promising ideas are able to scale. Their combined efforts demonstrate how philanthropy can multiply the impact of government and institutional investment.

What makes these stories distinctive is not only the infrastructure created, but the spirit of shared endeavour they represent. Alumni who return with resources, corporate leaders who invest with foresight, and philanthropists who seed new frontiers are united by a common purpose. Their contributions ensure that knowledge does not remain confined to laboratories but travels outward—into villages, clinics, and industries—turning ideas into lasting national capacity.

The decade ahead will bring even greater challenges and opportunities. By 2030, India will need new therapies that are affordable, batteries that make renewable power reliable, and digital systems that are inclusive and trusted. IIT Bombay is preparing for this future, and its ability to do so is strengthened every day by the trust placed in it by its alumni and partners. Without this additional layer of support, many promising initiatives would have remained concepts rather than contributions to the nation.

The road forward is demanding, but it carries immense promise. Success will not be measured only in patents or publications, but in the lives improved, the challenges solved, and the opportunities created. Philanthropy will remain the enabler that gives the Institute resilience to adapt, resources to expand, and continuity to sustain excellence for future generations.

In this unfolding story, the central characters are clear. They are the alumni who return to build not just memories but legacies of progress. They are the philanthropists who invest with patience, knowing their impact will endure. They are the corporations that see IIT Bombay as a partner in building a Viksit Bharat. Their contributions do not replace government support; they amplify it, ensuring that India's aspirations are realised faster and at a greater scale.

The story of IIT Bombay is also the story of generosity. It is about networks of giving transformed into national assets, about resources converted into capacity, and about recognising that India's future can be shaped in Powai. When future generations walk through its gates, they will step into a campus built not only by architects and engineers, but also by the invisible hands of alumni, donors, and partners who chose to give. That spirit of giving will remain the true measure of leadership.

Artificial Intelligence/ Machine Learning/ Cybersecurity

BUILDING INDIA'S FUTURE, RESPONSIBLY

Artificial Intelligence (AI) and Machine Learning (ML) has moved from being a speculative technology to a defining force of the present. It is reshaping how societies learn, govern, heal, and connect. At IIT Bombay, AI is a technological frontier and also a social responsibility. The mission is to build systems that are powerful, with ethics as a design requirement, and advanced yet inclusive, so that India does not merely adopt global innovations but becomes a leader in creating them.

This vision has been propelled by the Institute's community of alumni and corporate partners. Philanthropy and industry support have provided the momentum to expand research, seed new centres, and ensure that advances reach beyond campus. From early fundraising by alumni such as Mr. Kashyap Deorah and Mr. Shariq Rizwi, to collaborations with partners including SBI Foundation, FedEx, and Technocraft, the AI mission has grown through shared investment in national priorities.

At the centre of this effort stands the **Centre for Machine Intelligence and Data Science**, known as **C-MInDS**, alongside the Department of Computer Science and Engineering. More than 75 faculty members from computer science, statistics, and electrical engineering are working together here, creating an ecosystem where disciplines merge. Their research spans machine learning, computer vision, multilingual natural language processing, generative models, and AI safety.

75 faculty

across departments are associated with the C-MInDS centre.

Since its creation in 2021, C-MInDS has become a hub of ideas and talent, advancing cutting-edge research, fostering collaboration with industry, and designing challenges that channel technology into socially impactful use cases.

The journey has been accelerated by the collective strength of the community. Apart from Mr. Kashyap Deorah and Mr. Shariq Rizwi, alumni, including Mr. Beerud Sheth, Mr. Rohit Karnik, Mr. Vijay Krishnan, Mr. Abhinandan Das, Mr. Mohan Lakhamraju, Mr. Arpit Mathur, Ms. Shruti Mahajan, Mr. Varun Kacholia, and Dr Shashidhar Thakur, came together in a landmark initiative to support the Centre. Their generosity has enabled C-MInDS to expand its faculty, launch new academic programmes, support buildings that enable this research and form collaborations that reach beyond academia into business and public policy. It is through such acts of vision that research gains both momentum and continuity.

The impact of this work is already visible. Within C-MInDS, the **SBI Foundation Hub for Data Science and Analytics** is an example of how partnerships can turn theory into practice. Its projects focus on generative AI for real-world banking, secure and trustworthy systems that can be verified and audited, and digital interfaces that work for India's diverse population. These efforts bring technology into the service of trust and accessibility, principles that define not only financial systems but society at large.

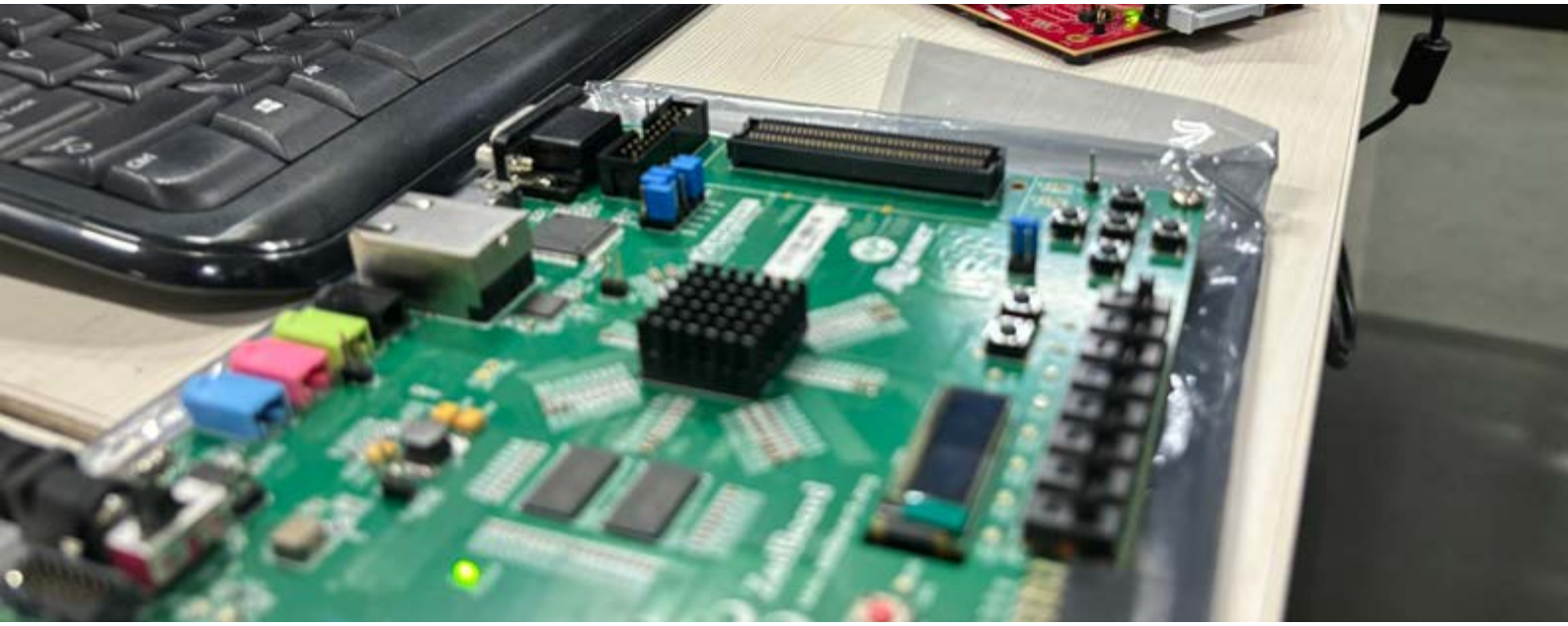
VAJRA

Indigenous AI security platform used across education, governance, and finance.

Beyond C-MInDS, a network of specialised centres is carrying this philosophy into new

SBI Foundation Hub

Generative AI for banking; verifiable, secure systems; inclusive digital interfaces.



domains. **The Technocraft Centre for Applied Artificial Intelligence (TCA2I),** created with the support of Dr. Sharad Saraf and Mr. Sudarshan Saraf, develops solutions in national priority domains such as cybersecurity, communications, and defence. Its innovations include VAJRA, an indigenous AI-powered security platform now used across education, governance, and finance, secure by proof and inclusive by default.

A browser-based business simulation platform is already training future managers in over 40 institutions, while research in 5G and digital twins is finding applications in critical infrastructure.

In the area of cybersecurity, **IIT Bombay Trust Lab,** supported by Dr Shridhar Shukla, advances secure hardware design and resilient networks. Through open-source platforms and capture-the-flag contests, it is cultivating the next generation of cybersecurity leaders.

It is also contributing to India's cloud security protocols, creating software assets and testbeds, and advancing secure digital transactions through Multi-Party Computation (MPC).

Expanding further, the **FedEx Centre for Advanced Logistics and Focused Analytics (FedEx ALFA)** is applying AI to the challenges of modern supply chains, ensuring that technology supports efficiency as well as resilience.

Digital Intelligence In Healthcare: The Koita Centre for Digital Health (KCDH), established through the generosity of Mrs. Rekha and Mr. Rizwan Koita, is creating interoperable health systems that improve patient care and enable crisis management. Large language models are being trained for diagnosis assistance, medical research, and public health applications

FedEx ALFA

Applying AI to supply chains for efficiency, resilience.

Together, these initiatives illustrate how alumni philanthropy and corporate partnerships amplify the Institute's capacity to lead. They show that the future of AI at IIT Bombay is not just about training algorithms, but about nurturing leaders and building institutions rooted in ethics, excellence, and empathy.
Across these initiatives runs a common thread. AI at IIT Bombay is not seen only as a field of computation but as a means of extending human capability. Algorithms are just the instruments, and people are the purpose.

The Institute's commitment is to develop leaders who design technology with empathy and foresight; algorithms are the means, not the end. By aligning research with national priorities and by building partnerships that combine expertise with purpose, the Institute is ensuring that India's AI story is written with both excellence and conscience.

HEALTH/ BIO-TECH

ENGINEERING FUSED WITH BIOLOGY FOR HEALTHCARE

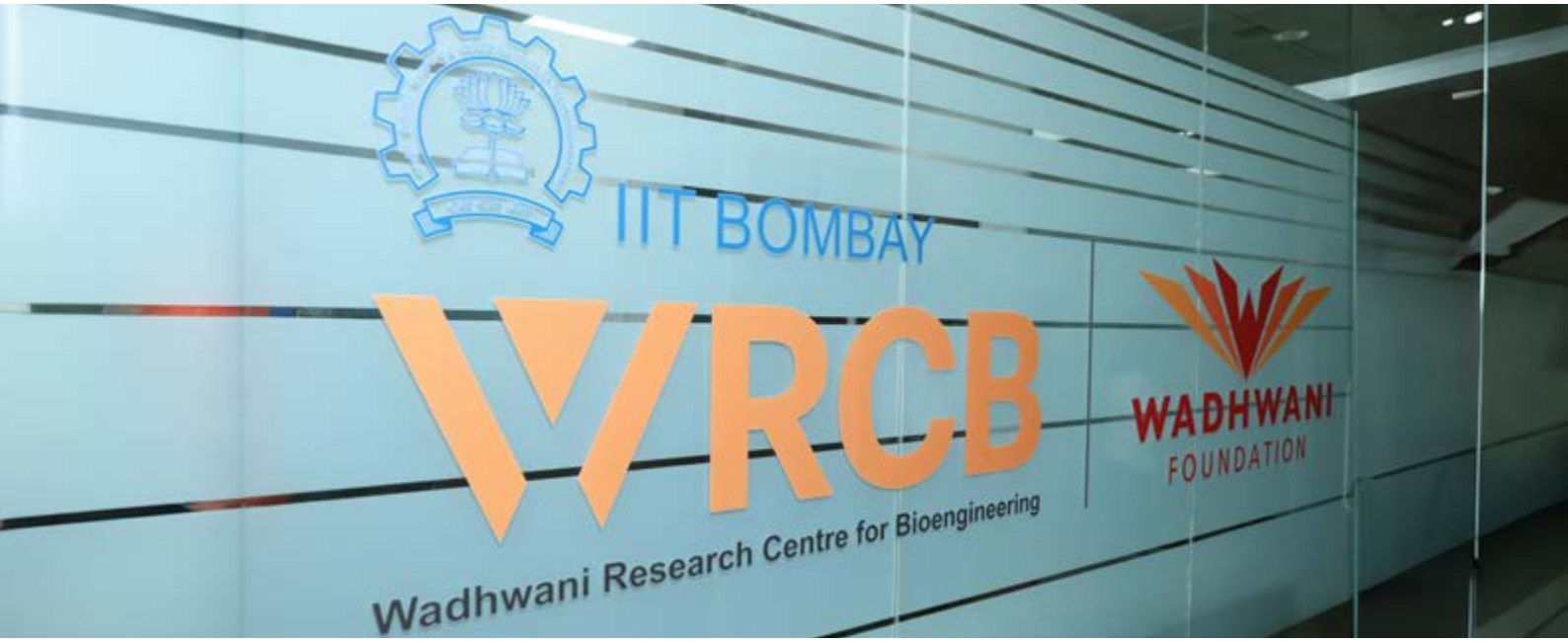
Few areas reveal the importance of science more directly than healthcare.

At IIT Bombay, the effort to advance biotechnology is shaped by the conviction that medical innovation must be accessible, affordable, and compassionate. This vision comes alive in the **Department of Biosciences and Bioengineering (BSBE)**, where biology and engineering meet to address problems that touch lives at every scale, from cells to communities. The department's strong academic programmes in biotechnology and biomedical engineering are producing a new generation of scientists, clinicians, and entrepreneurs committed to ensuring that research reaches society.

Momentum in this field has been powered by alumni and corporate partners whose philanthropy has built the laboratories, centres, and infrastructure that move discoveries into practice.

Their support ensures that healthcare innovation at IIT Bombay is not only sustained but also scaled.

Beyond its laboratories, the Institute is powered by an ecosystem of centres, facilities, and partnerships that sustain innovation. The **Wadhwani Research Centre for Bioengineering (WRCB)**, established through the generosity of Dr Romesh Wadhwani, has helped translate research into real-world applications for more than a decade. Its work in diagnostics, therapeutics, MedTech, and synthetic biology has set benchmarks in the field.



A recent partnership with **HiMedia** has extended these efforts into areas such as cancer biology, advanced diagnostics, and 3D cell culture, while also building pathways for entrepreneurship.

Infrastructure is another pillar of this journey.

The **10X GMP Facility**, funded by Mr. Raj Nair, represents a landmark in Indian healthcare research. As the country's first plant for producing affordable advanced therapeutics for human trials, it is a step towards making next-generation medicine available at scale. A complementary facility is taking shape with the support of Nandan Nilekani Funds, which has enabled the creation of a **Pre-clinical Trial Facility** for in-vivo testing on campus. Together, the 10X GMP facility and the on-campus pre-clinical facility shorten the path from discovery to human trials - testing faster, at lower cost.

These advances highlight the role of philanthropy in creating translational infrastructure. Contributions from Dr. Romesh Wadhwani, Mr. Raj Nair, and Mr. Nandan Nilekani exemplify how alumni and well-wishers make it possible for laboratory breakthroughs to become real treatments.

Digital health is also gaining ground. The **Koita Centre for Digital Health (KCDH)** is developing India-specific solutions that manage large volumes of medical data and apply AI in personalised medicine and public health. Its work is aligned with the Ayushman Bharat Digital Mission, highlighting the role of technology in extending the reach of healthcare while maintaining affordability and quality.

Collaboration is central to this story. The **Biomedical Engineering and Technology Innovation Centre (BETIC)** brings together

14 partner institutes across the state of Maharashtra. The centre has identified over 450 unmet clinical needs, developed more than 240 prototypes, filed 70 patents, and brought 43 devices to market. The impact has been felt in more than a million lives, showing how research institutions, clinicians, and industry partners can combine strengths to achieve scale.

With the support from ICICI, now the **'IIT Bombay-ICICI BETIC Hub'** will further accelerate collaboration among researchers, clinicians, and industry leaders to develop affordable, cutting-edge medical devices and diagnostic solutions. It will be equipped with state-of-the-art resources for product development, medical-grade manufacturing, safety testing, inspection, and packaging. This enhanced ecosystem will support MedTech startups and companies, train professionals in healthcare innovation, and generate high-value jobs, ultimately benefiting millions of patients.

Another breakthrough emerged from the **HDFC ERGO–IIT Bombay Innovation Lab** in the form of a painless, needle-free injector that delivers medicine through the skin using focused shockwaves. The device reduces trauma, speeds healing, and is particularly suited for mass immunisations and rural healthcare delivery.

Women's health has also received focused attention. With support from the **Wadhwani Foundation**, researchers at the Institute have developed a bioresorbable pelvic mesh--soft, biocompatible, regenerative--offering a safer alternative to many synthetic meshes. This innovation offers a more dignified alternative to synthetic meshes, many of which have been banned. And it holds potential for supporting women's participation in the workforce by improving long-term health outcomes.

- **BETIC: 450+ unmet** needs mapped, **240+ prototypes, 70 patents,** brought **43 devices** to market; **1 million+ lives** impacted.
- **India's first** indigenous **CAR-T cell therapy** for cancer, delivered at a fraction of global cost.
- **10X GMP Facility: India's first** plant for **affordable advanced therapeutics** for human trials.
- **WRCB:** work in diagnostics, therapeutics, MedTech, and synthetic biology
- **KCDH:** manage large volumes of medical data and apply AI in personalised medicine and public health

Ageing, another pressing societal challenge, is being addressed at the **Sunita Sanghi Centre of Ageing and Neurodegenerative Diseases (SCAN).** As mentioned earlier, the centre has developed NeuroScan360, a platform that utilises AI to detect early cognitive decline, and created the country's first blood-based diagnostic for Parkinson's disease. These advances provide scalable, non-invasive tools for timely diagnosis and care. They point to a future where ageing is met with clinical treatment that comes with dignity and support.

Each of these achievements illustrates the same principle: breakthroughs matter most when they move beyond publications and patents to touch lives. By pairing scientific depth with translational infrastructure and sustaining partnerships across healthcare, industry, and philanthropy, IIT Bombay is helping to build a healthcare system that is innovative, humane, and scalable, and relevant globally.

- **Pre-clinical in-vivo trial centre on campus.**
- **HDFC ERGO–IIT Bombay Innovation Lab: Needle-free injector--drug delivery via focused shockwaves:** painless, suited to mass immunisation/rural care.
- **Bioresorbable pelvic mesh:** soft, biocompatible, regenerative **option for women's health.**
- **NeuroScan360: AI tool for early cognitive decline detection;** blood-based diagnostic for Parkinson's detection, **a first in India.**

SEMICONDUCTORS & QUANTUM SCIENCE

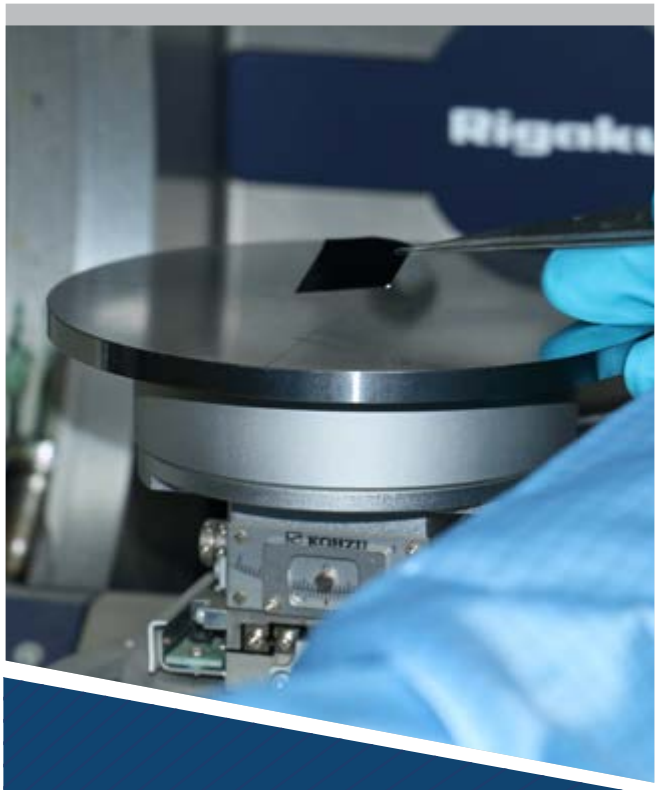
INDIA'S TECH SOVEREIGNTY

Every digital device, from smartphones to satellites, depends on semiconductors. These small components define the speed, efficiency, and reliability of modern technology. For India, leadership in semiconductors goes beyond industrial growth to ensure technological sovereignty.

IIT Bombay has been central to this ambition for decades, beginning with pioneering research in microelectronics in the 1970s. That early work led to the creation of the **Centre of Excellence in Nanoelectronics (CEN)**, supported by the Ministry of Electronics and Information Technology (MeitY), which placed the Institute at the forefront of nanoelectronics and VLSI design.

The involvement of alumni and corporate partners has continuously strengthened the progress made since then. Their contributions have ensured that infrastructure, training, and research in semiconductors are sustained at the highest standards.

Pioneering microelectronics since the 1970s; **Centre of Excellence in Nanoelectronics (CEN) established** with **Ministry of Electronics and Information Technology (MeitY).**



SemiX: Full-stack platform uniting materials–circuits–packaging–fab–software to advance the National Semiconductor Mission.

These efforts have converged into **SemiX,** a platform created to position India as a global hub for semiconductor innovation. SemiX unites expertise from across the spectrum: materials, circuits, packaging, fabrication, and software. Beyond academic excellence, its vision extends to developing talent, fostering start-ups, and shaping policies on the National Semiconductor Mission. The platform creates an environment where ideas can move seamlessly from research to industry, strengthening both capability and resilience.

The momentum behind SemiX is sustained by a partnership between the Institute, government, industry leaders, and visionary donors. Contributions from **Mr. Nandan Nilekani, Mr. Jitendra Mohan,** and **Ms. Swapna Samant,** as well as support from companies such as **Synopsys** and **MacDermid Alpha,** have enabled state-of-the-art laboratories and advanced infrastructure. These investments ensure students and researchers are equipped to participate in the global semiconductor ecosystem with confidence.

Together, this combination of philanthropy and corporate support has allowed SemiX to move from vision to execution, preparing India to move from design strength to full-spectrum semiconductor leadership.

The results of this collective endeavour are already visible. Through initiatives like the **Skilled Manpower Development Program (SMDP)**, large-scale chip design training is preparing the next generation of engineers. Collaborations with industry are driving research into advanced semiconductor materials and device design. Support for start-ups is encouraging entrepreneurs to bridge the gap between innovation and market readiness. Each strand contributes to a larger goal: moving India from being a design powerhouse to becoming a full-spectrum leader in semiconductors.

Skilled Manpower Development Program (SMDP): Chip-design training at scale.

If semiconductors power the digital present, Quantum Science promises to redefine the future. The Institute's **Centre of Excellence in Quantum Information Computing**

Science and Technology (QuICST) is at the centre of India's National Quantum Mission. It brings together scientists and engineers to advance research in quantum algorithms, superconducting qubits, high-precision sensors, single-photon detectors, and secure networks.

State-of-the-art nanofabrication and measurement facilities on campus ensure that ideas move quickly from concept to prototype. Work on quantum algorithms has direct implications for drug discovery and materials science, while innovations in quantum communication are laying the groundwork for secure networks that can withstand future cyber threats. High-precision sensors being developed at QuICST could transform areas such as medical imaging and clean energy.

Philanthropy and partnership also underpin this journey. Alumni leadership and corporate collaborations have helped ensure that IIT Bombay can compete globally while building resilience at home.

What distinguishes the quantum programme at IIT Bombay is its broad vision. Apart from creating breakthroughs in science, it is also building an ecosystem that can sustain long-term leadership. Education and training are central to this effort. Students are being exposed to quantum science at an early stage, entrepreneurs are being encouraged to build ventures in this space, and collaborations with international partners are ensuring India remains connected to global developments while building strength at home.

The potential impact of these efforts is profound. Secure communication systems, unprecedented computational power, and advanced precision tools will open new horizons in fields as varied as healthcare, energy, and national security.

QuICST: At the centre of India's National Quantum Mission: algorithms, superconducting qubits, single-photon detectors, secure networks; nanofab + measurement speeding concept-to-prototype.

By combining the vision of donors with the commitment of industry partners, IIT Bombay is shaping two pillars of tomorrow's technology. One anchors the present by ensuring reliable access to semiconductors, the building blocks of digital life. The other anticipates the next great leap by preparing India for the quantum era. Both rest on the same conviction: technology leadership is built on deep science, nurtured talent, and ecosystems that extend from laboratories to society.

SUSTAINABILITY & CLIMATE ACTION

INDIA'S GREEN TRANSITION

The challenges of climate change are no longer remote forecasts. Rising temperatures, stressed water resources, and extreme weather events are pressing realities that demand both technological ingenuity and community resilience.

Green Energy & Sustainability Research Hub (GESH): Hydrogen, solar, fuel cells, batteries, circular economy, sustainable infrastructure.

For IIT Bombay, sustainability is not an optional theme but a defining responsibility. The Institute is weaving research, innovation, and social engagement into a roadmap that supports India's transition to a low-carbon future, while keeping equity at its core.

At the centre of this effort is the **Green Energy and Sustainability Research Hub (GESH)**, established with landmark support from a U.S.-based donor, which has helped it make significant strides in this area.

The Hub brings together expertise in solar energy, green hydrogen, fuel cells, batteries, circular economy solutions, and sustainable infrastructure. Its mission is to connect fundamental research with applications that industries, policymakers, and communities can adopt with confidence. By training students and young researchers in these areas, the Hub is also preparing a generation that will lead India's clean energy transition.

In 2023, the Class of 1970 established the **Translational Research Accelerator (TRA)** Fund to accelerate deep-tech innovation and self-reliance. The fund has already supported over five faculty-led projects in areas such as tandem solar cell technology, materials science, and automated farming, ensuring that pioneering research moves faster from concept to real-world application.

Notably, the **HSBC Green Hydrogen** initiative, launched by Hon'ble Union Finance Minister Smt. Nirmala Sitharaman, reinforces IIT Bombay's role in the National Green Hydrogen Mission.

The **Class of 1973** EV Lab is helping advance research and training in sustainable mobility. This is strengthening the country's innovation ecosystem in sustainability.

HSBC Green Hydrogen initiative: Launched by FM Smt. Nirmala Sitharaman; strengthens the National Green Hydrogen Mission on campus.

What makes these initiatives distinctive is that they look beyond technology to the social context. The **HEARTS'74** project, supported by the Class of 1974, exemplifies this approach vividly. The initiative provides sustainable, climate-resilient housing for underserved rural communities using locally sourced, eco-friendly materials. By involving local communities in the construction process, HEARTS'74 not only reduces environmental impact but also generates livelihoods, builds skills, and fosters a sense of shared pride. It is an illustration of how climate action can also be a form of social action, creating change that is both measurable and meaningful.

HEARTS'74 (Class of 1974): Climate-resilient rural housing using local eco-materials; skills + livelihoods through community-built models

These alumni-led efforts, combined with corporate support for hydrogen, solar, and sustainable infrastructure, have demonstrated how philanthropy amplifies the impact of research. These contributions ensure that sustainability at IIT Bombay is anchored in both cutting-edge science and lived community impact.

The Institute's work in sustainability extends across sectors. Collaborations in the oil and gas domain are exploring ways to reduce emissions and improve efficiency, bringing sustainability into industries that are often seen as hard to decarbonise. This includes the **Centre of Excellence in Oil, Gas and Energy (CoEOGE)**, which advances sustainable practices and technologies for the sector. Research is advancing in circular economy practices, where waste is not discarded but reimagined as a resource.

Energy storage, another critical challenge, is being addressed through advanced work in batteries and fuel cells. Each of these strands contributes to the resilience of the national energy system, ensuring that the green transition does not compromise reliability or affordability.

Progress in these areas is built on collaboration, where faculty and researchers contribute the scientific depth, industries provide the scale and application, and alumni and donors add the resources and foresight that sustain long-term ambition.

Together they create an environment in which ideas are not confined to laboratories but find their way into policies, markets, and communities, moving steadily from discovery to implementation and giving IIT Bombay's sustainability work its distinctive strength.

Centre of Excellence in Oil, Gas and Energy (CoEOGE): Emissions reduction and efficiency in hard-to-decarbonise sectors.

Sustainability is not just a technical problem to be solved with new materials or processes; it is a human challenge that demands participation and shared responsibility. By integrating cutting-edge research with social purpose, the Institute demonstrates that climate action can be aspirational, achievable, and locally rooted.

In a time when the global community is seeking models of equitable and scalable green transition, the Institute's efforts serve as a reminder that solutions can be homegrown and context sensitive. Whether through alumni-led housing projects, corporate-backed clean energy initiatives, or advanced laboratory research, IIT Bombay is showing that sustainability is not a distant goal but a present reality being built step by step.

FINANCE & INNOVATION

CREATING TALENT CAPITAL

India's financial system is among the most diverse in the world, with stock markets that continue to grow, mutual funds that attract millions of new investors, and an insurance sector that is steadily widening its reach.

Motilal Oswal Knowledge Centre & Motilal Oswal Centre for Capital Markets: Among India's largest corporate philanthropic contributions to an educational institution.

Yet, research and innovation in banking and capital markets have not always kept pace with this scale. IIT Bombay connects market-scale finance with research-grade rigour, building talent and capability as the markets deepen.

A defining step in this journey is the partnership with Motilal Oswal Financial Securities Limited. The company's commitment represents one of the largest philanthropic contributions by a corporation to an Indian educational institution, enabling the creation of the **Motilal Oswal Knowledge Centre** on campus. Alongside, the **Motilal Oswal Centre for Capital Markets** is being established to provide world-class training and research facilities.

Drawing on expertise across finance, economics, management, operations research, computer science, artificial intelligence, and mathematics, the centre is designed to expose students to real-world financial data, connect them with industry leaders, and equip them to shape the future of markets.

The importance of this collaboration goes beyond infrastructure. It signals a recognition that finance is not only about instruments and indices but also about building capabilities that support sustainable economic growth. The initiative is closely tied to the national vision of a **"Viksit Bharat"**, where technological progress and financial inclusion are both crucial for development. In this sense, the partnership embodies the way academic institutions and forward-thinking corporations can collaborate to advance national priorities while preparing

students for leadership in a global financial landscape.

The Institute's engagement with finance is further strengthened by the **IITB–Citadel Securities Quantitative Research Lab**, located at the Shailesh J. Mehta School of Management and funded by Citadel Securities India Markets Pvt. Ltd, which focuses on advanced research in investment science, derivative pricing, and the technologies shaping modern finance. It also designs programmes tailored for banks and financial institutions, ensuring that the research does not remain theoretical but supports practitioners who navigate the complexity of markets every day. By offering academic opportunities across levels, the Lab is creating a bridge between rigorous scholarship and practical application.

Alumni and corporate partners have played a central role in these advances. Motilal Oswal's transformational contribution and Citadel Securities' support for advanced research reflect how philanthropy and corporate engagement are reshaping finance education and research at IIT Bombay.

These initiatives in finance connect naturally with the Institute's wider entrepreneurship mission, where alumni and corporate support help move research into markets and create ventures at scale.

IITB-Citadel Securities Quantitative Research Lab: Research in investment science, derivative pricing, and market technologies; programmes for banks/ financial institutions; funded by Citadel Securities India Markets Pvt. Ltd.

ENTREPRENEURSHIP AT SCALE

Entrepreneurship at IIT Bombay has gained new momentum through the support of alumni and corporations, extending far beyond traditional incubation. **Project Titanium**, launched by alumni Mr. Ramesh Mangaleswaran and Mr. Rajesh Jain, is designed to help aspiring innovators navigate the complexities of building companies in an increasingly competitive ecosystem. It complements existing incubation programmes while creating new opportunities for entrepreneurs to scale technologies that show high readiness for commercial use.

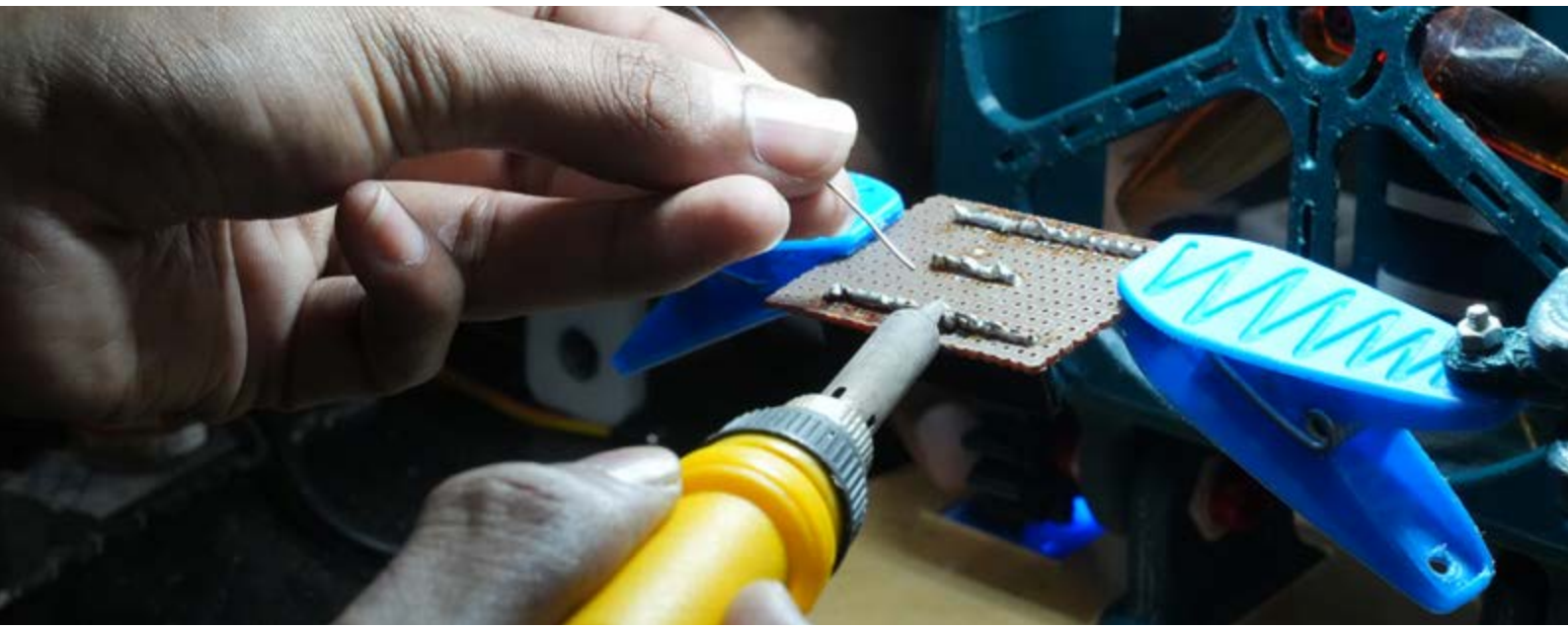
Project Titanium: Accelerating start-ups and student innovation.

The Class of 1996 has also come together to support student teams and start-ups, providing encouragement and resources at a stage when they matter most. Their collective effort is an example of how alumni communities transform student ambition into ventures with staying power.

TRYST: Translational pathway from research to industry, policy, and communities.

The **Translational Research for Societal Transformation (TRYST)** initiative ensures that discoveries do not stop at publication but move into industry, policy, and communities.

While the **1970 Translational Research Accelerator (TRA) Fund** is advancing deep-tech research in areas such as tandem solar cells, materials science, and automated farming, its importance for entrepreneurship lies in how it supports faculty-led projects at their earliest stages, giving them the momentum to move from laboratories toward market-ready ventures.



The **DSSE New Building** (1.34 lakh sq ft) stands as a vibrant crucible of innovation. With state-of-the-art **makerspaces and advanced labs**, it is designed to spark entrepreneurial drive and empower students to transform pioneering ideas into ventures with real-world impact. These ventures not only strengthen national economic capacity but also nurture a culture of innovation on campus. The Design and Making Lab are supported by **Mr. Deepak and Mrs. Maya Satwalekar and the Class of 1980,** while the Kadayam S. Srinivasan Microfactory and Harivallabh Nagar Microfactory within the facility are backed by alumni **Mr. Sumeet Nagar and Mr. Balaji Srinivasan.**

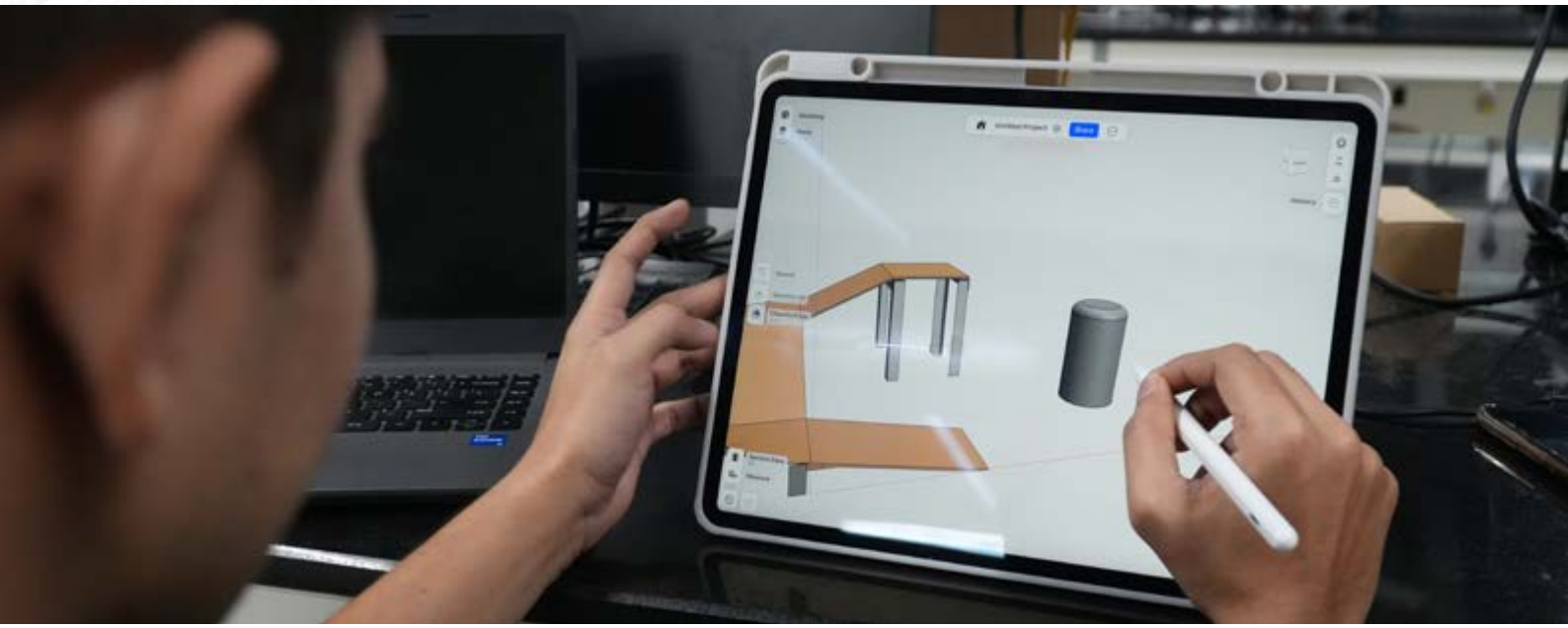
The **Gogri Hub for Membranes Research,** established with the support of alumni Mr. Mirik and Mr. Renil Gogri, develops membrane technologies for clean water, healthcare, and sustainable energy, taking prototypes to pilot scale and into real-world application. These initiatives demonstrate how alumni philanthropy supports the entrepreneurial ecosystem by funding infrastructure and mitigating the risks associated with early innovation.

By combining alumni generosity with corporate partnerships, IIT Bombay is building an entrepreneurial culture that complements its scientific strength. This is entrepreneurship at scale, rooted in research and amplified by the steady backing of those who believe in the Institute's mission.

Makerspaces and advanced labs:

Spark entrepreneurial drive and empower students to transform pioneering ideas.

BUILDING THE FUTURE, TODAY



The future of India will be shaped not only by technology but by the people and institutions that nurture it with care and foresight. Alumni, donors, and partners are at the heart of this effort, helping to create spaces where ideas can grow and young minds can find the confidence to lead.

New academic blocks and additional hostel facilities are being planned to make the campus more vibrant, with room for students to live, learn, and collaborate. Alongside them will come modern laboratories and research parks, designed to host discoveries in areas such as artificial intelligence, cybersecurity, MedTech, quantum science, and green energy. Each new space is more than infrastructure; it is an invitation for the next generation to explore, to question, and to innovate.

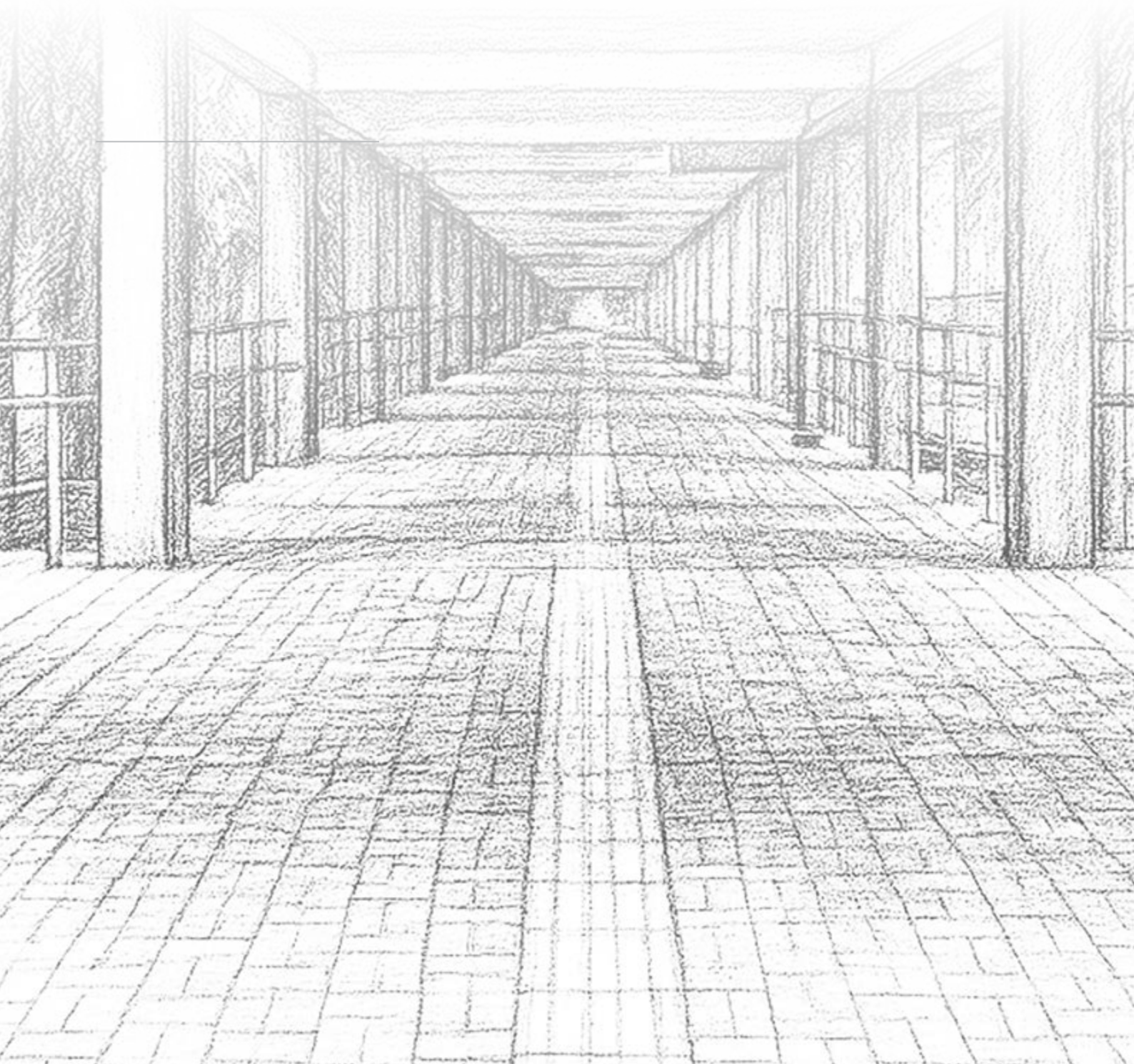
The purpose is not simply to expand, but to create an environment where knowledge flows freely across disciplines and translates into solutions that matter. Alumni and partners are ensuring that research remains connected to the most pressing needs of society, whether in renewable energy, digital systems, or new medical frontiers, by supporting centres that link fundamental science with real-world application.

Equally important is the ability to sustain excellence across generations. Through their contributions, alumni and corporate supporters are building a lasting foundation that provides stability for teaching, research, and innovation. This culture of giving ensures that what begins today will continue to grow in scope and significance well into the future.

Every contribution adds to a story of continuity and renewal. The generosity of alumni and the commitment of partners draw on a rich heritage while reshaping it for the needs of a changing world. What matters is not only the new buildings or laboratories, but the opportunities they open up for people to imagine, to collaborate, and to create solutions with lasting value.

Success in the years ahead will be reflected in many ways, in healthcare technologies that touch lives, in clean energy systems that power homes, in resilient communities, and in the confidence with which India steps onto the global stage as a knowledge leader.

This future is being built today, gently and steadily, through the belief and support of those who continue to give. The partnership of alumni, donors, and corporate allies ensures that the Institute remains a place of ambition and of hope, where the seeds of discovery are nurtured into contributions that serve both India and the world.




ज्ञानम् परमम् ध्येयम्

Spaces That Shape Futures

ACADEMIC, RESEARCH, HOUSING & ALUMNI INFRASTRUCTURE

At IIT Bombay, infrastructure has always been inseparable from aspiration. The classrooms, laboratories, hostels, residences, and alumni centres that rise across the campus are not simply buildings; they are frameworks that carry the weight of ambition, imagination, and community.

Together, they sustain the Institute's mission: advancing knowledge, nurturing talent, and creating spaces where generations of students, faculty, and alumni find belonging and purpose.

From new academic blocks to research hubs, from modern student housing to alumni-led initiatives, IIT Bombay continues to invest in spaces that mirror its academic stature and global ambition. These projects reflect both the scale of the Institute's growth and the collective effort — of faculty, students, industry partners, and alumni — to ensure that the campus remains future-ready.

Together, these investments in academic, research, housing, and alumni infrastructure create an ecosystem greater than the sum of its parts. Academic blocks fuel learning. Research facilities push the frontiers of knowledge. Hostels nurture communities that support ambition. Alumni centres anchor the ties that sustain IIT Bombay across generations.

With its focus on infrastructure, IIT Bombay is strengthening its ability to deliver outcomes: better research, stronger teaching, more confident students, and deeper alumni engagement. This is how infrastructure turns into impact: by shaping not just the campus, but the performance and possibilities of the Institute itself.

Campus Growth

55 lakh sq ft added in the past decade, backed by a "3,000 crore campus transformation".

By 2029, academic space will rise 75% and hostel capacity 62%, addressing the Institute's growing needs.

ACADEMIC & RESEARCH INFRA

HOLISTIC INNOVATION HUBS

Representative Images

As enrolments grow and disciplines diversify, the demand on IIT Bombay's teaching and research facilities has expanded enormously. In response, the Institute has invested in academic and research spaces that are not only larger but smarter, more flexible, and more collaborative.

Expanded Learning Spaces

The addition of new academic blocks and lecture halls has eased the pressure on existing classrooms while opening opportunities for new teaching formats. Designed for scale and adaptability, these spaces can host large batches of students in state-of-the-art lecture halls, or smaller groups in seminar-style rooms where intensive, interactive discussions unfold.

Teaching technologies are being woven into the physical fabric of these spaces. Smart boards, modern layouts, and digital-first classrooms allow pedagogy to evolve, making teaching more interactive and responsive. The expansion is as much about quality as it is about quantity: ensuring no student's education is constrained by infrastructure, and that the classroom experience matches the calibre of IIT Bombay's faculty.

The quality of classrooms and laboratories directly influences the scope of learning. When faculty have the right environments to teach, and students the right spaces to question and experiment, performance rises. Better facilities also help IIT Bombay attract world-class teachers and researchers, reinforcing the Institute's cycle of excellence.

Advancing Research Ecosystems

The strength of IIT Bombay's global reputation rests on its research. New laboratories and Centres of Excellence are at the core of this effort, creating environments where faculty, students, and collaborators push the boundaries of science and engineering.

These spaces are not isolated facilities; they are ecosystems. They enable convergence across disciplines, bringing together mechanical engineers and material scientists, AI researchers

Academic & Research Infra

Academic Block 1 & 2:
3.86 lakh sq ft
Motilal Oswal Knowledge Centre & Lakhamraju Building house leading Centres of Excellence like CMInDS, ADCPS, JSW Centre for Steel, Motilal Oswal Centre for Capital Markets (MOCCM), and more.

Academic Block3 & 4:
2.99 lakh sq ft
Future-ready hubs for Green Energy & Sustainability, Quantum research, and SemiX.

DSSE Building:
1.34 lakh sq ft.
New entrepreneurship crucible with makerspaces and labs, supported by Mr. Sumeer Nagar, and Mr. Balaji Srinivasan.

and biomedical innovators. They serve national priorities in clean energy, sustainability, advanced manufacturing, and digital transformation, while also meeting the needs of industry partners who look to IIT Bombay for cutting-edge solutions.

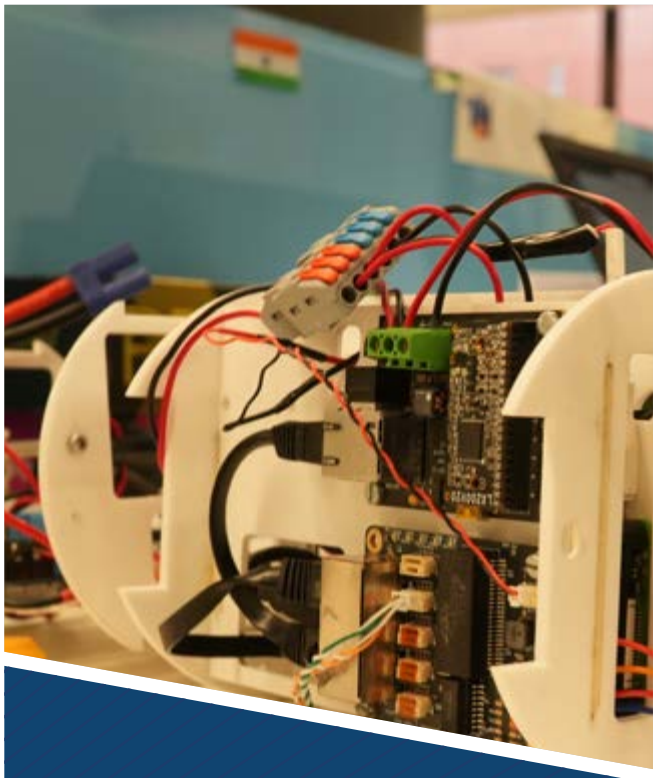
Strong research ecosystems directly shape performance: they lead to higher quality publications, stronger patents, and more impactful solutions for industry and society. They also help IIT Bombay remain globally competitive; able to attract international partners and research funding.

Future-Ready Facilities

A defining feature of IIT Bombay's infrastructure expansion is its focus on the future. Sustainability is a priority, with greener designs and energy-efficient systems now integral to new builds. Digital-first infrastructure--from smart classrooms to high-speed computing--is embedded across academic spaces.

Crucially, facilities are designed to be adaptive. The breakthroughs of tomorrow may demand new kinds of laboratories or teaching spaces; IIT Bombay's infrastructure is conceived to evolve with these needs. This flexibility is what ensures the Institute will remain globally competitive for decades to come.

Globally, the most competitive universities are those where infrastructure enables performance; where students can focus entirely on learning, and researchers have the facilities to break new ground. IIT Bombay's future-ready approach ensures that its community has the tools to perform at the highest level.



Academic & Research Infra

A91 Eco Hub: Inaugurated in October 2024 with support from Mr. Abhay Pandey; home to TCA2I and Economics, HSS, IEOR departments.

Wadhwani Hub: 1.16 lakh sq ft
Accelerating bioscience research and housing a state-of-the-art animal facility for drug development.

Drone Centre: 32,300 sq ft
Cutting-edge research hub for drone technologies with applications in national security, logistics, and industry.

STUDENT & FACULTY HOUSING

NURTURING CAMPUS LIVING

IIT Bombay is not only a place of study; it is a place of life.

For generations, students have found in its hostels a second home; spaces where friendships are forged, ideas spill out of classrooms into corridors, and late-night debates stretch into dawn. Housing, therefore, is not ancillary to education; it is central to it.

As the student population expanded nearly fourfold, the strain on housing became acute. About 60% of existing hostels are now over three decades old and in need of renewal. With the current capacity at 8,945 beds, the Institute identified a shortfall of 5,355 beds, a gap that risked compromising both comfort and community.

The response has been ambitious. Over the next two years, newly-created hostel spaces are expected to cover this shortfall, easing pressure on accommodation and ensuring that more students can live on campus: closer to laboratories, classrooms, and cultural life.

Good housing translates directly into academic outcomes. When students live in safe, comfortable, and well-designed hostels, they spend more time in labs, collaborate more easily with peers, and maintain the mental balance needed for demanding academic work. Housing is, therefore, not a support service, but a critical factor in overall student performance.

Designed for Belonging

The new hostels are not just about additional rooms. They are welfare-oriented environments, shaped with students in mind. Shared lounges encourage collaboration, while calm study corners offer collected thoughts. Contemporary amenities, enhanced safety features, and improved common areas make these hostels more than places to sleep; they are places where students can study, socialise, and rest with dignity.

This renewal transforms housing from a constraint into an advantage—creating a residential experience that supports academic success and personal well-being.

Project Evergreen: 1,127 beds
30+ alumni batches raised ₹185 crore to build hostels H7, H8 & H21; adding 848 rooms and 1,127 beds.

8,945 beds, 5,355 shortfall
New hostels will bridge the gap in the next two years, easing the crunch on student housing.

Future Capacity
Hostel 4 (1,000 beds), Hostel 19 (nearing completion), Hostel 6 & 9 (800–1,000 beds each) will dramatically expand student housing.

Alumni-Led Renewal: Project Evergreen

Few initiatives embody the IIT Bombay spirit as vividly as Project Evergreen. Conceived and funded by alumni across more than 30 graduating batches, it has already delivered three world-class hostels (H7, H8 and H21), adding 848 rooms and 1,127 beds. Approximately ₹1.85 billion has been raised through this initiative, visible in every lounge, courtyard, and study nook.

Hostel 21, supported by Coal India Limited, is a dedicated women's hostel that now houses 370

students. It signals the Institute's commitment to inclusivity and safety, particularly for women in STEM, and has been welcomed by parents and students alike as a landmark step.

Capacity creation continues: Hostel 4 will add around 1,000 beds, while Hostel 19 is nearing completion. Looking ahead, Hostels 6 and 9—supported by alumni Mr. Nakul Agarwal, Mr. Ritesh Arora, Mr. Jitendra Mohan, and Ms. Swapna Samant are expected to each add 800—1,000 beds.

Women in STEM: 370 beds
Coal India funded Hostel 21, a dedicated women's hostel, strengthening inclusivity and safety on campus.

Faculty Residences & Welfare

A cornerstone of IIT Bombay's vision is investment in faculty welfare, recognising that world-class infrastructure is essential to sustaining its global leadership. Over 11.6 lakh sq ft of expanded faculty and employee housing, with modern amenities, is being developed; a direct testament to the Institute's commitment to the people who anchor its academic and research excellence.

These state-of-the-art residences significantly enhance quality of life and work–life balance, acting as a powerful magnet for attracting and retaining top global talent. One of the twin towers of the faculty housing, supported by Nandan Nilekani, stands as a testament to this commitment. Beyond basic accommodation, well-designed housing fosters a close-knit campus community, enabling informal collaborations and intellectual exchange that enrich the academic environment.

Importantly, on-campus housing reduces commuting burdens, giving faculty more time for research, innovative teaching, and mentoring students. This, in turn, strengthens academic output and bolsters the intellectual capital that defines IIT Bombay's standing.

Complementing this, the KV School's new wing (44,400 sq ft) has expanded capacity for the children of faculty and staff, reinforcing the Institute's holistic approach to welfare and community well-being.

A well-designed faculty housing helps IIT Bombay attract and retain top academic talent. It fosters communities where collaboration thrives and students benefit from closer, more engaged mentorship.

ALUMNI INFRASTRUCTURE

LEGACIES THAT ENDURE

Infrastructure at IIT Bombay is not only for current students and faculty; it also honours and strengthens alumni bonds. Dedicated alumni facilities on campus provide spaces where graduates can reconnect, collaborate and contribute to the Institute's life, long after graduation.

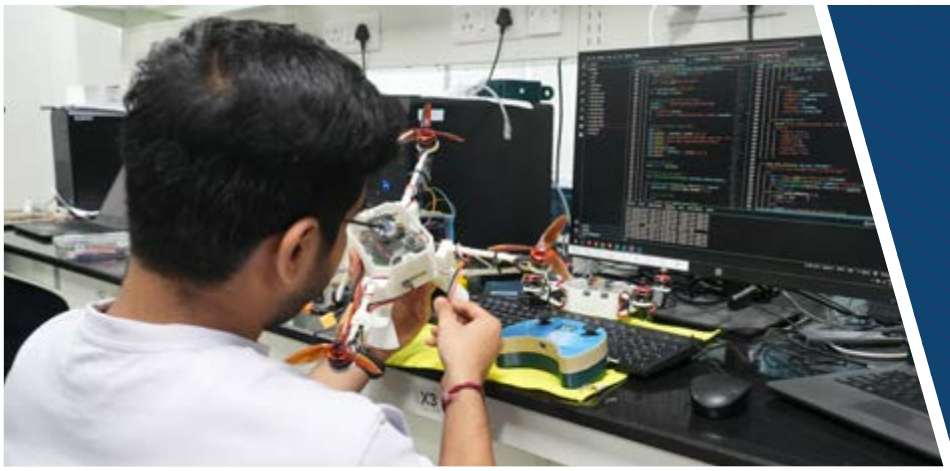
These spaces serve as tangible symbols of the alumni–Institute relationship: a partnership that continues to shape the future of IIT Bombay.

Alumni hubs sustain a cycle of performance by enabling mentoring, knowledge-sharing, and fundraising. Each alumni space strengthens the Institute's ability to support students and expand its influence globally.

Beyond specific projects, alumni have also supported the Institute's greatest needs — flexible contributions directed to priority areas such as infrastructure and student support. This includes generous backing from Mr. Kishore Seendripu, Mr. Arun Firodia, and the Class of 1995, reflecting the deep trust alumni place in IIT Bombay to deploy resources where they are most impactful.


Representative Image

Alumni Centre
Backed by Mr. Mohan Kavrie, Everest, and the alumni community: a hub for connection, mentoring, and collaboration.



Greatest Needs Support
Philanthropy from Mr. Kishore Seendripu, Mr. Arun Firodia, and Class of 1995 directed to infrastructure and student support.

TRAJECTORY AHEAD

EXPANDING HORIZONS OF TOMORROW

IIT Bombay's next phase of growth goes beyond expanding facilities. It is about consolidating global leadership and strengthening national impact.

Planned additions include Academic Block 5, a state-of-the-art academic facility; an Alumni/ Development Centre, designed to foster unprecedented alumni connectivity; and a multi-level car park (~2.15 lakh sq ft) to enhance mobility and campus services.

By 2029, the Institute will achieve a 75% increase in academic space and a 62% increase in hostel capacity. These upgrades will transform the campus ecosystem: better classrooms for teaching, advanced labs for research, and modern housing that supports student well-being.

With sustained support from philanthropists, corporates, and alumni, these strategic developments will cultivate a world-class environment, foster innovation, and prepare the next generation of leaders.

By 2030, IIT Bombay is set to stand firmly among the world's top global institutes while deepening its role in India's self-reliance and development.

Ensuring Excellence

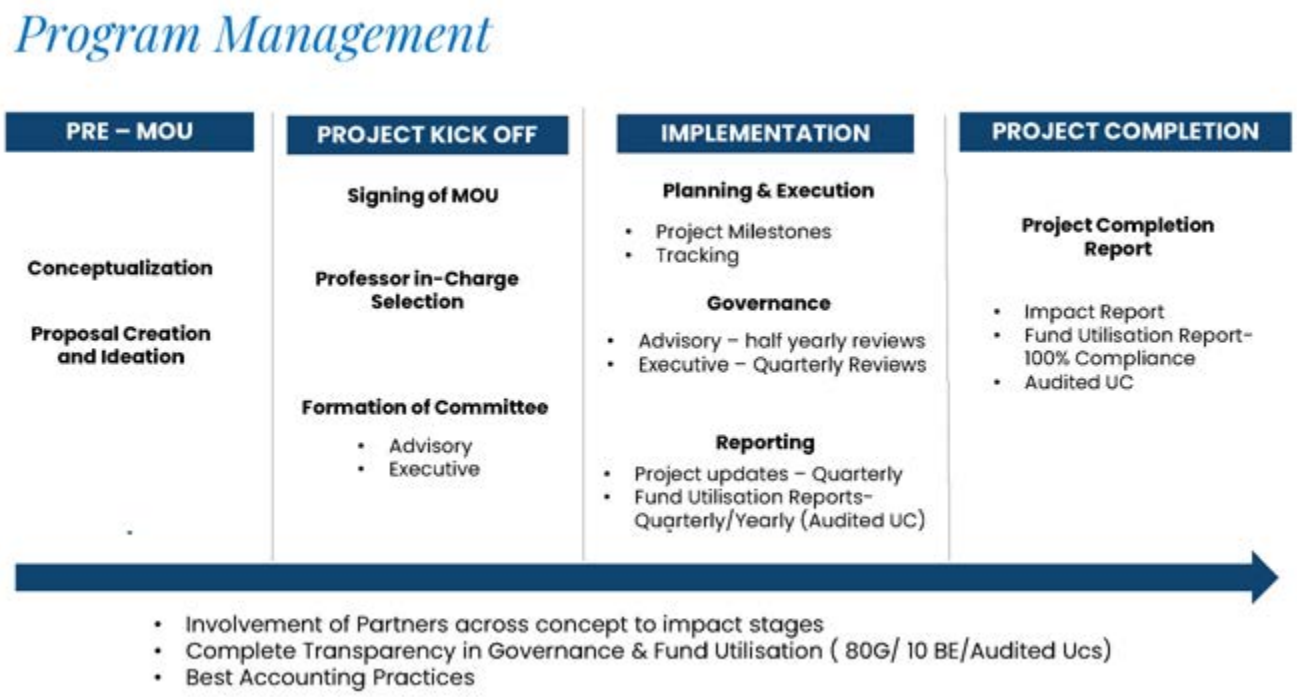
FROM VISION TO DELIVERY
TRANSPARENT. TANGIBLE. IMPACTFUL.

At IIT Bombay, donor-funded programmes are guided by a robust and transparent project management governance framework. This structured approach ensures that every initiative remains aligned with the Institute's vision, delivers tangible impact, and upholds the highest standards of accountability--from conception to completion.

The governance mechanism forms a comprehensive model that spans planning, execution, financial stewardship, and strategic acceleration. Donors are integral to this process, not only receiving regular reports and participating in structured interactions, but also serving on governance committees as active partners in the initiatives they support.

This framework enables proactive issue resolution, early course correction, and timely insights for the Institute's leadership. By fostering a culture of structured governance and partner engagement, IIT Bombay ensures full transparency in governance and fund utilization (80G, 10BE, audited UCs), adherence to best accounting practices, and accountability at every level.

Donors remain closely connected to their project's journey through updates, reports, and milestone reviews, reinforcing confidence that every contribution is responsibly directed toward transformative results, advancing IIT Bombay's mission of nation-building through world-class research, innovation, and impactful projects.



Laying the Foundation

Each project begins with careful conceptualization and detailed proposal development. At this stage, faculty and partners work closely to shape clear objectives, refine deliverables, and align expectations.

Setting the Stage

Once the Memorandum of Understanding is signed, a Professor In-Charge is identified for the programme. The professor initiates the first steps, such as staffing, and depending on the project's scope, relevant committees—advisory, core, grants, or executive—are constituted. These committees bring together domain experts, faculty, and stakeholders to provide strategic guidance, monitor progress, and ensure that goals are achieved efficiently and transparently.

Driving Implementation

During execution, progress is tracked through detailed milestones and systematic monitoring. Three governance committees play a central role:

- **Implementation Committee:** Regular meetings convene the Deputy Director (Academics, Research and Translation – ART), Dean (Alumni and Corporate Relations – ACR), and the Professor In-Charge. These act as operational checkpoints to review progress, address challenges in real time, and mobilize support swiftly.

- **Donor Programme Financial Committee:** Meeting quarterly under the leadership of the Deputy Director (Finance, Infrastructure and Administration – FIA), Dean (ACR), and the Development and Relations Foundation (DRF), this forum ensures financial transparency. Stakeholders receive a clear overview of fund utilization, timelines, and any cost or schedule deviations.

- **Donor Programme Acceleration Committee:** Also meeting quarterly, DPAC brings together the Deputy Director (FIA), Deputy Director (ART), Dean (ACR), and a representative from the DRF Board. It provides strategic oversight for centres and flagship programs, helping address systemic or cross-centre challenges, unlock opportunities for collaboration, and identify areas where additional donor engagement or interventions may be needed.

- **CSR Governance:** CSR-supported projects are managed across their entire lifecycle: from conceptualization and MoU signing to execution, reporting, and completion. With milestone tracking, periodic reviews, audited fund utilization, and partner involvement at every stage, IIT Bombay ensures transparency, accountability, and measurable outcomes.

Measurable Closure, Bright Outcomes

Every project concludes with a comprehensive Impact Report, 100% fund utilization compliance, and audited Utilisation Certificates (UCs).

This gives partners and donors full visibility into outcomes, demonstrating measurable impact and responsible stewardship of funds.

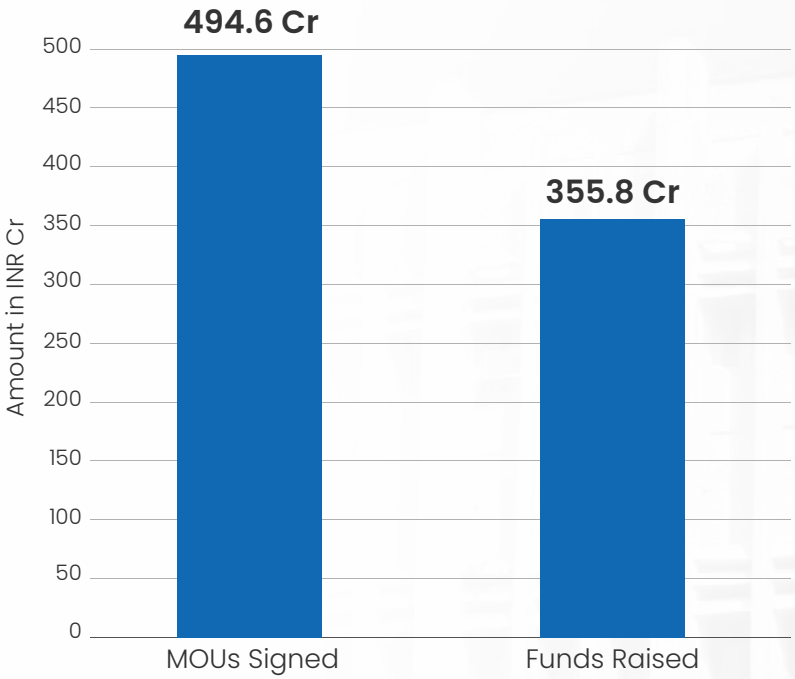
Thank You

OVERALL

Financials

2024-25

The financial strength of IIT Bombay reflects not just numbers, but the collective trust and support of our stakeholders—government, industry partners, corporate supporters, alumni, and well-wishers. Behind every figure lies a story of alumni and corporates coming together, giving back to the place that once shaped their journeys. Their contributions are more than financial; they are a reaffirmation of belonging, of gratitude, and of a shared dream to see IIT Bombay stand shoulder to shoulder with the finest institutions across the globe.



With this support, the Institute is able to fuel cutting-edge research, build world-class infrastructure, and launch initiatives that nurture the leaders and innovators of tomorrow. This section takes you through IIT Bombay's financial performance, the diverse sources of funding, and the growth trajectory that continues to propel the Institute toward global excellence.

Funds Raised – By Source | 2024-25

66%
Individuals

India - 123.7 (52.9%)
US - 98.9 (42.3%)
Rest of World (RoW): 11 (4.7%)

34%
Corporate

India - 106.9 (87.5%)
US - 14.9 (12.2%)
Rest of World (RoW): 0.43 (0.35%)

Total: India 230.6 INR Cr | US 113.8 INR Cr
Rest of World (RoW) 11.4 INR Cr

Funds Raised By Causes

INFRASTRUCTURE
₹ 140.9 Cr

R&D
₹ 78.8 Cr

CENTER/ COEs
₹ 61.7 Cr

OTHERS
₹ 50.6 Cr

STUDENT DEVELOPMENT
₹ 15.3 Cr

FACULTY DEVELOPMENT
₹ 8.3 Cr


Nandan Nilekani Main Building

THE YEAR THAT WAS

Key Events

in 2024-25

From milestone reunions and visionary philanthropy to global alumni meets and high-impact dialogues, 2024–25 was another year of connection, celebration, and commitment. Across continents and generations, IIT Bombay's community came together to honour legacy, fuel innovation, and shape the Institute's next chapter that will be anchored in purpose, powered by people.

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KEY INSTITUTE EVENTS

Please use the menu or top-of-page links to navigate the report.

From funding Chair Professorships and space technology projects to establishing entrepreneurial ventures, conference rooms, and policy research programmes, our alumni's generosity knows no bounds.

-Prof. Shireesh B. Kedare,
Director, IIT Bombay

Foundation Day

A Legacy of Excellence

IIT Bombay marked its 66th Foundation Day on March 10, 2025, celebrating decades of academic leadership and visionary contributions to society. The occasion brought together the Institute's vibrant community to honour its torchbearers: faculty and alumni who continue to shape the frontiers of science, technology, and innovation.

The event was graced by Mr. Ravi Pandit, Founder-Chairman and current Non-Executive Chairman of KPIT Technologies Ltd., who served as the Chief Guest. This year, 14 distinguished alumni were recognised with the Distinguished Alumnus/Alumna Award (DAA), while five young alumni received the Young Alumni Achievers Award (YAAA), applauding their early and exceptional impact across diverse fields.

READ MORE

Distinguished Alumnus/Alumna Awards (DAA)

The Distinguished Alumnus/Alumna Awards (DAA) highlight alumni who have excelled across a spectrum of fields including Business, Academics, Research, Government, Public Service, and Entrepreneurship. Their achievements elevate IIT Bombay's legacy of excellence and ignite the aspirations of both current and future generations of students.

READ MORE

Keen to recognize these exemplary achievements by its alumni, IIT Bombay instituted the Distinguished Alumnus Award during its Silver Jubilee celebrations in 1983. The DAA celebrate the spirit of excellence, leadership, and service that defines what we are at IIT Bombay.

-Prof. Ravindra Gudi,
Dean, ACR

The 2025 recipients of the DAA exemplify this spirit of excellence and impact:

Name	Degree, Department, Batch	Awarded Category
Mr. Alok Maskara	B.Tech., Chemical Engineering, 1992	Contributions in the Corporate world
Prof. Aniruddha Gole	B. Tech., Electrical Engineering, 1978	Contributions in Academia
Dr. Aranyak Mehta	B.Tech., Computer Science and Engineering (CSE), 2000	Contributions in Technology, Innovation and Research
Dr. Dileep George	B.Tech., Electrical Engineering, 1998	Contributions in Entrepreneurship
Mr. Jagdish J. Moorjani	B.Tech., Chemical Engineering, 1993	Contributions in Entrepreneurship
Mr. Jitendra Mohan	B.Tech. Electrical Engineering, 1994	Contributions in Entrepreneurship
Mr. Lalit Keshre	B.Tech. + M. Tech., Electrical Engineering, 2004	Contributions in Entrepreneurship
Mr. Lacky Vasant Shah	B.Tech., Computer Science and Engineering, 1992	Contributions in the Corporate world
Mr. Mahesh Kumar Navani	5-year MS, Chemistry, 1987	Contributions in Entrepreneurship
Mr. Pramod Agrawal	B.Tech., Civil Engineering, 1986	Contributions in Government & Public Sector
Prof. Punya Mishra	M.Des, Visual Communications, IDC, 1990	Contributions in Academia
Prof. Rajesh N. Dave	B.Tech., Mechanical Engineering, 1978	Contributions in Academia
Mr. Sameer Halepete	B.Tech., Electrical Engineering, 1993	Contributions in the Corporate world
Prof. Venugopal Veeravalli	B.Tech., Electrical Engineering, 1985	Contributions in Academia

Young Alumnus/Alumna Achiever Awards
(YAAA)

Instituted in 2011, the Young Alumni Achiever Awards (YAAA) honour alumni under the age of 40 who have demonstrated outstanding achievements in their chosen fields.

These awards celebrate the early impact, leadership, and promise shown by young IIT Bombay graduates across sectors.

READ MORE

The 2025 cohort of YAAA recipients reflects the Institute's commitment to nurturing talent that drives change and inspires excellence:

Name	Degree, Department, Batch	Awarded Category
Mr. Aniket Deb	B.Tech. + M.Tech., Chemical Engineering, 2013	Contributions in Entrepreneurship
Mr. Dhruv Arora	M.Sc., Chemistry, 2008	Contributions in Entrepreneurship
Mr. Deepak Diwakar	B.Tech., Computer Science and Engineering, 2008	Contributions in Entrepreneurship
Mr. Maneesh Kalwaniya	B.Tech. + M.Tech., Aerospace Engineering, 2010	Contributions in Government and Public Sector
Prof. Nisarg Shah	B.Tech., Computer Science and Engineering, 2011	Contributions in Academia

Alumni Day

Proud Moments

On December 29, 2024, IIT Bombay hosted its annual Alumni Day, an occasion to celebrate lifelong bonds, shared pride, and the remarkable journeys of its alumni across the world.

The day began with a heartfelt tribute to former Prime Minister Dr. Manmohan Singh. Dean Gudi officially inaugurated the event, underscoring the enduring impact of alumni in shaping the Institute's aspirations and achievements.

Director Kedare echoed this sentiment, noting that the Institute's global standing is deeply intertwined with the vision, values, and contributions of its alumni.

In recognition of outstanding service, the Distinguished Service Awards (DSA) were presented to three alumni, while six alumni were honoured with the Chapter Service Awards (CSA) for their exceptional commitment to strengthening the IIT Bombay alumni network.

READ MORE

Distinguished Service Awards
2024

Instituted in 1999, the Distinguished Service Awards (DSA) honour alumni who have demonstrated unwavering commitment to IIT Bombay through sustained and meaningful contributions over the years.

The awards celebrate those who have gone above and beyond to support the Institute's growth, whether through mentorship, institutional initiatives, or community building. Recipients are selected from nominations submitted by alumni, faculty, and other key stakeholders.

READ MORE

The 2024 DSA honourees exemplify this spirit of service and shared legacy:

Name	Degree, Department, Batch
Mr. Rajindra Harcharan Singh	B.Tech., Mechanical Engineering, 1988
Mr. Sandeep Asthana	B.Tech., Chemical Engineering, 1990
Mr. Sudhir Jayram Nikam	B.Tech., Chemical Engineering, 1993

Chapter Service Awards

2024

The Chapter Service Awards (CSA) were instituted in 2018, during IIT Bombay's Diamond Jubilee year, to honour alumni who have made sustained and significant contributions to the development of the Institute's alumni chapters.

These awards celebrate individuals who have played a vital role in strengthening regional alumni networks, fostering engagement, and building lasting connections within the IIT Bombay community.






READ MORE

The 2024 CSA awardees are:

Name	Degree, Department, Batch
Mr. Rajesh Soy	B.Tech., Computer Science & Engineering, 1993 M.Tech., Computer Science & Engineering, 1997
Mr. Ranjan Ojha	B.Tech., Metallurgical Engineering & Materials Science, 1998
Ms. Shweta Bhandari	B.Tech., Metallurgical Engineering & Materials Science, 2002
Mr. Sagar Shah	B.Tech. and M.Tech. Dual Degree, Chemical Engineering, 2008
Ms. Sita Mahalakshmi Durvasula	EMBA, SJMSOM, 2016
Mr. Sunay Wagle	M. Tech., Mechanical Engineering, 2017

As part of the celebrations, the Institute also honoured the Class of 1963, recognising their long-standing connection and contributions to IIT Bombay. A virtual unveiling of the donor wall highlighted the names of key contributors and the causes they supported, serving as a powerful tribute to the culture of giving back.

The event also witnessed the launch of the 4th edition of the GO-IIT Bombay fundraising campaign, reinforcing the collective commitment of the alumni community towards the Institute's growth.

In a major philanthropic milestone, the Class of 1999 pledged ₹21.2 crore to their alma mater as part of their Legacy Project, a gift that reflects both gratitude and a bold vision for the future.

Reunions

Old Friends, New Ideas

In 2024, IIT Bombay welcomed back nine alumni batches to campus for their milestone reunions, each one a celebration of shared memories, enduring friendships, and renewed purpose.

A standout among them was the Golden Jubilee Reunion (GJRU) of the Class of 1974, who commemorated 50 years since graduation by launching a philanthropic initiative that reflects both gratitude and social vision. During the celebrations, the batch signed a Memorandum of Understanding with the Institute to establish HEARTS'74, Habitat for Everyone: Affordable, Resilient, Transformative, and Sustainable.

This pioneering initiative aims to build climate-resilient, affordable housing for underserved communities across rural and urban India, harnessing the power of technology, innovation, and sustainability to address real-world challenges. The Class has pledged ₹14 crore to IIT Bombay, with ₹10 crore already raised, including ₹8 crore specifically committed to HEARTS'74.

Other notable reunions included the Golden Jubilee Reunion (GJRU) of the Class of 1975, the Silver Jubilee Reunion (SJRU) of the Class of 1999, and the Diamond Jubilee Reunions (DJRU) of the Classes of 1963 and 1964, each adding their own spirit, stories, and commitments to the Institute's journey forward.

See Glimpses of some of the Reunions here:

- 1964 Batch
- 1965 Batch
- 1974 Batch
- 1975 Batch
- 1999 Batch
- 2014 Batch
- PG Reunion

Impact Snapshot

The Golden Jubilee Batch - the Class of 1974 - pledged a total of

₹14 crore

with

₹8 crore

towards the HEARTS'74 project (Habitat for Everyone: Affordable, Resilient, Transformative, and Sustainable).

The Silver Jubilee batch - the Class of 1999 - pledged

₹21.2 crore

WATCH HERE

Alumination 2024

Where Nostalgia Meets New Ideas

'Alumination 2024: Noren of Nostalgia' lit up the IIT Bombay campus with energy, connection, and inspiration. Organised by the Student Alumni Relations Cell (SARC), the event drew over 3,000 attendees, a vibrant mix of alumni, students, and faculty.

The multi-day celebration brought together generations through shadow programmes, mentoring circles, thought-provoking panels, and spirited activities. Highlights included Break the Ice, Workshops, Group Mentoring, Nostalgia, Innovation Expo, Trailblazers: Learning from the Experts, Unengineering: Embracing Unconventional Paths, Start it Up, and the grand finale, Beyond the Horizons.

Blending personal memories with bold possibilities, Alumination 2024 was not just a celebration, it was a bridge between legacy and leadership.

FAN/DA Meetup 2024

Technology, Purpose, and Possibility

In July 2024, IIT Bombay, in partnership with the IIT Bombay Heritage Foundation and the Stanford Doerr School of Sustainability, hosted the Faculty Alumni Network/Distinguished Alumni Meetup (FAN/DA Meetup) 2024 at Stanford University, a landmark event that brought together global minds to spark future collaborations.

The event featured a keynote by Nobel Laureate Prof. Steven Chu, a fireside chat with Dr. Arunava Majumdar, and a dinner talk by Prof. Daniel L. Schwartz on the evolving role of AI in education. Breakout sessions explored everything from Quantum Tech and smart cities to climate action and healthcare innovation.

Director Kedare reflected on the event's purpose: to channel the power of education and technology toward solving global challenges. A panel on translational research and a Distinguished Alumni gathering underscored the Institute's belief in its alumni as changemakers for the future.

Valedictory Function 2024

End of an Era, Start of Many

The Valedictory Function (Valfi) for the Class of 2024 was a celebration of growth, grit, and graduation. As the cohort prepared to step into the world, the Institute paid tribute to their journey with humour, humility, and hope.

Speakers included Dean Gudi, and Prof. Subhasis Chaudhuri, former director, who both acknowledged the resilience of this graduating class.

The spotlight was also on Mr. Rajesh Jain (B.Tech. '88), Founder of Netcore Cloud, who spoke about innovation with purpose; and Ms. Abha Maheshwari (B.Tech. '00), CEO of Allen Digital, who shared her inspiring leap from campus corridors to digital leadership.

Capping it off, a student representative offered a candid, humorous summation of the class's experience, calling it a "SERIAL DISASTER", earning laughs and applause from all.

Japan Alumni Connect

Bridging Borders with Ideas

In 2024, IIT Bombay continued to strengthen its global ties through Japan Alumni Connect, with meaningful events in Hiroshima, Kyoto, and Tokyo.

The IIT Bombay team, led by Director Kedare, engaged with alumni across academia and industry, sharing updates on major initiatives like the Research Park, the SINE Fund, and the Institute's cross-disciplinary focus.

Dr. Yashawant Dev Panwar, Science and Technology Counsellor at the Embassy of India in Tokyo, highlighted the vital role played by the IIT Bombay diaspora in driving India-Japan partnerships in science and innovation.

From shared memories to collaborative ambitions, the Japan outreach reflected the Institute's expanding global footprint.

Mumbai Alumni Connect

A City, A Community, A Cause

Mumbai Alumni Connect 2024 turned into a powerful evening of reflection and reimagining. Held in the city where the Institute was born, it brought together alumni for a vibrant exchange of ideas and inspiration.

Director Kedare and Dean Gudi spoke about IIT Bombay's latest milestones.

Presentations by key alumni added momentum to the message, affirming that IIT Bombay is not just a shared past, but a common future.

While we've mastered the science of technology, we must now master the engineering of it.

– Prof. Shireesh B. Kedare, Director, IIT Bombay

UAE Alumni Meet

Innovation Without Borders

The 2024 UAE Alumni Meet, hosted by the IIT Bombay Alumni Association's UAE Chapter, brought together a passionate alumni community for a day of learning, reconnection, and growth.

Director Kedare shared updates on the Institute's vision and initiatives, while Mr. Advait Kurlekar, Chairperson of IITBAA, outlined the Association's strategic goals.

A key highlight was a Masterclass on "Harnessing AI for Sustaining Innovation" by Prof. Markus Baer, Vice Dean of Executive Education, Washington University, St. Louis, offering alumni a glimpse into how AI is reshaping innovation at scale.

With meaningful conversation and forward-looking ideas, the event underscored the role of alumni in carrying IIT Bombay's legacy across continents.

Jaipur Chapter Meet 2024

Conversations, Community, Commitment

The Jaipur Chapter Alumni Meet 2024 brought together a distinguished gathering of alumni and industry leaders for an evening of ideas, updates, and camaraderie.

Dean Gudi shraed reflections on how alumni contributions continue to fuel IIT Bombay's growth and global standing.

Leaders from the Jaipur Chapter also addressed the gathering, outlining future plans and reaffirming their commitment to strengthening the alumni network in the region.

NCR Chapter Meet 2024

From Vision to Impact

The NCR Chapter Alumni Meet 2024 brought the extended IIT Bombay community together for an evening of learning, leadership, and lively exchange.

Director Kedare and Dean Gudi presented an inspiring overview of the Institute's progress, challenges, and strategic goals. A highlight of the event was an engaging address by Mr. Devendra Agrawal (B.Tech., EE, 2005), Founder of Dexter Capital and Dexter Ventures and member of the IITBAA Board of Directors.

He also hosted a compelling fireside chat with Mr. Gaurav Munjal (B.Tech.+M.Tech., ME/Thermal and Fluids Engineering, 2004), Founder of Infollion, offering attendees valuable insights on entrepreneurship, leadership, and alumni impact.

Alumni Connect

Australia and Singapore

As part of its growing global outreach, IIT Bombay hosted alumni events across Singapore, Melbourne, and Sydney in March 2025, celebrating achievements, deepening ties, and envisioning the road ahead.

The Singapore Meet on 15th March set the tone for heartfelt conversations and renewed alumni engagement.

In Melbourne, the IIT Bombay community came together to exchange experiences and explore new ways to stay connected with their alma mater. The momentum continued in Sydney, where alumni gathered for a spirited evening of stories, strategy, and shared pride.

A special moment in Sydney was the felicitation of the Institute's Distinguished Alumna, Dr. Marlene Kanga (B.Tech., Chemical Engineering, 1976), Officer of the Order of Australia, for her extraordinary accomplishments and global recognition, reflecting the calibre and impact of IIT Bombay graduates worldwide.

US Roadshow

Amplifying Engagement

In a powerful show of connection and purpose, a distinguished IIT Bombay delegation embarked on a multi-city US Roadshow in November 2024, with events held in New York, San Francisco, Austin, Dallas, and Portland.

With over 500 alumni spanning six decades in attendance, the Roadshow, hosted by IIT Bombay Heritage Foundation (IITBHF) served as a vital platform for engagement, updates, and collaborative visioning.

Director Kedare and Dean Gudi led each event with insightful presentations and fireside chats, outlining the Institute's current priorities and emerging challenges. They encouraged the alumni to play an active role in the upcoming fundraising campaign and emphasized the transformative potential of collective support. Officials from IIITBHF, including Mr. Vinay Karle, President, and Mr. Sreedhar Reddy Kona, Vice-President, IITBHF, were present. Alumni meetup leads Prof. Anurag Mairal, Ms. Vinaya Kapoor and Mr. Yogesh Kher also joined the event.

Each city session featured a specially curated video chronicling IIT Bombay's journey, followed by a lively Q&A session that invited thoughtful dialogue and community-building.

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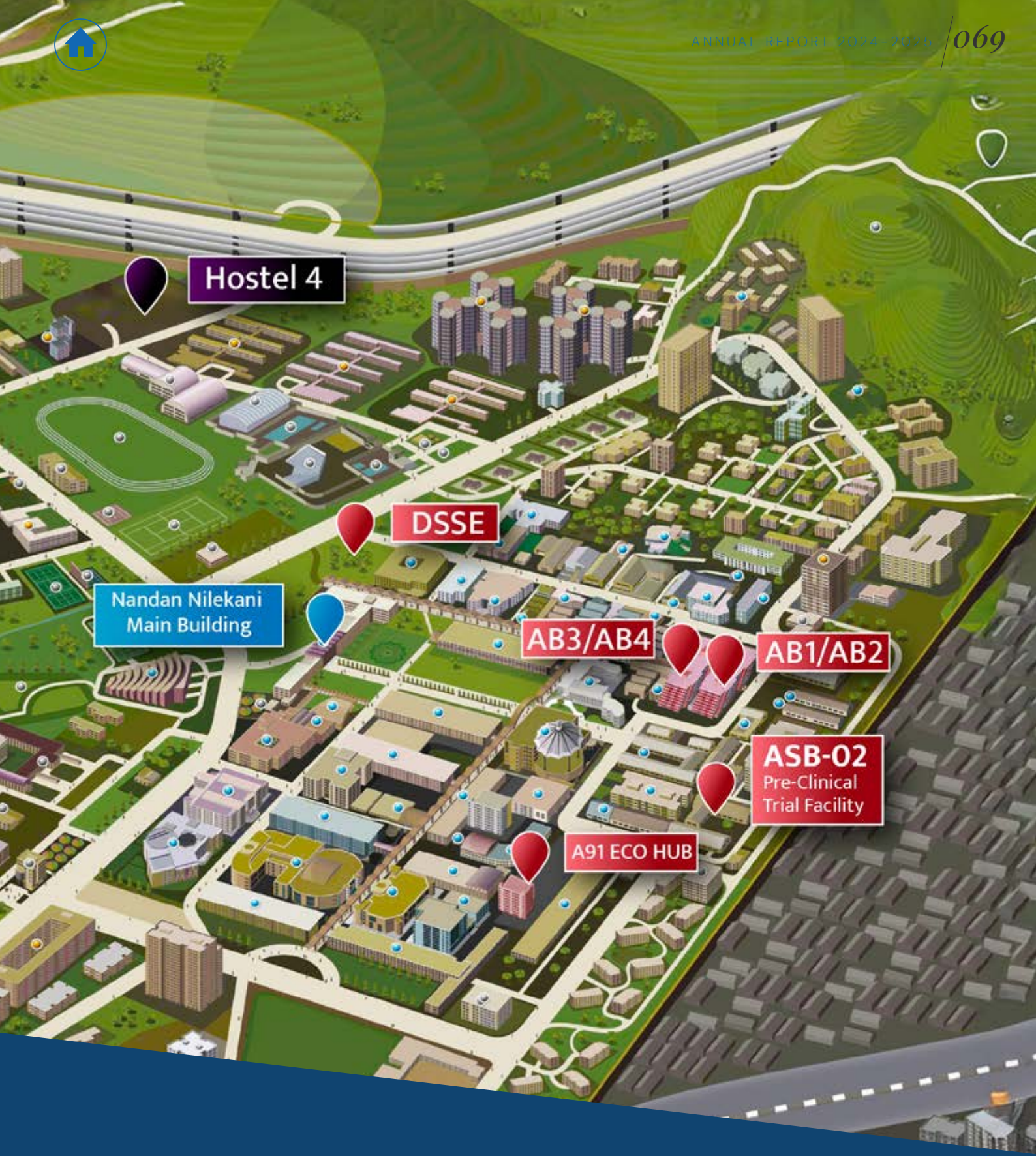
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Pre-Clinical
Trial Facility
A91 ECO HUB

Built by Alumni, Designed for Future

Project Evergreen - A New Era of Student Living

Few projects at IIT Bombay capture the spirit of collective alumni vision as powerfully as Project Evergreen. Unveiled on April 26, 2025, this initiative marks a milestone in student infrastructure, adding over 1,130 beds across three thoughtfully designed residential towers: Hostels 7, 8 (for men), and Hostel 21 (for women).

Conceived, funded, and delivered by a passionate alumni collective, Project Evergreen represents a rare and remarkable example of institution-scale philanthropy in action. It combines purpose with precision, community with comfort, and legacy with leadership. Over 25 corporates, notably Coal India Limited (CIL) have contributed towards the establishment of Project Evergreen.

Designed for Community

More than just new buildings, the Evergreen complex is a blueprint for inclusive, future-ready campus life. The three towers include 850 well-appointed rooms supported by shared amenities that meet academic, physical, and social needs.

These include:

- A CENTRALLY LOCATED DINING HALL
- DEDICATED STUDY ROOMS AND TECH-ENABLED SPACES
- GUEST ROOMS FOR VISITING FACULTY AND FAMILY
- MINI-GYMS AND LAUNDRY ROOMS
- THE VIBRANT, STUDENT-RUN CAFE 97

Every aspect of the design promotes interaction, well-being, and academic excellence, offering students a holistic environment to live, learn, and grow.

Looking Ahead

With construction complete and operations ramping up, the focus now shifts to ensuring a seamless residential experience. As students begin to move into the Evergreen towers, the facility is poised to redefine IIT Bombay's approach to student housing, setting a new benchmark for quality, scale, and alumni collaboration.

This is a thriving ecosystem powered by the shared belief that great campuses nurture great minds.

Place to Live, Space to Thrive


Representative Image

Hostel 4 - Enabling Inclusive Campus Living

The ongoing construction of Hostel 4 marks a major step in IIT Bombay's commitment to enriching campus life through high-quality residential infrastructure. Designed to accommodate over 1,200 students, this state-of-the-art facility reflects the Institute's vision of creating spaces where academic ambition and community wellbeing can thrive together.

Spread across a thoughtfully planned layout, Hostel 4 will house 1,150 single-occupancy rooms, along with 50 single rooms and 6 double rooms equipped with attached toilets for differently-abled students. The facility also includes a dining hall, kitchen, gymnasium, laundromat, common recreation rooms, and administrative zones, ensuring a comfortable and inclusive living environment that supports both individual growth and shared experience.

Building for Impact

Construction of Hostel 4 is now in its final phase. Once operational, the hostel will significantly enhance the Institute's residential capacity while setting new standards in student housing design, accessibility, and wellbeing.

Beyond just a place to stay, the hostel aims to be a foundation for friendships, interdisciplinary dialogue, and everyday moments that shape the IIT Bombay journey.

Room With A View

Total capacity:

~ 1,212 students

Inclusive design:

50 single & 06 double

rooms with attached toilets for differently-abled students

Amenities:

- Dining hall
- Gymnasium
- Laundromat
- Common rooms
- Admin zones

Impact:

- Enhancing residential life
- Accessibility
- Student wellbeing on campus

Home Away from Home

Hostel 9 Redevelopment - Powered by Legacy

IIT Bombay is set to significantly enhance its residential infrastructure through the planned redevelopment of Hostel 9. This transformative project is being made possible by a generous USD 7.5 million pledge from Distinguished Alumnus Awardee Mr. Jitendra Mohan and his wife, alumna Ms. Swapna Samant. For Mr. Mohan, a former resident of Hostel 9, the initiative holds deep personal meaning, a heartfelt tribute to the place he once called his “home away from home”.

Currently in its planning and preparatory stages, the project is focused on creating a contemporary and inclusive residential space that serves the evolving needs of the student community. Architects and engineers are working closely with stakeholders to ensure that the design reflects the spirit of Hostel 9 while introducing modern amenities and smart infrastructure solutions.

Representative Image

Designed with Purpose

The redevelopment will address critical accommodation needs while enhancing quality of life for students. The new facility is envisioned to provide a safe, comfortable, and vibrant living environment that encourages academic focus, well-being, and camaraderie. With upgraded rooms, communal spaces, and modern utilities, the hostel will offer students a space that fosters both independence and community.

By blending architectural innovation with the cultural legacy of Hostel 9, the redevelopment is designed not just as a structural upgrade, but as a forward-looking investment in student experience and institutional excellence.

Looking Ahead

With approvals and plans steadily progressing, the groundbreaking for Hostel 9 is projected for early 2026. Once completed, the redeveloped facility will be an important addition to IIT Bombay's residential ecosystem, supporting its mission to create a world-class campus experience.

This alumni-backed initiative reinforces the power of giving back, creating spaces that reflect care, foresight, and a shared commitment to nurturing future generations of IITBians.

Legacy in Brick and Spirit

Hostel 6 - Alumni-Led Transformation

At IIT Bombay, some projects are powered not just by blueprints but by memory.

Hostel 6, once home to generations of students, is now poised for a full-scale transformation, led by two of its alumni. BrowserStack co-founders Nakul Aggarwal and Ritesh Arora have pledged ₹100 crore for the complete reconstruction of their former hostel, marking one of the most significant alumni contributions in the Institute's history.

The project aims to create a world-class residential facility that blends the soul of the old hostel with state-of-the-art design and functionality. From structural plans to experiential spaces, the vision is rooted in preserving legacy while setting new benchmarks in student living.

Planning the Future

Hostel 6 is currently in the detailed pre-construction planning stage. Architectural designs are being carefully shaped to reflect modern sensibilities while honouring the hostel's much-loved character. Regulatory clearances and engineering assessments are underway, and the project is on track to break ground in early 2026.

The reconstruction will not only expand capacity but also reimagine how students live, collaborate, and recharge with the help of improved facilities, community-driven spaces, and infrastructure that meets the evolving demands of campus life.

A Promise That Endures

The new Hostel 6 will stand as a symbol of alumni commitment to the next generation. It will be a space for students to belong, grow, and build memories of their own. The impact of this initiative will reinforce the vital role alumni play in shaping IIT Bombay's future, not just through donations, but through vision and continuity.

Alumni Vision

Project Backers:

₹100 crore

pledged by BrowserStack co-founders Nakul Aggarwal & Ritesh Arora (Class of 2005, Hostel 6 residents)

Scope:

Full reconstruction of Hostel 6 with modern architecture and enhanced amenities

Status:

Pre-construction stage with plans to begin work in early 2026

Impact:

Transforming student living while preserving the character and camaraderie of a beloved campus space

Home for Bold Ideas

Desai Sethi School of Entrepreneurship Nears Completion of New Building

Entrepreneurship is not just a discipline; it is a mindset. And now, it has a home built for it.

The Desai Sethi School of Entrepreneurship (DSSE) at IIT Bombay is expanding its presence with a state-of-the-art new building that promises to become the nerve centre of entrepreneurial activity on campus.

Unveiled during DSSE Entrepreneurship Day on January 31, 2025, the facility reflects IIT Bombay's growing ambition to shape a new generation of creators, innovators, and changemakers.


Representative Image

Purpose-Built for Possibility

Located next to the main Institute Library, the new DSSE building spans 7.5 levels, including a half-basement, ground floor, six upper floors, and a terrace. With a total built-up area of 1,15,000 square feet, the space has been designed with intention: to bring together all the elements of innovation, prototyping, learning, and collaboration under one roof.

Each floor has a purpose. From design thinking studios and co-working spaces to DIY micro-factories, pre-incubation labs, and a heavy equipment lab, the building creates an end-to-end ecosystem for student ventures - from concept to creation.

Showcased during the launch, the building is now in the final stages of integration.

Building the Future, Together

More than just a facility, the DSSE building is designed to catalyse a larger vision: fostering innovation-led entrepreneurship that creates real societal impact. By uniting researchers, students, faculty, mentors, and investors in one physical space, the school will enable faster feedback loops, deeper collaboration, and more successful venture creation.

As IIT Bombay strengthens its role in India's rapidly growing startup ecosystem, the DSSE building will serve as a launchpad for bold ideas, and a testament to what happens when vision meets infrastructure.

Key Facilities

- Dedicated Design Thinking Studio
- Tinkerers' Lab, Proof-of-Concept Lab, and Hackathon Space
- Thematic research labs and faculty/staff offices
- Heavy Equipment Lab in the basement to support fabrication

Building Blocks of the Future

Academic Blocks 1 & 2: Expanding Hub for Innovation and Learning

Every great idea needs a space to grow. At IIT Bombay, that space is getting larger, smarter, and more connected.

The Institute is scaling up its academic infrastructure with two ambitious additions: Academic Block 1 - Motilal Oswal Knowledge Centre (AB1) and Academic Block 2 - Lakhamraju Building (AB2). More than just concrete and glass, these buildings are designed to be living ecosystems: places where students learn by doing, researchers collaborate across disciplines, and innovation finds room to breathe.

Together, they span over 300,000 square feet of built-up area, purpose-built to support everything from cutting-edge research to hands-on prototyping. With thoughtful design and future-ready facilities, AB1 and AB2 will soon become the nerve centre for academic, scientific, and entrepreneurial activity on campus.

Designed for Purpose

Each building is meticulously designed to serve distinct academic and research functions:

AB1 – Motilal Oswal Knowledge Centre

- Ground floor with a 6-metre ceiling height, designed to house heavy laboratory equipment
- Ideal for practical learning, engineering research, and large-scale experimental setups
- Housing the following centres and hubs:
  - Motilal Oswal Centre for Capital Markets
  - JSW Technology Hub (for Metallurgy)
  - Ashank Desai Centre for Policy Studies

AB2 – Lakhamraju Building

- A Ground + 10 floor structure, which will house the following centres and hubs:
  - SBI Foundation Hub for Data Science and Analytics
  - C-MInDs (Centre for Machine Intelligence and Data Science)
  - IIT Bombay-FedEx ALFA
  - Department of Industrial Engineering and Operations Research
- Will host a range of spaces including technology labs, DIY project labs, modern classrooms, faculty offices, meeting rooms, and seminar halls

Where Ideas Will Take Shape

These academic blocks are more than infrastructure projects. They are an investment in the future; spaces where knowledge will be created, shared, and translated into solutions for society.

As IIT Bombay continues to grow as a global centre of excellence, AB1 and AB2 will stand as symbols of how thoughtfully designed spaces can elevate how we learn, work, and innovate.

Innovation & Collaboration Hub

Once operational, AB1 and AB2 will become home to several of IIT Bombay's leading academic and research centres.

These centres represent IIT Bombay's leadership in areas such as public policy, artificial intelligence, data analytics, operations research, and logistics, ensuring that the new buildings are not just learning spaces, but launchpads for high-impact ideas.

Academic and Research centres in AB1 & AB2:

- Ashank Desai Centre for Policy Studies
- SBI Foundation Hub for Data Science and Analytics
- IIT Bombay-FedEx Centre for Advanced Logistics and Focused Analytics (FedEx ALFA)
- Industrial Education & Operational Research
- Centre for Machine Intelligence and Data Science (C-MInDS)
- JSW Techology Hub (For Metallurgy)
- Motilal Oswal Centre for Capital Markets

Fuelling Future Collaboration

A91 Eco Hub - Catalysing Interdisciplinary Excellence

On October 14, 2024, IIT Bombay marked a major milestone with the inauguration of the A91 Eco Hub, an architectural and academic landmark powered by alumni generosity and institutional vision.

This dynamic new facility is designed to fuel interdisciplinary research, deepen industry engagement, and strengthen the Institute's intellectual ecosystem.

A Landmark Unveiled

Inaugurated by Director Kedare, the A91 Eco Hub now stands as the permanent home for the Technocraft Centre for Applied Artificial Intelligence (TCA2I), an ambitious initiative focused on applied AI, operational research, data science, and automation.

The facility also houses three academic pillars central to IIT Bombay's evolving landscape: the Department of Economics, the Department of Humanities and Social Sciences (HSS), and the Department of Industrial Engineering and Operations Research (IEOR).

The event honoured alumni champions
- Mr. Abhay Pandey (B.Tech., CSE, 1993),
- Dr. Sharad Saraf (B.Tech., EE, 1969), and
- Mr. Sudharshan Saraf (B.Tech., ME, 1970)

for their extraordinary support.

Designed for Tomorrow

The A91 Eco Hub represents more than just infrastructure; it is a launchpad for future-ready learning and research. With Economics now the fourth most popular discipline on campus, the dedicated academic space will allow students and faculty to address some of today's most pressing socio-economic questions.

TCA2I's integration into the Hub ensures that applied AI innovation remains grounded in real-world utility - from powering logistics to enhancing public services. The presence of HSS and IEOR further anchors the Hub as a collaborative engine across technical, analytical, and human dimensions.

In every sense, the A91 Eco Hub embodies IIT Bombay's mission to create spaces that empower: spaces where students, researchers, and thought leaders can shape ideas, policies, and technologies for India and the world.

Hub of Convergence

Anchor Departments:

- TCA2I – Applied AI & Automation
- Department of Economics
- HSS & IEOR

Strategic Focus:

- Interdisciplinary Learning
- Industry-Academia Collaboration
- Real-World Research Impact

Purpose-Driven Design

Academic Blocks 3 & 4 - Strengthening Core Foundations

As IIT Bombay prepares for its next leap in academic infrastructure, the development of Academic Blocks 3 and 4 represents a decisive step forward. These future-facing blocks are being designed to meet the Institute's growing needs in science, engineering and sustainability that strengthens its leadership in research and education.


Representative Image

Planning with Precision

Currently in the planning and design phase, Academic Blocks 3 and 4 (AB3 and AB4) are envisioned as integrated, high-performance academic spaces. These upcoming blocks will house state-of-the-art classrooms, specialised laboratories, and a modern auditorium. They are envisioned as spaces engineered to foster collaboration, experimentation, and innovation.

AB3 will host the Departments of Earth Sciences and Civil Engineering, with central facilities and heavy-duty equipment located in its basement. AB4, on the other hand, is set to become the home of the Green Energy and Sustainability Hub, positioning IIT Bombay at the centre of India's clean-tech research ecosystem. The building will also feature new Undergraduate Chemistry and Physics Labs, as well as dedicated infrastructure for SemiX research.

The project is progressing in alignment with all statutory regulations. Groundbreaking and construction will begin after the finalisation of designs and relevant approvals.

Shaping a Greener Future

The creation of AB3 and AB4 reflects the Institute's commitment to investing in both foundational science and future-ready technologies. These blocks will expand IIT Bombay's capacity to deliver world-class education while also serving as a launchpad for cutting-edge research in sustainable development.

With clean energy, environmental science, and infrastructure innovation at the forefront of India's development goals, these new academic spaces will empower students and researchers to address urgent global challenges. Seamlessly integrated into the existing campus, the AB3 and AB4 blocks are being built not just to accommodate growth, but to shape it.

Blueprint for Impact

AB4 will house the Green Energy & Sustainability Hub, anchoring research in climate resilience and sustainable systems.

Dedicated Clean-Tech Hub

Departments of Earth Sciences and Civil Engineering to benefit from tailored academic space.

Core Disciplines Strengthened

AB3 includes specialised basement zones for heavy-duty equipment, supporting advanced experimentation.

Engineering Ground-Up

Undergraduate Chemistry and Physics Labs will expand core science education infrastructure.

Labs with Purpose

Dedicated spaces to support interdisciplinary semiconductor research in AB4.

SemiX Research Zone

Constructing Future of Research


Representative image

Academic Science Block 2 (Wadhwani Hub) - Enabling Bioscience Breakthroughs

A new chapter in scientific research and innovation is taking shape at IIT Bombay. The Academic Science Block - 2 (ASB2), to be known as the Wadhwani Hub, is a transformative project that will advance the Institute's leadership in biological sciences, health innovation, and digital health. Designed as a cutting-edge facility, ASB2 will offer next-generation research infrastructure for interdisciplinary science at scale.

Construction in Motion

Progress on ASB2 is steady and visible. It has already been constructed upto the second floor, with foundational milestones, including earth excavation, raft concreting, and early superstructure elements, completed. The structure is planned as a multi-level facility with basement + ground + 10 upper floors and a terrace.

This building will be named as Wadhwani Hub and it will house the Animal Facility, Koita Centre for Digital Health and Wadhwani Innovation and Translation Centre. Each of these components reflects IIT Bombay's deepening investment in the health and bioscience domains.

Built for the Future

ASB2 is designed for scale and significance. The facility will include specialised laboratories, advanced teaching spaces, and common institute-level floors to support the growing needs of departments such as the BSBE. From medical innovation to digital health and biotech, ASB2 will serve as a cornerstone for the next generation of scientific discovery at IIT Bombay.

The project remains on track for completion by January 2026, aligned with its 21-month calendar timeline. Its design also aspires to meet GRIHA sustainability standards, reinforcing the Institute's commitment to environmentally responsible development.

The ASB2 building will house:

- Animal Facility
- Wadhwani Innovation and Translation Centre
- Koita Centre for Digital Health

Connecting Roots, Building Futures

Alumni Centre - Strengthening Lifelong Bonds

IIT Bombay's legacy is built not only on academic excellence, but on the enduring ties it fosters with its global alumni community. The upcoming Alumni Centre building is a new step toward deepening that relationship, a space designed to celebrate shared history, inspire collaboration, and anchor future engagement.

Space to Belong

Currently in active development, the Alumni Centre is envisioned as a vibrant hub for community building, collaboration, and celebration. The architectural concept design is underway, following the formal appointment of the project architect and initial consultations with key stakeholders to define core user requirements.

At the heart of the facility will be a state-of-the-art auditorium and a versatile multi-purpose hall for marquee alumni events. Additional spaces will include seminar and conference rooms, an alumni lounge, dedicated alumni workspaces, and a café—designed to make returning to campus feel like coming home.

The building will also house the IITB Alumni Association Office and feature the IITB Donor Wall, honouring early benefactors such as Mr. Mohan Kavrie, whose support has helped bring this vision to life.

Designed for Community

Beyond architecture, the Alumni Centre is a symbol of IIT Bombay's enduring commitment to its alumni - creating a permanent, welcoming space for dialogue, discovery, and giving back. With features like a souvenir shop, podium parking, and thoughtfully designed amenities, the Centre is designed for comfort, connection, and celebration.

The Alumni Centre promises to become a landmark not just on campus, but in the story of IIT Bombay's evolving alumni legacy.

Homecoming:
Where alumni belong— yesterday, today, and always.

Key Spaces Planned

- Seminar & Conference Rooms
- Alumni Lounge & Café
- Dedicated Alumni Workspaces
- IITB Alumni Association Office
- Dean ACR/ Development and Relations Foundation
- State-of-the-art Auditorium
- Multi-purpose Hall for Marquee Events


Representative Image

Legacy in Focus

- IITB Donor Wall to honour key contributors
- Souvenir shop, community spaces to celebrate alumni culture

Renewing a Legacy

Nandan Nilekani Main Building Renovation - A Cornerstone Transformed

The renovation of IIT Bombay's iconic Main Building, now renamed the Nandan Nilekani Main Building, is a landmark initiative that honours the past while preparing the Institute for the future.

This historic structure, originally built over six decades ago, is being revitalised to meet the dynamic academic, administrative, and cultural aspirations of a world-class institution.

Guided by Vision

The project is being overseen by a dedicated committee comprising institute leadership and key alumni, ensuring robust governance and long-term value creation. During his recent campus visit, Mr. Nandan Nilekani personally reviewed the site, offering strategic guidance and reiterating his deep commitment to strengthening the Institute's vision.

Progress & Preservation

Most of the renovation work is completed. The restored exterior preserves the building's distinctive historical identity, while the interiors are being upgraded in phases to maintain smooth campus operations. A new donor recognition wall has been installed on the ground floor to honour benefactors whose support is shaping IIT Bombay's next chapter.

This project is a reflection of IIT Bombay's enduring values and global ambitions, embedded in brick, vision, and purpose.

The project balances:

- Heritage
- Conservation
- Transformative design

Reimagining the Future

The upgraded building will feature:

- Contemporary workspaces for academic and administrative teams
- Universal accessibility and energy-efficient infrastructure
- Integrated digital systems to support institutional governance
- A revitalised presence that symbolises IIT Bombay's evolution as a global leader in higher education

Faculty and Research Development

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FACULTY AND RESEARCH DEVELOPMENT

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Chair Professorships at IIT Bombay

Recognizing Faculty and Supporting Meaningful Research

Chair Professorships at IIT Bombay are among the most prestigious honours awarded to faculty members, recognizing sustained excellence in teaching, research, and academic leadership. These endowed positions serve not only as markers of distinction but also as enablers of innovation, offering faculty flexibility and resources to pursue high-impact research that addresses real-world challenges.

Over the years, the focus areas of Chair Endowments at IIT Bombay have evolved. What began with broad areas like computer science and energy systems has grown to encompass high-impact, emerging fields from artificial intelligence and climate technologies to biomedical innovation and sustainable infrastructure. This shift mirrors a larger transformation in research priorities: one that aligns intellectual rigor with real-world relevance and global urgency.

Chair Professorships are supported by endowments from alumni, well-wishers, corporates, government agencies, and foundations. These Chairs play a key role in helping IIT Bombay attract and retain outstanding faculty, support younger researchers, and building in-depth work.

Fostering the Full Spectrum of Innovation

The strength of the Chair Professorships lies in how they support a complete cycle of academic excellence. They celebrate established leaders translating years of research into societal impact while also empowering emerging innovators who are pioneering future breakthroughs.

As of FY 2024–25, IIT Bombay has:

58
Chair Professorships
(for full Professors)

8
Chair Faculty positions
(for Associate and Assistant Professors)

12
Visiting Chairs

A great example is **Prof. Rohit Srivastava**, a senior faculty member and the current chair of the prestigious **Himanshu Patel Chair for Applied Biosciences**. His appointment acknowledges his long-standing leadership in the critical area of maternal and child health. The flexible support from the Chair amplifies his team's efforts to build a complete healthcare ecosystem. By collaborating with major government hospitals like Armed Forces Medical College and All India Institute of Medical Sciences, Nagpur, Prof. Srivastava's team is developing an AI-enabled platform to better monitor high-risk pregnancies and reduce maternal mortality.

To ensure this legacy of innovation continues, the Chairs are also pivotal in nurturing the next generation of academic leaders. This is exemplified by **Prof. Pradip P. Kalbar**, an Associate Professor and the current chair of the prestigious **Vijay and Sita Vashee Chair in Climate and Sustainability**. He was recognized for his pioneering research in urban water management. The Chair provides him with the resources to pursue his innovative concept of 'scaled decentralization' for sewerage systems—a breakthrough methodology challenging conventional practices. This recognition empowers him to translate his research into practice, already helping governments design more resilient infrastructure to combat water pollution.

A Lasting Impact

While the stories of Prof. Srivastava and Prof. Kalbar are inspiring, they are just a glimpse into the broader significance of these professorships. Each of the faculty members holding a Chair has their own unique story of innovation. Together, their work is a powerful testament to the Institute's belief in the transformative power of knowledge, proving that when excellence is supported at every level, its impact extends far beyond the classroom or lab to influence policy, industry, and society at large.

List of Active Named Chairs at IIT Bombay

Chair Name	Chair Type	Chair Occupant
Anantrao Jagtap Chair For Construction Management	Chair Faculty	Prof. Venkata Santosh Kumar Delhi
Artificial Intelligence And Machine Learning Chair Professorship	Chair Professorship	Prof. Ravindra Gudi
Asha And Keshav Bhide Chair Professorship	Chair Professorship	Prof. Suyash Awate
Asha Navani Chair Professorship	Chair Professorship	Prof. Maryam Baghini
Bajaj Group Chair Professorship In Computer Science & Engineering	Chair Professorship	Prof. Supratik Chakraborty
Bank Of Baroda Chair Professorship 1	Chair Professorship	Prof. Ganesh Ramakrishnan
Bank Of Baroda Chair Professorship 2	Chair Professorship	Prof. Anil K
Bhide Family Chair Professorship	Chair Professorship	Prof. Abir De
Biswas-Palepu Chair Professorship In The Department Of Chemistry	Chair Professorship	Prof. R. Murugavel
Bureau Of Indian Standards Chair Professorship	Chair Professorship	Prof. Jayesh Bellare
Cl98 Chair Professorship For Quantum Computing	Chair Professorship	Vacant
Class Of 1985 Chair Professorship In Technology & Sustainable Development	Chair Professorship	Prof. Bakul Rao
Cummins Chair Professorship	Chair Professorship	Prof. Pratibha Sharma
D.J. Gandhi Distinguished Visiting Professorship	Visiting Chair	Vacant
Desai Sethi Chair Professorship For Entrepreneurship	Chair Professorship	Prof. Sankalp Pratap

Chair Name	Chair Type	Chair Occupant
DI Shah Chair Professorship For Innovation	Chair Professorship	Prof. D. N. Singh
Dr. K. V. Ramachandran Chair Professorship For Statistics And Mathematics	Chair Professorship	Prof. Sudhir Ghorpade
Dr. P V Sukhatme Chair Professorship	Chair Professorship	Prof. Ranjith Padinhateeri
Dr. P. R. Sharadamani Chair Professorship	Chair Professorship	Prof. Nandita Madhavan
Dr. P.K. Kelkar Chair Professorship For Excellence In Nanotechnology	Chair Professorship	Prof. Saurabh Lodha
Dr. Rinti Banerjee Visiting Chair Professor	Visiting Chair	Dr. Monica Lakhanpaul, Professor of Integrated Community Child Health at UCL's Institute of Child Health.
Dr. Manwani Chair Professorship In Electric Vehicles	Chair Professorship	Prof. Kishore Chatterjee
Erach And Meheroo Mehta Advanced Education Technology Chair Professorship	Chair Professorship	Prof. Shridhar Iyer
Forbes Marshall Chair Professorship	Chair Professorship	Prof. Dinesh Kabra
G K Devarajulu Chair Professorship	Chair Professorship	Prof. Ramesh Singh
Google Cloud Chair Professorship	Chair Professorship	Prof. B Sunoj
Halepete Family Chair Professorship Of Artificial Intelligence Research	Chair Professorship	Prof. Soumen Chakrabarti
Himanshu Patel Chair Professorship For Applied Biosciences	Chair Professorship	Prof. Rohit Srivastava
Hindustan Aeronautics Chair Professorship	Chair Professorship	Prof. Karunakaran Poopathi
Inani Chair Professorship In Semiconductor Technology	Chair Professorship	Prof. Bhaskaran Muralidharan

Chair Name	Chair Type	Chair Occupant
India Value Fund Chair Professorship For Humanities & Social Sciences	Chair Professorship	Prof. Azlzuddin Khan
Indian National Academy Of Engineering Chair Professorship	Chair Professorship	Prof. Devang Khakhar
Inox Chair Professorship In Cryogenics	Chair Professorship	Prof. Milind Atrey
Jane Street Chair	Chair Faculty	Vacant
Jindal Stainless Chair Professorship	Chair Professorship	MJNV Prasad
Jitendra K. & Meena J. Mehta Chair Professorship Of Structural Engineering	Chair Professorship	Prof. Siddhartha Ghosh
Kamalnayan Bajaj Chair Professorship In Electrical Engineering Department	Chair Professorship	Prof. Subhasis Chaudhuri
Kinetic Chair Professorship	Chair Professorship	Prof. Vivek Agarwal
Larsen & Toubro Chair	Chair Faculty	Prof. Mahesh Tirumkudulu
Madhuri Sinha Chair Professorship In Biomedical Engineering	Chair Professorship	Prof. Shamik Sen
Maharashtra Pollution Control Board Chair Professorship	Chair Professorship	Prof. Suparna Mukherjee
Major Bhagat Singh Chair Professorship	Chair Professorship	Prof. Pushpak Bhattacharyya
Nisha And Rajesh Visiting Chair Professorship	Visiting Chair	Prof Sanat Kumar (Columbia University, USA)
Praj Industries Chair Professorship	Chair Professorship	Prof. Santanu Bandyopadhyay
Pramod Chaudhari Chair Professorship	Chair Professorship	Prof. Pramod Wangikar

Chair Name	Chair Type	Chair Occupant
Prof. D. M. Dhamdhere Chair For Excellence In Teaching Methods	Chair Faculty	Prof. Kameswari Chebrolu
Prof. James R. Isaac Chair	Chair Faculty	Prof. Akash Kumar
Prof. N. R. Kamath Distinguished Institute Chair Professorship	Visiting Chair	Prof. Kaushik Basu, Carl Marks Professor of International Studies, Professor of Economics at Cornell University (USA). Prof. Manjul Bhargava, R. Brandon Fradd Professor of Mathematics at Princeton University. Prof. Madhu Sudan, Gordon McKay Professor of Computer Science at the Harvard John A. Paulson School of Engineering and Applied Sciences. Prof. Bruce Hajek, Leonard C. and Mary Lou Hoeft Endowed Chair in Engineering at the University of Illinois at Urbana-Champaign, Professor of Electrical and Computer Engineering. Dr. Rakesh Agarwal, President and Founder of Data Insights Laboratories, San Jose, USA. Prof. Herbert Huppert, ScD FRS Professor of Theoretical Geophysics at the University of Cambridge. Prof. Michael Lawrence Klein is Laura H. Carnell Professor of Science and Director of the Institute for Computational Molecular Science at Temple University in Philadelphia, US
Prof. Tarun Kant Endowed Chair In Computational Mechanics In Civil Engineering	Chair Professorship	Prof. Deepankar Choudhary

Chair Name	Chair Type	Chair Occupant
Prof. T.R.R. Mohan Chair In Material Sciences And Microelectronics	Chair Professorship	Prof. Indradev Samajdar
Rahul Bajaj Chair Professorship In Mechanical Engineering Department	Chair Professorship	Prof. Atul Sharma
Ramkrishna Bajaj Chair Professorship In IDC	Chair Professorship	Prof. Nishant Sharma
Rasiklal Hemani Fragrance And Flavour Chair Professorship	Chair Professorship	Prof. Santosh Gharpure
Sajjan Jindal Steel Chair Professorship	Chair Professorship	Prof. Vishwanathan Nurni
Samir And Vinaya Kapoor Chair Professorship In Climate	Chair Professorship	Prof. Subhankar Karmakar
Shailesh Mehta Chair Professorship	Chair Professorship	Prof. Pankaj Dutta
Shobha Dixit Chair Professorship	Chair Professorship	Prof. Krishna S. Narayanan
Shridhar Shukla Chair Professorship In Digital Trust - 1	Chair Professorship	Prof. Vinay Ribeiro
Shridhar Shukla Chair Professorship In Digital Trust - 2	Chair Professorship	Prof. S. Akshay
Shridhar Shukla Chair Professorship In Digital Trust - 3	Chair Professorship	Prof. Biswabandan Panda
Subrao M. Nilekani Chair Professorship	Chair Professorship	Prof. S. Sudarshan
Sumati And Atmaram Kotwal Sanskrit Acharya Chair Professorship	Chair Professorship	Prof. Malhar Kulkarni
Tata Frugal Chair Professorship - 1	Chair Professorship	Prof. Sudarshan Kumar
Tata Frugal Chair Professorship -2	Chair Professorship	Vacant

Chair Name	Chair Type	Chair Occupant
Thakur Family Chair Professorship	Chair Faculty	Prof. Parthe Pandit
The Kelkar Family Chair In Quantitative Finance	Chair Faculty	Prof. Ankur Kulkarni
Vidya Sharma Chair Professorship In Electrical Engineering	Chair Professorship	Vacant
Vijay And Sita Vashee Chair In Climate And Sustainabilty	Chair Faculty	Prof. Pradip Kalbar
Vijay And Sita Vashee Chair Professorship	Chair Professorship	Prof. Manoj Prabhakaran
Yogen Dalal Chair Professorship	Chair Professorship	Vacant
4 Visiting Chair Professorships In Center Of OGE	Visiting Chair	Dr. D K Tuli , Shri. Jayant Kumar Joshi Shri. Sriganesh Gandham Dr. Anand Kale Dr. Satyam Priyadarshy Dr. Kannan Chandrasekaran

Faculty Awards

Shaping Minds, Advancing Science

From pathbreaking research to inspired teaching, IIT Bombay's faculty awards in 2024–25 honoured those who lead by example, pushing boundaries in science, technology, and pedagogy while shaping minds and innovations across the Institute and beyond.

Prof. H.H. Mathur Award for Excellence in Applied Sciences & S.C. Bhattacharya Award For Excellence In Pure Sciences

Each year, IIT Bombay recognises outstanding contributions in research through two prestigious faculty awards: the Prof. H. H. Mathur Award for Excellence in Applied Sciences and the Prof. S. C. Bhattacharya Award for Excellence in Pure Sciences. Established through the generous support of alumnus Mr. Rakesh Mathur, these awards honour faculty members whose work exemplifies excellence in their respective domains.

For 2024–25, the Prof. H. H. Mathur Award for Excellence in Applied Sciences was conferred upon:

Prof. Gopalan Rajaraman (Department of Chemistry) - Awarded the Prof. S.C. Bhattacharya Award for Excellence in Research in Pure Sciences (2024) for his outstanding contributions to Molecular Magnetism, Bioinorganic Chemistry, Spintronics, and Catalysis.

Prof. Maryam Shojaei Baghini (Department of Electrical Engineering) - Awarded the Prof. H.H. Mathur Award for Excellence in Research in Applied Sciences (2024) for her exceptional research in Analog/Mixed-Signal IC Design, Sensor Systems, Energy Harvesting Circuits & Systems, and Neuromorphic Engineering.

Prof. S.C. Sahasrabudhe Lifetime Achievement Award

To honour the legacy of one of its most revered academicians, IIT Bombay has renamed its Lifetime Achievement Award as the Prof. S. C. Sahasrabudhe Lifetime Achievement Award. Conferred annually, this distinguished recognition celebrates a faculty member whose career reflects extraordinary dedication, scholarship, and impact on the Institute's journey.

For 2024–25, the honour was conferred upon **Prof. Jayesh Bellare**, Institute Chair Professor in the Department of Chemical Engineering.

An alumnus of IIT Bombay (B.Tech., First Rank, 1982), Prof. Bellare holds a PhD from the University of Minnesota, and has held faculty positions at The University of Massachusetts Amherst, Massachusetts Institute of Technology, and Technion - Israel Institute of Technology. He is a Fellow of India's premier science and engineering academies, and served as the founding Head of IIT Bombay's School of Biosciences and Bioengineering.

With over two decades of contributions to microscopy (cryo-TEM), biomedical devices, regenerative medicine, nanotechnology, and nanomedicines, Prof. Bellare has consistently expanded the frontiers of applied science and translational research. He established IIT Bombay's cGMP facility licensed by DCGI/CDSCO, and leads India's first academic first-in-human study for a regenerative bone scaffold at All India Institute of Medical Sciences, Delhi.

His work has led to several successful technology transfers in the biomedical and nanotech domains. His accolades include the Lifetime Achievement Award from the Ministry of Ayush, the Presidential Award from the Electron Microscopy Society of America, and the NASI–Reliance Platinum Jubilee Award.

Prof. Bellare continues to serve on expert panels of The Council of Scientific and Industrial Research, Department of Biotechnology, and Department of Science and Technology, and advises industry and government bodies as a technology evaluator, while also contributing to corporate governance through board-level roles.

D. P. Joshi Excellence in Teaching Award

Established through the generous contribution of alumnus Dr. Narendra Joshi, the Shri D. P. Joshi Memorial Award honours the memory of his late father and recognises outstanding teaching in the Departments of Mechanical and Aerospace Engineering.

What makes this award unique is that recipients are selected based on student feedback, a direct reflection of their classroom impact.

In 2024, the award was conferred upon **Prof. Amber Shrivastava** and **Prof. Upendra Bhandarkar**, whose teaching excellence and mentorship have left a lasting mark on students within their departments.

Prof. S. P. Sukhatme Excellence in Teaching Awards

On September 5, 2024, IIT Bombay celebrated Teachers' Day in tribute to Dr. S. Radhakrishnan, India's eminent philosopher and statesman. The event was graced by Dr. Arunava Majumdar, Dean of the Stanford Doerr School of Sustainability and Jay Precourt Professor of Mechanical Engineering at Stanford University, who served as Chief Guest.

As part of the celebration, 14 distinguished faculty members were honoured with the Prof. S. P. Sukhatme Excellence in Teaching Award, recognising their outstanding contributions to pedagogy, mentorship, and the academic growth of students.

The recipients of the Prof. S. P. Sukhatme Excellence in Teaching Award are:

Name	Department
Prof. Ajit Rajwade	Dept. of Computer Science and Engineering
Prof. Alka Hingorani	IDC School of Design
Prof. Balaji Ramakrishnan	Dept. of Civil Engineering
Prof. Jayendran Venkateswaran	Dept. of Industrial Engineering and Operations Research
Prof. M.J.N.V. Prasad	Dept. of Metallurgical Engineering and Materials Science
Prof. Mythili Vutukuru	Dept. of Computer Science and Engineering
Prof. Nagendra Rao Velaga	Dept. of Civil Engineering
Prof. Preeti Raman	Dept. of Mathematics
Prof. Rajendra Prasad Vedula	Dept. of Mechanical Engineering
Prof. Ranjan Kumar Panda	Dept. of Humanities and Social Sciences
Prof. Shilpa Ranade	IDC School of Design
Prof. Shireesh B. Kedare	Dept. of Energy Science and Engineering
Prof. Sibi Raj Bhaskaran Pillai	Dept. of Electrical Engineering
Prof. Somnath Basu	Dept. of Metallurgical Engineering and Materials Science

Hotchand Lala and Jamunabai Lala Award

The Shri Hotchand Lala and Smt. Jamunabai Lala Memorial Award was instituted by alumnus Dr. Jay Lala in honour of his parents, to recognise exceptional faculty in Aerospace Engineering.

In 2024, the award was presented to **Prof. Jadav Mandal** and **Prof. Avijit Chatterjee**, acknowledging their commitment to academic excellence and their influence in shaping the next generation of aerospace engineers.

C1973 Faculty Award for Research Excellence

In 2023, the Class of 1973 marked the Golden Jubilee of their graduation from IIT Bombay with a lasting contribution to the Institute's academic ecosystem. As part of their legacy project, they established the C1973 Faculty Award for Research Excellence (C1973 FARE, a tribute to the spirit of innovation and inquiry that defined their own journey).

Presented annually during the Teacher's Day celebrations, the award honours 16 junior faculty members who have demonstrated exceptional promise and achievement in research.

The award aims to encourage and recognise outstanding research among early-career faculty members across all academic units at IIT Bombay.

The recipients of the C1973 FARE in 2024 are:

Name	Department
Prof. Amrita Bhattacharya	Department of Metallurgical Engineering and Materials Science
Prof. Ankit Jain	Department of Mechanical Engineering
Prof. Anshuman Kumar	Department of Physics
Prof. Arnab Dutta	Department of Chemistry
Prof. Harish C. Phuleria	Department of Environmental Science and Engineering
Prof. Jayadipta Ghosh	Department of Civil Engineering
Prof. Karethikeyan Lanka	Centre of Studies in Resources Engineering (CSRE)
Prof. Kasturi Saha	Department of Electrical Engineering
Prof. Preethi Jyothi	Department of Computer Science and Engineering
Prof. Shashi Ranjan Kumar	Department of Aerospace Engineering
Prof. Sobhna Kapoor	Department of Chemistry
Prof. Souvik Banerjee	Department of Economics
Prof. Sudhasheel Sen	Department of Humanities & Social Sciences
Prof. Varun Bhalerao	Department of Physics
Prof. Venkat Gundabala	Department of Chemical Engineering
Prof. Venkatasailanathan Ramadesigan	Department of Energy Science and Engineering

Dr. P.K. Patwardhan Technology Development Award

The Dr. P. K. Patwardhan Technology Development Award celebrates faculty-led research that translates into impactful, indigenous technologies.

In 2024, the award was conferred upon:

- **Prof. Manjesh Kumar Hanawal, Department of Industrial Engineering and Operations Research**, for his pioneering work on VAJRA, an indigenous tool for endpoint security.
- **Prof. Rajesh Patkar, Department of Biosciences and Bioengineering**, for his bio-stimulant-based approach to enhancing the yield and nutritional value of potatoes.

Both recipients exemplify IIT Bombay's mission to bridge deep research with real-world application in science, agriculture, and cybersecurity.

Prof. Jaganmohan Award

Instituted in memory of Prof. Jaganmohan, who served IIT Bombay from 1958 to 1992, this award honours outstanding teaching in the Department of Mechanical Engineering. It was established by alumnus Dr. Shivram Murty to commemorate his elder brother's legacy.

Selected by final-year B.Tech., Dual Degree, and M.Tech. students, the award recognises faculty who demonstrate exceptional classroom engagement and pedagogical impact.

In 2024, the award was conferred upon **Prof. Milind Atrey** and **Prof. S. V. Prabhu**, both respected for their deep commitment to academic excellence and student learning.

Dhananjay Joshi Fundamental Research Award

Established through the generous endowment of Dr. Veena Joshi in memory of her late husband, Mr. Dhananjay Joshi, the Dhananjay Joshi Fundamental Research Award supports deep, curiosity-driven inquiry in foundational science and engineering.

Instituted in 2019 on IIT Bombay's 60th Foundation Day, the award honours researchers who advance fundamental understanding in their disciplines with rigour and originality.

Awardee for 2024–25: Prof. Bhaskaran Muralidharan

Prof. Bhaskaran Muralidharan has been recognised for his outstanding contributions to quantum transport, topological matter, and nanoscale quantum devices.

His recent work spans five cutting-edge areas:

- **Quantum Correlations in Cooper Pair Splitters:** Developed a theoretical framework to analyse nonlocal quantum correlations in thermoelectric Cooper pair splitter devices, highlighting the role of quantum discord in engineering solid-state entanglement.
- **Detection of Majorana Zero Modes:** Proposed a new metric, disconnected entanglement entropy, for identifying topological transitions and Majorana zero modes in semiconductor–superconductor hybrid systems.
- **Valleytronics in Graphene:** Demonstrated a novel method to induce valley polarization in monolayer graphene using inclined PN junctions, offering a promising path toward practical valleytronic devices.
- **Robustness of Topological Phases:** Showed that symmetry-protected topological phases can survive under a wide range of dephasing conditions, with implications for fault-tolerant topological electronics.
- **Spin-Valley Qubits in TMDCs:** Developed a unified modelling framework for recent experiments on spin-valley locking in TMDC quantum dots, advancing prospects for programmable qubit technologies.

This award celebrates the spirit of foundational research - exploratory and essential to the scientific progress of tomorrow.

Beyond Borders, Into Impact

International Award for Excellence in Research in Engineering and Technology

Excellence in engineering is not confined by geography, and neither is IIT Bombay's commitment to recognising it.

The IIT Bombay International Award for Excellence in Research in Engineering and Technology honours global scholars whose work has delivered significant real-world impact over the past decade.

Established with the generous support of Mr. Sandeep Naik and Mr. Shantanu Rastogi, the award reflects the Institute's vision of celebrating research that bridges innovation, academia, and societal relevance.

2024 Honouree: Prof. Tony Quek

On Teacher's Day, 5th September 2024, the award was conferred upon **Prof. Tony Quek**, IEEE Fellow, Cheng Tsang Man Chair Professor, and Director of the Future Communications R&D Programme at the Singapore University of Technology and Design (SUTD).

Prof. Quek was recognised for his pioneering research in wireless communications, especially in ultra-reliable low-latency communication (URLLC) and network intelligence, key foundations for next-generation communication systems. His work has influenced both cutting-edge research and critical real-world applications.

His academic path has spanned continents, with degrees from the Tokyo Institute of Technology and a Ph.D. from MIT, followed by research at A*STAR and leadership roles at SUTD.

A day prior to getting the award, Prof. Quek delivered a talk at IIT Bombay titled 'My Personal Research Experience and Research Pathway', where he shared reflections on his journey: from academic discovery to national-scale research leadership.

Recognising Research That Matters

Through this award, IIT Bombay honours research that goes beyond theory: work that creates knowledge, drives innovation, and shapes the future. In celebrating global leaders like Prof. Quek, the Institute reaffirms its belief that excellence, when shared, moves the world forward.

Retired Faculty Wellness Fund

A Collective Gurudakshina

The Retired Faculty Wellness Fund (RFWF) is a heartfelt tribute from IIT Bombay alumni to the teachers who shaped their journeys. First established as the legacy project of the Class of 1984, this initiative reflects a growing community of gratitude, now supported by successive batches from 1985 to 1999.

What began as an act of 'gurudakshina' has evolved into a vital support system for those who once guided the Institute's academic foundations.

The RFWF was created to provide supplementary medical insurance to faculty members who retired prior to 2003, many of whom did not have access to adequate post-retirement healthcare coverage. The programme extends coverage not only to retired professors, but also to their spouses and surviving spouses, ensuring continuity of care through life's later stages.

Giving Back with Care

This initiative ensures that those who once nurtured generations of IIT Bombay students are now cared for with dignity, respect, and compassion.

As of 2024–25,
the RFWF supports

117 beneficiaries

including:

- 36 retired professors
- 23 spouses of retired faculty
- 58 surviving spouses of deceased faculty members

Key benefits under the plan include:

- An annual insurance cover of ₹5,00,000
- Coverage for critical treatments such as cyberknife therapy, cochlear implants, sinus surgery
- Hospitalization for psychiatric care
- Annual preventive health check-ups

Young Faculty Fellowship

IIT Bombay's Young Faculty Fellowship programme recognises the need to lend a small but meaningful hand to faculty members just starting out in their careers, to enable them to easily mature into our senior faculty who are at the forefront of engineering education and research in India.

During my student days, I was fortunate to receive valuable research guidance and mentoring from some outstanding young faculty members at IITB. My family and I support the YFF programme within our annual contribution as a token of appreciation for the help I was blessed to receive as a student some four decades ago.

– Atul Athalye
B.Tech., 1986, Chemical Engineering, Hostel 6

Strengthening The Faculty

First instituted in 2007 as the Young Faculty Award (YFA), and later renamed the Young Faculty Fellowship (YFF), this initiative remains one of IIT Bombay's most impactful alumni-supported programmes.

Originally envisioned as the Class of 1982 Legacy Project, the Fellowship was born from a strategic need: to attract and retain top-tier academic talent during a time of increasing global competition for faculty.

Over the years, the YFF has grown stronger with support from multiple alumni batches, individual donors, and corporates, establishing itself as a cornerstone of IIT Bombay's vision to sustain academic leadership in science, technology, and research.

In FY 2024–25, the programme supported 127 faculty members across departments.

Investing in Potential

The Young Faculty Fellowship plays a pivotal role in IIT Bombay's faculty recruitment and retention strategy. By providing critical early-career support, it enables newly joined faculty members to:

- Launch independent research
- Set up laboratories
- Begin student mentorship in their formative academic years

This timely support ensures that young faculty can make meaningful academic and research contributions from the outset, thereby enriching the Institute's intellectual ecosystem and enhancing its educational impact.

Alumni-Driven

The YFF exemplifies how alumni philanthropy can spark enduring institutional change. By nurturing early-career scholars, the programme helps IIT Bombay remain the destination of choice for the world's brightest academic minds, ensuring a strong foundation for innovation, mentorship, and leadership in the decades to come.

YFF enables newly joined faculty members to:

- Launch independent research
- Set up laboratories
- Begin student mentorship in their formative academic years

Student Development

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STUDENT DEVELOPMENT

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Scholarships That Create Opportunity

Expanding Access, Enabling Ambition

At IIT Bombay, access to excellence begins with one powerful idea that no deserving student should be held back for lack of means. The Institute is committed to ensuring that every deserving student has access to world-class education, regardless of financial background.

Through its Named Scholarships programme, IIT Bombay provides financial support that covers tuition and mess fees for one academic year, based on merit and need. These scholarships allow students to pursue their academic dreams without placing additional pressure on their families.

More than just financial aid, scholarships reflect belief in talent, effort and in the transformative power of education.

Number Wise
Academic Year 2024–25

₹7.4 crore
disbursed through Named Scholarships

294
undergraduate students supported

104
female students included

168
generous donors

The spark for Om Soni's aviation dreams was lit early. As a child, he watched flight videos shared by his father, who was just as fascinated by flying machines.

Growing up in Petlawad, a small town in Madhya Pradesh, he didn't have access to coaching classes, but taught himself through YouTube and other online resources. His parents, a lab technician and a tuition teacher, faced pressure to limit his education, but they believed in his dreams.

Now at IIT Bombay, beyond studying Aerospace Engineering, Om is also taking on leadership roles: Department General Secretary, Undergraduate Joint Secretary, a convener in the Aeromodelling Club, and class representative.

"My parents have sacrificed a lot so that I never felt left behind. This scholarship lets me chase my goal, improving the state of aerospace in India, without worrying about the financial burden," says Om.

"One day, I hope I will be able to help other students achieve their goals, just as you have helped me."

Beyond academics, Om likes to sing and also plays the piano.

"This scholarship ensures I can study without being a burden on my family."

Om Soni
B.Tech, Aerospace Engineering (Hostel 3)
From Petlawad, Madhya Pradesh

Karri Ganga Dhana Sri grew up in the quiet town of Anaparthy in Andhra Pradesh, in a family that valued learning deeply, even when resources were limited.

Her father is a farmer, her mother a homemaker, and her elder brother is also pursuing engineering. Supporting two children through higher education was never going to be easy for the parents, but giving up was never an option either.

"I did my schooling at Tirumala Mahila Junior Kalasala, where I developed a strong interest in Maths, Physics, and Chemistry," Ganga says.

Her passion for numbers and problem-solving led her to IIT Bombay's Computer Science and Engineering department, where she now aspires to become a software engineer working on meaningful, innovative projects.

But getting to this path was not easy. With mounting educational and household expenses, the pressure on her family was growing. The scholarship she received came as both relief and reassurance.

"Managing both educational and household expenses was challenging for my family. This scholarship has significantly reduced the financial burden on my parents, allowing me to focus on my studies without constantly worrying about fees and other expenses," she says.

Ganga finds her balance by solving Sudoku puzzles to sharpen her logic and by reading books to relax and learn beyond the classroom.

For her, this scholarship is not just about fees. It is about having the freedom to focus, and holding the belief that her dreams will come true.

"Your generosity has helped me to be one step closer to my goal, and has also inspired me to help others by giving back to the community one day," she says.

"By awarding me the scholarship, I am able to concentrate on what is important for me."

Karri Ganga Dhana Sri
B.Tech, Computer Science & Engineering (Hostel 15)
From Anaparthy, Andhra Pradesh

Enabling Climate Leadership

ACCESS Award & SPURS

At the intersection of purpose and possibility, Dr. Vinaya Kapoor and Dr. Samir Kapoor, alumni from the Class of 1992 (Chemical and Electrical Engineering), have championed a bold idea: that early academic mentorship and interdisciplinary innovation are key to addressing the planet's most urgent challenges.

Their belief has seeded two transformative initiatives at IIT Bombay: the ACCESS Award and SPURS, both designed to nurture climate leadership, accelerate sustainability solutions, and build a thriving, action-oriented innovation ecosystem.

ACCESS Award - Accelerating Climate, Energy & Sustainability Solutions

Established in 2023, the ACCESS Award supports high-impact ideas for solving real-world climate challenges. More than a grant, the Award recognises interdisciplinary, implementable, and socially relevant innovations.

The second edition (2024) focused on two critical tracks: climate impact and adaptation and climate mitigation and finance.

Winners of the 2024 edition demonstrated technical ingenuity and deep social insight:

- Team SMFI received First Prize for developing a Soil Moisture Forecasting Instrument, a low-cost tool designed to enable climate-resilient farming for India's agricultural communities.
- Team ThermoWatch earned Second Prize for its heatwave forecasting and urban alerting system, addressing an urgent and growing risk in Indian cities.
- Team Nirvaan, winner of the Mitigation track, proposed a low-emission crematorium pyre, a culturally sensitive and environmentally conscious rethinking of end-of-life traditions.

SPURS - Summer Programme for Undergraduate Research in Sustainability

Launched in 2025, SPURS reflects the conviction that climate leadership begins early. Designed for 2nd and 3rd year undergraduate students, this programme places students at the heart of hands-on, faculty-led research on sustainability.

Housed within the Interdisciplinary Programme in Climate Studies (IDPCS), SPURS selects up to 10 projects annually through a competitive review process. Research themes span a wide spectrum: from renewable energy and climate adaptation to urban systems and environmental data science.

Selected students gain mentorship from leading faculty, exposure to high-impact, real-world problem-solving, and a platform to present their work at the annual SPURS Showcase.

Climate Action In Motion

Donors:
Dr. Vinaya Kapoor & Dr. Samir Kapoor
(Class of 1992)

Flagship Initiatives

- ACCESS Award (launched 2023) – Interdisciplinary solutions for climate mitigation and adaptation
- SPURS (launched 2025) – Undergraduate summer research in sustainability

Key Impact Areas

- Climate-Resilient Agriculture
- Urban Heat Risk
- Low-Carbon Innovation
- Undergraduate Research & Mentorship
- Interdisciplinary Climate Studies

Fuelling Research Aspirations

Fellowship Programmes – Pillars For Research

The Fellowship Programmes play a vital role in enabling research excellence at IIT Bombay.

By connecting postgraduate and Ph.D. students with fellowship support from corporations, foundations, alumni, and philanthropists, the initiative transforms academic ambition into research impact.

As of 2024–25, 78 out of 124 active fellowship recipients were supported by corporate partners. These fellowships not only offer crucial financial backing but also unlock new avenues for applied research and collaboration.

By empowering students to pursue high-impact work, the programme strengthens the link between academia and industry and fosters innovation, knowledge transfer, and real-world problem solving.

Corporate Fellowship Partners

adani
Apache
D-Mart
SIR DORABJI TATA TRUST
FedEx Corporation
Keva
ROADSTAR
SBI FOUNDATION Service Beyond Banking
Schindler
TCS TATA CONSULTANCY SERVICES
TECNIMONT MAIRE Integrated E&C Solutions
Tower RESEARCH CAPITAL

These partnerships exemplify the shared commitment to nurturing talent and advancing India's research ecosystem.

Investing in Futures

Financial Aid Programme - A Circle of Support

The Financial Aid Programme (FAP) at IIT Bombay is a unique, honour-based model of peer-to-peer support that has been quietly transforming lives for over 17 years.

Established to ensure that financial constraints never stand in the way of academic ambition, FAP provides need- and merit-based scholarships to undergraduate and postgraduate students across all disciplines.

What sets FAP apart is its sustainability: students receive interest-free assistance to cover tuition, hostel and mess fees, and even laptop purchases. And once they are in a position to give back, they repay the amount, which then supports the next generation of students. This creates a powerful, self-sustaining ecosystem of access and equity, built entirely on trust.

Beyond financial support, FAP also offers career readiness initiatives such as industrial visits and mentoring, helping students stay in school, graduate with confidence, and chart successful paths forward.

Today, FAP's donor community spans batches from 1967 to 2024, united by a shared commitment to inclusive excellence.

IMPACT SNAPSHOT

Cumulative Impact (2007-2025)

1,459
Students Benefited

₹18.40 crore
Disbursed

Financial Aid Programme (2024-2025)

361
Students Supported
(for academic and mess fees)

₹3.51 crore
Disbursed

₹55 lakh
Returned Donations from Past Beneficiaries

361
Students Impacted (New + Repeat)

New: 134 UG: 106
Repeat: 227 PG: 255

Naik and Rastogi Award for Excellence in Ph.D. Research

Instituted through the generous support of Mr. Sandeep Naik and Mr. Shantanu Rastogi, this award celebrates the most outstanding Ph.D. graduates at IIT Bombay - from social scientists tackling pressing global issues to engineers unlocking tomorrow's technologies.

In 2024-25, 42 Ph.D. scholars from 24 departments were recognised for their exceptional research.

Name	Department
Abhijeet Awasthi	Computer Science and Engineering
Abhishek Yadav	Humanities and Social Sciences (HSS)
Aditya Prasad Roy	Mechanical Engineering
Alok Kumar Srivastava	Centre for Research in Nanotechnology and Science (CRNTS)
Anil Kumar	Department of Energy Science and Engineering (DESE)
Ankita Pradhan	Civil Engineering
Anurag Singh	Chemistry
Apoorva Nambiar	Centre for Technology Alternatives for Rural Areas (CTARA)
Bathini Lava Kumar	Metallurgical Engineering and Materials Science (MEMS)
Belkhode Satish Shamsundar	Electrical Engineering
Dandia Hiren Yogesh Divya	Biosciences and Bioengineering
Dependu Dolui	Chemistry
Golive Yogeswara Rao	Electrical Engineering
Jayabrata Das	Chemistry

Name	Department
Kadam Nishad Shishir	Chemical Engineering
Khushboo Agarwal	Industrial Engineering and Operations Research (IEOR)
Kiran Shahu Jadhav	Mechanical Engineering
Koustav Chandra	Physics
Meghana Munagala	Chemical Engineering
Nabodyuti Das	Civil Engineering
Narayanarao Bhogapurapu	Centre of Studies in Resources Engineering (CSRE)
Nidhin George Mathews	Metallurgical Engineering and Materials Science (MEMS)
Pallavi Sinha	Systems and Control Engineering (SYSCON)
Pankaj Kumar	Civil Engineering
Pankaj Sheshrao Chavan	Educational Technology
Phani Raj H.	Electrical Engineering
Pragya	Aerospace Engineering
Pratiti Sarkar	IDC School of Design
Raj Kumar	Chemistry
Rajhans Negi	Environmental Science and Engineering Department (ESED)
Raman U	Earth Sciences
Raut Harshal Suresh	Mechanical Engineering
Rayjada Satwik Pankajkumar	Civil Engineering

Name	Department
Ria Paul	Biosciences and Bioengineering
Sindhuja Kasthala	Centre for Climate Studies
Subhankar Sahu	Chemistry
Surabhi Lodha	Humanities and Social Sciences (HSS)
Tapendu Rana	Mathematics
Tathagata Pal	Biosciences and Bioengineering
Ved Dilip Beloskar	Shailesh J. Mehta School of Management (SJMSOM)
Vikram Mahamiya	Physics
Vishal Eknath Puranik	Department of Energy Science and Engineering (DESE)

IITB Student Flourishing Hub

Investing in Well-being, Leadership, and Lifelong Growth

During their 25-year reunion in December 2023, the Class of 1998 made a pledge to support transformative initiatives at IIT Bombay. This commitment marks a major step toward advancing the Institute's vision of academic and institutional excellence.

The funding will strengthen faculty and student development, support cutting-edge research, and enhance campus infrastructure. A flagship initiative under this pledge is the IITB Student Flourishing Hub, a pioneering programme embedded within the Student Wellness Centre (SWC).

The Flourishing Hub aims to build emotional resilience, self-awareness, and personal leadership among students.

Expanding on the SWC's foundation, this represents a holistic shift in how IIT Bombay nurtures student success, helping young minds thrive not just in academics but across all facets of life.

From entrepreneurship and academia to industry, public service, and the social sector, the Hub will equip students with the clarity, confidence, and tools to flourish in any path they choose.

Student Awards

At its 62nd convocation ceremony held in August 2024, IIT Bombay applauded 187 students who were awarded for excellence. The 78 coveted prizes recognised the dedication and brilliance of the Institute's top performers for the academic year (FY 2024-2025). The ceremony celebrated individual achievements while also igniting a spirit of excellence across the entire IIT Bombay community.

Distribution of Awardees by Department

List of Student Awards & Recipients for FY 2024-25

Award Name	Department	Student Name
A.Parthasarathy-G Shanmugam Award in Sedimentology and Petroleum Geology	Department of Earth Sciences	Arghadeep Das
Aditya Choubey Memorial Prizes	Department of Electrical Engineering	Apoorv Goyal
Ajit Shelat Award	Department of Computer Science & Engineering	Khetan Bhumika Sanjay
Ajit Shelat Award	Department of Computer Science & Engineering	Neralla Manikanta
Akshay Dhoke Memorial Award	Department of Electrical Engineering	Raut Atharva Vidyanand
Amrutha Award	Department of Electrical Engineering	Priyanka Bhausaheb Gorade
Award of Tulsiram Devidayal P.M. Natu and Damle Trust Prize	Department of Mechanical Engineering	Kaivaly Sanjay Daga
B.K.Nilakhe award (From 2022 to 2026 only)	Department of Physics	Disha Zaveri
Baishnab and Kasturi Academic Excellence Award	Department of Energy Science and Engineering	Thammina Kiran
Bhavesh Gandhi Memorial Prize (Electrical Engg.)	Department of Electrical Engineering	Kushal Kejriwal
Bhavesh Gandhi Memorial Prize (Physics)	Department of Physics	Immanuel Jeremy Christen Miranda
Chandrashekhar Prize	Department of Chemical Engineering	Palak Bhavesh Vora

Award Name	Department	Student Name
Digamber & Nilima Joshi Award	Department of Humanities & Social Sciences	Dhanashree Amol Lele
Dilip R Limaye Academic Excellence Award	Centre for Research in Nanotechnology and Science (CRNTS)	Vedang Dhirendra Asgaonkar
Dr Niren Laxmichand Nagda Award	Department of Chemical Engineering	Sumit Kumar
Dr Niren Laxmichand Nagda Award	Department of Chemical Engineering	Chaitanya Ramprasad
Dr. Manu Akula Memorial Award for Academic Excellence in CTaM	Department of Civil Engineering	Sunandinee Mehra
Dr. Manu Akula Memorial Award for Academic Excellence in CTaM	Department of Civil Engineering	Raghav Rander
Dr. P.V. Sukhatme Memorial Award	Department of Mathematics	Piyush Kumar
Dr. P.V. Sukhatme Memorial Award	Department of Mathematics	Jaskaran Singh
Dr. P.V. Sukhatme Memorial Award	Department of Mathematics	Supriya Mandal
Dr. P.V. Sukhatme Memorial Award	Department of Mathematics	Wabale Mayuri Vijay
Evonik Award for Excellence in Chemistry BSc	Department of Chemistry	Manas Nagda
Evonik Award for Excellence in Chemistry BSc	Department of Chemistry	Nandini Kriplani
Evonik Award for Excellence in Chemistry MSc	Department of Chemistry	Jyotirsikha Dalal
Evonik Award for Excellence in Chemistry MSc	Department of Chemistry	Nilarun Koley

Award Name	Department	Student Name
Evonik Award for Excellence in Chemistry PHD (Inorganic)	Department of Chemistry	Asmita Sen
Evonik Award for Excellence in Chemistry PHD (Inorganic)	Department of Chemistry	Reshma Jose
Evonik Award for Excellence in Chemistry PHD (Organic)	Department of Chemistry	Diksha Rai
Evonik Award for Excellence in Chemistry PHD (Organic)	Department of Chemistry	Sontakke Geetanjali Sadashiv
Evonik Award for Excellence in Chemistry PHD (Physical)	Department of Chemistry	Ananya Sah
Evonik Award for Excellence in Chemistry PHD (Physical)	Department of Chemistry	Aarti
Gargi Vishnoi Memorial Prize	Department of Biosciences and Bioengineering	Deeptarup Biswas
George B. Fernandes Award MS	Department of Computer Science & Engineering	Ashish Agrawal
George B. Fernandes Award MS	Department of Computer Science & Engineering	Tejpalsingh Siledar
George B. Fernandes Award MS	Department of Computer Science & Engineering	Ashutosh Bhalchandra Sathe
George B. Fernandes Award PhD	Department of Computer Science & Engineering	Saiful Haq
IEOR Alumnus Endowment: Best Master's Thesis Award	Department of Industrial Engineering and Operational Research (IEOR)	Kiran Prakash E C

Award Name	Department	Student Name
IEOR Alumnus Endowment: Best UG Research Award	Department of Industrial Engineering and Operational Research (IEOR)	Sayannil Das
IEOR Alumnus Endowment: Excellence in Doctoral Dissertation Award	Department of Industrial Engineering and Operational Research (IEOR)	Prashant Trivedi
Indira Manudhane Student Excellence Award	Department of Chemical Engineering	Parth Manish Dani
K Seshia Research Excellence Award	Department of Physics	Sagnik Banerjee
Kanitkar 3rd year Merit Award	Department of Civil Engineering	Aadishree Srivastava
Kanitkar 4th year Merit Award	Department of Civil Engineering	Sanidhya Garg
Late Prof. R. Subrahmonia Ayyar Academic Excellence Award	Department of Civil Engineering	Rekha Sharma
Late Prof. R. Subrahmonia Ayyar Academic Excellence Award	Department of Civil Engineering	Patil Samruddhi Madhukar
Late Shri Girish Vishnuprasad Desai Award	Department of Environmental Science & Engineering	Ms. Adithya Dinesh
Late Shri Girish Vishnuprasad Desai Award	Department of Environmental Science & Engineering	Mr. Partho Mukherjee
Late Shri Girish Vishnuprasad Desai Award	Department of Environmental Science & Engineering	Mr. Nikhilesh Rajesh Nagare
Late Shri Girish Vishnuprasad Desai Award	Department of Environmental Science & Engineering	Ms. Nandini Dixit
M Sarla Doshi Awards 1	Department of Chemical Engineering	Ketaki Bachal

Award Name	Department	Student Name
M Sarla Doshi Awards 1	Department of Chemical Engineering	Preety Kumari
M Sarla Doshi Awards 2	Department of Chemical Engineering	Shubhank Sherekar
M Sarla Doshi Awards 2	Department of Chemical Engineering	Aditya Kumar
Mainak Das Excellence in Publication Award	Department of Climate Studies	Roshan Jha
Malini Vyavahare (Indore) Memorial Award	Department of Electrical Engineering	Gupte Nihar Mahesh
Manorama Sinha Academic Excellence Award	Department of Civil Engineering	Sunandinee Mehra
MCharusheela Dange Award	Department of Physics	Devashish Shah
Mr. Pranab Ranjan Sen Award	Department of Metallurgical Engineering & Materials Science	Joshi Soham Sagar
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Civil Engineering	Pragya
Naik And Rastogi Award in Excellence in Ph.D Research	Centre for Technology Alternatives for Rural Areas (CTARA)	Apoorva Nambiar
Naik And Rastogi Award in Excellence in Ph.D Research	Centre of Studies In Resources Engineering	Narayanarao Bhogapurapu
Naik And Rastogi Award in Excellence in Ph.D Research	Centre for Research in Nanotechnology & Science	Alok Kumar Srivastava
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Biosciences and Bioengineering	Tathagata Pal

Award Name	Department	Student Name
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Biosciences and Bioengineering	Ria Paul
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Biosciences and Bioengineering	Dandia Hiren Yogesh Divya
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Chemical Engineering	Meghana Munagala
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Chemical Engineering	Kadam Nishad Shishir
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Chemistry	Anurag Singh
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Chemistry	Subhankar Sahu
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Chemistry	Raj Kumar
Naik And Rastogi Award In Excellence In Ph.D Research	Department of Chemistry	Dependu Dolui
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Chemistry	Jayabrata Das
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Civil Engineering	Ankita Pradhan
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Civil Engineering	Pankaj Kumar
Naik And Rastogi Award In Excellence In Ph.D Research	Department of Civil Engineering	Rayjada Satwik Pankajkumar
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Civil Engineering	Nabodyuti Das

Award Name	Department	Student Name
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Climate Studies	Sindhuja Kasthala
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Computer Science & Engineering	Abhijeet Awasthi
Naik And Rastogi Award In Excellence In Ph.D Research	Department of Earth Sciences	Raman U
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Electrical Engineering	Golive Yogeswara Rao
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Electrical Engineering	Belkhode Satish Shamsundar
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Electrical Engineering	Phani Raj H.
Naik And Rastogi Award In Excellence In Ph.D Research	Department of Energy Science and Engineering	Vishal Eknath Puranik
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Energy Science and Engineering	Anil Kumar
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Environmental Science & Engineering	Rajhans Negi
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Humanities & Social Sciences	Surabhi Lodha
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Humanities & Social Sciences	Abhishek Yadav
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Industrial Engineering and Operational Research (IEOR)	Khushboo Agarwal

Award Name	Department	Student Name
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Mathematics	Tapendu Rana
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Mechanical Engineering	Kiran Shahu Jadhav
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Mechanical Engineering	Raut Harshal Suresh
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Mechanical Engineering	Aditya Prasad Roy
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Metallurgical Engineering & Materials Science	Bathini Lava Kumar
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Metallurgical Engineering & Materials Science	Nidhin George Mathews
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Physics	Koustav Chandra
Naik And Rastogi Award in Excellence in Ph.D Research	Department of Physics	Vikram Mahamiya
Naik And Rastogi Award in Excellence in Ph.D Research	Educational Technology	Pankaj Sheshrao Chavan
Nitesh Thakore NDOW For Excellence Award	Department of Biosciences and Bioengineering	Vedant Manoj Shirsekar
Parimala Rao Award	Department of Electrical Engineering	Apurva Nambiar
Prabhulal Bhatnager Memorial Prize	Department of Mathematics	Wasim Akram
Pradeep Jaipuria Award Best UG Design Project	Department of Chemical Engineering	Modi Jay Kalpeshkumar

Award Name	Department	Student Name
Pradeep Jaipuria Award Best UG Design Project	Department of Chemical Engineering	Love Garg
Pradeep Jaipuria Award Best UG Design Project	Department of Chemical Engineering	Om Katke
Pradeep Jaipuria Award Best UG Design Project	Department of Chemical Engineering	Nishant Rasekar
Pradeep Jaipuria Award Best UG Design Project	Department of Chemical Engineering	Pankaj Chauhan
Pradeep Jaipuria Award Best UG Design Project	Department of Chemical Engineering	Shivangi Sharma
Pradeep Jaipuria Award Best UG Design Project	Department of Chemical Engineering	Sumit Prasad
Pradeep Jaipuria Award Best UG Design Project	Department of Chemical Engineering	Tanirika Roy
Pradeep Jaipuria Award Best UG Design Project	Department of Chemical Engineering	Utkarsh Gupta
Pradeep Jaipuria Award Best UG Design Project	Department of Chemical Engineering	Ashutosh Khandare
Pradeep Jaipuria Award Best UG Design Project	Department of Chemical Engineering	Ritik Kumar
Pradeep Jaipuria Award Best UG Design Project	Department of Chemical Engineering	Priyanshu
Pradeep Jaipuria Award Best UG Design Project	Department of Chemical Engineering	Ganesh Mahajan
Pradeep Jaipuria Award Best UG Design Project	Department of Chemical Engineering	Shubham Sharma

Award Name	Department	Student Name
Praj Industries Academic Excellence Award	Department of Energy Science and Engineering	Priyadarshini Kamat
Praj Industries Academic Excellence Award	Department of Energy Science and Engineering	Kadu Digvijaysinh Samirsinh
Prashant Dave Best PhD Thesis Award	Department of Climate Studies	Mousumi Ghosh
Prof Hira LalMemorial Award	Department of Chemistry	Nilarun Koley
Prof K C Mukherji Award	Department of Electrical Engineering	Aditya Sriram
Prof K C Mukherji Award	Department of Electrical Engineering	Tanmay Dokania
Prof T S Raghunathan Awards 1	Department of Chemical Engineering	Aditya Kumar
Prof T S Raghunathan Awards 1	Department of Chemical Engineering	Kriday Parmar
Prof T S Raghunathan Awards 2	Department of Chemical Engineering	Aditya Kumar
Prof T S Raghunathan Awards 2	Department of Chemical Engineering	Kriday Parmar
Prof. A.K. Mallik Award	Department of Metallurgical Engineering & Materials Science	K Sabita
Prof. K.C. Khilar Ph.D award	Department of Chemical Engineering	Dr Naveen Rohilla
Prof. M.N. Gopalan Prize (M.Sc.)	Department of Mathematics	Wabale Mayuri Vijay
Prof. M.N. Vartak Memorial Prize	Department of Mathematics	Yalla Chandra Sri Veerendra

Award Name	Department	Student Name
Prof. R Vembu Iyer Memorial Prize	Department of Earth Sciences	Megh Mandar Kanvinde
Prof. R.P. Singh Memorial Prize	Department of Physics	Shashwat Chakraborty
Prof. R.P. Singh Memorial Prize	Department of Physics	Amanaganti Rohan Ganesh
Prof. S N Sinha memorial award	Department of Metallurgical Engineering & Materials Science	Satyam Rath
R. Hanumantha Rao award	Department of Electrical Engineering	Mr. Srinivas Rajaram
R.G. manudhane student M.Tech Excellence Award	Department of Chemical Engineering	Dasari Abhi Manjunath
R.G. Manudhane student PhD. Excellence Award	Department of Chemical Engineering	Om Prakash
R.G. Manudhane student PhD. Excellence Award	Department of Chemical Engineering	Bachal Ketaki Jitendra
Rakesh Mathur Excellence Award	Computer Science and Engineering	Tamojeet Roychowdhury
Rama Mathur Memorial Prize	Department of Mathematics	Rohan Bajaj
Ramesh Chandra Sinha Academic Excellence Award	Department of Earth Sciences	Kanishka Mittal
S C Mehrotra Prize	Department of Civil Engineering	Aadishree Srivastava
S C Mehrotra Prize	Department of Civil Engineering	Sunandinee Mehra
S C Mehrotra Prize	Department of Civil Engineering	Sanidhya Garg
Shri Anil Kushalchand Hirani Award 10 years	Department of Chemistry	Kedar Praveenkumar Waychal

Award Name	Department	Student Name
Shri Anil Kushalchand Hirani Award 10 years	Department of Chemistry	Sarthak Jain
Shri Anil Kushalchand Hirani Award 10 years	Department of Chemistry	Suketu Datta
Shri Anil Kushalchand Hirani Award 10 years	Department of Chemistry	Ishita Poddar
Shri Anil Kushalchand Hirani Award 10 years	Department of Chemistry	Lakshya Agarwal
Shri Ashok Chaturvedi Memorial Prize	Department of Mechanical Engineering	Shahid Ahmed
Shri Ashok Chaturvedi Memorial Prize	Department of Mechanical Engineering	Parekh Tushar Dilip
"Shri Prakash Krishnan Award A.B. Biswas Memorial & Shri Prakash Krishnan Award Prize"	Department of Chemistry	Alok Apan Swatiputra
Shri Ram Kumar Gupta Merit Award	Department of Chemical Engineering	Hari Ramakrishnan Sudhakar
Shri T.K. Subramanian Prize For Academic Excellence	Department of Mechanical Engineering	Shubhranil Chatterjee
Shrimati Prakashvati Devi Gupta Merit Award	Department of Chemical Engineering	Spruha Prabhanjan Sarnaik
Shubhada Mulekar Joshi Award	Department of Biosciences and Bioengineering	Srishti Goswami
Smt. Andal & Sri N.P. Narayanan Award	Department of Civil Engineering	Kamidi Nitesh Reddy

Award Name	Department	Student Name
Smt. Chander Mohini Kapoor and Jeewan Kapoor Award	Department of Computer Science & Engineering	Thyagarajan Radhakrishnan
Smt. Jayalakshmi & Sri R. Narasimhan Award	Department of Civil Engineering	Shubhashish Saha
Smt. Jayalakshmi & Sri R. Narasimhan Award	Department of Civil Engineering	Shivam Kartikeyan Atal
Smt. Vulavala Mangatayaru Memorial Award	Department of Chemical Engineering	Dr Preety Kumari
Smt. Vulavala Mangatayaru Memorial Award	Department of Chemical Engineering	Dr Bandi Bharathi
Suhas Kakde Top Graduating Product Designer Prize	IDC School of Design	Rijesh K
The Chemours Future of Chemistry Award IITB	Department of Chemical Engineering	Sai Sandeep Tambaku
The Chemours Future of Chemistry Award IITB	Department of Chemical Engineering	Kadambari Umesh Bhide
The Chemours Future of Chemistry Award IITB	Department of Chemical Engineering	Hari Ramakrishnan Sudhakar
The Chemours Future of Chemistry Award IITB	Department of Chemical Engineering	Sumit Kumar
Thomas Dooie Class of 1974 Award (40K)	Department of Computer Science & Engineering	Kartik Pratap Gokhale
Thomas Dooie Class of 1974 Award (40K)	Department of Computer Science & Engineering	Aaryan Kumar Gupta
Urvish Medh Memorial Prize (For Electrical Engg.) 1	Department of Electrical Engineering	Shawn Thomas Koshy

Award Name	Department	Student Name
Urvish Medh Memorial Prize (For Electrical Engg.) 2	Department of Electrical Engineering	Apoorv Goyal
Urvish Medh Memorial Prize (For Electrical Engg.) 3	Department of Electrical Engineering	Samar Perwez
Urvish Medh Memorial Prize (For Electrical Engg.) 4	Department of Electrical Engineering	Tamojeet Roychowdhury
Vijay Vashee Climate Change Award	Department of Climate Studies	Nandini Suresh
Vijay Vashee Computer Science Fellowship Award	Department of Computer Science & Engineering	Nihar Ranjan Sahoo
Vijay Vashee Computer Science Fellowship Award	Department of Computer Science & Engineering	Rupasai Rangaraju
Vijay Vashee Excellence Award	Department of Computer Science & Engineering	Akshay Vijay Gaikwad
Vijay Vashee Excellence Award	Department of Computer Science & Engineering	Abhijeet Awasthi
Winifred B. Fernandes Award MS	Department of Computer Science & Engineering	Swaroop Nath
Winifred B. Fernandes Award MS	Department of Computer Science & Engineering	Sumon Nath
Winifred B. Fernandes Award Mtech	Department of Computer Science & Engineering	Thyagarajan Radhakrishnan
Winifred B. Fernandes Award Mtech	Department of Computer Science & Engineering	Sri Raghava Ravindra Muddu
Winifred B. Fernandes Award Mtech	Department of Computer Science & Engineering	P S V N Bhavani Shankar

Centres of Excellence

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CENTRES OF EXCELLENCE

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Ashank Desai Centre for Policy Studies

WHERE RESEARCH MEETS REAL-WORLD REFORM

Founded by Mr. Ashank Desai in 2016, Ashank Desai Centre for Policy Studies (ADCPS) at IIT Bombay has grown into a leading hub for evidence-based public policy, shaping how India and the Global South tackle some of the most pressing issues of our time: from climate change and energy transition to digital privacy, and from aging populations to education equity.

What sets ADCPS apart is its dual lens: grounding research in academic rigour, while staying deeply embedded in the lived experiences of communities.

The Centre's Masters and PhD programmes are grooming a new generation of policy thinkers: analytical, empathetic, and action-oriented.

> *"As an engineer-turned-public policy researcher, joining the Ashank Desai Centre for Policy Studies at IIT Bombay has been a transformative journey. The Centre enabled me to move beyond technocentric approaches, grounding my research in transdisciplinary and inclusive frameworks for addressing real-world challenges. Its rigorous academic training and supportive environment have deeply shaped my perspectives as a scholar committed to impactful, socially relevant research."*
>
> *- Rakendu S, Ph.D. student at ADCPS.*

Critical Conversations & Global Connections

During last year, ADCPS has turned ideas into action across multiple fronts:

- **Talk Series** that drew global and Indian thought leaders to debate frontier topics like AI and the Future of Work, Climate Change Policy, and Digital Governance.
- **Workshops** that weren't just academic gatherings, but spaces where practitioners, civil society, and scholars co-created solutions on Just Energy Transition and Environmental Justice.
- **Roundtables** on Ageing and Urban Health and Inclusion in Higher Education brought sharp focus to the voices often left out of policy rooms.

A standout moment this year was hosting the 5th India Public Policy Network (IPPN) Conference on "Policy Processes in the Global South". This was a vibrant exchange of scholarship and experience, making ADCPS a visible actor on the international stage.

Shaping Thought For Tomorrow

What makes ADCPS's work matter is the ripple effect. Workshops led to white papers that inform governments. Conferences seed collaborations across continents. And graduates are now working at policy think tanks, government bodies, and grassroots NGOs, translating learning into legislation.

Looking Ahead

As the world rethinks how to govern climate risk, AI, inequality, and democratic resilience, ADCPS stands ready - not just to react, but to lead. With its unwavering focus on inclusive, data-driven, and ethical policy frameworks, the Centre is poised to shape reforms that are rooted in justice, and scaled for impact.

Centre of Excellence in Oil, Gas and Energy

A NATIONAL PLATFORM FOR ENERGY SOLUTIONS

As nations navigate the twin challenges of climate change and volatile geopolitics, securing stable, sustainable energy systems has become a strategic imperative. From supply chain disruptions to shifting global alliances, the energy sector today sits at the heart of international policy and national security. Against this backdrop, the Centre of Excellence in Oil, Gas and Energy (CoEOGE) at IIT Bombay plays a critical role in strengthening India's energy resilience.

Established in 2019 through an initiative of the Ministry of Petroleum and Natural Gas (MoPNG), the Centre brings together IIT Bombay and seven major public sector undertakings—Indian Oil Corporation Limited (IOCL), Bharat Petroleum Corporation Limited (BPCL), Hindustan Petroleum Corporation Limited (HPCL), Oil and Natural Gas Corporation (ONGC), Gas Authority of India Limited (GAIL), Engineers India Limited (EIL), Oil India Limited (OIL)—in a unique alliance of government, academia, and industry. Its mission: to address pressing challenges across the oil, gas, and broader energy landscape through high-impact research, indigenous technology development, and capacity building.

Now in its second five-year term, CoEOGE is advancing cleaner and more efficient energy solutions, and also helping India build strategic autonomy in a rapidly changing global energy order.

The Centre has taken a role as a long-term enabler of India's energy-sector transformation.

Clear Mandate, Broad Reach

CoEOGE's objectives include steering PSUs toward an integrated vision that incorporates unconventional feedstocks and petrochemical integration; developing sustainable and scalable technology solutions; fostering policy-aligned research; and enhancing industry knowledge through training and capacity building.

Since inception, it has undertaken over 25 mission mode projects and 28 seed projects, and conducted over 40 training programmes. Its portfolio spans refinery operations, carbon capture, battery storage, hydrogen systems, pipeline monitoring, water treatment, and upstream exploration. In 2024 alone, the Centre launched 19 new research projects, three bridge-the-gap (BTG) scale-up projects, and recorded four patents and 26 publications.

Project Pathways

The Centre operates through five main channels:

- Seed Projects (3–6 months): exploratory groundwork for future R&D
- Mission Mode Projects (12–24 months): co-led with at least two PSUs
- PhD Fellowships and Post-Doctoral Projects
- Bridge-the-Gap Projects to pilot promising lab outcomes
- Strategised Research Approach (SRA) for facility-linked thematic collaboration

Each project is reviewed quarterly with PSU partners. Outcomes of seed and mission mode projects are actively progressing into pilots or technology transfers.

Strategic Focus Through SRAs

The Strategised Research Approach, introduced in 2023, enables long-term collaboration around critical themes. Approved SRAs include:

- Advanced Battery Technologies (Na-ion, solid-state, Li/Na-sulfur)
- Green Hydrogen Production (AEMWE/AWE electrolyser testbed)

SRAs in advanced stages of development include:

- Catalysis and Process Development for Sustainable Fuels and Chemicals
- Digitalisation of the Oil & Gas Sector
- Energy Transition and Technology Assessment
- Upstream Exploration and Production

Research space has been allocated at the IITB Research Park, and facility build-out is underway.

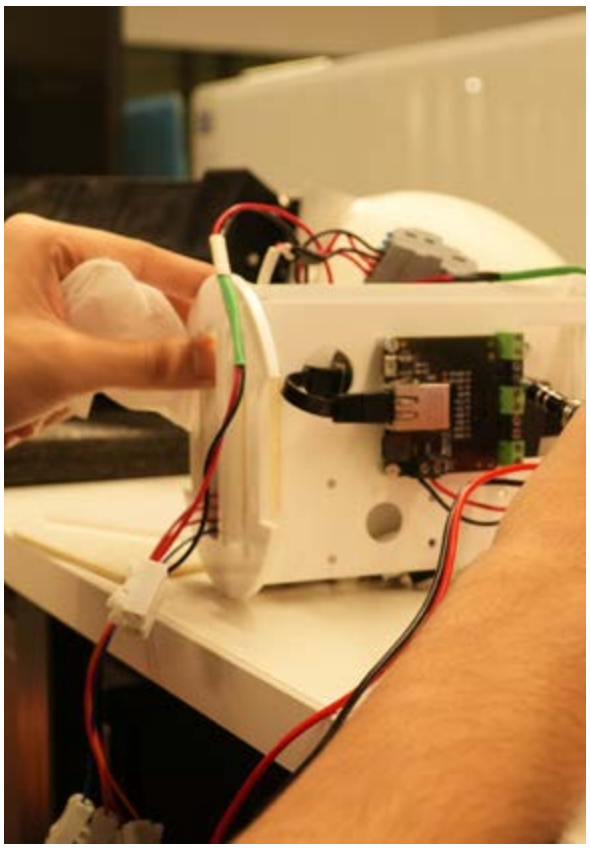
Training and Capacity Building

Training is integral to CoEOGE's mandate. The Centre designs industry-relevant programmes for PSU executives based on faculty expertise and PSU needs. Delivered online and on campus, these sessions span refinery operations, hydrogen, water, sustainability, and AI applications, building skills and seeding new collaborations.

Looking Ahead

In 2025 and beyond, CoEOGE will expand its field deployments, formalise new SRAs, and deepen MoPNG engagement.

As India accelerates its energy transition, the Centre stands ready to support the sector through indigenous R&D, hands-on capacity building, and scalable, collaborative innovation.



Vertical Expertise & Impact

Projects are distributed across eight key verticals: upstream, refineries, biofuels, water, pipelines, hydrogen, batteries, and emissions.

Highlights include:

- Portable drilling wastewater treatment unit (lab PoC, now in BTG scale-up with OIL)
- IoT-enabled underwater pipeline inspection (prototype under closure)
- CO_2 capture via bi-modular catalytic systems (scale-up under conceptualisation)
- Open-source refinery simulator using DWSIM and OpenModelica
- Eocene carbonate reservoir characterization (informing new BTG effort)

Other projects explore hydrogen permeation, battery recycling, C1 chemistry for fuels, and real-time pipeline health monitoring.

Centre for Machine Intelligence and Data Science

WHERE HUMAN CURIOSITY SHAPES ARTIFICIAL INTELLIGENCE

In the fast-shifting world of artificial intelligence, staying ahead means staying curious. The Centre for Machine Intelligence and Data Science (C-MInDS) at IIT Bombay was established with a clear vision: to become a leading force in AI and data science by uniting foundational research, practical impact, and inclusive learning.

The journey has been accelerated by the collective strength of the community. Apart from Mr. Kashyap Deorah and Mr. Shariq Rizwi, alumni, including Mr. Beerud Sheth, Mr. Rohit Karnik, Mr. Vijay Krishnan, Mr. Abhinandan Das, Mr. Mohan Lakhamraju, Mr. Arpit Mathur, Ms. Shruti Mahajan, Mr. Varun Kacholia, and Dr. Shashidhar Thakur, came together in a landmark initiative to support the Centre.

In a short span, C-MInDS has matured into a national AI powerhouse— from cutting-edge collaborations with global institutions to building talent pipelines that serve India's tech industry and public sector alike.

> *"At C-MInDS, I learned to ask the right questions of data, and not just answer them."*
>
> *– C-MInDS PhD Scholar, and Kacholia Family Fellow*

Academic Excellence & Global Talent

In the last year, the Centre expanded its academic footprint significantly:

- The MS by Research (MSR) and PhD programmes saw robust enrolments, with 22 new students admitted through a competitive selection process
- The first MSR cohort successfully completed their thesis defenses, marking a foundational milestone
- Prestigious faculty appointments included scholars from Princeton, Carnegie Mellon, and the University of Chicago

At the heart of its mission is a commitment to nurturing future-ready talent, and the impact is already visible. At C-MInDS, students are leading research across domains such as natural language processing, computer vision, and network optimisation.

Upskilling India's AI Workforce

AI is moving fast, and C-MInDS is helping professionals keep pace.

In 2024, the Centre launched its flagship E-Post Graduate Diploma in AI and Data Science, an 18-month online programme designed for scale and depth. With 150+ learners in its inaugural cohort, including mid-career engineers, startup founders, and public sector professionals, the programme reflects the Centre's strong outreach vision.

In 2025, C-MInDS will expand further with:

- A new Executive Programme in Quantitative Finance
- Custom-designed short courses for industry leaders

Global Recognition For Faculty

One of the standout achievements this year was Prof. Parthe Pandit being named a Schmidt AI2050 Early Career Fellow, an international distinction awarded to just 20 researchers globally. His work revives classical kernel methods to reshape the future of deep learning.

Industry Partnerships That Move the Needle

C-MInDS is redefining what it means for academia to collaborate with industry, not just consulting but co-creating tech for India's unique problems.

- A 5-year partnership with Honda Cars India focuses on AI for autonomous mobility in complex Indian road conditions
  - Two major research projects are underway: image segmentation and real-time object detection
- The SBI Foundation Hub for Data Science and Analytics at C-MInDS launched 14 new projects
  - Over 100 professionals from public sector banks and institutions trained in AI-powered analytics

Inclusion, Fellowships & Pathways

C-MInDS places a strong emphasis on inclusive excellence:

- The Kacholia Family Fellowship supports exceptional female PhD scholars, including a current project on AI-based marketing strategy design in partnership with the State Bank of India
- International partnerships are growing, with active collaborations developing with faculty from the University of Illinois Urbana-Champaign and Ohio State University

By making AI more accessible, and research more responsive, the Centre is helping diversify India's AI talent base and its applications.

Smarter Future, Lasting Impact

The future of AI isn't just about machines getting smarter. It is about making human systems more intelligent, efficient, and fair. C-MInDS is building that future from the ground up.

With new programmes on the horizon, global partnerships expanding, and a firm belief in research that serves society, C-MInDS is ready to lead the next chapter of India's AI journey by bridging academia, industry, and community through data-driven innovation.

Desai Sethi School of Entrepreneurship

IDEAS TAKE FLIGHT, FOUNDERS TAKE SHAPE

At IIT Bombay, entrepreneurship isn't an elective. It's a mindset. One that sees problems as starting points, not dead ends. The Desai Sethi School of Entrepreneurship (DSSE), founded by alumnus Mr. Bharat Desai and his wife Ms. Neerja Sethi, is where this mindset takes shape through experiential courses, cohort-based venture creation programme and an empowering ecosystem that treats innovation not as theory, but practice.

DSSE's mission is clear: to nurture entrepreneurial leaders who build scalable, real-world solutions. Whether it's a MedTech breakthrough, an AI-driven agri-tool, or a fintech idea sparked in class, DSSE turns ambition into action.

> *"What we thought was just an idea we came up with in an Entrepreneurship course, spread out its roots through the IDEAS programme. Getting the pre-incubation grants wasn't just about funding, it was validation. It told us our idea was worth building. We have both opted out of placement to pursue Mechximize as our full-time passion."*
>
> *- Aryan Gupta & Mohit Jajoriya, (Co-Founders, Mechximize)*

Learning Meets Doing

Entrepreneurship education here is as rigorous as any degree programme, and just as hands-on. In 2024, over 1,650 students enrolled in DSSE's courses, a leap from just 500 three years ago.

Its academic offerings span:

- A PhD programme in Innovation & Entrepreneurship
- A Minor in Innovation & Entrepreneurship for undergraduates
- 20+ electives across UG, PG, and PhD levels
- Online courses via NPTEL and Coursera, now reaching 10,000+ learners

But the heart of DSSE's experiential approach lies in the IDEAS Programme, its flagship programme for early-stage venture creation. This year, IDEAS supported over 20 student teams, of which 50+ progressed from idea to product development. 21 teams received pre-incubation grants from SINE, and 15 new startups were formally registered.

Ecosystem in Action

In 2024, DSSE marked several milestones:

- First PhD cohort of 6 students began work in entrepreneurship research.
- DSSE's new 1,15,000 sq. ft. building was unveiled, featuring cutting-edge labs, Makerspaces, co-working spaces, design thinking studio, collaborative classrooms and more. It will be the come-to place for the entire IITB fraternity to innovate, collaborate and create.
- 3 student teams from IIT Bombay won 3 National Awards at the Smart India Hackathon.
- Over 350 participants joined the annual Entrepreneurship Day Symposium titled 'Catalysing University Entrepreneurship', with keynotes from top industry and academic leaders. The maiden Anand D Kusre Entrepreneurship Awards were presented to the Entrepreneurship Student of the Year (Aryan Gupta) and Startup Idea of the Year (Team Gruh – Yash Samnekar & Gaurav Pingale).
- DSSE hosted a national symposium on 'Contemporary Entrepreneurship Research' bringing together researchers to discuss gaps and opportunities.
- DSSE has taken its content and pedagogy to audiences beyond IITB by launching online courses and continuing education programmes targeting MSME's (Micro, Small and Medium Entrepreneurs) as well as international students.

What makes this ecosystem work is its width coupled with its depth - blending engineering, design, management, and the social sciences. It trains students not just to build startups, but to build the entrepreneurial mindset valuable to society.

Impact That Builds Scale

Over the last 11 years, DSSE has empowered 4,300+ students and seeded 950+ entrepreneurial journeys. Student ventures don't just chase current trends; they tackle unmet needs. They go on to participate in India's innovation challenges, problem solve through hackathons, build companies and create jobs, and stay curious and entrepreneurial.

This is entrepreneurship with roots and wings.

- 100+ startups pre-incubated on campus
- National and global collaborations with industry and academia
- A growing pipeline of research-backed tech ventures

Road Ahead

The goal is to shape founders - individuals who can resonate with needs and spot opportunities, those who can navigate risk, and build technology-based ventures that speak to the world's problems. With a new home and deeper programmes, DSSE is poised to shape India's next wave of entrepreneurs.

What's Next

- Focus on areas like healthcare, climate tech, AI/ML, social impact
- More global partnerships for entrepreneurial research and exchange
- Stronger linkages with tech commercialization and innovation units at IIT Bombay

Numbers That Matter

(2014 – 2025)

4,750+
Students empowered

1,120+
Entrepreneurial journeys launched

430
IDEAS teams supported

109
Startups spawned

10,000+
Online learners reached

Green Energy and Sustainability Hub

LEADING CHANGE, ONE SUSTAINABLE SOLUTION AT A TIME

When the world talks about net-zero targets, the team here builds the systems to get there, and tests them in real time. IIT Bombay's Green Energy and Sustainability Hub (GESH) isn't a standalone centre. It is a campus-wide, cross-disciplinary ecosystem that brings together climate-focused research, education, and innovation from across departments, labs, and Centres of Excellence.

At GESH, sustainability isn't just a subject; it is a lived practice. From waste-to-energy pilots and data-driven agriculture to battery innovation and regulatory training, the Hub translates ideas into working solutions. It turns the IIT Bombay campus into a Living Lab where policies are tested, technologies are deployed, and students don't just learn about sustainability; they experience it.

> *"I believe one of the most valuable traits in any one working in the sustainability domain is the ability to consistently introspect and identify small, actionable changes that can drive a multiplier effect over time. Being a Living Lab fellow reinforced in me just that."*
>
> *-Shreyas,*
> *GESH Living Lab Fellow*

GESH also looks outward: building capacity across India through industry-focused programmes that cover not just green technologies, but also the policies, finance, and regulatory frameworks needed to scale them. Its bold vision is to embed sustainability not only into campus operations, but into national practice by enabling talent, seeding ecosystems, and supporting climate action that is practical, measurable, and built to last.

A Systems Approach

GESH's mission is to enable real-world, interdisciplinary, and impactful sustainability innovation. The Hub brings together IIT Bombay's departments, centres, and student bodies with global academia, industry, policymakers, and communities. It aims to:

- Advance fundamental and translational sustainability research
- Develop education and upskilling programmes for students and professionals
- Support curriculum development and faculty training across institutions
- Lead and scale sustainable campus operations using a 'Living Lab' model
- Promote green entrepreneurship and innovation ecosystems
- Engage communities and the public to bridge science and society
- Use the campus as a sustainability sandbox for scalable, replicable solutions

Where Theory Meets Operations

From solar-thermal desalination systems to pelletising garden waste for cooking fuel, GESH transforms the IIT Bombay campus into a Living Lab, where research, education, and daily operations intersect.

This year:

- A pilot pelletisation and gasification plant was launched for garden waste-based cooking
- 9 student-led projects were implemented in water, waste, and energy systems
- 15+ fellowships were awarded, nurturing the next generation of sustainability leaders

The model doesn't stop at IIT Bombay. GESH is actively supporting other institutions to replicate this ecosystem across India.

Projects That Shape The Planet

In 2024–25, GESH funded 22 sustainability projects, including:

Climate resilience and data systems

- Tools to identify extreme weather precursors for early warning systems
- Physics-based models to decode monsoon trends for accurate projections
- A national-scale flood information platform for disaster preparedness

Energy transition and storage technologies

- Development of aqueous Na-ion batteries and iron redox flow batteries
- Innovations in fast-charging systems for light EVs
- Research on lithium extraction from seawater to support India's energy independence

Urban and circular sustainability

- Low-cost air quality sensors for democratised data
- Behavioural science-based food waste management systems
- New methods in lithium-ion battery recycling and hydrogen material testing

Alternative energy and green innovation

- Ammonia-diesel dual fuel engines and photonic solar coatings
- Affordable solar-thermal desalination for remote regions
- Smart agriculture: data-driven irrigation advisory systems for climate-adaptive farming

Built environment and mobility

- Green buildings with digital twin frameworks
- Accessible and low-emission transportation models using AI-based modelling

Mission-Driven Impact

GESH's cross-cutting work is directly aligned with multiple UN Sustainable Development Goals (SDGs):

Pan-India Fellowships, upskilling programmes, sustainability curriculum	4 QUALITY EDUCATION
7 AFFORDABLE AND CLEAN ENERGY	Battery innovation, alternative fuels, solar-based systems
Campus waste-to-energy models, air quality monitoring, urban mobility	11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Circular economy research, waste management systems
Climate resilience tools, flood early-warning systems, policy engagement	13 CLIMATE ACTION
17 PARTNERSHIPS FOR THE GOALS	Collaborations with 30+ industries, 10+ institutions, pan-IIT and Mumbai-based coalitions

HDFC ERGO-IIT Bombay Innovation Lab

INNOVATION WITH PURPOSE – FROM RISK TO RESILIENCE

Founded in 2021 as a strategic partnership, the HDFC ERGO-IIT Bombay Innovation Lab (HE-IITB) is building deep-tech solutions that serve both business value and societal good. While anchored in insurance and fintech, the Lab has since expanded into health-tech, agri-tech and climate-tech with a clear purpose: to turn high-end research into scalable, real-world impact.

Whether it's urban flood alerts, needle-free syringes, or mental health apps used by society, HE-IITB is proving that innovation can be a force for resilience.

> *By combining our industry expertise with the intellectual depth of IIT Bombay, we aim to drive actionable insights and innovation that address real-world challenges, offer hyper-personalised experiences to customers and become a part of their everyday life, and thus set new benchmarks for the future of insurance in Bharat.*
>
> *-Anuj Tyagi*
> *MD & CEO, HDFC ERGO General Insurance*

Climate-Tech in Action

One of the Lab's most transformative projects is the Mumbai Urban Flood Forecasting and Monitoring System, developed under the leadership of Prof. Subimal Ghosh from the Department of Civil Engineering. Funded by HE-IITB, the system integrates AI/ML-driven weather models, IMD radar data, and live weather stations to deliver hyperlocal rainfall forecasts and real-time flood alerts through the MumbaiFlood.in portal and mobile app.

Going beyond traditional forecasting, the platform incorporates citizen-reported flood data and NLP-based sentiment analysis from social media. This dual-layered approach enables real-time ground validation and helps authorities identify previously undocumented flood zones. Building and deploying the system involved coordination with municipal authorities, technical infrastructure approvals and deep field testing, demonstrating HE-IITB's ability to take academic research into city-wide deployment.

Health-Tech That Heals

The Lab also supported a breakthrough in painless drug delivery: a needle-free, shock-wave syringe developed by Prof. Viren Menezes. Using high-energy shockwaves to administer medication through the skin, the device performed on par, or better, than traditional injections in animal trials, especially for insulin and topical drugs. With reduced tissue damage and greater patient comfort, it holds potential for mass immunisation programmes and could significantly reduce needle-related injuries.

In the domain of mental health, Panchakosh, led by Prof. Ashish Pandey, is a holistic AI-powered wellbeing assessment and tracking platform funded by HE-IITB. It combines Yoga, Ayurveda, Congnitive Behavioural Therapy (CBT), and Acceptance and Commitment Therapy (ACT) to offer personalised diagnostics and stress management tools. Since its launch, the platform has reached over 130,000 users, including IIT Bombay students and HDFC ERGO employees, empowering proactive mental health care at scale.

Cross-Sector Engine

What began as an initiative to strengthen insurance and fintech innovation has evolved into a powerful engine for interdisciplinary R&D.

HE-IITB has funded multiple high-impact projects, , supported by faculty and students across departments. A dedicated startup innovation fund further bridges the gap between lab prototypes and real-world deployment.

At the core of this model is collaboration with municipal bodies, clinicians, insurers, regulators, and developers. From smarter underwriting to climate resilience, HE-IITB is building solutions that protect, empower, and transform.

Flagship Projects

MumbaiFlood.in : AI-powered flood alerts and forecasts for Mumbai: 15-min nowcasts, radar data, and citizen-driven insights.

Panchakosh : 130,000+ users on this AI-based wellbeing assessment and tracking platform app combining Yoga, Ayurveda, CBT & ACT.

Shock-Wave Syringe : Needle-free drug delivery using high-energy shockwaves—painless, effective, and ideal for mass immunisation.

IIT Bombay Trust Lab

SECURING TRUST IN INDIA'S DIGITAL FUTURE

In a world increasingly reliant on digital systems, trust is not an option. It is foundational. Founded by alumnus Dr. Shridhar Shukla in 2022, the IIT Bombay Trust Lab addresses one of the most urgent challenges of the digital era: creating a secure, sovereign digital ecosystem for India.

Aligned with the Atmanirbhar Bharat vision, the Lab fosters homegrown solutions in cryptography, cybersecurity, blockchain, and digital governance, bringing together research, outreach, and ecosystem building under one trusted roof.

Research With Rigour

Since inception, the Lab has built a formidable intellectual core:

- 13 Core Faculty, 21 Associated Faculty, and 2 Professors of Practice anchor the research ecosystem
- 15 research grants awarded under Trust Lab Grants in two rounds, totalling ₹1.51 Cr
- Supported two rounds of Early Career Awards and top-up fellowships to young faculty members
- Conducted 50+ colloquium talks and specialised research retreats

Cutting-edge domains under study include cryptography, multiparty computation, blockchain, and hardware/network security, ensuring sharp digital risk intelligence.

Scaling Cyber Talent

The Lab's educational footprint is national in scale:

- Summer and Winter Schools drew 158 students
- Internship programme selected 31 interns from over 2,160 applicants
- Web Security courses trained professionals, including those from NSE
- CTF competitions and the FOSSX Challenge engaged 15,000+ participants

The ICAN initiative, launched with IIT Kanpur and IIT Madras, aims to build national capacity in web and systems security - a core pillar for India's digital infrastructure.

Technology In Action

The Lab is developing a Security Operations Centre (SOC) built entirely on Free and Open-Source Software (FOSS) tools, a flagship project that reflects its commitment to transparency, accessibility, and independence. Other innovations include:

- Contributions to India's cloud security protocols
- Development and upkeep of software assets, testbeds, and benchmark datasets
- Ongoing research in MPC (Multi-Party Computation) for secure digital transactions

> *Trust is the backbone of digital life. It is not just about building safer systems; it is about building confidence, freedom, and resilience in a connected world.*
>
> *- Prof. Kameswari, Faculty, IITB Trust Lab*

Building Bridges

Trust Lab is building bridges across academia, industry, and policy:

- Partnered with HSBC on cloud security outreach
- Engaged with government stakeholders including MEITY, NCIIPC, NHA, and NIA
- Co-founded the Centres for Digital Trust global forum, with EPFL
- Hosted TrustNet summit (Oct 17) to convene India's cybersecurity ecosystem
- Maintains strong digital presence via newsletters, podcasts, and social channels

Path Of Trust

As India accelerates its digital transformation, Trust Lab is poised to lead the charge in digital trust infrastructure, supporting policy, platforms, and people. Future priorities include:

- Building new security infrastructure
- Expanding collaborative research and fellowships
- Deepening industry and government engagement
- Boosting visibility and impact through outreach and open-source initiatives

IIT Bombay-FedEx ALFA

ADVANCED LOGISTICS, FOCUSED ANALYTICS

As global logistics takes centre stage in an increasingly interconnected world, the IIT Bombay-FedEx Centre for Advanced Logistics and Focused Analytics (FedEx ALFA) offers a strategic response to the evolving challenges of supply chain management. A joint initiative between IIT Bombay and FedEx, this centre brings together advanced analytics, operations planning, network design, digitalisation, and sustainability-focused research to reimagine how goods, and ideas, move across systems.

From driver fatigue detection systems to digital twins of logistics hubs, FedEx ALFA is building the tools that make supply chains smarter, safer, and more sustainable.

Innovation on Track

FedEx ALFA is as much about talent as it is about technology. Through initiatives like Eureka! and IDEAS, the Centre introduced logistics-focused tracks that encouraged students and early-stage entrepreneurs to ideate, prototype, and pitch practical solutions:

- Introduced a Logistics & Supply Chain Track at Eureka! 2024, with 40+ startups competing.
- Supported 80+ IIT Bombay student teams and awarded micro-grants to 7 logistics-focused teams under the IDEAS programme.

> *"The FedEx centre provides an opportunity to understand issues affecting the overall logistics industry in India and overseas. We have an opportunity to contribute to this sector in multiple ways, ranging from policy formulation considering multiple stakeholders to specific operational issues affecting individual players."*
>
> *– Prof. Narayan Rangaraj,*
> *IITB-FedEx ALFA Associated Faculty*

Research in Motion

Operating from a 400-square feet interim facility, the Centre is already fully functional and growing. Planning is underway for a dedicated, state-of-the-art logistics lab in the upcoming Academic Block, signalling the next phase of scale and infrastructure.

Built for Scale

FedEx ALFA is not just a research centre. It is an expanding platform for talent development, entrepreneurship, and logistics transformation.

The Centre supports student fellowships and research projects that integrate industry insights, organises student site visits to FedEx hubs for real-world exposure, and maintains strong engagement with industry leaders through Executive and Advisory Board meetings to align with FedEx's global R&D roadmap.

The road ahead includes deepening this academic-industry collaboration, enabling more lab-to-market pathways, and accelerating the shift to smarter, cleaner logistics systems.

The future will not just be delivered. It will be designed - with data, purpose, and speed.

The Centre is also supporting research and development efforts in India:

- Participation in national forums like the Inter IIT Tech Meet 13.0
- LSO 2025 Summer School

This is not about research in isolation. It is applied, interdisciplinary, and done in collaboration with industry.

FedEx ALFA
(2024 – 2025)

- **Awarded 13 graduate fellowships (5 Ph.D., 8 M.Tech)**
- **Launched 8 faculty-led research projects in:**

1. VR/AR-based warehouse training and decision tools
2. Cognitive Workload Assessment and Rating System (CogWAR Sys) for freight vehicle drivers and warehouse workers.
3. Development of a Digital Twin for Warehouse Operations
4. Low-cost forklift retrofits (Retro Lift)
5. Low cost Printed sensors for Real time Cold-chain monitoring of pharmaceutical and food products
6. Predictive models for lead time estimation, demand forecasting and capacity planning
7. Finding optimal landing sites considering multi-modal and last mile
8. Impact Assessment of Ramp to Ramp transfers for Air Cargo in India

IITB–ICICI BETIC Hub

ENGINEERING AFFORDABLE HEALTHCARE FOR THE PUBLIC GOOD

When cost becomes a barrier to care, innovation must become the bridge.

IIT Bombay's Biomedical Engineering & Technology Innovation Centre (BETIC) is building that bridge, and scaling it up.

With support from the ICICI Foundation, the Centre is being transformed into the IITB–ICICI BETIC Hub, a major R&D initiative aimed at designing and developing affordable medical technologies to improve healthcare access across India.

The Hub is envisioned to catalyse a significant increase in device prototypes, MedTech startups, employment generation, and patient benefit over the next decade.

> *"BETIC has greatly contributed towards the success of surgery through innovation. In one case, it resulted in effortless surgery with precision in just 1.5 hours, which otherwise would have lasted at least for 6 hours."*
>
> *- Dr Vivek P. Soni, Oral and Maxillofacial Surgeon, Hiranandani Hospital and Fortis Hospital, Mumbai*

Lab to Full-Scale Hub

The upcoming Centre for Propulsion Technology (COPT) building will house the IITB-ICICI BETIC Hub on its sixth floor. The space will be a fully equipped, dedicated facility for healthcare innovation.

The building blocks are:

- **Infrastructure Development:** Conversion and setting up of the IITB-ICICI BETIC Hub
- **Advanced Equipment:** Acquisition of 3D scanners, diverse 3D printers, CNC machines, and more for design, prototyping, manufacturing, and testing
- **Talent Development:** Establishing a strong ecosystem for MedTech startups, along with structured training in healthcare innovation

Impact-Driven Innovation

The Hub is designed to bridge academic research and real-world medical needs. Its focus on low-cost, high-quality medical devices has the potential to make meaningful advances in how healthcare is delivered, especially in underserved communities.

With a strategic, long-term approach, the project aims to:

- Accelerate development of affordable medical devices
- Foster entrepreneurship and startup incubation in MedTech
- Support job creation in innovation and healthcare sectors
- Improve patient outcomes by making devices more widely available

Pathways to Infinite Impact

The IITB-ICICI BETIC Hub is set to become a national engine for affordable healthcare innovation. With cutting-edge infrastructure, deep industry support, and a focus on real-world needs, the Hub looks to scale device development, fuel MedTech startups, and improve patient outcomes—turning breakthrough ideas into everyday access.

Inventing With Purpose

From Navy decks to ambulances, from forensic labs to operating theatres, BETIC's innovations don't just treat - they transform. BETIC believes 'Make in India' for medical devices isn't just about manufacturing; it is about empathy-led engineering that meets the needs of our people, our systems, and our future.

In critical naval rescue operations, seconds matter. BETIC's lightweight, floatable stretcher has been specially designed for submarines and ships, ensuring quicker evacuation from lower decks and requiring fewer hands. Its ergonomic design enhances patient safety, while its efficiency boosts crew response time.

Stretcher for Indian Navy

In partnership with police and forensic units, BETIC uses CT scans to 3D-print skulls from unidentifiable remains. Skilled sculptors then reconstruct facial features, helping grieving families find closure, and justice find its course.

Victim Identification via Skull Modelling

For women affected by chocolate cyst syndrome, BETIC's minimally invasive device brings a ray of hope. The radiofrequency ablation tool treats affected ovaries with precision, offering a safer alternative to traditional surgery and improving outcomes.

Radiofrequency Device for Infertility Treatment

BETIC is piloting a nozzle-based system that turns chemo drugs into a fine mist, enabling direct absorption by tumour tissue. The innovation could reduce side effects and enhance treatment efficacy, especially for hard-to-reach cancers.

Nanosolization of Chemotherapy Drugs

When cardiac arrest strikes, immediate action saves lives. BETIC's portable CPR device automates chest compressions inside ambulances, reducing dependence on human responders and increasing the chances of survival during critical transport windows.

Automatic CPR in Transit

Koita Centre for Digital Health

DIGITISING CARE. DEMOCRATIZING HEALTH.

The Koita Centre for Digital Health (KCDH), founded by Ms. Rekha and Mr. Rizwan Koita, at IIT Bombay is leading India's digital health transformation inside out. As the first academic centre of its kind in the country, KCDH is reshaping how healthcare is taught, researched, and delivered: by building talent, creating solutions, and strengthening the systems that hold it all together.

At its core, KCDH exists to improve health outcomes through equitable, data-driven digital innovation—from national policy to village clinics, from AI diagnostics to human-centred design.

> *"The workshop helped me understand how doctors like us can engage with AI and explore its transformative role in healthcare."*
>
> *- Dr. Subhasri Subhadarsini, TNMC Mumbai, participant, Med-Tech Symposium*

Building Future Talent

In 2024–25, KCDH delivered India's most comprehensive digital health curriculum, with over 54 courses and formal training for 65+ students:

- 15 PhD scholars (including 5 PMRFs)
- 15 Inter-Disciplinary Dual Degree (IDDDP) students
- 35 Minor students from diverse engineering and science disciplines

Additionally, the Centre reached 150+ students across Maharashtra through hands-on digital health workshops, introducing the next generation to tools, systems, and standards driving the future of healthcare.

Advancing Research & Infrastructure

KCDH secured ₹26 crore in extramural research funding and launched 15 seed-funded faculty-led projects focused on:

- AI/ML in healthcare
- Telemedicine and remote diagnostics
- Health informatics and standards for interoperability

The Centre also established a state-of-the-art High-Performance Computing (HPC) facility to support large-scale health data modelling, simulation, and analytics.

Healthier Future, Digitally Delivered

KCDH is poised to become a national anchor for digital health education, innovation, and policy support. The next chapter will see:

- New programmes in health data science and systems engineering
- Expansion of national and international collaborations
- More real-world deployments of lab-developed solutions

As India moves toward more connected, inclusive healthcare, KCDH is ensuring the system doesn't just grow; it transforms.

Strengthening the Ecosystem

KCDH secured 20+ robust partnerships across government, academia, and industry, including a global research collaboration with Johns Hopkins University, USA.

It actively supports national priorities like the Ayushman Bharat Digital Health Mission (ABDM) and contributes to the development of India's digital health standards.

The year also saw landmark events, including:

- Digital Health Horizons Symposium
- Workshops on ABDM, AI/ML in Healthcare, and Digital Health: Basics to Application
- The launch of the Dr. Nitish Thakor Excellence Awards celebrating contributions to digital health

As India moves toward more connected, inclusive healthcare, KCDH is ensuring the system doesn't just grow; it transforms.

Flagship Milestones

54+
Courses Offered
In foundational, applied, and interdisciplinary digital health.

₹26 Cr
in Research Funding
Supporting 15 seed-funded projects in cutting-edge domains.

65+
Students in Core Programmes
(15 PhD, 15 IDDDP, 35 Minor) and 150+ trained via workshops across Maharashtra.

20+
Collaborations Built
With institutions, health-tech leaders, and global partners like Johns Hopkins University.

National Policy Alignment
Active contributions to Ayushman Bharat Digital Health Mission and digital health standards development.

Motilal Oswal Centre for Capital Markets

EMPOWERING MINDS. TRANSFORMING CAPITAL.

At a time when the world demands sharper thinking and stronger institutions, IIT Bombay is creating a platform where ideas take shape and the future of finance takes root.

In partnership with the Motilal Oswal Foundation, the Institute has set up the Motilal Oswal Knowledge Centre,, a next-generation academic complex designed to accelerate interdisciplinary learning, research, and innovation.

At the heart of this new complex will be the Motilal Oswal Centre for Capital Markets (MOCCM), a specialised initiative focused on capital markets research, financial innovation, and experiential learning. Together, they will expand IIT Bombay's capacity to educate, inform, and lead in India's dynamic financial landscape.

> *"The objective is to make the Centre a go-to place for any support in research, training, and policy formulation in the areas of banking, insurance, and financial markets in the country."*
>
> *- Prof. S.V.D. Nageswara Rao, Professor In-Charge, MOCCM*

Activities will commence in 2025-26 with a doctoral programme in financial markets, followed by an undergraduate minor. Over time, the Centre will roll out UG, PG, and executive training programmes as well.

New Academic Beacon

Spanning 120,000 square feet, the Motilal Oswal Knowledge Centre will become a landmark hub at IIT Bombay, featuring:

- Advanced laboratories and shared infrastructure
- Collaborative spaces for interdisciplinary research
- State-of-the-art learning environments
- MOCCM as the anchor financial research and training centre

This vibrant academic space will enhance the Institute's ability to attract global talent, foster cross-disciplinary breakthroughs, and scale its academic and societal impact.

Finance at the Core

The MOCCM will be a strategic engine driving research, talent development, and policy insight in India's financial services sector. Drawing on expertise across Finance, Economics, Management, Computer Science, Artificial Intelligence, Operations Research, and Mathematics, the Centre will:

- Advance research in capital markets and sustainable finance
- Equip students with real-world financial data and tools
- Provide experiential learning through industry collaborations
- Bridge academic theory with live market challenges

The Case for MOCCM

India's financial system, one of the largest and most diversified in the world, is expanding rapidly. Yet, research in banking and financial markets remains limited and fragmented. Much of it is concentrated within regulatory bodies and lacks public dissemination. There is a clear need for independent, academically rigorous research that can inform policy and practice.

MOCCM addresses this gap. By combining IIT Bombay's proven academic strengths with access to high-quality data and infrastructure, the Centre is set to emerge as a credible alternative to drive research, education, and training in financial markets.

Labs, Research, and Global Partnerships

MOCCM will house three dedicated labs:

- **Finance Lab** equipped with Bloomberg, Refinitiv, and live market feeds
- **Bank Lab** for research in retail and institutional banking
- **High-Frequency Trading Lab** powered by HPC infrastructure

Research priorities include SME financing, regulatory frameworks for MFIs, disruptive technologies in banking, derivative pricing, algorithmic trading, computational finance, and digital currency ecosystems.

The Centre will also forge global collaborations, with institutions in the US and Europe, for joint research, academic exchanges, and shared learning.

Vision for the Sector

MOCCM will integrate expertise, data, simulations, software tools, and domain knowledge to serve as India's foremost think-and-do tank in capital markets. It will actively support the startup ecosystem in Fintech, AI/ML in finance, Insuretech, Regtech, digital currency, and more.

In doing so, it will fulfil a long-standing need for a world-class financial research and training institution in India's financial capital.

Knowledge That Builds Institutions. Insight That Shapes Markets.

By embedding capital markets at the core of an interdisciplinary academic hub, IIT Bombay is building more than a centre; it is building capacity, credibility, and leadership for India's financial future.

Parimal and Pramod Chaudhari Centre for Learning and Teaching

TEACHING THAT EVOLVES. LEARNING THAT LASTS.

The shift from an industrial to a knowledge economy has transformed not just what we learn, but how we learn. With classrooms expected to be more collaborative, digital, and student-led, teaching itself must evolve.

At IIT Bombay, the Parimal and Pramod Chaudhari Centre for Learning and Teaching (PPCCLT) is leading this evolution. Rooted in pedagogical research and powered by faculty engagement, PPCCLT works to improve classroom experiences by aligning instructional methods with how students truly learn.

Its mission: to blend innovation, reflection, and evidence-based practice - so that learning becomes deeper, more inclusive, and more effective.

Workshops With Purpose

Over the past year, PPCCLT organized a series of workshops and seminars to:

- Strengthen student-centric strategies
- Encourage faculty to explore new digital tools
- Build a campus-wide culture of pedagogical dialogue

Workshops such as 'Teaching Transversal Skills' or 'Interactive Classroom Response Systems' by external speakers were particularly impactful. These sessions helped educators reflect on their own approaches, engaging students through storytelling, inquiry, or simply better listening. PPCCLT also organizes events by IIT Bombay's faculty colleagues to learn from their deep experience. A notable example is the round table discussion 'From good to great: How do teaching award recipients utilize instructional strategies to nurture student learning?' by recipients of the Prof. S.P. Sukhatme Excellence in Teaching Award.

Research Into Practice

PPCCLT goes beyond training. It is also a space for serious inquiry into learning.

By supporting research projects that examine classroom effectiveness, the Centre contributes to the academic scholarship of education, asking important questions: What helps students retain knowledge? What causes them to disengage? What roles do feedback, peer interaction, or even silence play?

Insights from these studies have led to evidence-informed teaching strategies that are now being adopted across departments - from core engineering to design and management.

Building A Teaching Culture

One of PPCCLT's most meaningful contributions is a shift in mindset. Faculty are no longer isolated in their teaching journeys. Many are now part of an active network of peer mentors, co-learners, and reflective practitioners.

The Centre's resources—ranging from interactive modules to teaching case studies—are increasingly shaping how instructors approach their lectures, discussions, and assessments. The result? Stronger engagement, clearer communication, and better student outcomes.

Shaping The Future

The impact is not just on how courses are taught, but on how education is perceived:

- Faculty feel more equipped to navigate diverse classrooms
- Students report deeper understanding and stronger critical thinking skills
- The Institute itself is cultivating a culture of lifelong pedagogical growth

In a world where information is everywhere but attention is scarce, the Centre ensures teaching remains not just relevant, but transformative.

> *"Before this workshop, I taught by instinct. Now I teach with intent. Even small changes in how I framed questions or paused during lectures made students open up. They started thinking, not just noting."*
>
> *- Faculty Participant, 'Teaching Transversal Skills' Workshop, January 2025*

Scaling Sustainability Talent

GESH is building not just projects, but people.

- Launched a new course: "Sustainability: Theory to Action" at the School of Management. Nearly 50 students tackled real-world campus sustainability challenges
- Conducted 100+ hours of executive training with industry partners like IOCL and Indian Energy Exchange (IEX)
- 400 more hours of training content in the pipeline
- Planning for minors, online programmes, EPGD, and global educational tie-ups underway

This layered learning model ensures that India's workforce is climate-ready - from students to senior executives.

Next Steps For A Greener Tomorrow

As climate deadlines close in, GESH is opening doors across labs, institutions, and communities.

The Hub is positioning IIT Bombay as a national leader in integrated sustainability action. It looks to:

- Deepen industry and international collaborations
- Expand the Living Lab model across Indian campuses
- Scale student and faculty-led innovations from pilots to policy

This isn't just about IIT Bombay going green. It is about India leading by example, with GESH as the engine of scalable sustainability.

Number Speak

22
research projects funded
(16 fundamental,
4 translational,
2 education-focused)

40+
faculty involved

50+
students/research staff involved

1,200+
people
reached through conferences, conclaves, and roundtables

30+
industry engagements

10+
academic partnerships forged

Pan-IIT & Mumbai College Consortiums
launched for sustainable campus collaboration

Pramod Chaudhari Alumni Continuing Education Centre

A VISION FOR LIFELONG LEARNING

At IIT Bombay, learning does not end with a degree. It evolves, deepens, and expands across a lifetime. The Pramod Chaudhari Alumni Continuing Education Centre (PCACEC) embodies this ideal, offering alumni a space to return - not just to their campus, but to the pursuit of knowledge that first brought them here.

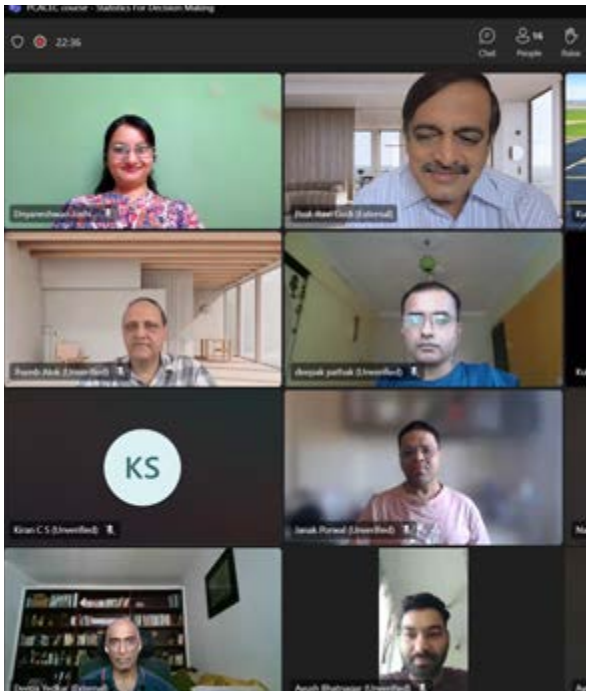
Established through the visionary support of Dr. Pramod Chaudhari (Class of 1971), the Centre is built on a powerful belief: that curiosity does not retire, and leadership demands constant renewal. In a world defined by change, PCACEC equips IIT Bombay's alumni to stay ahead of the curve through carefully crafted programmes in emerging fields that matter.

With every course and conversation, PCACEC reaffirms a larger mission to cultivate a global community of lifelong learners who lead with purpose, adapt with insight, and shape the future with clarity.

Objectives and Approach

- **Enable Ongoing Learning:** Provide alumni and professionals access to cutting-edge knowledge across technology, management, science, and public policy.
- **Bridge Skills Gaps:** Offer curated programmes that address contemporary challenges through practice-oriented formats.
- **Foster Alumni Engagement:** Strengthen the bond between IIT Bombay and its alumni through meaningful educational interactions.

The Centre delivers its programmes through weekend, professional, and semester-long formats, making it possible for learners to upskill without disrupting their careers.



Each course is designed with a hands-on, application-based approach, giving learners academic knowledge as well as tools for real-world decision making.

One of the year's most impactful initiatives was the Alumni Interest Survey launched in January 2025. The insights gathered through this extensive survey are now shaping future programming, ensuring alignment with the evolving aspirations and professional interests of the alumni community.

In the past year, PCACEC has expanded its footprint with a compelling mix of executive education offerings.

Courses Offered:

- Data Visualization
- Statistics for Decision Making
- Behavioural Economics
- Financial Analytics

Enhancing Access and Visibility

To facilitate easy access and wider outreach, PCACEC launched a dedicated website in 2025. Seamlessly integrated with IIT Bombay's Continuing Education Programme (CEP) and Alumni & Corporate Relations (ACR) platforms, the site serves as a one-stop portal for upcoming courses, alumni engagement opportunities, and thought leadership.

This digital presence not only increases visibility but also makes PCACEC's offerings more accessible to a global alumni audience.

Whats's Next

Looking ahead, PCACEC is set to launch new modules on Corporate Entrepreneurship and Climate Science & Social Justice - two areas with growing relevance across sectors. These additions reflect the Centre's commitment to anticipating future learning needs and building a responsive, relevant curriculum.

More than a continuing education centre, PCACEC is fast becoming a community of thinkers, learners, and leaders committed to growth beyond graduation.

PCACEC at a Glance

- **Formats Offered:** Weekend, Professional, Semester-Long
- **Focus Areas:** Tech, Management, Science, Public Policy
- **Notable Courses:** Behavioural Economics, Financial Analytics, Data Visualization
- **Additions Planned:** Corporate Entrepreneurship, Climate Science & Social Justice

SBI Foundation Hub for Data Science and Analytics

RESPONSIBLE AI FOR FINANCIAL GOOD

India's financial sector is racing ahead. But to stay ahead, it needs systems that are not only digital, but responsibly intelligent. Enter the SBI Foundation Hub for Data Science and Analytics, housed within IIT Bombay's Centre for Machine Intelligence and Data Science (C-MInDS).

This national-level platform was created to solve complex challenges in the Banking, Financial Services, and Insurance (BFSI) sector through AI and Machine Learning. The focus: building sustainable, inclusive, and trustworthy AI solutions tailored to India's unique financial landscape.

From enabling climate-aware lending to creating vernacular interfaces and fraud detection tools, the Hub blends academic rigour with real-world relevance, shaping the future of finance, one algorithm at a time.

> *"Apart from building algorithms, we are building trust. Our work ensures AI in finance is not only smart, but also ethical and inclusive."*
>
> *- Researcher, SBI Foundation Hub*

Research That Delivers

The Hub has greenlit 21 focused research projects across five frontier domains:

- Generative AI
- Trustworthy and Explainable AI
- Inclusive Interfaces
- Climate-aware Banking
- Operational Optimization

Three of these projects have already been deployed, showcasing a rare speed from lab to implementation. The research has also yielded six academic papers, enriching discourse in responsible financial AI. Each project is designed not just for innovation, but for deployability, accountability, and national impact.

Open, Accessible, Scalable

What makes this initiative stand apart is its commitment to open-source delivery. Several tools and frameworks have been made public, enabling transparency and adoption across financial institutions.

The Hub is not simply building technology; it is building human capital. So far:

- 32+ B.Tech., M.Tech., and PhD students have been involved in research
- Over 100 BFSI professionals, including fraud analysts and data scientists, have been trained in bespoke programmes on AI and ML

This dual pipeline, from campus to boardroom, ensures a robust, future-ready talent pool for India's digital economy.

Impact In Action

The Hub's early wins already show sector-wide ripple effects:

- AI models now address vernacular accessibility and climate risk
- Public-sector institutions are beginning to adopt open-source tools
- The training programmes are helping upskill professionals nationwide

At its core, the initiative is redefining what "digital transformation" means: not just speed and scale, but responsibility and reach.

In a world where finance is increasingly data-driven, the SBI Foundation Hub ensures that India leads not just with technology, but with trust.

Path Ahead

The vision is bold and inclusive, as the Hub aims to:

- Empower public sector banks and regulators with homegrown AI solutions
- Set national benchmarks for responsible financial AI
- Expand research on climate-conscious fintech and inclusive design
- Strengthen IIT Bombay and SBI's position as leaders in ethical AI innovation

Sunita Sanghi Centre of Aging and Neurodegenerative Diseases

REDEFINING AGING. RETHINKING CARE.

As lifespans increase, so does the urgency for early diagnosis and dignified care.

At IIT Bombay, the Sunita Sanghi Centre of Aging and Neurodegenerative Diseases (SCAN), funded by Mr. Sharad Sanghi, is answering that call with research that is as compassionate as it is cutting-edge.

With a focus on early diagnostics, non-invasive tools, assistive technologies, and personalised therapeutics, SCAN is building a future where aging is no longer defined by decline, but by the possibilities of science, care, and timely intervention.

> *"At SCAN, we don't just study aging; we reimagine its possibilities. By blending neuroscience, engineering, and human empathy, we're creating tools that detect earlier, intervene smarter, and care deeper. Our goal is not just longer life, but a life lived with purpose, independence, and dignity."*
>
> *- Prof. Samir K. Maji*

Translational Approach to Aging and Care

SCAN brings together neuroscientists, clinicians, engineers, and data scientists to understand aging at every level: biological, cognitive, and behavioural. The Centre's integrated framework supports solutions that detect early, intervene precisely, and support aging with dignity.

EYE ON SOLUTIONS

01 **Early Detection:** Develop non-invasive, accessible biomarkers and tools to identify Parkinson's, Alzheimer's, Frontotemporal Dementia, etc. at early stages

02 **Biological Aging Profiles:** Build datasets to differentiate healthy aging from pathological aging through blood-based analysis

03 **Movement Support Technologies:** Design wearable and assistive technologies to address age-related mobility challenges

04 **Mechanism-Driven Therapeutics:** Investigate molecular and cellular mechanisms to inform new, disease-modifying interventions

Road to Dignified Aging

People aged over 60 years are expected to comprise 20% of the country's population by 2050, as per the Longitudinal Ageing Study of India.

SCAN is building a future where aging is met with early diagnosis, assistive technology, and personalised care. With science and compassion in equal measure, the Centre is advancing solutions that can scale nationally, ensuring that as India grows older, it also grows more prepared to support, protect, and dignify every life.

A Year In Review

NeuroTech & Cognitive Care

- Launch of NeuroScan360: integrated cognitive screening and gaming system for detection of neurodegenerative diseases
- Wearable empathy suit to help policymakers experience age-related challenges and promote age-inclusive urban mobility
- Wearable biofeedback-based training device for improving sit-tostand (STS) motion in people with Parkinson's disease

Collaborative Research Ecosystem

- MoUs signed with leading hospitals: KEM, Jaslok, Kokilaben, INK Kolkata and Hiranandani
- 18+ interdisciplinary projects

Diagnostics Innovation

- A validated blood test for Parkinson's trialled on - 100 clinical samples
- Prototype development of wearable EEG and motion analysis tools

Capacity Building

- Internship programmes, symposiums, and expert lectures for next Gen of neuroscientists and clinicians

Tata Centre For Technology and Design

DESIGNING IMPACT FOR INCLUSION

Designing sustainable solutions for real challenges

The Tata Centre for Technology and Design (TCTD) at IIT Bombay is a mission-driven ecosystem where engineering, design, social science, and policy intersect to solve real-world problems. Under the leadership of Prof. Santosh B. Noronha, the Centre continues to pioneer technology solutions tailored to underserved communities, public health systems, and government partners.

From rapid health diagnostics to large-scale screening camps and digital access tools, TCTD operates at the frontlines of social impact innovation, prioritizing communities often left behind in traditional tech pipelines.

Mission-Mode Thinking

TCTD champions high-impact, mission-mode projects designed to deliver tangible benefits, fast. In the past year:

- Salination Desalination, a water purification initiative supported by BAIF and DST, advanced field implementation.
- The Centre enabled women health screening camps in Kutch, CMC Vellore, and Pithoragarh, reaching ~60,000 women.
- These camps not only provided screening but also facilitated follow-up treatment through hospital and government partnerships.
- The Centre met standout success in Project Victory (CoviDialysis), an emergency-response dialysis solution that showcased TCTD's capacity to respond quickly to national health crises.

Collaborations In Action

TCTD's network of partners drives both innovation and scale:

- In Uttarakhand, a successful pilot of reproductive health screenings is being scaled statewide in collaboration with the state government.
- The Centre is co-developing an ENT diagnostic device with Hinduja Hospital, alongside training materials for ASHA workers and paramedics.
- It is also validating digital health tools and diagnostic platforms that aim to reduce barriers to early detection and care.

Each project combines technology with human-centred design, ensuring adoption, usability, and community trust.

Digital For Development

Complementing its on-ground work, TCTD is building scalable IT platforms to streamline services and expand reach:

- GynaeCam, KSwap, Disha, and digital solutions developed with UNICEF address challenges in healthcare delivery, data access, and public resource mapping.
- These platforms enable faster response times, improved access to care, and more efficient service delivery for marginalized populations.

By merging data systems with field realities, the Centre ensures tech-driven inclusion becomes a reality, not just a goal.

Governance With Purpose

TCTD adopts a rigorous, milestone-based project review framework. Projects are selected based on their alignment with the Centre's goals, their social return on innovation, and a clear pathway to deployment.

Periodic evaluations, real-world piloting, and impact tracking ensure that innovation remains grounded, scalable, and sustainable.

Designing Pathways

The Centre will continue to expand its portfolio in:

- Healthcare innovation
- Sustainable rural development
- Education and digital iclusion
- Training frontline health workers through tech-based platforms

Technocraft Centre for Applied Artificial Intelligence

AI FOR THE REAL WORLD. RESEARCH FOR PUBLIC GOOD.

Building Future Talent

Artificial Intelligence has the power to shape not just products, but public systems, strategic infrastructure, and the future of learning.

Established in 2021 through the philanthropic vision of alumni Dr. Sharad Kumar Saraf and Mr Sudarshan Kumar Saraf, the Technocraft Centre for Applied Artificial Intelligence (TCA2I) at IIT Bombay is focused on turning AI research into real-world impact.

By translating cutting-edge models into mission-ready solutions, TCA2I is strengthening India's capabilities in Defence, Cybersecurity, Education, Governance, and Healthcare; creating AI that works where it matters most.

> *"MSgames is a game-changer! It sharpened my time management and decision-making skills in a fun and interactive way."*
>
> *– Priya Sharma,*
> *MBA student from a tier-1 institute in Mumbai*

Vajra for Cybersecurity

Among TCA2I's flagship innovations is Vajra, an indigenous Endpoint Detection and Response (EDR) system developed to meet India's growing cybersecurity needs. Built entirely at IIT Bombay, Vajra offers:

- Real-time threat detection, malware analysis, and offline functionality
- Air-gapped deployment, custom rule engines, and MITRE ATT&CK-aligned detection
- Modular design, making it adaptable to mission-critical environments

Recognised at national scale, Vajra has received the Dr PK Patwardhan Technology Development Award (2023), DoT 5G Hackathon, Vimarsh 2023 and is also under assessments for large scale deployment at CERT-IN. It reflects IIT Bombay's commitment to sovereign, scalable cybersecurity innovation under the 'Make in India' vision.

MSgames for Experiential Learning

TCA2I is also reshaping management education through MSgames, a homegrown, browser-based simulation platform. Co-developed with IIT Bombay faculty and alumni, MSgames integrates real-world strategy, operations, and systems thinking into immersive learning tools.

Popular simulations include:

- Fruit Beer Game
- Customer in a Store
- Order Ops
- EV Gambit
- Order Ops
- Dual Source Dilemma
- Factory Manager Experience
- Defect Detectives

Used across 40+ institutions, including IITs, IIMs, and private B-schools, the platform brings management theory to life - empowering faculty, engaging students, and making business education more practical, accessible, and India-relevant.

Platform for Strategic Collaboration

In 2024–25, TCA2I expanded its partnerships across sectors, collaborating and developing solutions for:

- Indian Army & Indian Navy
- Department of Telecommunications (DoT)
- Institute of Liver and Biliary Sciences (ILBS)

Its series of workshops, such as "Translational AI: Journey of an Idea from Lab to Practice", have brought together academia, government, and industry to explore how AI can power national transformation through local, modular solutions.

Intelligence That Serves, Research That Delivers

Operating from its new home at the A91 Eco Hub, TCA2I is poised to scale its mission. Whether it's defending systems, powering classrooms, or improving civic services, the Centre continues to push the boundaries of what AI can achieve for India.

With every partnership and every deployment, TCA2I reaffirms its purpose: to engineer intelligence that empowers, and build solutions that serve.

What TCA2I Aims to Solve

- Translate AI research into applied, field-tested solutions
- Build scalable platforms involving applications of Applied AI and cybersecurity
- Foster affordable and modular innovations tailormade for India
- Empower organisations to integrate AI efficiently and responsibly
- Serve as a national platform for cross-sectoral AI collaboration

Wadhwani Research Centre for Bioengineering

FROM DISCOVERY TO DEPLOYMENT – TRANSLATING BIOENGINEERING INTO IMPACT

India is brimming with scientific talent, but turning that research into market-ready, life-changing solutions is often where momentum stalls. The Wadhwani Research Centre for Bioengineering (WRCB), founded by Dr. Romesh Wadhwani, at IIT Bombay exists to close that gap.

As a national catalyst for translational bioengineering, WRCB fast-tracks the journey from idea to impact. It supports technologies in diagnostics, MedTech, therapeutics, and synthetic biology, with a clear mission: to reduce time-to-market, promote affordability and access, and build a self-reliant, innovation-led bioeconomy.

Through funding, mentorship, infrastructure, and industry partnerships, WRCB empowers academic entrepreneurs to scale science into solutions, those which improve lives, create jobs, and strengthen India's healthcare and biotech capabilities from the ground up.

> *"WRCB has provided a substantial quantum of funding for my project that holds strong potential for commercialisation. What sets this support apart is the flexibility it offers, allowing me to venture into exciting new areas of research. This freedom to innovate in challenging domains is not only intellectually rewarding, but also critical in translating ideas into tangible, real-world outcomes."*
>
> *– Prof. Prashant Phale, BSBE*
> *(Funded in 2024 – From aromatic pollutants to bioplastic)*

Ideas Into Implementation

WRCB does not just support research; it pushes it toward deployment. Each project is evaluated not only for scientific promise but also for its potential to solve real problems at scale, especially in underserved settings. More than 100 research projects are supported by WRCB so far.

Its focus areas include:

- Low-cost diagnostics and medical devices
- Breakthrough therapeutics
- Synthetic biology for health and sustainability
- Scalable solutions for public health

The Centre also drives IP creation, licensing, and startup incubation, building momentum behind technologies that can thrive beyond the academic space.

Bench To Business

At the heart of WRCB's model is a deep commitment to Make-in-India innovation. That means translating research into commercially viable, locally manufactured, and globally competitive solutions.

WRCB supports a range of initiatives:

- 35 ongoing projects across diagnostics, synthetic biology, healthcare, and MedTech
- 12 patents granted and 15 more filed
- 4 new startups incubated at SINE, including BONAREP, Phymone Biotech, and Nuvelle Approche
- Clinical advancement of technologies like a diabetic wound gel now in trial stages

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Recognition & Reach

The year saw not just technology milestones, but national recognition:

- A historic breakthrough: India's first CAR-T cell therapy, dedicated to the nation by the President of India, led by Prof. Rahul Purwar (ImmunoACT Pvt. Ltd.)
- 15 peer-reviewed publications and 13 national/international awards
- The iGEM Gold Medal in Paris, won by the IIT Bombay student team supported by WRCB

Special honours include:

- Prof. Rohit Srivastava receiving the Rashtriya Vigyan Puraskar - Vigyan Shri
- Prof. Vikram Vishal receiving the National Geoscience Award

Infrastructure For Innovation

Translating research at scale demands infrastructure and investment. In 2024, WRCB helped:

- Secure over ₹50 crore in R&D and infrastructure grants for its principal investigators
- Mobilize ₹1.7 crore in CSR support from partners including HiMedia, MP Biomedicals, Tata Power, and Unilever
- Partner with IISER Pune and others to expand access to animal research facilities
- Create embedded commercialization pathways with IP support and market-readiness training through IIT Bombay's IPR Cell

This approach ensures that researchers are not just inventors, but builders of deployable, regulation-ready products.

Empowering Scientific Enterprise

WRCB's vision of impact includes empowering the next generation. In the past year:

- 50+ students and researchers received hands-on training in entrepreneurship, prototyping, and product development
- Startups received targeted mentoring in regulatory strategy, business planning, and market validation
- Projects targeted pressing national needs: cancer, infections, nutrition, sustainability, and public health

In every sense, WRCB is a launchpad for India's bioengineering workforce, aligned with both industry needs and societal priorities.

What Future Demands

WRCB is not just building prototypes, it is engineering a pipeline for national self-reliance and global relevance. The road ahead includes:

- Supporting early-stage ventures that tackle new frontiers in synthetic biology and affordable therapeutics
- Expanding academic-industry partnerships for faster validation and scale
- Strengthening student and faculty entrepreneurship pathways
- Deepening its role in shaping India's bioeconomy through policy-linked innovation

From life-saving diagnostics to cutting-edge CAR-T therapy, WRCB accelerates what matters - India's next big breakthroughs, already in motion.

Legacy Projects

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LEGACY PROJECTS

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Legacy in Action

DRIVING INSTITUTIONAL GROWTH BY ALUMNI GIVING

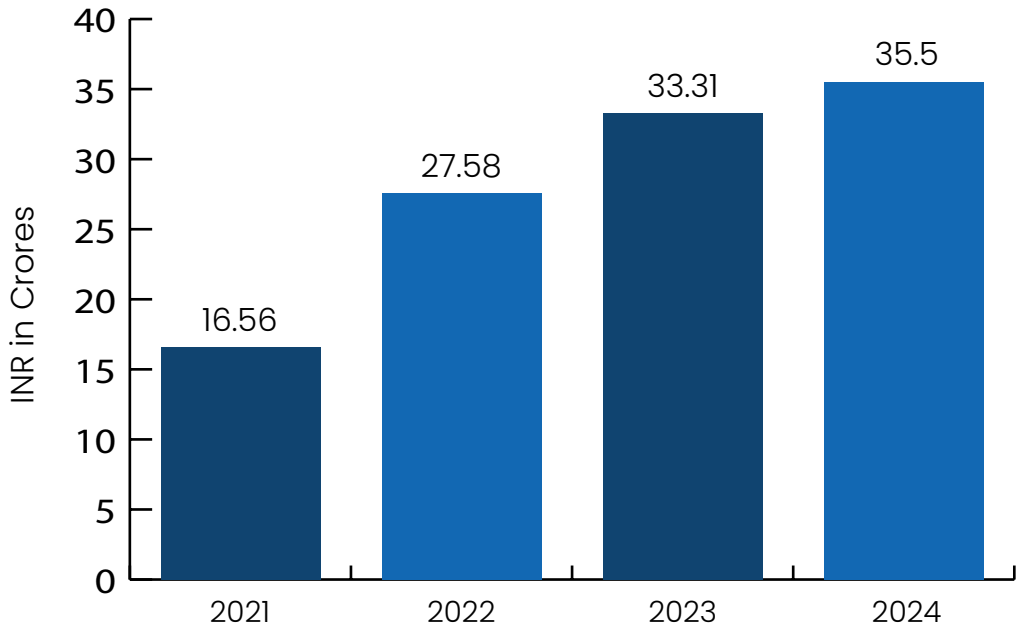
Each alumni reunion is more than a celebration. It is a reaffirmation of commitment. At IIT Bombay, legacy batches are transforming nostalgia into nation-building, through projects that inspire academic excellence, infrastructure, wellness, and innovation.

A Tradition of Giving

The Batch Legacy Project at IIT Bombay is a time-honoured tradition that brings alumni together during their reunions to support pivotal initiatives at the Institute. Over the years, alumni have shown unwavering support for an array of causes at their alma mater.

Legacy batches have long guided the path of institutional growth through their significant and sustained contributions. Together, they have pledged over ₹280 crore towards more than 50 transformative projects. Their impact has accelerated steadily over recent years. The momentum reflects a deep, collective commitment to advancing student welfare, faculty excellence, and campus infrastructure.

Batch Legacy Yearly Contributions



A Spectrum of Impact

Faculty Support: Initiatives like the CTARA Fellowships, Mess Workers Incentive Fund, Young Faculty Fellowship (YFF), and Retired Faculty Wellness Fund (RFWF) have uplifted students and honoured mentors.

Research & Innovation: Legacy contributions have helped launch critical initiatives in areas such as Clean Energy, Sustainability, Quantum Technology, Mobility, and Design by supporting Faculty Chairs, establishing research facilities, etc.

Infrastructure: From hostel upgrades and dining rooms to biogas plants, waste management systems, and shared maker spaces, legacy batches have redefined IIT Bombay's physical and social ecosystem.

Student Support & Wellness: Financial Aid Program, scholarships, wellness programs, travel grants, and awards have helped nurture a more inclusive, resilient student community.

Batchwise Contribution and Impact

Legacy Batch	
1962	Pioneers in spirit, the Class of 1962 instituted the 'P.K. Kelkar Chair Professorship' to promote research and academic leadership in Nanotechnology. The current appointee is Prof. Saurabh Lodha from the Department of Electrical Engineering. They have also committed to Project Evergreen by sponsoring the Banyan Tree Enclave within the new hostel complex.
1963	Batch of 1963 came together as part of their 60th year reunion and supported Project Evergreen, by sponsoring Healing the Planet Sculpture situated at the Banyan Tree Enclave premises, which will be named in honor of their batch's legacy
1964	As part of their Golden Jubilee celebrations, the Class of 1964 launched the Fundasclear Scholarship, an enduring initiative that continues to support high-performing students from underprivileged backgrounds every year.

1965

Commemorating their Diamond Jubilee in February 2025, the Class of 1965 extended generous support to Project Evergreen. In recognition of their contribution to the new hostel complex (H7-8-21), a wing in Hostel 7 has been named in their honour.

1969

The Class of 1969 has strengthened student support and sustainability on campus. Their contributions enabled new study rooms in Hostels 3 and 6, a campus-wide shift to LED lighting, the Ganesh Karnik Scholarship under the Financial Aid Programme (FAP), and six breakout spaces in Hostel 21.

1970

In 2023, the Class of 1970 established the Translational Research Accelerator (TRA) Fund to accelerate deep-tech innovation and self-reliance. The fund has already supported over five faculty-led projects in areas such as tandem solar cell technology, materials science, and automated farming.

1971

With a record-breaking pledge of ₹38.5 crore, the highest ever by a Golden Jubilee batch, the Class of 1971 has supported several strategic initiatives, including the Alumni Centre, 10X GMP Lab, PPCCLT, Autoclay Lab, and rooftop solar panels for Project Evergreen.

1972

Marking their Golden Jubilee in 2022, the Class of 1972 contibuted to Project Evergreen. A floor in Hostel 21 has been named in their honour.

1973

The Class of 1973 has backed two high-impact initiatives: the EV Power Train Lab, focused on India's electric mobility future, and the Faculty Award for Research Excellence (FARE), recognising young research talent at IIT Bombay.



1974

In 2024, the Class of 1974 launched HEARTS '74, a mission-driven project to promote affordable housing in rural India. They also supported Project Evergreen, with a breakout space in Hostel 7 named in their honour.

1975

From establishing the Tinkerers' Lab to enabling optic fibre networks and supporting FAP, the Class of 1975 has driven multiple student-centric initiatives. They have also pioneered hostel infrastructure contributions and actively mentored students through workshops and lectures.

1980

The "Class of 1980 Design and Making Lab", inaugurated in 2022, gives first-year students hands-on exposure to modern fabrication tools. Their contributions were acknowledged during a student showcase attended by the Director and alumni.

1981

The Class of 1981 funded a dedicated lounge in Hostel 21 under Project Evergreen, enhancing student living spaces.

1982

The Class of 1982 laid the foundation for what is now one of IIT Bombay's most successful alumni initiatives, the Young Faculty Fellowship (YFF), formerly Young Faculty Award (YFA).

1983

The Class of 1983 supported both the YFF and campus infrastructure including the Zone-1 Dining Room in Hostel Evergreen, sustaining both faculty and student needs.

1985

The Class of 1985 has championed academic advancement through a Chair Professorship in Technology and Sustainable Development, while also supporting the Entrepreneurship Cell at IIT Bombay.

1986

The Class of 1986 initiated a unique project focused on student well-being, with a strong emphasis on awareness, life skills, and holistic development.

1990

The Class of 1990 launched the IDEAS Programme, Innovation, Development & Entrepreneurship, and Clean Green Campus, with Alumni Support, to fuel innovation and entrepreneurial ambition across campus.

1991

During their Silver Jubilee in 2016, the Class of 1991 contributed to the Retired Faculty Wellness Fund and supported Project Evergreen with activity studios and artistic murals in the new hostel complex, benefiting both past and present IIT Bombay communities.

1992

The Class of 1992 launched a multifaceted legacy initiative that included Café 92, PROJECT BANDHU, hostel study rooms, the Student Travel Fund, SINE incubation support, and contributions to Project Evergreen.

1993

With a focus on both academic excellence and sustainability, the Class of 1993 supported the Young Faculty Fellowship, Retired Faculty Wellness Fund, Kadayam S. Srinivasan Microfactory and Harivallabh Nagar Microfactory the 1993 Lecture Hall, and greywater recycling initiatives under Project Evergreen.

1994

The Class of 1994 led COVID-era responses such as vaccination drives, and backed ongoing astronomy research, digital equity, and mental wellness. Their support includes wellness wings within Project Evergreen.

1995

The Class of 1995 donated ₹5 crore to revamp IIT Bombay's basketball court, now renamed the 'Arena 95 - Class of 1995 Basketball Court', reinforcing their legacy in sports and student life.

1996

The Class of 1996 launched two transformative initiatives: an endowment for student tech teams to compete globally, and a dedicated fund to strengthen SINE's deep-tech startup ecosystem. They also supported Project Evergreen.

1997

The Class of 1997 is backing Project Evergreen, including a signature student café, “9tea7 Shack”. Their support also extends to the YFF and Retired Faculty Wellness Fund.

1998

The Class of 1998 marked their Silver Jubilee in 2023 with a record-setting pledge of ₹57 crore, the largest ever by a single batch. Their contributions span Project Evergreen, Makerspace Labs, Scholarships, and Mental Wellness programmes.

1999

The Class of 1999 celebrated their Silver Jubilee in 2024 with support for 10 memorial rooms in Project Evergreen, student wellness, scholarships, YFF, RFWF, Benevolence Fund, and infrastructure for labs and micro-factories.

Entrepreneurship

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ENTREPRENEURSHIP

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DSSE Entrepreneurship

NURTURING INNOVATORS, BUILDING ENTREPRENEURS

IIT Bombay has long been a crucible for innovation, where bold ideas meet the scientific and entrepreneurial spirit. The Desai Sethi School of Entrepreneurship (DSSE) embodies this ethos, serving as a dedicated hub to equip aspiring entrepreneurs with the mindset, skills, and networks needed to turn ideas into impactful ventures.

The journey began in 2010 with a vision to create a Centre focused on innovation and entrepreneurship. This vision took shape in 2014 with a generous gift from Distinguished Alumnus Bharat Desai (B.Tech., Electrical Engineering, 1975) and Neerja Sethi, leading to the establishment of the Desai Sethi Centre for Entrepreneurship. In 2019, the Centre evolved into the Desai Sethi School of Entrepreneurship, marking a new chapter in IIT Bombay's mission to foster deep-tech entrepreneurship.

> *"The path of entrepreneurship is not paved with roses—it demands resilience, courage, and conviction. At DSSE, we prepare our students not just to survive this journey, but to lead it."*
>
> *- Bharat Desai*
> *B.Tech., Electrical Engineering, 1975*

DSSE blends academic excellence with experiential learning, encouraging students to engage directly with real-world challenges.

As an integral part of IIT Bombay's entrepreneurship ecosystem, the Desai Sethi School of Entrepreneurship (DSSE) works in synergy with student-led platforms such as E-Cell's E-Summit and Eureka!, the Institute Technical Council's high-impact teams like Team Shunya, IIT Bombay Racing, and Team Pratham, and various tech clubs. Its pre-incubation programmes, including IDEAS and the Women in Entrepreneurship Programme (WIE), provide structured mentoring and entrepreneurial practice, ensuring that innovations from students and faculty can mature into incubated startups ready for fundraising and growth.

Downstream, DSSE maintains strong linkages with SINE (Society for Innovation and Entrepreneurship), IIT Bombay's renowned technology business incubator, which provides "start-to-scale" support for tech-based ventures. Through pre-incubation programmes, DSSE channels promising ideas to SINE and connects founders with government bodies, investors, and industry leaders, ensuring a robust pipeline of viable startups.

With its unique position bridging academia, research, and industry, DSSE is more than a school—it is a launchpad for ventures that have the potential to change industries, improve lives, and contribute to India's innovation-driven growth.

Key Achievements (2024)

1,650+
students enrolled in entrepreneurship courses

120
student venture teams supported through IDEAS

15
new startups registered

First Cohort
of doctoral researchers began advancing knowledge in entrepreneurship and innovation

Hosted a national research symposium and an Entrepreneurship Day with 350+ participants, showcasing student ventures and thought leadership

3 National Awards
won by IIT Bombay student teams at the Smart India Hackathon

Igniting India's Innovation Nation

SOCIETY FOR INNOVATION AND ENTREPRENEURSHIP – SCALING STARTUP IMPACT

Since its inception in 2004, the Society for Innovation and Entrepreneurship (SINE) at IIT Bombay has been a pioneer in India's incubation ecosystem. As one of the country's earliest and most successful Technology Business Incubators, SINE has transformed high-potential ideas into scalable businesses that shape India's innovation narrative.

Over the last two decades, SINE has supported 245 startups. Of these, 81 are currently incubated with a remarkable 80% survival rate, far surpassing industry benchmarks.

Its startups have raised over $942 million in external capital, achieving a combined valuation of more than $3.6 billion. For every ₹1 invested by SINE, its portfolio has attracted ₹190 in external funding - a powerful testament to its catalytic impact.

End-to-End Ecosystem

SINE provides startups with up to three years of physical or virtual incubation, complete with office space, lab and prototyping access, and seamless integration into IIT Bombay's rich research ecosystem.

Through its own seed funding and facilitated government schemes—DST NIDHI PRAYAS, MeitY TIDE 2.0, BIRAC BioNEST, SIDBI Seed Fund—SINE bridges early-stage capital gaps for deep-tech ventures.

Mentorship from seasoned professionals, legal and IP services, and corporate partnerships further amplify each startup's readiness for scale. SINE also plays a national leadership role, mentoring over 60 incubators and serving as a trusted partner to key government ministries.

Pathbreaking Startups

SINE has been instrumental in launching some of India's most innovative ventures. Gupshup, India's first academic incubation unicorn, revolutionized conversational messaging. ideaForge, a leader in drone technology, is now publicly listed. ImmunoACT is breaking new ground in indigenous cancer immunotherapies. Together, these ventures exemplify the real-world impact of academic incubation.

Building the Future

With a bold vision to support 1,000 startups over the next decade, SINE is now entering a phase of scale. A ₹100-Crore venture capital fund is in the pipeline to boost deep-tech entrepreneurship. Complementing this is IIT Bombay's recent ₹500-Crore investment in advanced research infrastructure, creating fertile ground for innovations in semiconductors, electric mobility, quantum computing, and more.

SINE's journey reflects the power of sustained, strategic support for entrepreneurship. As it scales its impact, SINE will continue to empower the next generation of Indian startups, fuelling national self-reliance and global innovation leadership.

Innovation Engine

245
Startups Supported

80%
Survival Rate

$942 million
External Capital Raised

$3.6 billion+
Valuation

10,000+
Jobs Created

300+
IP Facilitated

60+
Mentored Incubators

Sectoral Reach
Deep-tech, Drones, Healthtech, AI, Electric Mobility

Powering Deep-Tech Ventures

PROJECT TITANIUM - ACCELERATING MARKET IMPACT

Project Titanium is a bold initiative at IIT Bombay, born out of a visionary idea by distinguished alumni Mr. Rajesh Jain and Mr. Ramesh Mangaleswaran, who also fund the programme.

The initiative is designed to catalyse commercialisation of deep-tech research, turning groundbreaking academic discoveries into scalable, real-world ventures. At its core, it seeks to bridge a critical gap: transforming faculty-led innovation into successful startups by pairing technical brilliance with entrepreneurial capability.

Bridging Research and Market

At the heart of Project Titanium is a structured approach to identifying and nurturing high-potential, research-driven ideas. Beyond offering catalytic capital and incubation support, the project places strong emphasis on building balanced founding teams, matching IIT Bombay's technical innovators with business co-founders through a rigorous selection and alignment process. This strategic matchmaking leverages both the institute's rich alumni network and broader outreach channels, supported by in-depth interviews and trial engagements.

Alongside capital and mentorship, the initiative runs bootcamps, seminars and hands-on training to equip founders with business and go-to market skills, creating an ecosystem where innovation meets execution.

Transformative Early Impact

Since its inception, Project Titanium has supported 35 deep-tech teams and enabled two successful co-founder matches, an often elusive but essential element in deep-tech entrepreneurship. Initial funding has been granted to three promising ventures, accelerating their development trajectories.

Some standout innovations include:

- An AI-powered platform enabling cheating-free electronic examinations
- A power-efficient portable scalp cooling device
- Solutions in advanced cooling systems, semiconductors (Matter Wave), personalised education platforms, and arsenic water filtration

Each of these efforts reflects Project Titanium's central mission – to ensure the Institute's research doesn't remain on the shelf but reaches the people and industries it can transform.

Culture Shift in Motion

Project Titanium is reshaping how innovation is valued at IIT Bombay, embedding successful commercialisation as a celebrated dimension of research impact. It is strengthening the bridge between industry and academia, and creating a pipeline of ventures that are research-backed, market-aware, and globally competitive.

Looking Ahead

As it scales, Project Titanium will continue to forge high-impact collaborations and invest in ventures with transformative potential. With its model of structured support and talent convergence, it is poised to make IIT Bombay a launchpad for deep-tech solutions that can redefine sectors and improve lives.

Innovation Domains

- AI & education
- Semiconductor tech
- Healthcare devices
- Water purification
- Advanced cooling systems

Programme Strengths

- Rigorous scouting & co-founder matching
- Capital & targeted incubation
- Regular seminars, bootcamps, and business skills training

Catalysing Deep-Tech Impact

TRA 70 FUND - ADVANCING RESEARCH TO APPLICATION

A landmark initiative by the Class of 1970, the TRA 70 Fund is a powerful enabler of deep-tech research and entrepreneurship at IIT Bombay. Designed to accelerate the translation of academic breakthroughs into real-world solutions, the Fund supports high-impact, commercially viable projects led by students and faculty.

With a clear focus on India's strategic growth sectors, TRA 70 is helping bridge the gap between lab and market.

Vision to Validation

Now into its second cycle, the TRA 70 Fund has built a rigorous and transparent selection process to identify promising ideas with potential for scale.

- **Round 1**: A project led by Prof. Chandramouli Subramaniam was selected, focused on developing next-generation materials for energy-efficient systems. This initiative aims to significantly reduce energy consumption by enhancing material properties, with applications spanning multiple industries.
- **Round 2:** Out of 33 entries, three standout projects were selected after a competitive evaluation:
  1. **Agriyan:** A precision and automated farming project led by Prof. Bakul Rao, targeting higher agricultural productivity through smart technologies.
  2. **High-Efficiency Solar Technology:** Led by Prof. Dinesh Kabra, this pioneering effort demonstrated India's first 4T silicon-perovskite tandem solar cell with over 26% efficiency, a major leap toward more affordable and scalable solar power.
  3. **Happy Lingo:** An AI/ML-driven speech assessment tool for mobile devices, developed under Prof. Preeti Rao. Already piloted in diverse school settings, it enables real-time feedback on oral reading accuracy and fluency, opening new pathways in education technology.

Scalable Innovation

The TRA 70 Fund is more than a financial resource. It is a strategic platform for deep-tech translation. By combining IIT Bombay's research strengths with targeted entrepreneurial support, it enables faculty and students to move beyond proof-of-concept toward societal impact and commercial success.

With every project backed, the Fund reaffirms the Class of 1970's enduring commitment to nation-building through science, technology, and innovation.

Special Programmes and Initiatives

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SPECIAL PROGRAMMES & INITIATIVES

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Mr. Arun Firodia's Gift

ADVANCING MOBILITY AND ELECTRONICS

Distinguished alumnus Mr. Arun Firodia (B.Tech., Electrical Engineering, 1965), Chairman of the Kinetic Group, has extended vital support to IIT Bombay to bolster its capabilities in two nationally significant domains: mobility and electronics. Through this partnership, Mr. Firodia is enabling the institute to deepen its research ecosystem, attract top academic talent, and foster innovation at the intersection of technology and impact.

Building Research Leadership

The endowment will support the creation of a Chair Professorship in Mobility and Electronics, an initiative designed to anchor world-class research, spark industry-academia collaborations, and guide the next generation of engineers and innovators. In addition, IIT Bombay will establish the Arun Firodia Research Floor within the Department of Electrical Engineering. This dedicated space will drive advanced research and interdisciplinary exploration across core and emerging areas.

Alumnus Impact, National Vision

This initiative reflects IIT Bombay's larger vision of shaping transformative, home-grown solutions in mobility and electronics, fields essential to India's technological and economic future. It also exemplifies the deep, ongoing commitment of IIT Bombay alumni to strengthening the Institute's academic excellence and societal relevance.

Endowment Focus Areas

- Mobility systems and technologies
- Next-generation electronics and applications
- Research infrastructure and faculty excellence

Key Outcomes

- Chair Professorship in Mobility and Electronics
- Arun Firodia Research Floor in Electrical Engineering
- Strengthened Industry-Academia Engagement

Engineering That Heals

BFI-BIOME PROGRAMME – BIOMEDICAL RESEARCH FOR REAL-WORLD IMPACT

When innovation meets empathy, science becomes care.

At IIT Bombay, the BFI–BIOME Research Programme, supported by the Biomechanical Frontiers Initiative (BFI), is reimagining how we diagnose, monitor, and treat disease—through translational research rooted in biomedical engineering.

In FY 2024–25, three interdisciplinary projects are pushing the frontiers of diagnostics and therapeutics. From next-generation ICU monitoring to non-invasive cancer detection and women's health, these initiatives represent a powerful convergence of engineering, medicine, and design.

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1. ICU Monitoring, Reinvented
Remote Intelligent Observation System (RIOS)

PI: Prof. Rohit Srivastava; Co-PI: Dr. Arnab Ghosh

ICUs save lives, but only if they are seen in time. RIOS is a game-changing ICU monitoring platform that integrates AI-powered video analytics, OCR-based data capture from bedside monitors, and secure real-time streaming. A mobile interface and optimised edge computing backbone ensure adaptability across diverse hospital setups.

By enhancing clinical visibility and decision-making, RIOS addresses long-standing gaps in ICU surveillance. Current challenges, such as data generalizability and infrastructure variability, are being tackled through algorithmic refinement and hardware upgrades.

2. The Future of Liquid Biopsy
Inertial Microfluidic Platform for EV Isolation

PI: Prof. Debjani Paul; Co-PI: Sourav Acharya

Liquid biopsies offer the promise of non-invasive cancer detection, but current methods are costly and complex. This project is developing a label-free, one-step microfluidic device to isolate extracellular vesicles (EVs) from body fluids with high precision.

Early validation shows results comparable to ultracentrifugation, the gold standard, in both EV purity and protein profiling. With ongoing work on regulatory clearances and benchmarking, this platform could make affordable, high-quality diagnostics accessible to more patients, faster.

3. Pelvic Health with Purpose
Electrospun Pelvic Floor Meshes

PI: Prof. Jayesh Bellare; Co-PI: Prof. Abhijit Majumder

Millions of menopausal women worldwide suffer silently from pelvic organ prolapse. This project aims to change that with biocompatible, electrospun pelvic floor meshes—designed for safety, comfort, and long-term efficacy.

Key milestones include the development of a pilot-scale electrospinning unit, a surgical protocol for large animal trials, and early-stage packaging and stability testing. With procurement underway and CRO partnerships forming, large animal trials are next. The project has already earned international recognition at the Taiwan Formosa Urogynecology Association, reflecting its global relevance.

From Lab Bench to Bedside

Together, these projects embody the BFI–BIOME programme's mission: to turn scientific breakthroughs into scalable, real-world healthcare solutions. With each prototype, trial, and test, IIT Bombay is engineering innovations that serve the patient, and not just the problem.

Driving India's EV Independence

C1973 EV POWER TRAIN LAB – BRIDGING DESIGN, INDUSTRY, TALENT

As India accelerates toward a clean mobility future, IIT Bombay is powering a key shift - from dependence to design leadership. The C1973 EV Power Train Lab, established by the Class of 1973 as their Golden Jubilee Legacy Project, is a strategic initiative aimed at building self-reliance in electric vehicle (EV) technologies, especially for small-format vehicles.

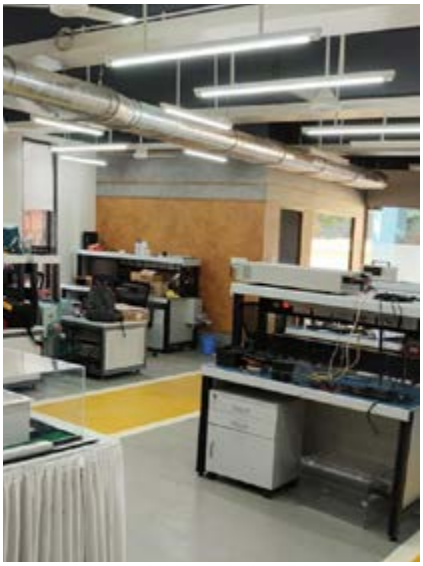
With a focus on domestic innovation, the lab is shaping India's EV journey: from the motor to the battery and everything in between.

Vision with Velocity

The lab's vision is clear:

- Emerge as a global leader in EV powertrain R&D
- Serve as a preferred research partner for Indian EV companies
- Enable cutting-edge talent development through academic and professional training

Inaugurated in February 2024 by Dr. Anil Kakodkar and operational since June 2024, the lab launched its Industrial-Academia Partnership Programme (I-APP) in September 2024 to deepen engagement with the EV industry.



Powering the Road Ahead

The lab focuses on the design, prototyping, and testing of core EV subsystems:

- Inverters and Controllers (led by Prof. Sandeep Anand)
- Battery Modelling and Management Systems (BMS) (led by Prof. Bharat Suthar)

These projects involve detailed system design, component integration, and performance validation, driving innovation in real-world EV applications.

State-of-the-art facilities include:

- Battery Cycler
- Regenerative Grid Simulator
- Wire Cut EDM
- CNC Milling Machine

They enable high-precision prototyping and testing of next generation EV solutions right on campus.

Partners in Progress

Industry collaboration is core to the lab's model. Current partners include Cummins, John Deere, Vertiv, Hella, and Tata Power. The upcoming I-APP programme offers structured engagement through:

- Tiered membership
- Early access to lab-developed IP
- Joint research and co-development
- Custom employee training
- Internship and workshop opportunities for students

This framework positions the lab as a bridge between academia and industry, ensuring that research translates into real-world impact.

Skilling for New Mobility

Talent development is another pillar of the lab's mission. Key initiatives include:

- The EVolution webinar series
- Hands-on workshops in EV design and testing
- Upcoming executive education programmes in e-mobility systems

Among the current applied projects:

- An indigenous e-rickshaw trial under the Sustenance Project
- An onboard SiC-based EV charger, developed in partnership with Cummins

Engineering E-Mobility Future

The C1973 EV Power Train Lab is steadily building India's capabilities in electric mobility: from core technologies and industry partnerships to talent pipelines and real-world pilots.

As the nation transitions to cleaner transport, the lab offers innovation, as well as the critical systems and skills required to drive it forward.

Coal India-CTARA Partnership

DRIVING RURAL INNOVATION

In a strategic collaboration for sustainable development, Coal India Limited (CIL) partnered with IIT Bombay's Centre for Technology Alternatives for Rural Areas (CTARA) to pilot a series of rural technology interventions across selected districts. The focus was to empower communities through scalable, low-cost innovations, with implementation rooted in grassroots networks like FPOs, SHGs, cooperatives, and gram sabhas.

The model leverages CIL's CSR funding for 70-80% of project costs, with the remainder co-funded by communities and partner organizations. The result is a robust, participatory framework for rural transformation, with strong signals of replicability and impact.

Innovations in Action

- **Rural E-Commerce:** The MarketMirchi.com platform boosted market access for farmers and artisans, reaching 857 participants across eight districts via 18 training sessions.
- **Agro-Processing:** Multi-purpose processors and chironji decorticators installed in five locations created income opportunities for SHGs and FPOs, enabling year-round operations in Madhya Pradesh, Chhattisgarh, and Maharashtra.
- **Clean Energy & Livelihoods:** A biomass gasifier cooking system was introduced in Umari village, Yavatmal, reducing dependence on conventional fuels and supporting pellet-making by a women-led SHG.
- **Water Management:** Two hydraulic isolation shafts improved water access for over 1,000 households in Nagpur and Chandrapur.
- **Animal Health Services:** Five mobile cow lifts were deployed in Maharashtra, helping local goshalas and dairy co-ops offer assisted services via rental models.
- **Value-Added Production:** Two solar hydro-distillation units now enable SHGs in Nagpur to manufacture rose water and herbal products for local sale.
- **Small Farm Tools:** Farmers in Rajnandgaon benefited from solar sprayers and petrol tillers, reducing manual labour and improving productivity.

Recognised by NITI Aayog under the Azadi Ka Amrit Mahotsav as a top agro-based CSR initiative, the programme is already seeing early scale-up with new orders for processors and demand from development partners.

The Freshers Foundry

DESIGN AND MAKING LAB - MAKERSPACE

At the heart of IIT Bombay's innovation ecosystem lies a space where screwdrivers meet circuit boards, and first-year students build ideas, literally, from the ground up. The Design and Making Lab (DMSL), part of the Institute's Makerspace initiative and supported by Mr. Deepak and Mrs. Maya Satwalekar and Class of 1980, is a leap in reimagining how engineers are trained: not just to think, but to make.

Blending theory with practice, the lab is home to Makerspace101 (MS101), a hands-on foundational course for over 1,400 undergraduates annually. Jointly run by the Mechanical and Electrical Engineering departments, MS101 replaces traditional Engineering Drawing and Workshop classes with a far more dynamic format. Here, students learn by building, experimenting, failing, and trying again.

Tools of the Trade

With 250+ workstations and a suite of modern equipment—3D printers, laser cutters, breadboards, oscilloscopes, CNC mills, and more—the lab empowers students to turn classroom knowledge into tangible prototypes from their very first semester.
The MS101 course unfolds in two phases:

- Semester 1 (Foundation): Students gain core skills in circuit theory, Arduino programming, lab instrumentation, and breadboarding.
- Semester 2 (Project Build): In teams, they conceptualize, design, and fabricate working prototypes that combine mechanical and electrical systems, culminating in milestone reviews and final demonstrations.

One Prototype at a Time

In 2022–23, students built line-following robots using Arduino, sensors, and custom chassis. In 2023–24, they tackled more complex builds, including:

- Tensile Testing Machines for foam strips (ASTM-D638 compliant) using dovetail and lead-screw mechanisms.
- Quadcopter Drones with custom structures, flight control systems, and integrated sensors.

These projects gave students real-world experience in fabrication, electrical prototyping, and system integration, skills vital for modern engineering practice.

Learning by Doing, Together

The lab's greatest strength may lie in its culture: one of collaboration, creativity, and courage. Students from different departments share tools, ideas, and skills. They're encouraged to iterate, experiment, and pitch ideas just like startup founders – harvesting not just engineers, but innovators.

Student reflections consistently underscore the lab's transformative impact: sparking a love for engineering, boosting technical confidence, and even influencing career choices.

Looking Ahead

With momentum building, the Makerspace initiative is poised to scale up. Upcoming plans include:

- Expanding project-based learning modules
- Launching filament recycling for 3D printers
- Hosting a national Makerspace Conclave
- Creating thematic labs for specialized domains
- Rolling out outreach and training programmes to other institutions

The team also aims to secure larger grants to study long-term learning outcomes and help replicate this model nationally.

Makers are Born

The Design and Making Lab is more than a fabrication space. It's a proving ground for imagination, a classroom for collaboration, and a crucible where young engineers learn that good ideas do not come fully formed; they are visualised and realised step by step.

Dr Kishore Seendripu's Gift

EMPOWERING STRATEGIC VISION

For Distinguished Alumnus Dr. Kishore Seendripu (B.Tech., Metallurgical Engineering & Materials Science, 1990), giving back to IIT Bombay goes beyond philanthropy. It is an investment in the future of India's scientific and engineering leadership. Through a landmark contribution via the IIT Bombay Heritage Foundation, Dr. Seendripu has pledged his support to strengthen the Institute's long-term strategic vision: from world-class infrastructure and advanced research to academic excellence and student empowerment.

His generous, unrestricted contribution provides IIT Bombay with the flexibility to invest in high-impact initiatives to benefit generations of students, researchers, and faculty.

Spaces of Learning and Leadership

As a tribute to this exceptional gesture, Lecture Hall Complex-3, home to four modern 350-seater auditoriums, has been named the Seendripu Krishna Murthy Lecture Complex. This facility represents more than a physical space; it is a symbol of Dr. Seendripu's belief in accessible, future-ready learning environments that inspire inquiry, collaboration, and discovery.

From large-format lectures to dynamic interdisciplinary engagements, this complex will support the Institute's efforts to deliver high-quality education at scale.

Fuelling Research and Academic Excellence

Dr. Seendripu's support extends to path-breaking research grants, enabling scholars to pursue bold questions and disruptive technologies across disciplines. His gift is designed to power infrastructure and also ideas - nurturing talent, curiosity, and innovation at every level of the academic ecosystem.

His longstanding commitment to IIT Bombay includes the establishment of the Prof. T. R. R. Mohan Chair in Material Sciences and Microelectronics, in honour of one of the Institute's most revered faculty members. This endowment reflects Dr. Seendripu's deep respect for mentorship, academic rigour, and the transformative power of teaching.

A Legacy of Impact

Few contributions encapsulate the spirit of giving, gratitude, and strategic foresight as clearly as Dr. Kishore Seendripu's. By enabling the Institute to address both its present needs and future aspirations, his support will continue to shape IIT Bombay's evolution into a global centre of excellence.

Dr. Gauri Shah Endowment Fund

A LEGACY OF EMPOWERMENT

The Dr. Gauri Shah Endowment Fund is a powerful example of how focused philanthropy can advance academic excellence while nurturing an inclusive and supportive campus environment. Founded by alumnus Dr. Mayur Datar to benefit multiple dimensions of IIT Bombay's ecosystem, the fund primarily supports the Department of Computer Science and Engineering (CSE), while also backing broader initiatives in early education and community welfare.

With targeted grants and fellowships, the endowment empowers high-performing students, supports emerging faculty, and promotes gender equity, shaping a culture where research, opportunity, and care go hand in hand.

Strategic Areas of Support

- **Student Development & Research Exposure**
    - **Travel Grants:** Financial support for CSE students to attend leading national and international conferences, present papers, and engage with global academic networks.
    - **Merit Fellowships:** Annual fellowships that enable M.S. students to pursue research without financial constraints.
- **Faculty Development & Research Funding**
    - **Young Faculty Fellowship:** Recognition and support for early-career faculty working on new research directions.
    - **Theoretical Research Grants:** Sponsorships for participation in prestigious theory-focused events.
- **Inclusive Initiatives & Campus Wellbeing**
    - **PhD Fellowship for Women:** Long-term support to encourage more women scholars to pursue advanced research.
    - **Shishu Vihar Fund:** Investment in upgrading IIT Bombay's Child Care Centre, including safe, high-quality outdoor play equipment to foster holistic early learning.

Catalyst for Inclusive Impact

By investing in both intellectual and community capital, the Dr. Gauri Shah Endowment Fund stands out as a catalyst for inclusive growth. It enables bright minds to pursue their ambitions, supports women in academia, and enhances the everyday experiences of campus families, reinforcing IIT Bombay's commitment to excellence with equity.

Housing with Heart

CLASS OF 1974 LAUNCHES HEARTS'74 – A GOLDEN JUBILEE GIFT TO RURAL INDIA

Some legacies are cast in concrete, and firmed up with compassion. As part of their Golden Jubilee celebrations, IIT Bombay's Class of 1974 has launched a landmark initiative that combines engineering insight with deep social commitment: HEARTS'74 – Habitat for Everyone: Affordable, Resilient, Transformative, and Sustainable.

Conceived as a tribute to their 50-year journey since graduation, the project reflects the batch's desire to give back with purpose. In partnership with IIT Bombay, it has set out to reimagine affordable rural housing in India through solutions that are climate-resilient, sustainable, and community-driven.

Vision for Housing Equity

Phase 1 of HEARTS'74 is already underway. The prototype serves as a live testbed, refining building materials, design innovations, and cost-efficient construction techniques under real-world conditions.

Aligned with national programmes like the **Pradhan Mantri Awas Yojana (PMAY)**, the project complements India's mission of "Housing for All" while adding a critical layer of research-backed innovation.

Over the next two years, the team plans to build 10 full-scale prototypes across diverse geographies. Each will help tailor designs to specific climate zones, terrains, and local needs, creating a replicable, region-sensitive model for rural housing.

Built to Scale

HEARTS'74 is more than a pilot. It is a scalable housing blueprint that, over the next decade, aims to catalyse the construction of hundreds of thousands of affordable homes, offering rural families across India shelter that is dignified, durable, and designed for the future.

Alumni-Led, Nation-Focused

This initiative exemplifies the power of alumni to drive national impact, combining the Institute's academic strengths with field-level experimentation and the collective vision of a class that believes engineering must always serve society.

Powering India's Green Transition

IIT BOMBAY-HSBC INDIA GREEN HYDROGEN INITIATIVE – CATALYSING CLEAN ENERGY

In 2023, IIT Bombay and HSBC India joined forces through a landmark Memorandum of Understanding to advance India's green hydrogen ecosystem.

Aligned with the National Green Hydrogen Mission, this initiative is a crucial step toward realising the country's clean energy ambitions. It aims to fast-track the research, development, and commercial deployment of green hydrogen technologies critical to India's energy independence and climate goals.

Research Momentum

Following a national call for proposals in 2024, six research projects were competitively selected for incubation at IIT Bombay. These were chosen from a wide pool of submissions by premier Indian institutions after rigorous evaluation by a high-powered steering committee comprising industry leaders and senior IIT Bombay faculty.

Each selected project addresses a vital node in the green hydrogen value chain: from production and storage to distribution and industrial use. Together, they reflect the initiative's multi-pronged, application-oriented approach to impact.

Breakthroughs in Focus

The shortlisted projects are tackling some of the most urgent scientific and engineering challenges in green hydrogen:

- **Low-Cost Production:** Energy-efficient hydrogen generators projected to reduce production costs by ~30%.
- **Transport Innovation:** Indigenous storage systems for commercial vehicles to cut emissions in the mobility sector.
- **Electrolyzer Advancement:** Cost-effective, scalable alkaline electrolyzers aimed at affordable hydrogen generation.
- **Cleaner Combustion:** New burner designs that reduce industrial emissions and improve air quality.
- **Safety Innovation:** Toolkits for secure hydrogen–natural gas blending in existing infrastructure.

These projects will be nurtured within IIT Bombay's deep-tech incubation environment, with mentorship, prototyping facilities, and strong industry linkages.

Green Hydrogen, Indian Innovation

- **Aligned With:**
  National Green Hydrogen Mission

  Research Partners:
  Select IITs, NITs, IISERs
- **Shortlisted Projects:** 6
- **Targeted Impact:**
  - Cost reduction
  - Emission cuts
  - Scalable storage
  - Industrial safety
- **National Goals:**
  - 5 million metric tonnes green hydrogen capacity by 2030
  - 125 GW renewable energy capacity ddition

Decoding the Markets, Designing the Future

IITB-CITADEL SECURITIES QUANTITATIVE RESEARCH LAB - FINANCIAL INNOVATION IN MOTION

In today's fast-moving financial world, insight is not just about hindsight, it is about high-frequency foresight.

To shape that future, IIT Bombay has joined hands with Citadel Securities India Markets Pvt. Ltd., one of the world's leading market makers, to establish the IITB-Citadel Securities Quantitative Research Lab.

Launched in 2024 and housed at the Shailesh J. Mehta School of Management (SJMSOM), the lab will be a next-generation hub for quantitative finance and computational economics

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A Vision for Modern Markets

- Empower data-intensive financial research using real-time datasets and high-performance computing.
- Support PhD scholars and academic inquiry into the design, modelling, and regulation of modern financial markets.
- Bridge academia, industry, and regulators on critical issues like algorithmic trading, market stability, and systemic risk.
- Lead outreach and executive education tailored to the evolving needs of India's financial sector.

Research To Move the Needle

The lab's research will span foundational theory and applied innovation, including:

- **Algorithmic Finance** - Artificial Intelligence & Machine Learning driven strategies for trading, optimisation, and risk analytics.
- **Market Microstructure** - In-depth study of intra-day dynamics, liquidity modelling, and regulatory implications.
- **Computational Finance** - Tools like Monte Carlo simulations, martingale methods, and portfolio optimization models.
- **Financial Stability & Systemic Risk** - Network-based contagion models and macroprudential policy frameworks.
- **Continuous-Time Finance** - Advanced modelling through deep learning and dynamic systems.
- **Regulatory Innovation** - Reimagining compliance and risk architecture for banks, microfinance, and fintech ecosystems.

Theory Meets Real World

As global markets become more complex, India's financial future demands deeper insight and faster reflexes. The IITB-Citadel Securities Quantitative Research Lab will equip scholars, policymakers, and practitioners with the tools to anticipate, understand, and shape those shifts.

By decoding the language of the markets, this lab will go beyond study of finance. It will help write its next chapter.

Pathbreaking Research

- Algorithmic Finance
- Market Microstructure
- Computational Finance
- Financial Stability & Systemic Risk
- Continuous-Time Finance
- Regulatory Innovation

Kongsberg Digital Collaboration

SIMULATING REAL-WORLD IMPACT

In a significant contribution to IIT Bombay's research and education ecosystem, Kongsberg Digital has donated academic licenses and maintenance support for its advanced industrial simulation platforms, **LEDAFLOW®** and **K-SPICE®**. These globally recognised tools are vital to the energy and process industries, enabling the Institute to offer cutting-edge training and research opportunities in flow dynamics, process modelling, and digital twin technologies.

Real-World Tools, Real-Time Learning

LEDAFLOW® is a state-of-the-art multiphase flow simulator widely used in the design and analysis of oil and gas pipeline systems. Its high-fidelity modelling capabilities make it a powerful educational tool for developing expertise in flow assurance, fluid dynamics, and system behaviour under dynamic conditions.

K-SPICE® complements this by providing a dynamic simulation environment for operator training, control system validation, and process optimization. Students and researchers can engage with complex industrial scenarios in a virtual setting, preparing them to tackle real-world challenges with confidence and clarity.

Bridging Academia and Industry

This partnership marks a leap forward in IIT Bombay's capabilities in process engineering and systems modelling. Access to these advanced tools places faculty and students on par with global industry standards, strengthening both academic innovation and industry-readiness. It also lays the groundwork for further collaboration in industrial research, simulation-based training, and technology development.

Modelling The Future

Key Technologies Donated:

- LEDAFLOW® – Multiphase flow simulator for oil and gas systems
- K-SPICE® – Dynamic process simulator for control and optimization

Core Benefits:

- Enhanced research in fluid and process systems
- Real-world industrial training and simulation
- Advancing digital twin and automation capabilities

Building Leaders for Tomorrow

LEADERSHIP CAPACITY BUILDING INITIATIVE – NURTURING EXCELLENCE

As IIT Bombay charts its path toward 2030, one truth stands out: world-class institutions need world-class leadership at every level.

The Leadership Capacity Building Initiative, supported by IIT Bombay's Distinguished Alumnus Mr. Rajesh Mashruwala, is a strategic step toward that vision, nurturing a new cadre of academic and administrative leaders equipped to deliver excellence at scale. This initiative is not just about filling positions; it is about institutionalising leadership as a culture and capability, embedded across the Institute's governance, operations, and outreach.

Redefining Institutional Leadership

At the heart of the initiative is a bold restructuring of IIT Bombay's leadership ecosystem. Through the newly established Institute Leadership Fund, seeded by Mr. Mashruwala, the Institute has created key professional roles designed to complement its academic leadership.

These professionals bring cross-sectoral expertise into the academic setting, enabling smoother decision-making, more agile execution, and a sharper external presence.

Driving Transformation at Scale

The initiative is designed to unlock long-term strategic outcomes, including:

- Efficient execution of the Institute's strategic roadmap through streamlined governance
- Enhanced industry partnerships and revenue generation via professionalised outreach and research collaboration
- Stronger faculty and student support services, powered by improvements in HR, IT, and legal infrastructure
- Positioning IIT Bombay as a national benchmark for leadership development and administrative reform

These new roles will eventually transition into self-sustaining structures, funded through internal revenue streams and institutional budgeting mechanisms.

Getting Future-Ready

By bridging professional expertise with academic vision, the Leadership Capacity Building Initiative marks a paradigm shift in how Indian higher education is managed and scaled. It affirms IIT Bombay's commitment to building talent pipelines and also the leadership frameworks needed to steer them.

Launchpad for Engineering Minds

INVENTION FACTORY 2024 – ENGINEERING INNOVATION IN ACTION

What if student ideas did not just stay in the mind or even paper, but turned into patented, working prototypes in six weeks?

That is the premise and promise, of the Invention Factory, a high-intensity, hands-on innovation programme supported by the Maker Bhavan Foundation. Held at IIT Bombay in 2024, the programme brought together top undergraduate engineering students from across India to solve real-world problems through invention, design, and teamwork.

Ideas to Prototypes

Over the course of six weeks, student teams:

- Ideated original solutions to tangible problems
- Rapidly prototyped their concepts using full access to IIT Bombay's maker labs
- Filed provisional patents in both India and the U.S.
- Received expert mentorship across design, engineering, and IP
- Pitched their final inventions to a jury of innovators, entrepreneurs, and academics

The programme culminated in a final pitch event, with top teams awarded prizes for the most impactful and scalable innovations.

Award-Winning Prototypes

First

Ishan Agarwal
(IIT Gandhinagar)

Vrushti Shah
(Nirma University)

Developed a therapeutic device combining pulsating air compression and targeted drug delivery to relieve muscle spasms, offering strong potential for physiotherapy and rehabilitation.

First Runner-Up

Sheersh Shah
(IIT Delhi)

Created a snap-fit eco add-on for food delivery bags that allows the use of paper-based containers, offering a sustainable alternative to plastic-heavy packaging in the delivery ecosystem.

Second Runner-Up

Sahil Rao
(IIT Jammu)

Harshada Kale
(IIT Gandhinagar)

Designed a safety-enhanced soldering iron attachment with a ventilated insulation cover and integrated solder wire feeder, improving safety and usability for electronics repair and manufacturing.

Learning to Build Futures

The Invention Factory has emerged as a transformative force in engineering education by:

- Bridging academic concepts with practical, hands-on application
- Introducing students to patenting and IP awareness
- Fostering interdisciplinary collaboration among diverse institutions
- Encouraging innovation that addresses real-world consumer and societal challenges

Students here learn to think like product designers, problem solvers, and future entrepreneurs.

Platform for Possibility

By combining creativity, engineering, teamwork, and strategy, the Invention Factory cultivates a new generation of innovators who are equipped to imagine the future and also build it.
This programme is a launchpad for engineering minds to make things better and matter.

Saving Mothers. Safeguarding Newborns.

MATERNAL AND CHILD HEALTH INNOVATION PROJECT

The earliest moments of life are also the most fragile. With generous support from IIT Bombay alumnus Mr. Dilip Wagle, the Institute is advancing a crucial initiative in maternal and child health (MCH), combining clinical insight, system-level research, and AI-driven technology to address gaps in care that claim thousands of lives each year.

Spearheaded by Prof. Rohit Srivastava, the initiative focuses on designing scalable, real-world solutions, while also building an innovation ecosystem that can respond to the dynamic needs of healthcare providers, patients, and public health systems.

Closing the Loop in Maternal Care

High-risk pregnancies contribute to nearly 60% of maternal mortality in India. Timely action is often stalled by broken referral systems and limited two-way communication between frontline health workers and medical centres.

To address this, IIT Bombay and the Antara Foundation have co-developed a framework to identify priority issues in maternal and newborn care. They are now piloting an AI-based referral loop closure and action tracking platform to:

- Flag high-risk cases
- Enable two-way alerts and updates
- Ensure follow-up and accountability in real time

This tool is designed to strengthen frontline health delivery and reduce preventable deaths by bridging critical communication gaps.

Reinventing Labor and Delivery Monitoring

According to the World Health Organization, nearly 45% of maternal and newborn deaths occur on the day of delivery or within 48 hours.

Recognising this, IIT Bombay has partnered with two leading government hospitals--Armed Forces Medical College (AFMC) and AIIMS Nagpur--to study systemic challenges in labour monitoring.

The team has secured Ethics Committee approvals to evaluate a connected, AI-powered monitoring system. This platform aims to:

- Continuously track maternal vitals and labour progression
- Predict high-risk situations and issue alerts
- Reduce the documentation burden on medical staff
- Enable better, faster clinical decisions

A System Built to Scale

Going beyond pilot solutions, the project is designed to lay the foundation for a scalable, sustainable maternal and newborn health system. By combining frontline insights, advanced technology, and institutional partnerships, IIT Bombay is demonstrating how research with heart can lead to outcomes that save lives and improve care at scale.

Challenges

- 60% maternal mortality due to high risk pregnancies
- 45% maternal and newborn deaths occur on the day of delivery or within 48 hours

Project Aims

- Identify & address critical gaps in maternal and newborn care
- Strengthen early referral and follow-through for high-risk pregnancies
- Improve labour and birthing monitoring using AI and connected devices
- Collaborate with public health institutions for field-level testing
- Build scalable, technology-enabled systems to reduce mortality and workload

Nandan Nilekani's Transformative Gift

PARTNERSHIP FOR NATIONAL IMPACT

In 2023, Mr. Nandan Nilekani, distinguished alumnus of IIT Bombay, co-founder of Infosys, and the architect of Aadhaar, made a historic philanthropic commitment to his alma mater—a pledge of ₹315 crores, the largest individual contribution ever made to a public university in India. This landmark gift marks a defining moment for IIT Bombay, accelerating its journey toward global leadership in research, innovation, and education.

Driving Research and Innovation

The Nilekani Fund empowers IIT Bombay researchers to tackle bold, interdisciplinary challenges at the frontiers of knowledge. Efforts span cutting-edge areas including semiconductors, artificial intelligence, healthcare, biosciences, green energy, quantum technologies, and next-generation data science. Faculty-led initiatives range from developing gene-editing therapies for rare diseases to pioneering sustainable filtration solutions, advanced cooling systems, additive manufacturing, and novel optoelectronic and quantum materials. These projects exemplify how targeted funding can address complex national and global challenges while nurturing world-class scientific expertise.

Building World-Class Infrastructure

Beyond research, the gift strengthens IIT Bombay's physical and institutional infrastructure. Investments include modernized faculty housing, upgraded academic and laboratory spaces, advanced research facilities, student-centric spaces such as Tinkerer Labs, and specialized facilities like packaging labs and an animal research center. This comprehensive support ensures that faculty and students operate in an environment that fosters innovation, collaboration, and creativity, while also enhancing the overall quality of campus life.


Representative Image

Strategic Pillars for Long-Term Impact

The donation is structured to generate sustainable, far-reaching impact across three core areas:

- **Infrastructure Excellence** – Upgrading living, learning, and research spaces to global standards.
- **Trailblazing Research** – Flexible funding for high-risk, high-reward projects across frontier technology and science domains.
- **Global Institutional Leadership** – Strengthening IIT Bombay's roadmap toward becoming a premier Institute of Eminence and a benchmark for innovation and academic excellence.

Transparent Governance and Accountability

A dedicated Governance Committee, comprising IIT Bombay leadership, alumni, and representatives of the donor, oversees fund allocation, project milestones, and measurable outcomes. This framework ensures that the Fund achieves maximum impact while maintaining accountability and transparency.

A Nationally Transformative Legacy

The Nilekani Fund sets a powerful precedent for philanthropic engagement in India's public higher education sector. By combining scale, strategic vision, and robust governance, the gift not only elevates IIT Bombay's global ambitions but also strengthens India's innovation ecosystem. This legacy investment lays the foundation for a thriving culture of high-impact research, world-class academic infrastructure, and interdisciplinary collaboration that will benefit generations of students, researchers, and innovators, positioning IIT Bombay as a torchbearer for national and global progress.

P. G. Bhagwat Automotive Clay Studio

SHAPING THE FUTURE OF MOBILITY

IIT Bombay took a significant step in advancing design-led engineering with the launch of the P. G. Bhagwat Automotive Clay Studio, a state-of-the-art facility dedicated to shaping the future of mobility.

Located on the ground floor of the Research and Innovation Building, the studio offers students, researchers, and industry collaborators access to world-class resources for conceptualising and prototyping next-generation automotive solutions.

The facility was inaugurated by Mr. Dilip Bhagwat (B.Tech., Aerospace Engineering, Class of 1971) in memory of his father, P. G. Bhagwat, marking a powerful tribute to legacy and innovation.

Designed for Tomorrow

As the first studio of its kind in an Indian academic institution, the P. G. Bhagwat Automotive Clay Studio is a transformative addition to the Institute's design ecosystem. It offers advanced tools to conceptualize and prototype futuristic, sustainable mobility solutions, while enabling collaboration with India's growing electric vehicle startup landscape.

By reducing design lead time, the studio empowers students and faculty to take their innovations from sketch to surface with unmatched speed and precision.

Powered by Vision

The studio was conceptualised by Prof. Nishant Sharma, the Ramakrishna Bajaj Chair Professor, and brought to life by Prof. Nishant Sharma and Prof. Unni Mohan M from the IDC School of Design. It is designed to enhance students' capabilities in clay modelling, design thinking, and automotive aesthetics, building a new generation of engineers fluent in both form and function.

Speaking at the launch, Director Kedare underscored the studio's role in promoting hands-on learning and pushing the boundaries of design and innovation.

This year, we also mourn the passing of Mr. Dilip Bhagwat. A visionary alumnus and a generous supporter of IIT Bombay, he played a pivotal role in advancing design-led engineering through the establishment of the P. G. Bhagwat Automotive Clay Studio. His contributions reflect a deep commitment to nurturing innovation and inspiring future generations. His legacy will continue to live on in the ideas shaped and innovations born at IIT Bombay.

Layering India's Solar Future

PEROVSKITE SOLAR CELL RESEARCH – PRECISION TOOLS FOR INDIGENOUS INNOVATION

As India accelerates its clean energy transition, IIT Bombay is powering a critical piece of the puzzle: the development of next-generation perovskite semiconductor-based solar cells. These lightweight, layered materials promise high efficiency at low cost, and hold the key to building a scalable, indigenous solar technology platform.

This ambitious effort is being advanced with the support of the **Waaree Group,** and anchored in a new ISO 7 cleanroom facility at IIT Bombay. The facility will serve as a national hub for precision solar cell research and advanced characterization.

Instrumenting Innovation

Two state-of-the-art instruments have been procured as part of this initiative:

- AAA+ Grade Solar Simulator (M10 size):
  Compliant with IEC and ASTM standards, this tool delivers high spectral accuracy, uniform irradiance, and long-term stability. Its calibration is traceable to global benchmarks, including NREL and Fraunhofer.
- QE-RX Spectral Response and Quantum Efficiency Measurement System:
  Designed for rapid and repeatable measurements of EQE, IQE, current density, and spectral response (300–1800 nm), this dual-beam system ensures exceptional precision in solar cell evaluation.

Together, these tools enable cutting-edge characterization, essential for optimising perovskite materials and advancing them from lab-scale prototypes to commercially viable solar technologies.

Building Capacity

The cleanroom facility is expected to support nearly 100 active research scholars at any time and will operate as an open-access platform under IIT Bombay's IRCC shared facility policy. This model ensures that researchers from academic institutions, national labs, and industry can all benefit from the infrastructure.

By enabling shared access, the initiative fosters collaboration across sectors and accelerates the pace of innovation in India's solar ecosystem.

Made for the Indian Sun

Through this project, IIT Bombay is helping build India's deep-tech capability in solar energy, where cutting-edge research meets scalable impact.

With world-class tools, open infrastructure and a clear mission, the Institute is layering India's solar future, cell by cell.

Mapping New Mothers' Minds

POSTPARTUM DEPRESSION & HRV BIOMARKERS – MONITOR AND MANAGE

Maternal mental health often remains in the shadows, silenced by stigma, missed by traditional diagnostics, and underserved by public systems.

At IIT Bombay, supported by The Janki Foundation, a research-driven initiative is working to change that by building a culturally relevant, technology-enabled model to identify and manage Postpartum Depression (PPD) in Indian women.

Titled 'Identification and Management of PPD using Heart Rate Variability as a Biomarker to Design an Effective Care Programme', the project focuses on early detection and timely intervention, using tools that are accessible, non-invasive, and sensitive to the realities of Indian healthcare.

Rethinking Screening for Indian Contexts

Standard tools like the Edinburgh Postnatal Depression Scale (EPDS), developed in Western contexts, often fall short in India due to linguistic and cultural misalignment. This project introduces a hybrid screening model that combines:

- Subjective assessments developed with mental health experts at NIMHANS
- Objective digital biomarkers, particularly Heart Rate Variability (HRV), tracked through wearable devices

To enhance diagnostic accuracy, the model integrates machine learning algorithms that correlate HRV data with accessible health parameters such as sleep quality and BMI.

Research to Real-World

The project gained traction following a key stakeholder consultation hosted at IIT Bombay, bringing together mental health professionals, technologists, and implementation partners. Based on these discussions, two clinical pilot sites in Pune have been selected to validate the model in real-world healthcare environments. The dual-pronged technology stack includes:

- Continuous monitoring solutions for private healthcare settings
- Point-of-care screening tools for high-throughput, resource-limited public health systems

Across Systems and Scales

At the clinical level, the project promises a low-cost, non-invasive tool to improve early identification and management of perinatal anxiety and depression, reducing diagnostic delays and improving outcomes for new mothers.

At the systemic level, it offers a blueprint for technology-enabled screening in maternal healthcare, a domain rarely served by digital innovation. The hybrid model's adaptability allows it to scale across diverse healthcare infrastructures, from urban hospitals to rural clinics.

For Policy and Practice

Interest from major stakeholders, including UNICEF India and state health departments, signals strong potential for broader adoption.

By combining technological precision with clinical sensitivity, the project offers a new framework for maternal mental health, designed for India's diverse realities. With growing interest from policy stakeholders and healthcare networks, it is poised to inform both practice and policy, advancing a more responsive, inclusive model of care for new mothers across the country.

At Clinical Level

- Low-cost, non-invasive tool
- Early identification and management of perinatal anxiety and depression
- Reduced diagnostic delays
- Improving outcomes for new mothers

At Systemic level

- Blueprint for technology-enabled screening in maternal healthcare
- Hybrid model scalable across urban hospitals to rural clinics.

A Legacy in Stone and Spirit

R.S. AYYAR FAMILY GIFT - CIVIL ENGINEERING DEPARTMENT

Some legacies are built in concrete and steel. Others are etched in minds, classrooms, and conversations. At IIT Bombay, the legacy of the Late Professor R.S. Ayyar now lives on in both.

One of the founding faculty members of the Civil Engineering Department, Prof. Ayyar helped lay the very foundations of academic excellence at the Institute. In 2024–25, his family honoured that legacy with a profound act of generosity.

> *What we leave behind is not what is engraved in stone monuments, but what is woven into the lives of others.*
>
> *– Pericles*

Mrs. Parvathy Ayyar and her daughters—Ms. Jayshree Subrahmonia and Ms. Ranjani Saigal—both IIT Bombay alumnae, donated two residential flats in Powai and Ghatkopar to the Institute. The proceeds were directed towards two high-impact initiatives in the Civil Engineering Department:

- **The Prof. R.S. Ayyar Chair Professorship -** With a research focus on "Analysis and Design of Infrastructure Using Mechanics," the Chair is envisioned to attract leading scholars and strengthen the department's research leadership in infrastructure studies.

- **The Prof. R.S. Ayyar Conference Room -** Located on the first floor of the department, this upgraded space now serves as a dedicated venue for academic seminars, research discussions, and student presentations.

These were complemented by two key events this past year:

- **Memorial Tree Plantation Ceremony (Feb 7, 2025) -** A Bakul tree was planted in the department courtyard as a living tribute to Professor Ayyar. His daughter, Ms. Ranjani Saigal, attended the ceremony and expressed the family's heartfelt appreciation for the gesture.

- **Formal Inauguration of the Prof. R.S. Ayyar Conference Room -** A solemn yet celebratory event marked the opening of the new academic space - a reflection of the values Prof. Ayyar championed: intellectual rigour, collegiality, and public service.

Through this legacy gift, the Ayyar family has ensured that future generations of students and scholars will continue to benefit from the academic ethos Prof. Ayyar helped establish. The Institute expresses its deepest gratitude for their vision and generosity.

Support from Roadstar

ADVANCING PAVEMENT INNOVATION

Backed by Roadstar Investment Managers Ltd, a major research initiative is being led by IIT Bombay's Department of Civil Engineering. The project aims to revolutionize road infrastructure in India by addressing longstanding challenges in pavement design, performance, and sustainability. Focused on both flexible and concrete pavements, the research is aligned with national priorities of cost efficiency, lifespan, and environmental responsibility.

Innovation Across Pavement Systems

Project Roadstar comprises three interlinked research thrusts that together reimagine how roads are built and maintained in India:

- **Lasting Asphaltic Overlays:** Through advanced testing of Polymer Modified Bitumen (PMB), this stream aims to extend pavement life to 8-10 years. Early lab results show strong rutting resistance under high temperature and traffic loads, vital for Indian highway conditions.
- **Preventive Maintenance Techniques:** Focused on micro-surfacing technologies, this stream addresses past implementation gaps by optimizing materials and mix designs. Newly-acquired testing tools, such as the Cohesion Tester and Wet Track Abrasion Tester, are enabling more reliable, India-specific solutions.
- **Sustainable Cementitious Materials:** Tackling cement's high carbon footprint, this research develops geopolymer concrete using industrial and agricultural waste, such as red mud and fly ash. Early trials show promise in leveraging residual NaOH and even enabling CO^2 absorption during curing.

Transforming Roads and Research

By combining scientific rigour with real-world relevance, Project Roadstar will deliver outcomes: longer-lasting roads, lower costs, and greener alternatives. As research matures, it aims to cut India's infrastructure carbon footprint while strengthening domestic pavement technology.

Smart Pavements, Greener Future

Impact Areas

- Lower maintenance costs & disruptions
- Reduced CO^2 emissions through industrial waste reuse
- National self-sufficiency in pavement innovation

Infrastructure Vision

- Longer road lifespans
- Eco-friendly construction
- Indigenous, scalable solutions

SemiX

SHAPING INDIA'S CHIP VISION

Established in 2022, SemiX, the Centre for Semiconductor Technologies at IIT Bombay, is designed to anchor India's growing ambitions in semiconductor research, innovation, and talent development.

The name 'SemiX' reflects its scope: 'Semi' for semiconductors, and 'X' for the cross-cutting integration of materials, devices, circuits, packaging, and software, uniting the entire semiconductor value chain under one platform.

SemiX stands apart in its systems-level approach, serving as a collaborative hub for academia, industry, and government. Its mission is to develop breakthrough technologies, nurture high-end talent, and support home-grown semiconductor ventures, strategic levers in India's journey toward technological self-reliance.

Research, Partnerships & Scale

SemiX draws strength from over 40 faculty across five+ departments at IIT Bombay, fostering interdisciplinary research in four strategic domains:

- Power electronics
- AI computing
- Advanced packaging
- Communication and sensing

With significant contributions from Alumni funding like Mr. Nandan Nilekani, Mr. Jitendra Mohan and Ms. Swapna Samant, as well as industry leaders like Synopsys, and MacDermidAlpha, the Centre has established advanced labs in technology development, IC design, and packaging.. Through its Industry Affiliate Programme, SemiX collaborates with Applied Materials, GlobalFoundries, Horiba, IBM, Mattson Technology, Seagate, Synopsys, Texas Instruments, TOK, and others, aligning research with real-world needs and shaping ecosystem-wide strategy.

Empowering Talent and Startups

To meet the growing demand for skilled professionals, SemiX offers in-depth training programmes that combine academic coursework with practical experience. Building on IIT Bombay's four decades of semiconductor education, these programmes include online modules, hands-on training, and executive postgraduate diploma pathways.

The Centre also partners with the Society for Innovation and Entrepreneurship (SINE) to nurture semiconductor startups, offering incubation, funding, mentoring, and lab access. SemiX supports deep-tech ventures like AortIC, Numelo, Matterwave, SoilSens, and AramAI, strengthening the entrepreneurial backbone of India's semiconductor push.

Enabling Startups, Shaping Policy

SemiX is also supporting early-stage startups with access to high-end Electronic Design Automation (EDA) tools, helping them fast-track their prototyping journey. At the same time, it is contributing to long-term national R&D strategy through initiatives like the proposed SemiARC (Semiconductor Applied Research Centre), which will deepen India's indigenous capabilities in chip research.

Meanwhile, international outreach has expanded through SemiX roadshows in Silicon Valley, Portland, and Austin, building global ties and showcasing India's growing semiconductor strengths.

Driving National Strategy

SemiX plays a key role in shaping policy through its engagement with the India Semiconductor Mission and the Ministry of Education's Committee for Semiconductor Ecosystem Talent. This strategic involvement positions IIT Bombay as a vital stakeholder in national efforts to grow research capacity, create jobs, and lead innovation in the global semiconductor space.

India's Semiconductor Launchpad

Core Research Areas

- Power Electronics
- AI Computing
- Advanced Packaging
- Communication & Sensing

Strategic Engagements

- India Semiconductor Mission
- MoE Committee for Semiconductor Ecosystem Talent

Liftoff for the Final Frontier

SPACE TECHNOLOGY INNOVATION LAB - TRAINING THE NEXT GENERATION OF SPACE ENGINEERS

India may be reaching for the stars, but it begins with training on the ground. At IIT Bombay, that journey starts with a lab. With generous support from Mr. Deepak Satwalekar, IIT Bombay's Distinguished Alumnus, the Institute is setting up a state-of-the-art Space Technology Innovation Lab designed to bridge the gap between learning and real-world space engineering. This facility will be a launchpad – not just for satellite components, but for the next generation of engineers ready to shape the future of Indian space technology.

Space-Ready Solutions

The lab will house advanced testing infrastructure, including a Thermovac chamber, critical for simulating space environments and validating hardware for small satellites such as CubeSats as well as larger satellite components. By enabling environmental testing at different stages of development, the facility will offer students direct, hands-on experience in building and refining space-qualified systems. This setup positions the lab as both a training ground and a research facility, supporting experimental learning while pushing the boundaries of space hardware innovation

Two-Year Star Trek

A standout feature of the initiative is a structured two-year programme for undergraduate students, beginning in their second year. The curriculum includes:

- Electronics Design
- Structural and Thermal Engineering
- Flight Hardware Development

The programme aims to train up to 40 students over five years, with plans to develop and potentially launch up to four satellite payloads. By combining academic depth with project-based learning, the initiative will offer one of the most practical space education tracks in the country.

Sustainable Innovation

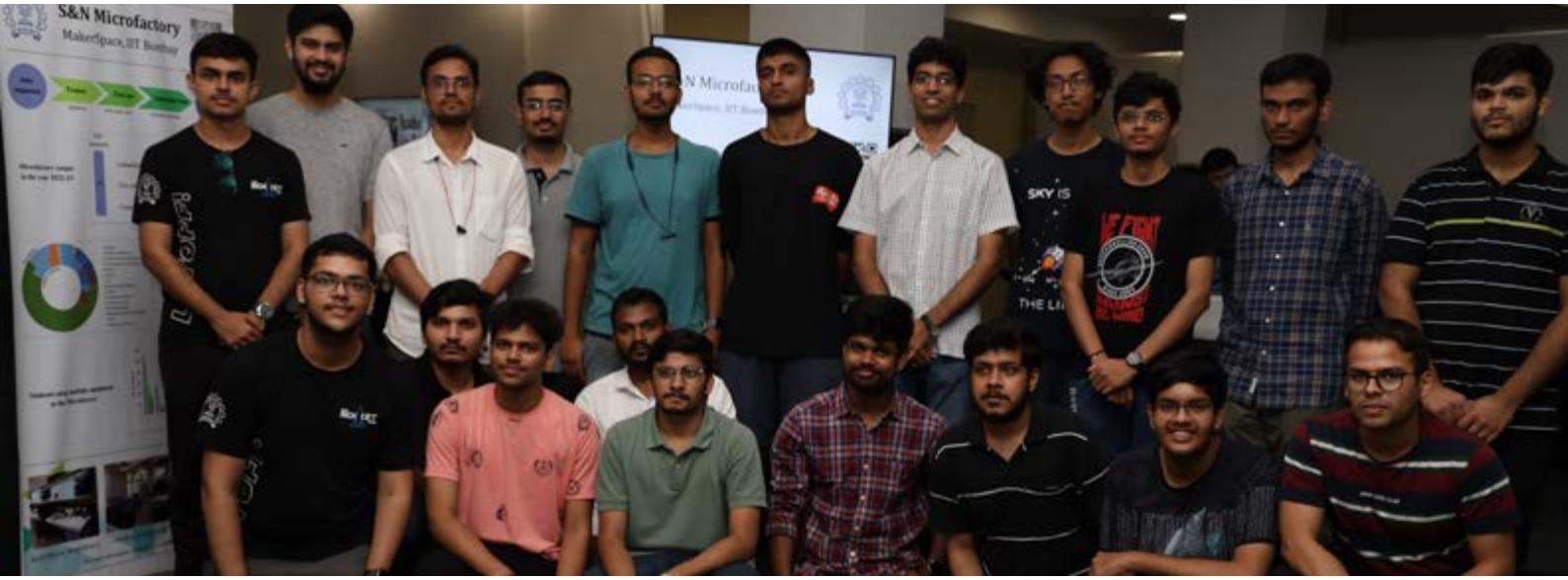
Beyond education and research, the lab is envisioned as a collaborative innovation hub, with future potential for commercial use post-project to ensure sustainability. This creates space for external partnerships and entrepreneurial applications, further expanding the lab's impact.

Expanding Horizons

With the creation of the Space Technology Innovation Lab, IIT Bombay is making a long-term investment in national capability, student empowerment, and space-sector innovation. The lab stands as a bold step toward building India's space capabilities, equipping young engineers with the precision, vision, and hands-on experience needed to contribute meaningfully to this growing frontier.

Minds That Make

SRINIVASAN AND NAGAR MICROFACTORIES – DESIGN THINKING MEETS ADVANCED MANUFACTURING



The Kadayam S. Srinivasan Microfactory and Harivallabh Nagar Microfactory (S&N Microfactories) have become a cornerstone of hands-on engineering at IIT Bombay. As a flagship MakerSpace facility, it offers students the resources and training to design, fabricate, and prototype independently, integrating practical experience into both coursework and extracurricular projects.

Built on a philosophy of learning by doing, the space supports a growing community of student innovators committed to building solutions with precision and purpose.

Learning by Making, Leading by Doing

Supporting academic courses such as MakerSpace 101, the facility also serves student-led teams and research projects. Over 350 users, from undergraduates to PhD scholars, have been trained through a structured three-tier protocol: training, supervised use, and independent operation. As of now, nearly 76% of users are certified for independent machine use.

Student teams such as IITB Racing, GenSUS, Rocket Team, Student Satellite Programme, and BiOME have fabricated critical components for national and international competitions using tools such as laser cutters, 3D printers, and CNC machines. Many students now run multi-step fabrication processes independently, gaining exposure to real-world manufacturing practices.

Interdisciplinary Energy

With users from over 15 academic departments, the Microfactories encourage collaboration across disciplines. The highest engagement comes from Mechanical, Metallurgical, Chemical, and Aerospace Engineering, but the facility continues to attract students from a wide academic base.

The lab launched a faculty-led Projects Initiative, selecting 55 students from over 140 applicants. Chosen projects included nano blimps, drone-based traffic monitoring, robotic refuelling arms, and smartphone-compatible microscopes, integrating design thinking, sensor systems, and practical testing.

Scaling for Impact

Over a couple of years the facility has completed 300+ 3D printing jobs using over 20 kg of filament. Overall, it has handled over 1,000 fabrication requests and completed 558 successful jobs. With demand rising rapidly, plans are underway to expand operations 3-4x over the coming year.

The facility also serves as a platform for outreach and visibility. It showcased student projects at the MakerSpace Exhibition, participated in the Tech R&D Expo, hosted international delegations, and welcomed school students for guided visits, sparking early interest in design and fabrication.

Foundation for Future

The S&N Microfactories represents a new chapter in student-driven engineering at IIT Bombay. By combining advanced tools with strong mentorship and structured access, it helps students translate their ideas into tested prototypes.

It is equipping future engineers with the tools, experience, and mindset to build solutions from the ground up - through design, iteration, and hands-on learning.

Synopsys–SemiX Collaboration

STRATEGIC LEAP IN CHIP DESIGN

As semiconductors become the backbone of every strategic sector, from defence and mobility to digital infrastructure, India's ability to design and fabricate chips domestically is both a technological imperative and a national priority.

IIT Bombay's SemiX Centre, in collaboration with Synopsys Inc., has taken a decisive step in that direction. The two partners have set-up the Synopsys Semiconductor Lab for Virtual Fab Solutions, a state-of-the-art facility under the Department of Electrical Engineering. The Lab empowers researchers and students to virtually design, simulate, and optimise semiconductor devices, significantly accelerating development cycles while reducing cost and physical prototyping constraints.

Simulation to Scale

At the heart of the lab's offering is access to industry-grade TCAD tools, which are now integrated into core graduate courses like EE724 (Nanoelectronics). Over 30 students have already completed advanced simulation projects, gaining direct exposure to workflows used by leading global chipmakers.
This hands-on, simulation-first approach not only enhances learning but also equips students with job-ready skills critical for India's chip design ambitions.

Beyond the classroom, SemiX launched India's first 28nm CMOS Device & Process course, training 156 participants from industry and academia in advanced design techniques, laying the foundation for a highly skilled semiconductor workforce.

Investing in Talent and Research

To attract and support top minds in the field, the Synopsys-SemiX partnership is actively funding Master's and PhD fellowships, along with annual research awards that recognise excellence in semiconductor research and innovation.

These investments ensure a sustained talent pipeline, which is critical for the long-term vitality of India's chip ecosystem.

Towards a Self-Reliant Semiconductor Ecosystem

The Synopsys-SemiX collaboration offers a replicable model for India's semiconductor self-reliance, bringing together research, education, policy, and entrepreneurship.

By nurturing talent, enabling innovation, and embedding global-grade tools in academia, IIT Bombay is helping shape the future of chips for India and the world.

Strategic Contributions

- 156 engineers & faculty trained
- 30+ students with project-level exposure
- PhD and Master's fellowships funded
- Startup access to advanced EDA tools
- International outreach and policy shaping via SemiARC

Equity in Action

THE JANKI FOUNDATION COLLABORATION – FOR A MORE INCLUSIVE, GREENER WORLD

At IIT Bombay, some partnerships do more than support—they transform. The Janki Foundation's ongoing collaboration with the Institute is one such catalyst. From nurturing women in research to building state-of-the-art labs and enabling equitable access to education, this multifaceted engagement is shaping a campus where excellence is inclusive and opportunity is expansive.

Nurturing Women in Science

At the heart of this partnership is a shared commitment to empowering women scholars. The Asha Navani Fellowship has emerged as a powerful enabler for early-career women researchers. In the past year alone, 16 outstanding fellows have been supported, allowing them to pursue field-intensive and tech-driven research with confidence.

From climate science in the Spiti Valley to immersive media and technology design, these scholars now have the resources to explore bold, interdisciplinary questions, fuelled by both financial independence and institutional trust.

Leadership in Research and Innovation

That vision continues with the Asha Navani Chair Professorship, currently held by Prof. Maryam Shojaei Baghini from the Department of Electrical Engineering. Her pioneering work spans AI-integrated circuits, neuromorphic systems, and healthcare instrumentation, reinforcing the Foundation's belief in long-term investment in women's leadership in science and technology.

Lab for a Greener Tomorrow

A major highlight this year has been the launch of the Mahesh Navani Collaborative Laboratory in the Department of Chemistry. Now fully operational, the lab is driving research at the cutting edge of sustainability:

- Electro and photocatalytic CO^2 conversion
- Green hydrogen production
- Materials for carbon capture and energy storage

With over 18 active researchers, the lab significantly enhances the department's capacity for translational science and aligns with India's national and global sustainability goals.

Boosting Campus Infrastructure

Infrastructure development is another key focus. The Mahesh Navani Floor at Hostel 4 is nearing completion and will help address the growing need for high-quality student housing. Once operational, it promises to be a vibrant, inclusive space for the next generation of learners at IIT Bombay.

Scholarships That Uplift

The Nanki Navani Scholarship continues to open doors for students from underrepresented backgrounds. This year, students from Mechanical Engineering, Computer Science, and Electrical Engineering received support, relieving financial stress and reinforcing their belonging at one of India's premier institutions.

A Holistic Impact

Together, these initiatives represent a 360-degree model of philanthropic engagement, investing in people, infrastructure, and ideas. The Janki Foundation's contributions continue to enrich IIT Bombay's mission of excellence with equity, creating an academic ecosystem where talent is empowered, research is enabled, and every scholar has the space to thrive.

Support from Tower Research Capital

MACHINE LEARNING FOR SOCIAL GOOD LAB

At a time when technology is reshaping every industry, IIT Bombay is ensuring that education evolves too, becoming more hands-on, inclusive, and future-ready. The project supported by Tower Research Capital, Machine Learning for Social Good Lab embodies this mission by combining cutting-edge AI with a powerful educational purpose.

By reimagining Computer Science & Engineering (CSE) education through scalable, AI-driven platforms, the lab is helping bridge the critical gap between theoretical understanding and job-ready skills. Its tools emulate the presence of instructors, automate feedback, and create immersive coding labs that reach students across geographies, democratising high-quality learning at scale.

Classrooms to Code

At the core of this initiative lies a suite of advanced, IIT Bombay-developed platforms that make technical education more practical, personalised, and impactful:

- **BodhiTree LMS**
  A robust learning management system featuring in-video quizzes, multimedia books, and seamless lab integration. Recent upgrades include mobile-friendly access and enhanced performance, supporting self-paced, multimedia-rich learning experiences.
- **evalPro**
  An AI-powered grading tool offering near-instant code evaluation with ~80% accuracy. From simple outputs to rubric-based feedback, evalPro lightens the load on instructors while delivering actionable insights to students.
- **cLab 2.0**
  A containerised lab environment with React-based UI and Docker orchestration. Courses like CS108 Software Lab now support 200+ users coding in real-time, without setup hassles. It is a scalable, reliable model for future-ready practical training.
- **Continuous Learning Pipeline**
  The AI models powering these platforms are constantly refined through code reviews, retraining, and UX upgrades. A professional vendor, onboarded in June 2024, will support deployment, scaling, and long-term sustainability.

Outreach with Purpose

The project's commitment to inclusion is evident in initiatives like the C++ Bootcamp for Women in STEM, which received over 325 applications. 90 selected students attended a fully immersive, hands-on training camp at IIT Bombay, gaining skills and confidence to pursue tech careers.

Meanwhile, the Python for Scientific Computing MOOC has reached 450+ learners from diverse academic and geographic backgrounds, offering practical, accessible learning pathways to students across the country.

Building the Future

From intelligent grading and standardised labs to mobile-accessible course content, the Machine Learning for Social Good Lab is more than an ed-tech experiment; it is a blueprint for scalable, inclusive, and meaningful education in the AI era.

By blending pedagogical innovation with technical depth, IIT Bombay is preparing the next generation of engineers to thrive and lead in a rapidly changing world.

Outreach Impact

325+
applications for Women in STEM Bootcamp

450+
learners in Python MOOC

200+
active users in CS108 practical lab

Scalable model for national and global deployment

Deep-Tech by Design

WADHWANI ELECTRONICS LAB – ENGINEERING FUTURE SOLUTIONS

At IIT Bombay, the Wadhwani Electronics Lab (WEL) is laying the groundwork for India's deep-tech revolution - one prototype, one student, and one startup at a time. Built as a national platform for hands-on electronics innovation, WEL combines advanced infrastructure with a learn-by-doing ethos to turn bold ideas into engineered solutions.

Innovation in Action

WEL supports a wide range of technology development - from FPGA-based Xen-10 boards and quantum engineering kits to SDR platforms and IoT systems. These projects address real-world needs across sectors, including EMI/EMC testing, energy monitoring, and corrosion detection. Some are already contributing to national initiatives like the Bullet Train Project and the National Quantum Mission.

Between November 2023 and October 2024, WEL achieved several major milestones:

- Developed and launched new hardware platforms: Xen-10, PicoIRIS, and SDR boards
- Introduced Quantum Engineering and revamped core electronics courses
- Enabled commercial-ready systems, including iPEC and energy efficiency monitors
- Delivered hands-on training to 1,600+ students in instructional labs

Startup Circuits

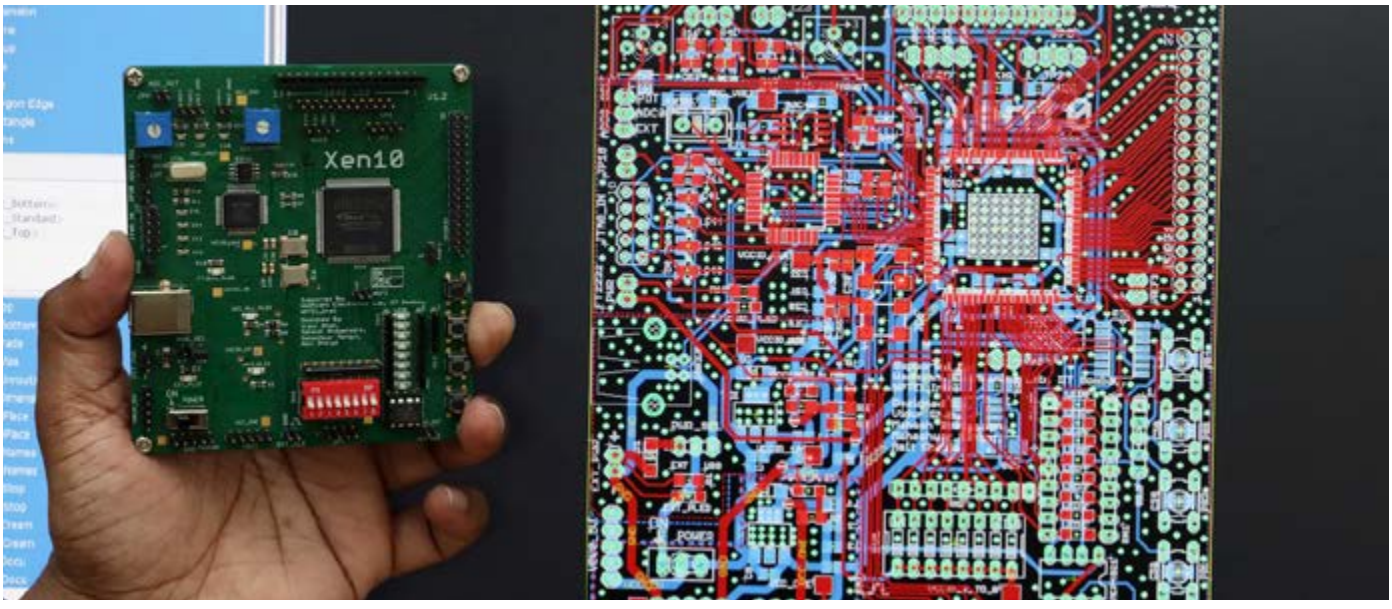
WEL's ecosystem supports student innovation well beyond the classroom. Over 4,300 students have engaged with entrepreneurship-related learning at the lab, with more than 100 startup journeys catalysed so far.

- New ventures like Nirixense Technologies have been incubated at SINE, IIT Bombay
- Advanced prototypes like FPGA and IoT products are nearing commercialisation
- MOOCs, YouTube content, and faculty-led outreach are scaling access across India

To support growing demand, WEL is also expanding the Experiential Learning Lab and exploring new partnerships with AICTE, the Ministry of Education, and industry leaders.

Platform for Future

By equipping students with tools to design, prototype, and launch, WEL is aligning academic training with India's ambitions in electronics and deep-tech. Its blend of education, infrastructure, and innovation reflects the National Education Policy's call for experiential learning, and IIT Bombay's commitment to translating knowledge into national capability.



WIN Foundation at IIT Bombay

RESEARCH THAT REACHES PEOPLE

At IIT Bombay, innovation does not stop at invention. It moves purposefully into the world. With the visionary support of the Wadhwani Innovation Network (WIN) Foundation, a slate of cutting-edge research projects is being translated into life-changing solutions for communities across India.

From tackling child malnutrition to securing drinking water and bridging the digital divide, these initiatives reflect a shared commitment to inclusive progress and grassroots impact.

Feeding Futures

Iron deficiency remains one of India's most persistent public health challenges, especially among children. The Child Nutrition (CHINU) Lab is responding with a portfolio of nutrient-dense, plant-based food products tailored for affordability, local availability, and ease of use.

These include iron-rich chips, snack bars, and a unique "nutrient sprinkler" powder that can be added to everyday meals. Early studies show that these foods significantly improve iron absorption, and crucially, they also pass the taste and shelf-life test.

Designed for scale, the lab's offerings aim to sustainably combat malnutrition in under-resourced communities.

Water Security, One Home at a Time

Access to safe drinking water remains elusive in large parts of coastal and arid India. The CHAKRA Project is changing that - one household at a time.

It has developed a compact, battery-operated desalination unit that uses capacitive deionization and advanced carbon nanotube electrodes to remove over 90% of salts from saline or brackish water.

In regions like Kutch, where families often depend on bottled water or distant sources, CHAKRA offers a game-changing, affordable alternative right at home.

Digital Tools for Every Student

The Spoken Tutorial Programme is making digital literacy accessible - regardless of geography or language. By offering free, open-source IT training in Indian languages, it empowers students from rural and tribal backgrounds with job-ready digital skills.

In partnership with Jawahar Navodaya Vidyalayas and Eklavya Model Residential Schools, the programme trains thousands in basic computing, coding, and data analysis, unlocking opportunity in a digital-first economy. Aligned with NEP 2020, this is an ambitious push to democratize tech education.

Sanitation Solutions That Stick

The WATSAN Project takes a community-first approach to one of India's most pressing rural challenges: clean water and sanitation. By working directly with villages and semi-urban clusters, the project co-creates systems that are efficient, low-maintenance, and scalable. The result? Reduced disease, improved hygiene, and dignity for thousands - delivered with science, empathy, and practical design.

WIN Foundation Backed Initiatives

- **CHINU Lab:** Iron-rich snacks and "nutrient sprinkler" for underserved children
- **CHAKRA Project:** Compact desalination unit removing 90%+ salt from brackish water
- **Spoken Tutorial Programme:** Free IT training in Indian languages for tribal and rural students
- **WATSAN:** Sustainable sanitation systems co-designed with local communities
- **Advanced EdTech Chair:** Faculty and fellowships driving systemic educational change

WRCB-HiMedia Partnership

FUELLING BIOTECH DISCOVERY

In 2024–25, the Wadhwani Research Centre for Bioengineering (WRCB) at IIT Bombay and HiMedia Laboratories joined hands to accelerate translational research and infrastructure development in biotechnology. This dynamic partnership aims to bridge lab science and real-world healthcare through a mix of facility upgrades, pioneering projects, and startup support.

State-of-the-Art Facility

With funding from HiMedia, a dedicated Cell Culture Facility has been created through comprehensive renovations of existing lab space. The facility now houses advanced CO_2 incubators, biosafety cabinets, airlock systems, biometric access, and surveillance cameras, designed to meet the high standards of cutting-edge bio-innovation. Final infrastructure upgrades, including power backups and airlocks, are well underway.

A dedicated Core Committee guides all aspects of planning, procurement, and operations. The Centre is on track for a formal inauguration upon the completion of its final phase.

Tackling Big Health Challenges

Two high-impact research projects were selected for support under this collaboration:

- An exosome-based ultrasensitive biochip for early and accurate detection of triple-negative breast cancer.
- A novel class of synthetic antibiotics aimed at countering antimicrobial resistance.

Both projects exemplify the translational spirit of the initiative, moving promising ideas from bench to bedside.

Fostering Entrepreneurial Talent

To build India's bio-entrepreneurship pipeline, the partnership also supports Entrepreneur-in-Residence (EiR) Fellowships. These fellowships enable student innovators to develop prototypes and launch startups.

A new call for EiR applications is set to open shortly.

Platform for Progress

- **Partner Institution:** HiMedia Laboratories
- **Anchor Centre:** Wadhwani Research Centre for Bioengineering (WRCB)

Focus Areas:

- Translational Bioengineering
- Antimicrobial Resistance
- Cancer Diagnostics
- Bio-entrepreneurship

Key Enablers:

- Research facility development
- Startup fellowships
- Industry-academia collaboration

ANNUAL

Lecture Series

Inspiring Ideas and Discourse

The year 2024–25 featured a rich lineup of distinguished lectures that brought global experts to IIT Bombay, sparking intellectual exchange across disciplines. These named lecture series celebrate visionary thinkers while offering students and faculty access to transformative ideas from academia, industry, and public life.

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ANNUAL LECTURE SERIES

Please use the menu or top-of-page links to navigate the report.

Prof. C. V. Seshadri Chair Distinguished Lecture

On April 9, 2025, IIT Bombay hosted the Prof. C. V. Seshadri Memorial Lecture, part of the Institute Distinguished Lecture series. The lecture was delivered by **Prof. Narendra Dixit** from the Department of Chemical Engineering, IISc Bengaluru, on the topic "Design Principles in Immunology".

The session offered a cross-disciplinary perspective on how engineering frameworks can inform biological systems, and highlighted Prof. Seshadri's legacy of integrative thinking in science and engineering.

Shrimati Sarla Doshi Memorial Lecture

In April 2025, IIT Bombay hosted the Shrimati Sarla Doshi Memorial Lecture, featuring **Dr. Tushar Gore** who spoke on "Industry-Academia Interface: A View from an SME Manufacturer".

Dr. Gore offered practical insights into the evolving relationship between SME manufacturers and academic institutions, underlining the need for collaborative innovation and understanding of industry challenges.

This annual lecture series brings leading voices from the chemical industry to campus, encouraging critical engagement across both technological and business dimensions.

Girish Sant Memorial Lecture

On February 28, 2024, IIT Bombay hosted the Girish Sant Memorial Lecture, featuring **Mr. Anshuman Lath**, co-founder of Gram Oorja Solutions Private Limited.

An alumnus of IIT Roorkee (BE) and IIM Bangalore (PGDM), Mr. Lath spoke on "Remote Village Energy Access: Experience, Challenges, and Possibilities". Drawing on his deep experience in SMEs, rural development, and the finance sector, he highlighted the operational and policy challenges of bringing clean energy solutions to remote communities. The lecture resonated with students and faculty committed to energy equity and sustainable development.

Prof. N. R. Kamath Institute Distinguished Lecture Series

Held in early 2025, the Prof. N. R. Kamath Distinguished Lecture Series honoured the legacy of Prof. Kamath—former Deputy Director and founding Head of the Department of Chemical Engineering at IIT Bombay. The series brought together eminent scholars whose work echoes Prof. Kamath's spirit of academic leadership and intellectual breadth.

- In January 2025, **Prof. Kaushik Basu,** Padma Bhushan awardee and Professor of Economics at Cornell University, delivered a compelling lecture titled, 'Changing Nature of Labor and Employment: Some Conceptual Issues and Ideas for India.' His address offered deep insights into India's evolving labour markets and economic frameworks.

- The same month, **Prof. Michael L. Klein** from the Institute for Computational Molecular Science, Temple University, US, presented on "Computation as a Route to Understanding & Discovery in Chemistry." His lecture illustrated the growing role of molecular simulations in chemical research and discovery.

- In March 2025, the lecture was given by **Prof. Herbert Huppert**, Professor of Theoretical Geophysics at the University of Cambridge and current Prof. N. R. Kamath Visiting Chair Professor at IIT Bombay. His talk, "Particle driven Flows: In Theory, in Environment and in Laboratory Experiments," combined theory with live demonstrations, captivating the audience with its interdisciplinary depth and visual clarity.

THE OFFICE OF THE DEAN ALUMNI AND CORPORATE RELATIONS

Main Gate Road, IIT Area, Powai, Mumbai, Maharashtra 400076
Contact: +91 22 2576 4889, 2576 7023
Email: Contactus@iitbacr.com
Website: https://acr.iitbombay.org