

Research Internship @IITB



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22 September 2024



Transformation of IIT Bombay

IITB 1.0: Started in 1958

Started as a Premier Teaching Institute in Engineering

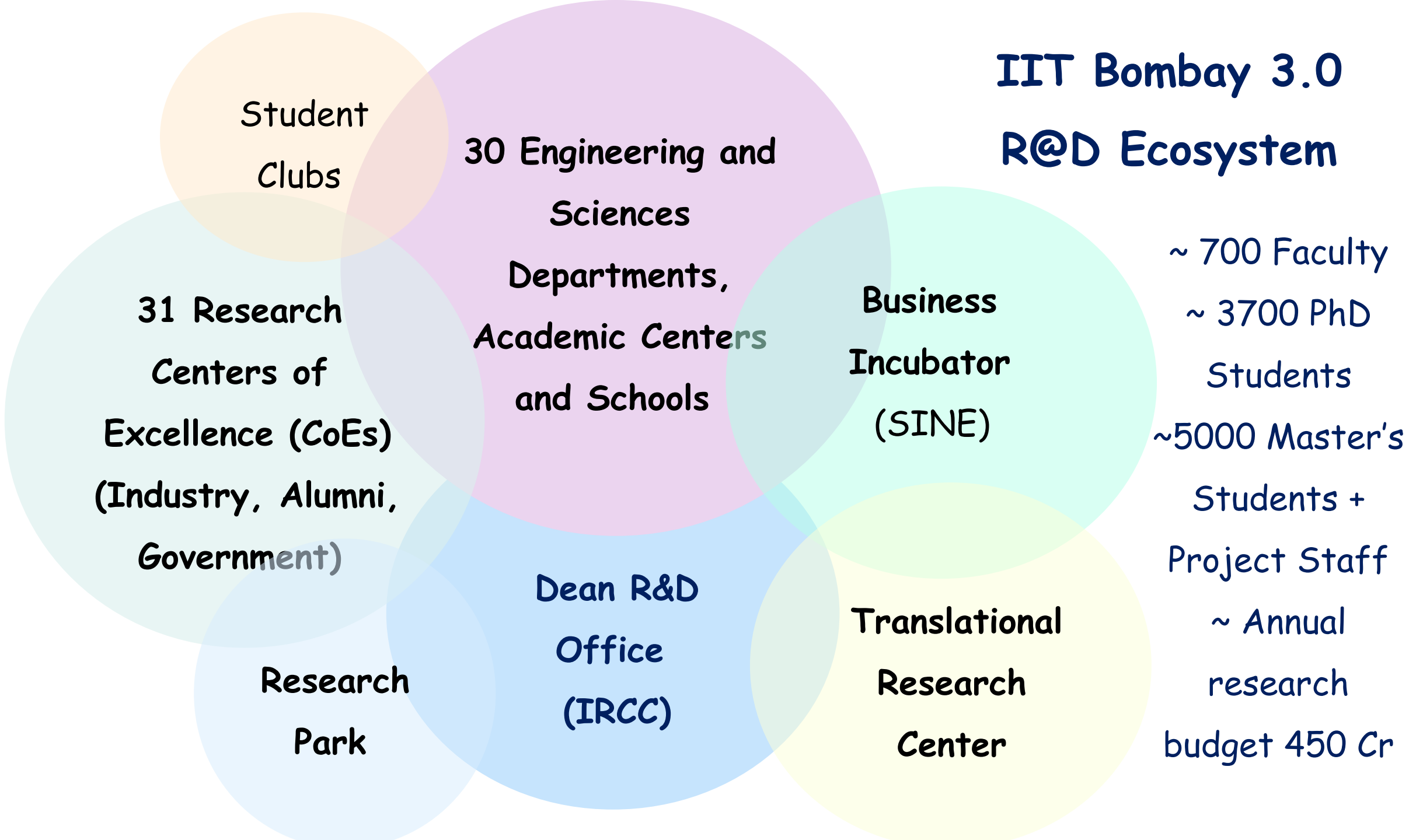
IITB 2.0: 1985 to 2005

Premier and Internationally known Research Institute

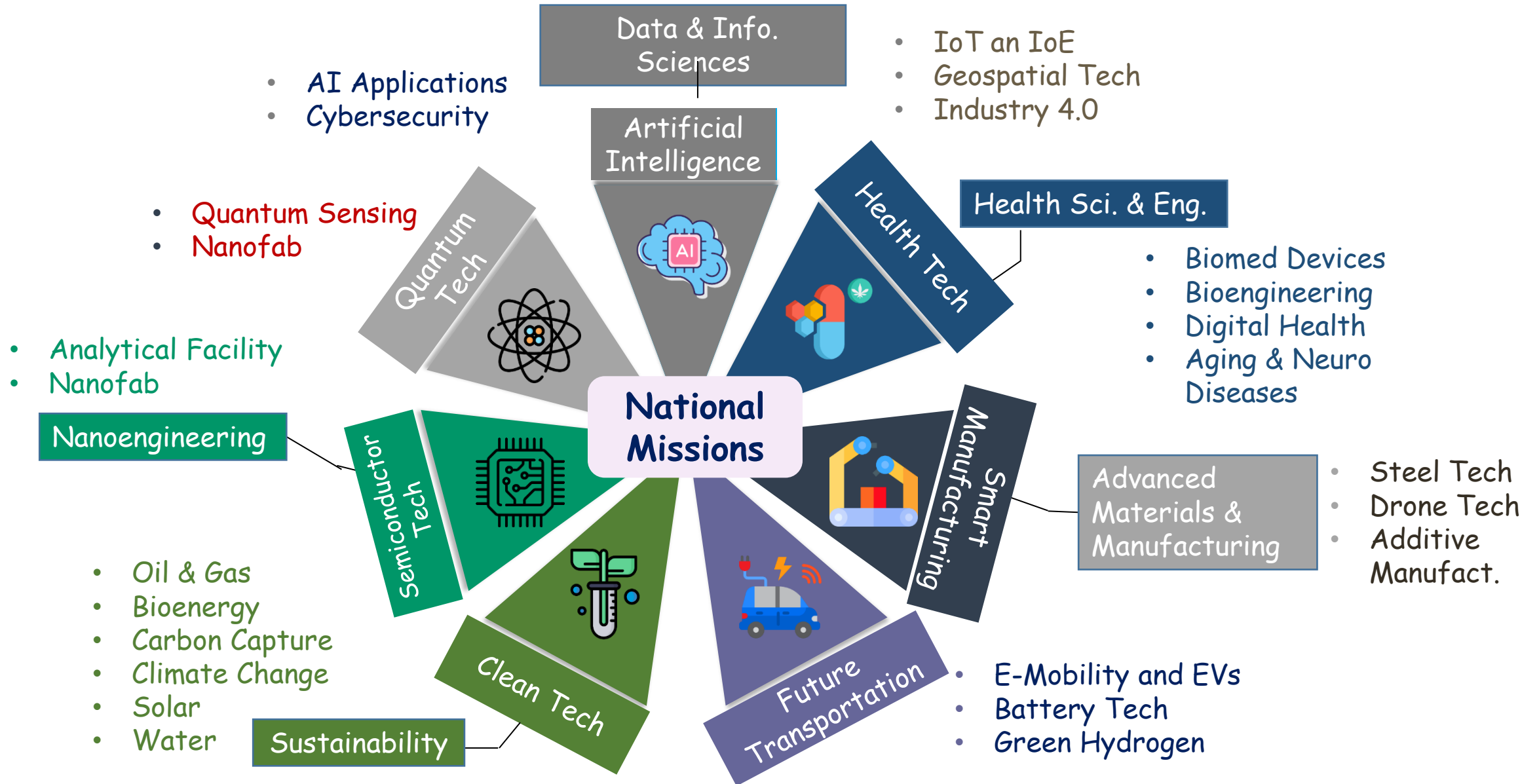
IITB 3.0: 2005 onward

Institute spearheading Translational Research in India

IIT Bombay 3.0 R&D Ecosystem



R&D aligned with National Missions & Societal Needs



CoE Examples

85+ Faculty Members from
Computer Science, All
Engineering Disciplines,
Management, Bio-Sciences

AI/ML Research @IITB

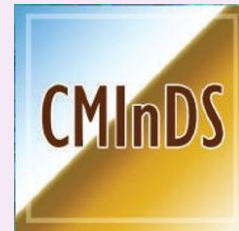
Trust Lab
(Cyber Security,
Cryptography)

Thematic Areas for AI/ML

- Healthcare & Life sciences
- Indian Language & Speech technology
- Video and Image Analytics
- Materials and Mechanics
- Industry 4.0

Technocraft
Centre for
Applied Artificial
Intelligence

Centre for Machine
Intelligence and Data
Science (C-MInDS)
PG Academic Programs



Koita Center for Digital Health

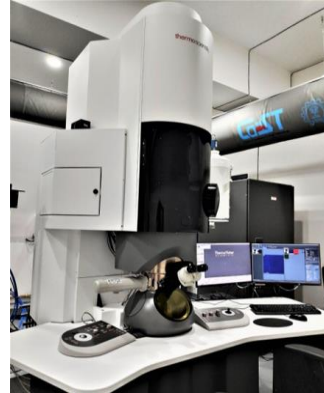
Fintech Data Analytics

- Bank of Baroda
Innovation Centre
- HDFC Ergo Centre
- SBI Foundation Hub

Sophisticated Instruments and Facilities



Cryo HRTEM



TEM (300kV)

Chance to work with
State of the Art
Sophisticated
Instruments and
Facilities



Applied Materials Endura Lab Facility

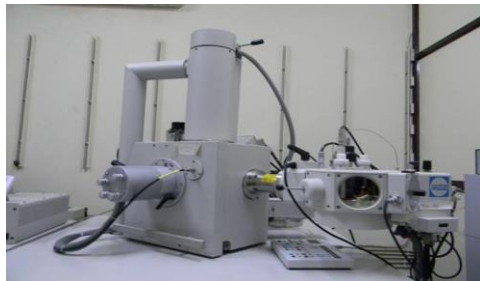


Cryo FEG-SEM



4D x-ray
microscopy

Electron
Microscopy,
Spectroscopy,
Nanofabrication,
Manufacturing, ...



ESM



Advanced Tandem Solar cells Fabrication Unit in MEMS

Glimpses of Technologies being Developed



Efficient & high-performing unconventional perovskite solar cells



Dhruva: Indian RF receiver chip for NAVIC & GPS Satellites



Translation of 600 textbooks and learning materials, across English and all Indian languages



Mobile Microscopy and Microfluidic platform for sickle cell disease screening



5G Core, N3IWF with Multi-RAT SDN controller



Lithium-ion and sodium-ion battery prototyping facility

IITB Entrepreneurship Ecosystem

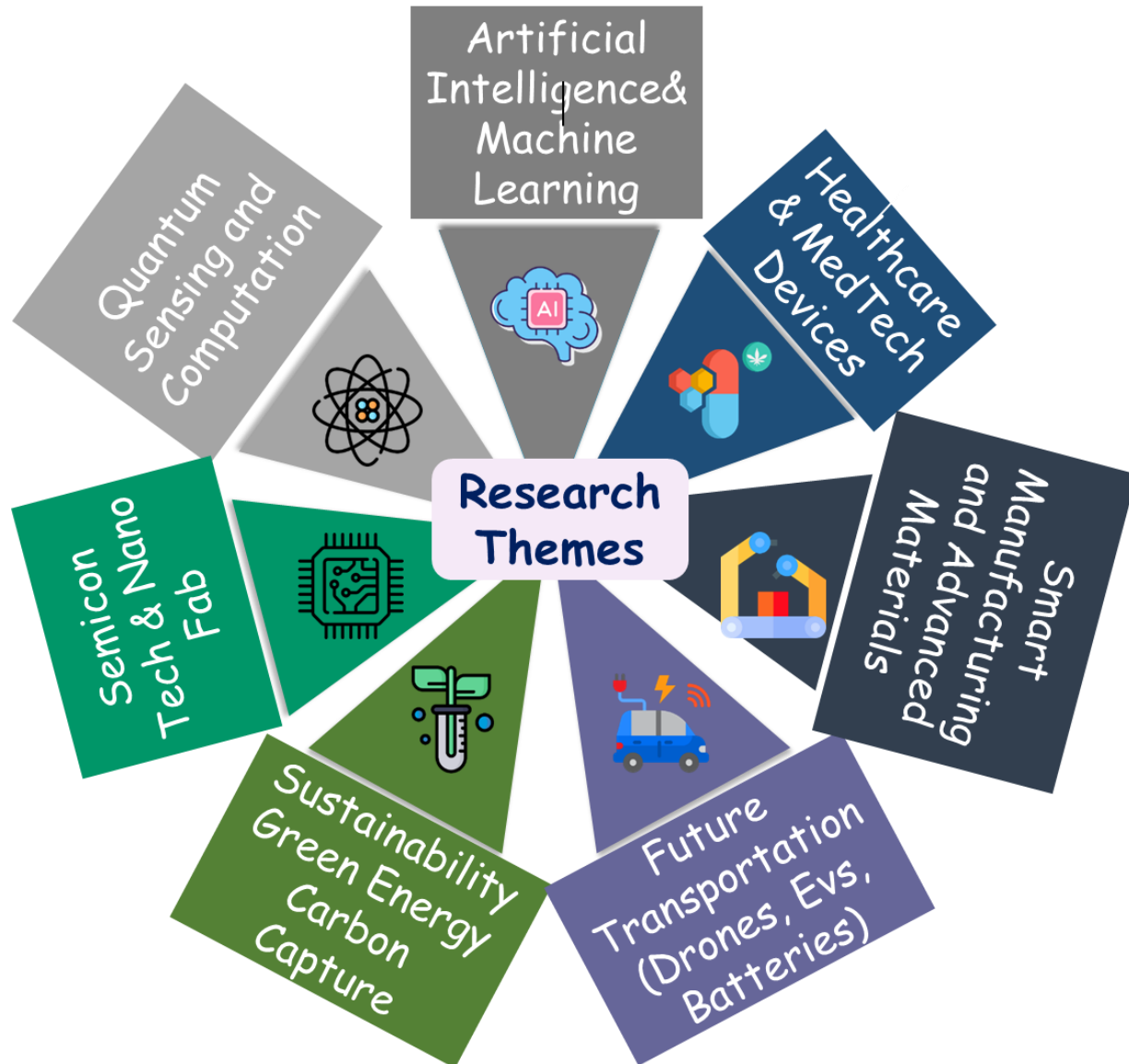
- **Desai Sethi School for Entrepreneurship**: Train aspiring entrepreneurs through courses and pre-incubation programs
- **School of Management**: Masters and PhD programs in management
- **Society For Innovation & Entrepreneurship (SINE)**: Technology Business Incubator of IITB since 2000
- Multiple translational research centres for taking business ideas from proof of concept to products in market
- **Research Park**: Industrial R&D labs located inside IITB campus

Research Internship Awards



- Education and research are the twin pillars of IITB and the ambience is one in which new ideas and creativity can flourish
- Main ingredient for successful R & D is enthusiastic young minds.
- IITB Research Internship Awards to expose young enthusiasts to exciting and cutting edge research being carried out at IIT Bombay
- Awardees may end up being a **co-author of a research publication** or a **co-inventor in a patent** depending on his/her contribution
- The internship experience will go long way in launching a research or entrepreneurship career

Research Project Areas and Topics



- Applied Research focused on industrial applications is multi-disciplinary in nature.
- Requires inputs from science, engineering, management, and policy
- Students from different backgrounds (sciences, all engineering disciplines, information technology, management) can apply for multiple topics
- Example: Topic in Transportation Eng using Drones may need background in Civil, Electrical, Mechanical and aeronautical.

Research Internship Scheme



- Awardees can spend four to six months during the last semester of his/her undergraduate or masters program working on an industrial or academic R&D project at IITB
- Internships will span between January 15 and July 15, 2025
- Applicant must rank in top 20% in his/her class during the previous academic year
- Awardees will receive stipend of Rs. 15,000/- per month
- Shared hostel accommodation will be given subject to availability



Selection Process

- Faculty members from all departments, research centers float specific research topics in wide range of interdisciplinary research areas
- Applicants need to select the faculty-project combinations while applying. This selection need not be restricted to your UG/PG specialization.
- Project specific interviews are conducted for the short-listed candidates
- If an intern gets selected for more than one project, then the choice rests with the intern



Important Dates and Links

- Visit the page for applying

<https://www.ircc.iitb.ac.in/IRCC-Webpage/IITBInternship/>

- Last date of online application: **3 October, 2024**
- Interview Dates: **6 to 14 November, 2024**
- Declaration of results: **First week of December, 2024**
- Date of Joining: **Around 13'th January, 2025 or later**
- End Date: **15 July, 2025**
- Email: **internship@ircc.iitb.ac.in**

Exposure to Research Ecosystem



- Exposure: Large number of research lectures and seminars by eminent national and international scholars and symposiums are organized in IIT very frequently. Awardees can attend these seminars.
- Most **Department Days** fall in the Spring Semester and awardees can participate in various activities, competitions, cultural events and popular lectures
- With a permission from research guide and course instructor, awardees can **attend advance level courses.**



Meet other research enthusiasts on campus ..



Contact Us

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Thank You! Questions....?