Undergraduate Academic Council, IIT Bombay

Mid-Term Work Report - 2024-25

Arjun Simha
General Secretary, Academic Affairs (UG)

Structure of Council

The objective of the Undergraduate Academic Council (UGAC) is to address all the issues related to academic affairs of UG (B.Tech, B.Des, Dual Degree, B.S, and Integrated 5 yr. MSc) students. It is the representation of students in all matters related to the academic programme, the curriculum, the academic office and administration.

Members of the Council:

General Secretary, Academic Affairs [UG]	1 Position
Institute Secretary, Academic Affairs (ISAA) [UG]	3 Positions
Institute Secretary, International Relations (ISIR)	1 Position
Department Research Coordinators (DRCs) One representative from each department	11 Positions
Web Nominee	2 Positions
Design Nominee	1 Position
Club Managers	4 Positions
Academic Coordinators	12 Positions
Club Convenors	14 Positions
Design and Web Convenors	9 Positions

GSAA (UG)

Increase in Credit Limit of Category V students
Submitted a Policy Proposal to increase the credit limit of Category V students from 30 to 36, in order to provide more flexibility to these students in terms of their course load and finishing their academic program within the stipulated time period. The proposal was accepted and passed both by the UGPC and the Institute Senate.

Redefinition of criteria required to register for 54 Credits in the Final Semester
Submitted a Policy Proposal to allow students who have less than 54 credits left to graduate, to take upto 54 credits in their Final Semester. These students weren't allowed to do so previously, leading to a plethora of issues that students with less than 54 credits but more credits than their actual category's credit limit required to graduate.

Course Coordination Committees
Coordinated with Department General Secretaries to set up Course Coordination committees in departments where there exist more than 1 section. We also presented a formal document expressing concern with a course where more than 10% students received an FR, to the UGAPEC, after discussion in the respective Department's UGPC. This was done with the aim of following the recommendations put forth by the committee for grading among different sections for large class sizes. We will set up these committees in more departments as the tenure progresses and send more appeals to the UGAPEC.

Course Buddy Program
Presented a proposal to start a Tutoring system for first year students who receive an FF grade in any Course, with the aim of reducing the number of students who go on to receive an FR grade in the course, post the re-examination. The proposal also includes a component of monetary incentive, just like a normal TAship and TAs from the Course will be selected as tutors, if they decide to apply to be one. The proposal has been approved by Dean AP and is awaiting discussion and approval from DD AIA & DD FEA.

HS3XX & ES250 - Summer Courses
Convinced faculty members to run these 2 courses in the summer. This was the first time in 3 years that that these courses had been run in the summers, helping students cleat their backlogs in a timely fashion.

Combination of Re-tagging Windows

Presented a proposal to allow Pre-interim and final retagging to occur in the summers, rather than have 2 separate retagging windows - one in the summers and one in the last week of August. This will help smoothen the placement resume submission process and aid in IDDDP conversion applications. The proposal has been passed in the UGPC and is awaiting presentation in the Senate.

Allowing use of NPTEL and Self Study courses for discontinued courses

Presented a proposal to allow students within their stipulated program to be allowed to register for NPTEL or Self Study courses for any course that has been discontinued in the new curriculum and has no appropriate equivalent course being run. This was passed in response to the issues being faced by students who weren't able to find equivalent courses to their backlogs. The proposal has been passed in the UGPC and is awaiting presentation in the Senate.

Proposal to allow running of Summer Courses if students registered is lower than 5

Presented a proposal to allow summer courses to run even if the number of registered students is less than 5, as there are some discontinued courses with <5 students with a backlog in the course, who would be able to clear their backlog if this is permitted. The proposal has been passed in the UGPC and is awaiting presentation in the Senate.

Student Led Feedback

With the aim of understanding how effective KCC is with respect to its goals according to the students, we floated various feedback forms post mid-semester exams to ascertain if there was any perceived discontinuity in cours curriculum, how much courses helped students develop interest in their core subjects and help them in any industrial endavours/internships.

Category VI Credit Limit

A proposal to increase the credit limit for Category VI students from 24 to 30 in order to provide more flexibility to these students in terms of their course load and finishing their academic program within the stipulated time period, has been made and will be presented at the next UGPC.

Pre- JOSAA Branch Introduction Videos

The respective Department General Secretaries are in the process of or have already made branch introduction videos. The primary purpose of these videos is to help incoming students make a

informed choice about their discipline of study for the next 4 years. These videos cover various research opportunities, the scope of the curriculum and courses in a very simplified manner and avoid the topic of placements completely.

Policy News Letter
Released the 1st Edition of the Academic Policy newsletter - detailing the policies that have been passed recently in the institute senate and other proposals that are in the pipeline to be passed/presented.

Revamp of Robotics Minor
We are in the process of adding new courses to various buckets in the robotics minor curriculum and also allowing students of the 2021 batch to be eligible for the robotics minbor by requesting permission from the respective DUGC/DPGCs.

Student Support Services

About the division:

Student Support Services acts as a pillar for students by fulfilling many of their prime academic requirements such as Tutorial sessions for examinations, Registration and Academic issues, Academic Counseling, Personality Development, Language related support, Faculty-Student relations, and so on. This is achieved through a plethora of activities and interactive sessions such as Tutorial Services Centres, ExCeL Sessions, UG TA selections, online portals, regularly updated information reserves, etc.
It has various initiatives entirely dedicated towards the purposes mentioned above.

Work done so far:

Tutorial Services Centre and ExCeL Sessions

- Tutorial Services Centres (TSCs) are one of the most important events that Student Support Services conducts. TSCs are interactive sessions conducted before the major exams of all First Year courses and some common Second Year courses, in order to help students understand the concepts and perform well in their exams. The sessions are conducted by competent seniors, generally TAs for the course, who have excelled in that particular course. TSCs continued to be conducted offline this year after they were reinstated to the offline mode last year.

- This year, Student Support Services has conducted a cumulative total of 17 TSCs. Student Support Services has conducted multiple kinds of TSCs, including 5 TSCs for Department Introductory Courses, and 6 TSCs in collaboration with the Department Academic Mentorship Program (DAMP) Team for core courses of some departments.

- An ExCeL (Explaining Concepts and Lectures) session was conducted for MA105 before the first quiz of the semester in Hindi. An ExCeL for MA105 before midsem was conducted in Telugu. These sessions were conducted by qualified senior students in Hindi and Telugu to help the weak and linguistically challenged students to cope with the course material. More such sessions will be conducted for other First Year courses in the upcoming semester to ease the process of learning for the concerned students, so language is never a barrier in learning.

TYPE OF COURSE (NO. OF TSCs	NAME OF COURSES

CONDUCTED)	
First Year Common Courses (9)	CS101, CH111, MA105, MA114, BB101, MS101,
First Year Department Introductory Courses (7)	EE103, CS105, ES101, CS105, ME103, EN 110
Second Year Core Courses (6)	MM219, CS215, CS 228, CS213 MA419, CS230

ResoBin

● ResoBin is a student platform developed by UGAC in collaboration with DevCom. It is dedicated to sharing course information, resources and reviews of the multitude of courses offered at IIT Bombay. This year, several efforts were made to add important content, increase the usability and enhance the features of the platform.

○ **Minors and Honors Tabs** - Building upon the introduction of these tabs, comprehensive reviews for the Minor programs in Entrepreneurship, Robotics, and Economics have been added, enabling students to make well-informed decisions before opting to pursue these specialised academic tracks.

Link to ResoBin

Sophomore 101 Sessions

● A dashboard was maintained and the sessions were publicised institute-wide to allow students to attend sessions of other departments as well, thus aiding the decision of branch change for the upcoming sophomores. A repository of the recordings and slides for the sessions was maintained and released for future access.

Link to the slides and recordings: Sophomore 101 Dashboard 2024-25

IDDDP (Interdisciplinary Dual Degree Program) Resources:

● The Interdisciplinary Dual Degree Program (IDDDP) has been implemented in IIT Bombay and the number of students participating in this program has been increasing every year. Since the process is relatively new and many people are unaware of the formalities involved in converting to the same, several resources have been created and sessions have been conducted to inform students about the complete process. Through these initiatives, the students also got to know the experiences of students who switched to the Interdisciplinary Dual Degree program in the previous years.

○ **IDDDP Contact Database** - Student Support Services releases a yearly Contact Database of students pursuing various programs under the Interdisciplinary Dual Degree Programme (IDDDP). This comprises senior students in their 4th or 5th years, or who have just graduated from the IDDD program, who are willing to guide prospective students regarding their decision to convert to the same. Students in their third year find this database very beneficial to connect with helpful seniors and to gain adequate understanding to make an informed decision regarding the conversion from a B.Tech. program to an IDDD program.

○ **To Dual or Not to Dual (online session)** - This year, Student Support Services conducted its first session on the conversion from a B.Tech degree to a Dual Degree within one's department, or to the Interdisciplinary Dual Degree Programme (IDDDP) in another department. The online session covered the thought process behind making the conversion and the procedure for the same. Four senior students were also invited as speakers to share their personal experiences and opinions about making the conversion to a dual degree. The speakers for the session were:

➔ Devashish Bhave (B.Tech , Department of Metallurgical Engineering & Materials Sciences + M.Sc , Chemistry)
➔ Eeshaan Jain (B.Tech, Department of Electrical Engineering & M.Tech , CMinDS)
➔ Jacob Thomas Sony (Dual Degree, Department of Mechanical Engineering)
➔ Roshini Joshi (Dual Degree , Mathematics)

[Link to the recording of the session](#)

Initiatives with the Koita Centre of Digital Health:

● The Koita Centre for Digital Health (KCDH) at IIT Bombay was founded in 2021 with the primary goal of driving academic programs, research, and industry collaborations in Digital Health. KCDH addresses the need for engineering, clinical professionals and entrepreneurs in Digital health and creates research and employment opportunities in this domain. Continuing the previous partnership with KCDH and EnPoWER, Student Support Services conducted sessions on MS Teams to deliver insights about careers in the field of digital health, narrate student experiences and generate awareness about the relatively new IDDDP and Minor program offered by the centre.

○ **Digital Health Insights** - A session on the IDDD and minor programmes, job opportunities and student experiences at KCDH was conducted on May 6th, 2024. The speakers in the session were:

➔ Dr. Raghavendran Lakshmi Narayanan, Senior Program Officer at KCDH,I
➔ Dr. Kshitij Jadhav, Faculty at KCDH

➔ Mr. Saket Chaudhary , Faculty at KCDH

Teaching Assistant Selections
- Teaching assistants are an essential part of every course at IIT Bombay and they act as a bridge between the professors and the students. To smoothen the process of the TA selections for the professors, Student Support Services floated Google forms for interested students to apply for the positions.

- This year, TA selections have been carried out for the following courses:
- CS 101
- BB101
- ENT Courses
- MA 105
- CH 111
- SysCon Courses

An Introduction to Desai Sethi School of Entrepreneurship: A Collaborative Experience with Prof. Anuradha
- The Desai Sethi School of Entrepreneurship (DSSE) runs several elective courses for undergraduate students, as well as a Minor program for those interested. However, a lot of students are unaware about the same. In order to increase awareness about such courses, an Introduction to Entrepreneurship session with Professor Anu Narasimhan was organised virtually by Student Support Services .

[Link to the recording of the session](#)

Mental Health Awareness Initiatives:
- Mental health issues have gained a lot of importance in recent years. With the sudden shift from online to offline mode this year, it has become more pertinent to raise awareness related to the same. Student Support Services has executed the following initiatives.
  ○ **Mental Health Mondays** - Continuing the initiative introduced by the previous year's council, the Mental Health Mondays series on Instagram covers various topics related to the problems students might face in the institute and how to deal with them. Some topics covered include the Freshman's Challenge, the Resume Season, Exam Season and so on.
  A new format of posts in the form of 'Bujo and Paheli' has also been started to present common mental health scenarios in a visually appealing comic form, which gives a different perspective from the usual informative posts.

Course Info Series
- In order to familiarise rising sophomore students with pointed and relevant information about the various academic concepts they will encounter in the future years in the institute, the 'Course Info Series' was published over the summer season. Over the course of just shy of 3 weeks, 18 topics related to the academic provisions at IIT Bombay were covered, including Change of Branch, Minors and Honours, Registration and Pre-Registration, ARP, Electives, Audit Courses, URAs, BTPs, DDPs, Tagging and Re-Tagging, Academic Malpractices, and more. The series aimed to inform students about these topics through engaging posts, blending essential information with practical advice on how to approach them.

[Link to the Student Support Services Instagram Handle](#)

Student Support Services Whatsapp Group for First-Year Students
- In light of the myriad of consistent queries and doubts regarding the freshmen technical orientation, Student Support Services created a WhatsApp group for the first year students which currently has 800+ participants. On the group, useful resources and links have been shared to clarify common doubts and issues. In addition, relevant information about events conducted by Student Support Services for the freshmen, like TSCs, ExCel sessions etc, is circulated. Feedback forms for events like TSCs are also floated on this platform to ensure improvements in upcoming initiatives.

Work Ongoing/Completed As Part Of Every Year Duties

Catering to problems and grievances during registration
- Student Support Services has been catering to all registration-related queries and issues of 5000+ undergraduates of IIT Bombay through multiple mediums like WhatsApp, Instagram and webmail.

Pre-Registration & Registration Live Query Sheet
- Every year, the vast majority of the 5000+ undergraduate students of the institute, especially second year onwards, face technical difficulties while registering for their courses.

- Keeping with the responsibilities of the Academic Council, Student Support Services revived the Live Query Sheet for keeping track of all the common issues being faced by people, and regularly updated the sheet according to the responses received from the ASC Office and the Academic Section.

- The sheet bolstered transparency into the work, and also enabled the students to look up the solutions/updates regarding the common issues, thereby streamlining the whole process.

Course Info Session

- The Course Info Session is organised every year for the to-be sophomores in order to educate them about various academic policies, rules, and regulations and the related differences between their first-year curriculum and the academic structure ahead. It also includes a detailed elaboration of the various Minor and Honours programs offered in the Institute by experienced seniors pursuing those Minors. This year, the session witnessed an attendance of 550+ on the online platform Microsoft Teams. The number of speakers for Minor programs was a total of 11. The Minor Programs covered through speakers were minors in Management, Mathematics, Entrepreneurship, Systems and Control Engineering, CMinDs Statistics and Informatics, Metallurgy, Aerospace, Physics and IEOR. The recorded version of the event was released on webmail through the UGAC Channel for future reference.

Link: Course Info Session Recording
Link to Speaker Slides: 🖻 Speaker Slides

Freshie Resources and Senior Resources

- The collection of Freshie Resources provides various academic resources for all First Year Courses, ranging from lecture slides to previous years' papers and solutions. The Senior Resources are a treasure trove of course content, tutorials, and past year papers of common senior year courses. The resources are constantly updated and timely released to the students.

- Continuing the work of the previous council, the Freshie and Senior Resources for the current year were uploaded onto ResoBin. In collaboration with DevCom, these resources were meticulously compiled, properly formatted, and uploaded under the respective course tabs on ResoBin. Furthermore, a comprehensive Google Drive link, containing all resources in a well-organised and accessible format, was shared with students, providing a centralised and streamlined repository. Future councils will be responsible for maintaining and regularly expanding this valuable platform.

Study rooms during exams

- With all batches of students having examinations all at once for the first time since the pandemic, the need has risen for a fitting location to study for examinations. Under the continued initiative by Student Support Services, various classrooms in the Lecture Hall Complex and two classrooms in the SOM building are opened up through the night for 2 weeks during the examination season.

- This year, all LCs, all LHs and 2 ICs were opened up during the mid-semester weeks of the Autumn semester.

Policy Work Undertaken by ISAA and Head SSS:

- **Policy Newsletter:** The newsletter was researched, written and designed by the ISAA, by reviewing Senate and UGPC meeting minutes as well as the proposals to understand the reasoning behind them. 4 topics were covered in the first edition of the newsletter which were as follows:
  - Category V Policy Amendment
  - Registration Cap in the Final Semester
  - Dual Minor Policy Update
  - Interdisciplinary Dual Degree Program (IDDDP) in Chemistry

  The link for the Edition 1: [Policy Newsletter Edition 1](#)

- **Curriculum Review:** In order to assess the impact and the problems arising for students in the new curriculum, a thorough review of curriculum across all UG departments for the batches admitted in2022 and 2023 was undertaken. The questions covered new common courses introduced such as EC101, MS101 and DE250 for UG students to course continuity for topics across multiple semesters in individual departments. Separate forms were released for the two batches to assess the updates made for the 2023 batch as well.

  The link for forms:

  [2022 batch](#)

  [2023 batch](#)

- **FAQ Documents**: Along with the SSS team, a database of frequency asked questions for various processes in the institute, like course registration, NPTEL, fee payment, etc was made, in order to release a set of FAQ documents to students. The documents are under review from the IITB Academic Office.

- **Policy Proposal:** The ISAA presented 3 student proposals in the Undergraduate Programmes Committee on behalf of the GSAA(UG) regarding the following topics:
  - NPTEL and Self study courses for courses which no longer run in the new curriculum and for which there are no equivalent courses as well. This proposal aims to ensure the students which have a backlog in such courses do not need to extend their degree due to unavailability of courses. It has been approved at the UGPC level and will be presented in the next Senate.
  - Merging the 2 retagging periods opened for placement and graduating batches to help DD students to get their correctly calculated stipends during the summer. This has also been approved in the UGPC and will be presented in the Senate.
  - Allowing students in extension to receive a minor degree if completed in their original length of degree. However this was rejected by the Committee.

○

Work As A Part Of Council Duties:

Joint First-Year Students' Orientation
- Student Support Services played an active role as part of the team responsible for organising the Freshie Orientation. It was a 3-day long orientation that was conducted in an offline setting during the first academic week of the first-year students.

○ **Technical Orientation** - Student Support Services conducted the Technical orientation for the incoming first-year students to acquaint them with the various platforms and online services used at IIT Bombay. The orientation was conducted division-wise over the span of 2 days, witnessing the attendance of 1400 freshmen. The students were introduced to the SSO Login and familiarised with Webmail, Internal ASC, External ASC, ResoBin, Moodle, CDEEP and the SAFE app. There were 5-6 volunteers in each session to personally help the students in setting up their logins and resolving any other doubts and queries they had.

Link to the slides : 📄 Technical Orientation final.pdf

○ **Live Streaming of the Orientation** - Live streaming of the Freshmen Orientation Program for first-year students was done in various venues like the VMCC, LT - PCSA and LHC for the accompanying parents. Student Support Services played an active role in ensuring the smooth conduction of the streaming.

Commencement Ceremony
- Student Support Services coordinated with the Public Relations Office, PGAC and the SMP Team to organise the logistics of the first-ever Commencement Ceremony organised on the 2nd of May 2024 to honour 5000+ to-be graduates of IIT Bombay.

- A smooth photo-op was ensured with the Director for all the students in the Convocation Hall, guaranteeing that the event unfolded without any disruptions.

EnPoWER

ABOUT EnPoWER

EnPoWER, which stands for the Engineering Oriented Promotion of Work Experience and Research, serves as the undergraduate research promotion arm of the institution. Our primary objective is to facilitate greater accessibility to **research core-related and industry opportunities** for undergraduate students.

EnPoWER is dedicated to enhancing the involvement of undergraduate students from IIT Bombay in the research and development of engineering-based solutions for industry challenges. This is achieved through opportunities, recognition, and heightened awareness. Through events such as "Enthuse," "SURP," and "ResCon," EnPoWER acts as a bridge, connecting students with professionals from the scientific community, including professors, seniors, and industry experts.

WORK DONE SO FAR

- **SURP 2024 (Summer Undergraduate Research Program) (June 2024 -present)**
In coordination with the Department Research Coordinators

SURP is a program that facilitates the process of students taking up projects under the professors during the summer as well as the professors finding it easy to float projects to applicants from interdisciplinary fields.

To ensure that the projects for SURP 2024 align with student interests and expectations, a survey was developed to gather feedback from students. The responses were shared with professors during the project procurement process, which involved a comprehensive outreach to faculty from diverse research backgrounds. This effort aimed to solicit engaging projects related to their research.

By highlighting student preferences and expectations, as well as clarifying faculty goals, the aim was to foster better communication and understanding between students and professors, ultimately enhancing the SURP experience for all participants.

SURP 2024 also had a session that served as a kick-start to the entire program titled 'Research 101' to clear misconceptions regarding research and to communicate to participants how to start with research.

- **SURP 2024 - Research 101(16th June 2024)**

Research 101 was an interactive online session held on Microsoft Teams on June 16, 2024. Featuring two professors and two experienced student researchers, the session covered essential topics, including what research is and how to get started, navigating your research journey, identifying research interests, progressing through your project, and successfully completing your research. The event fostered a rich discussion by encouraging attendee interaction, creating an engaging environment for participants to explore these key themes.

The speakers involved were-
1. Prof. Shobha Shuka, MEMS Department
2. Prof. Syaamantak Das, Educational Technology
3. Nayantara Ramakrishnan, 4th year-Mechanical UG
4. Ram Prakash, 4th year- Physics UG

- An overview:
  - A SURP portal was designed by EnPoWER and the Web Team to display the projects
  - A total of 79 projects were floated by 65 faculty members of IIT Bombay
  - Each applicant was eligible to apply for 2 projects; in total, 276 applications were received in the first phase of the project rollout itself. Additional applications were received later when projects with zero applicants were refloated.
  - Projects from professors from 21 departments and centres of excellence such as the IEOR, SysCon, Climate Studies, and Educational Technology
  - To assess the accountability of students, a system with report submission was designed and mandated with 3 report submissions to date- Checkpoint-1, Phase-1 and Mid-term report submission.
  - Statistics of SURP 2024 projects are as follows:

Department	No. of Projects Floated
BSBE	5
C-MInDS	2
Chemical	8
Civil	3

Climate Studies	2
Computer Science Engineering	5
CTARA	3
Earth Sciences	1
Educational Technology	2
Electrical	11
Energy Science and Engineering	4
Environmental Sciences	1
Mathematics	1
Mechanical	6
MEMS	5
Physics	8
SOM	2
SysCon	5
Multi-disciplinary	5
TOTAL	79

- **ENTHUSE 2024 (28th July 2024)**

In coordination with the IRCC

More than 1450 first-year undergraduate students from IIT Bombay participated in high spirits, attending ENTHUSE 2024 simultaneously across four venues: VMCC, F.C. Kohli, LA001 & LA002. The allocation of students to venues was based on their respective departments. This arrangement allowed for a diverse representation of departments, with 24 professors and 4 student speakers, each hailing from distinct departments, sharing their research work, and offering insights into what newcomers can expect from research opportunities at IIT Bombay. The presentations maintained an informal tone while being captivating and rich with information. Refreshments from the staff canteen were arranged and served to the attendees before the commencement of the event.

The department distribution for the event was as follows:

VMCC	F. C. Kohli	LA-001	LA-002
ESED, Engineering Physics, Chemical, Electrical	Chemistry, IDC, Mechanical	Aerospace, Maths, Computer Science, DESE	Economics, IEOR, MEMS, Civil

This year, Enthuse aimed to invite undergraduate student researchers who have made significant contributions under the guidance of professors on the IITB campus. This initiative effectively motivated students to engage in research by incorporating student perspectives and experiences into the discussion. CDEEP recorded this year's Enthuse event, and all the professors' speeches and talks have been uploaded to YouTube. You can view these recordings on the RnD @ IITB - YouTube

In addition to previous years, this year's Enthuse event included interactive games and quizzes designed to motivate and inspire freshmen to embrace research positively. All activities were crafted to enthral the audience. Winners of the interactive games received Enthuse T-shirts, while professors were acknowledged with plants as a small token of appreciation.

The event began with welcoming speeches from each professor in charge at their respective venues, followed by an introduction to EnPoWER. EnPoWER discussed the various research opportunities available for undergraduates at the institute. To keep the event engaging and interactive, quizzes and activities related to research, IIT Bombay, and significant scientific contributions were incorporated throughout the program. Professors from IIT Bombay delivered talks to encourage students to consider research in different departments. Both students and professors expressed enthusiasm for the event, with students showing particular interest in new research opportunities from KCDH, DESE, CTARA, and SYSCON. After the event, professors shared with EnPoWER that they believed it was an excellent way to inspire students to pursue research and expressed excitement for future events like Enthuse. Overall, Enthuse received positive feedback from the audience based on their interactions during the event.

The flow of the event was as follows: -

VMCC B Nag Auditorium	LA-001	F.C. Kohli Auditorium	LA-002
EnPoWER introduction + Introductory Activity Dev Arora	*EnPoWER introduction + Introductory Activity* Nilay	*EnPoWER introduction +* Introductory Activity Khushi	*EnPoWER introduction + Introductory Activity* Rupanshi

Ojas Goel Avani Gala	Shahapure Ojas Pathak Prachi Arya	Sharma Abhishek Singh Anika Dorle	Vijayvargiya Harshit Sahu Dhairya Kantawala
Prof In-Charge Prof. Sai Vinjanampathy	*Prof In-Charge* Prof. Leena Vachhani	*Prof In-Charge* Prof. Vikram Vishal	*Prof In-Charge* Prof. Nagamani Jaya Balila
Address By Professors:			
Prof. Akshaya Nikumbh *Climate Studies*	Prof. Rekha Santhanam *Mathematics*	Prof. Subimal Ghosh *Climate Studies*	Prof. Balamurugan Palaniappan *IEOR*
Prof. Siddhartha Santra *Engg. Physics*	Prof. Ganesh Ramakrishnan, *Computer Science, and Engg.*	Prof. Ruchi Anand *Chemistry*	Prof. Najeeb Shariff Mohd. *Civil Engg.*
Prof. Amit Sethi *Electrical Engg.*	Prof. Srikant Sukumar *SYSCON*	Prof. Alankar Alankar *Mechanical Engg.*	Prof. Surajit Bhattacharya *Economics*
Prof. Nageshwara Rao *SJMSoM*	Prof. Arnab Maity *Aerospace Engg.*	Prof. Anirudha Joshi *IDC*	Prof. Anand Rao *CTARA*
Prof. Supreet Saini *Chemical Engg.*	Prof. Sagar Mitra *DESE*	Prof. Amber Srivastava *Mechanical Engg.*	Prof. Parag Bhargava *MEMS*
Address by UG Students Researchers:			
Kanishk Modi	Ashwin	Aryan & Mohit	Gauvrang, Mohita & Adwait

- **DEPARTMENT RESEARCH GROUPS (IIT Bombay Research Community)**

To promote active engagement and effective functioning of the Department Research Groups, a timeline was developed to assist Department Research Coordinators (DRCs). This timeline outlines a series of sessions, informative articles, and discussion topics that can be shared to facilitate collaboration and knowledge exchange within the research community, aligning with the intended purpose of these groups.

- **INTERNSHIP GUIDANCE PROGRAM**

In coordination with Career Cell, UGAC

1. **UNIV INTERNSHIP BOOKLET (Released on 1st September 2024)**

Link to the booklet- Univ Intern Booklet

EnPoWER, in collaboration with the Career Cell, has launched the First edition of the Univ Intern Booklet to support students during the internship season. The booklet aims to simplify the internship process by offering thorough guidance and acting as a single resource for students preparing for core internships. It includes a comprehensive database of over 80+ University internship programs across both Indian and international universities.

Additionally, the booklet highlights a detailed directory of seniors who have previously secured core internships, providing crucial insights into application processes, eligibility requirements, and scholarships available for various internship programs. The booklet contains all the internships sorted according to their deadlines and countries of the university, for the ease of students. A special section features personal experiences and tips from seniors who have successfully completed core internships and engaged in research projects. The booklet also provides links to helpful resources, such as the Resume Repository and Core Intern Directory, further solidifying its role as a comprehensive guide for students pursuing internships.

2. **UNIVERSITY INTERN SESSION (4th September 2024)**

EnPoWER organised a University Intern Session aiming to primarily aid the preparation of third-year undergraduates who are aspiring to get a university internship. The session saw an impressive footfall with senior UG students sharing valuable tips and experiences, and the Q&A session facilitated direct interaction. The outcomes include increased awareness, enhanced understanding of application processes, and motivation for pursuing internships at renowned universities.

The speakers of the session were:

1. Pratham Srivastava (Arizona State University -SURI program)
2. Nimish Sharma (Caltech - PT cell)

3. Prakriti Shahi (Chalmers University of technology)
4. Soham Joshi (University Of Illinois Urbana- Champaign)

Link to the resources of the session-
Univ_Intern_session_slides

- **GRAD PROGRAM**

In coordination with the Career Cell, UGAC

EnPoWER in collaboration with Career Cell, organized the GRAD Program to aid students who want to pursue further studies in universities abroad and in India. This program consisted of a session, a mentorship program, and a booklet.

1. **GRAD School 101(21st August 2024):**

The objective of the GRAD School 101 session was to assist students in navigating the university application process for further studies. The session covered a wide range of pointers including university shortlisting, how to build a strong research profile, SoP crafting- how to tell a compelling story, obtaining LoRs, crafting a crisp resume, and dealing with tests like GRE, TOEFL, and IELTS.

The speakers for the session were:

- Raavi Gupta(MS-CS Columbia, NYC)
- Vikhyat Agarwal(MS-DS, EPFL)
- Soham Joshi(PhD-Materials Science, Stanford)
- Prapti Sao(Deferred MBA, Stanford GSB)

Grad School 101 Session 2024

2. **GRAD Mentorship Program:**

The purpose of this mentorship program is to support students aiming to pursue further research in their areas of interest at global universities. Final-year IITB students have been paired with mentors from various fields in different countries, all of whom are recent IITB graduates admitted to prestigious universities worldwide. These mentors will assist them in applying to programs that closely match their research interests. This year, a feedback system is incorporated to enhance the experience, maximize benefits, and ensure that the needs of mentees are effectively addressed by their assigned mentors.

Mentorship Profile pdf 2024

- **RESUME MAKING & APPING SERIES**

In coordination with the Career Cell, UGAC

EnPoWER, in collaboration with the Career Cell, is organizing a three-session series designed to assist second-year students with their resume development and application process. The first two sessions are completed so far:

1. **Session 1: How to build a resume? (September 25, 2024)**
The session was initially scheduled to take place simultaneously in two venues, LA-201 and LA-202. The speakers for this session included:
- Harsh Shah (Intern at L.E.K Consulting, LightBox Ventures)
- Yash Rampuria (Intern at Amazon INC, EY)
- Chaitanya Aggarwal (Intern at Optiver, Franklin Templeton)
- Ananya Shrivastava (Intern at P&G)

It covered resume basics, including key sections, types, and the process of creating, refining, and reviewing resumes, along with helpful resources for students. Due to bad weather, the session shifted to a hybrid format, combining in-person attendance with virtual participation via Microsoft Teams. Despite the challenges, the session received positive feedback from attendees.
[Session 1: How to build a resume?](#)

2. **Session 2: Format your resume with us! (September 27, 2024)**
This online session aimed to assist second-year students in effectively formatting their resumes using tools such as Microsoft Word and Overleaf (for LaTeX). The speakers for this session were:
- Taniishq Kadam
- Aarohi Deshpande

The session provided valuable insights and practical guidance to help students enhance the visual appeal and professionalism of their resumes.

- **SOPHOMORE 101 SESSIONS (BRANCH INDUCTION SESSIONS)**

In coordination with Student Support Services, UGAC

A series of sessions were held across 13 UG departments in collaboration with Student Support Services and the Student Mentorship Programme. These sessions introduced students to their departments, covering the new curriculum, available opportunities, popular minors, the DD/Honours structure, and departmental research. Special emphasis was placed on interdisciplinary work, providing guidance despite the no-branch policy for this batch. The sessions also addressed managing PoRs and non-core opportunities.

To ensure consistency, a guideline for speakers was created, and a dashboard was maintained for session promotion. This year, the focus was on research opportunities, with EnPoWER coordinators highlighting ways for UGs to explore research within their departments in their sophomore year through various opportunities available. Recordings and slides were archived and made available for future reference.

Link: Sophomore 101_dashboard (2024-2025)

- **STUDENT-INDUSTRY CONNECT 2024**

In collaboration with the DRC Team

EnPoWER recently launched its student-industry connect initiative with the primary objective of bridging the gap between students and industry by providing industrial exposure through various core-based hackathons, giving students exposure to real-life problem statements. The aim of this initiative is to also provide internship opportunities to students primarily in their second and third year in various core domains.

1. **igrenEnergi Industrial Hackathon:**

The first hackathon under this initiative was launched on 2nd October 2024 on the Unstop platform in collaboration with the IIT Bombay Research Park and igrenEnergi Inc. to provide students from all departments from second year onwards to be registered in a team of 3-4 with a problem statement based on the theme of estimating the State of Health (SoH) of energy storage systems, such as lithium-ion batteries requiring students to create models based on the historical usage patterns. The hackathon provides a unique opportunity for the winning teams to win a cash prize from a pool of 45k and also a chance to get a winter internship in the firmware and data analytics domain. Set to complete round 1 on 6th October, the finale for this hackathon is scheduled on 19th October 2024. Link to the competition: https://tinyurl.com/khxu6w7b

2. **Manastu Space Hackathon:**

The second hackathon under this initiative was released on 5th October 2024 primarily for the students of the aero science department providing them with exposure to their department. The problem statement revolves around finding Economic Solutions for Deorbiting Space Debris and aims to provide cash prizes and winter internships to the winning teams.
Link to the competition: https://unstop.com/o/2srYlV8?utm_medium=Share&utm_source=shortUrl

Further, EnPoWER along with the DRC team is in the process of procuring problem statements from various other industries from other departments, which are set to be released soon.

- **The IITB Research Portal**

In Coordination with DevCom

Conceptualized the design and structure of the IIT Bombay Research Portal, a one-stop solution for undergraduate research activities. Developed wireframes and layout for the portal, with front-end and back-end coding nearing completion. Once the content is finalized, the portal will be launched through WURP 2024.

- **ResCon (As a part of TechConnect 2024)**

Abstract submission for the flagship pan-India research poster presentation competition of the research conclave of IIT Bombay was launched on Unstop in collaboration with the Industrial Research and Consultancy Centre(IRCC). Set to happen on 17th December'24 under TechConnect this year, this competition would offer a cash prize of 4.4 Lakhs to the winners.
Link to the competition: https://unstop.com/o/Kn3ueNq?lb=gJILhY8k

- **EXTERNAL OPPORTUNITIES**

EnPoWER collaborates with various industries to bring practical on-ground industrial projects to undergraduate students. These included topics like climate problem assessment, advanced image recognition and classification projects, informative sessions etc.

1. **Ekonnect Knowledge Foundation & US Consulate General Mumbai**
A Climate Hackathon 2024 Industrial Program was announced in collaboration with Ekonnect Knowledge Foundation and the U.S. Consulate General Mumbai. The hackathon was aimed at supporting educational institutions in developing solutions to address climate risks. Participants had to focus on thematic areas such as infrastructure projects, decision-making tools, policy management, and awareness campaigns. Key dates include the application deadline on October 20, 2024, followed by a boot camp and mentoring in November, with the implementation of solutions running through early 2025. Financial assistance and mentoring were planned to be provided to winning teams.

2. **Collaboration with JETRO for Japan Career Promotion Forum**
The Japan Career Promotion Forum 2024 was announced by JETRO, focusing on opportunities for Indian students and professionals in Japan. The event was scheduled for July 12, 2024, and was conducted online in English. Topics such as career growth, research opportunities, working environments in Japanese companies, and strategies for advancing careers in Japan have been covered. The registration process was initiated, and participants were provided with insights into JETRO's HR-related activities.

3. **External Project Opportunity from TantraSoft Solutions**
EnPoWER is collaborating with TantraSoft, a leading automation solutions provider for the pharma industry, to offer an ongoing Optical Character Recognition (OCR) project for interested students. A

form has been floated to gauge student expertise in the domain and their interest in machine learning, deep learning, image recognition, and computer vision, through which selections will be made.

● **SOCIAL MEDIA**

1. **"Did you know?" Instagram Series:**
An Instagram series on interesting & intriguing facts based on the projects received in the Summer Undergraduate Research Program(SURP) this year was created ranging from all the 20+ domains to stimulate curiosity and increase knowledge and awareness about the topics of research projects.

2. **Confused between Masters and PhD:**
Created an Instagram post aimed at guiding students in making informed decisions about pursuing higher education. The post highlights the key differences between a Master's and a PhD, offering insights into their respective academic paths and career implications. It also explains the two main types of Masters programs – research-focused and course-based—helping students choose the right program based on their goals and interests.

3. **Instagram series on Univ Program Deadlines:**
A monthly Instagram series was launched to inform students about upcoming internship deadlines. This would ensure better information dissemination and prevent students from missing out on important deadlines. Through this series, we also aim to help students learn about the various internship programs available.

● **INITIATIVES WITH KCDH**
In coordination with Student Support Services, UGAC
The Koita Centre for Digital Health (KCDH) at IIT Bombay was founded in 2021 with the primary goal of driving academic programs, research, and industry collaborations in Digital Health. KCDH addresses the need for engineering, clinical professionals, and entrepreneurs in Digital health and creates research and employment opportunities in this domain. Maintaining the partnership from the previous year and working with the team from KCDH, various initiatives were carried out to create awareness about the field of digital health and inform students about the relatively new IDDDP and minor programs offered by the centre.

1. **KCDH's Interdisciplinary Dual Degree Program**
KCDH announced its Interdisciplinary Dual Degree Program (IDDDP), featuring a range of new research topics and projects, inviting UG students to participate. The program allows students to earn an additional degree while engaging in cutting-edge research. EnPoWER facilitated the

https://gymkhana.iitb.ac.in/~ugacademics/

dissemination of this information to the target audience. Additionally, KCDH, in collaboration with EnPoWER, also introduced several exciting projects through SURP 2024.

## 2.	Projects on Healthcare Informatics offered by KCDH

A webinar was conducted by KCDH on May 6th with information about KCDH's IDDDP Program and the academic and research opportunities it offers particularly in Healthcare Informatics.

Work Done as Institute Secretary Academic Affairs and as a part of the Council Duties

●	Ensured smooth **Academic Registration** of 4000+ students
●	**Freshmen Orientation (25th July 2024 to 28th July 2024)**
1.	Ensured smooth onboarding of first-year UG students and collaborated within and outside of the UGAC to organize the official 4-day-long freshmen orientations
2.	Headed the Venue committee of the Freshmen Orientation to track and book venues for the simultaneous live-streaming of the orientation for 1800+ parents alongside regular lectures for senior UG students and also tracked and booked venues for Orientations on Day 2 and Day 3
3.	Coordinated with 11 UG Departments to help smooth the registration process for students, book venues for department orientations, and guide students from the main convocation hall to the respective department venues
4.	Helped in organizing orientations for the Gender Cell, SC/ST Cell and the SWC
5.	Conducted 1 of the 4 parallel sessions in the Technical Orientation organized by SSS

●	**Initiatives with IITB Research Park:**
Designed and drafted a proposal to enhance student awareness and communication regarding opportunities offered by the Research Park. Given its role as a vital link between industry and academia, the focus was primarily on initiatives connecting students with industry through various channels, with a few now underway.

●	**Policy on awarding minors beyond the stipulated period of the programme:**
A policy was framed for students to be awarded minor degrees at the time of graduation if their requirements for the basic degree were not completed in the stipulated time. This policy is yet to be passed by the UGPC.

●	**Commencement Ceremony (3rd May 2024)**
1.	Coordinated with the Public Relations Office, PGAC, and the SMP Team to organize the logistics of the Commencement of 5000+ to-be graduating students
2.	Ensured a smooth photo-op with the Director for all the students in the Convocation Hall, guaranteeing that the event unfolded without any disruptions

3.   Assisted the Public Relations office in screening the Commencement Ceremony Session with Hon'ble Minister of Education Shri Dharmendra Pradhan's talk in VMCC and LHC rooms

●   Assisted the Academic Section in smooth **Document Verification** of UG freshmen students

Career Cell

About the division:

Career Cell is IIT Bombay's platform to provide students with every bit of critical information about the plethora of career options and the myriad choices ahead of us. It also aims to help students overcome their apprehensions, clear their doubts regarding how to take that essential first step in the professional world after being at IIT, and thereby help students make wise and informed career decisions. As they commonly say, "jñānaṃ paramam śaktihī" meaning "knowledge is the ultimate power". The three things that Career Cell stands by are informed students, wise choices, and bright careers.

Work done so far:

Learners' Space - Many Interests. One School

In its "Eighth" Edition, Career Cell conducted Learners' Space in a revamped Summer Online Material Course format on MS Teams to streamline the logistics of the courses and improve the assessment of progress. It extended over a month to accommodate the contracted academic year and covered a wide range of courses catering to various students' tastes to give them a headstart in the field of their interest. It aimed to be a learning platform where students' enthusiasm will be the only thing required to join a course.

Non-Technical Summer School (NTSS)
Career Cell, in collaboration with Non-Core clubs of UGAC, ELP and EnB Club organised NTSS, which saw more than 3600 registrations. This stands as a perfect platform to grasp skills in various interesting topics, which are fundamental to developing an intriguing profile for some of the most popular non-technical vocations existing today. 2 new courses introduced this year were Journalistic Writing and How to Start a Start-Up.

COURSE NAME [Conducted By]	REGISTRA TIONS	DESCRIPTION OF COURSE
Essentials of Finance [Finance Club]	822	This course covers fundamental analysis, technical analysis, banking sector breakdown, personal finance, and forex in a simplified and approachable manner. Whether you aspire to

		make smart investment decisions, enhance your understanding of financial markets, or take control of your personal finances, this course equips you with the essential knowledge and skills to succeed.
Consulting 101 [Consulting Club]	589	Consulting 101 would help to develop essential skills such as structuring thoughts, generating ideas, and making guesstimates, which are the tools that consultants use daily, without which they wouldn't be who they are. Through interactive sessions, shared content and a project-based assignment, participants shall gain practical exposure to consulting concepts and real-life case studies covering profitability analysis, market entry strategies, and mergers and acquisitions.
Management & Business Development [Consult Club]	480	An introduction to understanding how businesses function, how they are grown, and effectively managed. Get a good picture of what the domains of marketing, supply chain or business development entail and get some experience with these via learning modules, live interactive sessions and a hands-on project that you would complete at the end of the course.
Excel & SQL for Big Data Handling [Analytics Club]	595	This course covers Excel and SQL, providing a comprehensive understanding of these essential tools. In Excel, you'll learn about functions, pivot tables, charts, graphs, and dashboarding. The SQL portion focuses on effectively managing large datasets using Structured Query Language, a critical skill in today's data-driven world.
Python for Data Science [Analytics Club]	583	This course offers a comprehensive introduction to Data Science. Attendees will embark on a structured learning journey, focusing on the fundamentals of Python programming. Students will acquire a solid foundation in essential concepts such as algorithms, machine learning, regression analysis, linear regression basics, classification, complex data landscapes, and logistic regression.
How to Start a	292	Master the art of launching and scaling a

Start-Up [EnB Club]		startup in just three weeks. Learn from industry experts about idea generation, growth strategies, and building a winning team to achieve entrepreneurial success.
Journalistic Writing [ELP]	242	Explore Journalism: Learn to Write News, Engaging Stories, and Opinion Pieces. Discover the Power of Your Words!

Technical Summer School (TSS)

This year, Career Cell conducted Technical Summer School in collaboration with the Institute Technical Council with a wide range of courses. This year, we introduced several new courses, like

1. Immunology and Vaccinology
2. Web Development: From Basic to Beyond
3. Circular Economy & Policies: Fundamentals & Applications in the Energy Sector
4. Introduction to Astrochemistry
5. Group Theory
6. SynBio101
7. Machine Learning
8. Computational Genomics
9. TechnoTail Workshop
10. Carbon Capture
11. Smart Grids
12. Proof writing in Mathematics and Theoretical Computer Science
13. Introduction to Game Hacking
14. Proteomics
15. Introduction to Astronomical Imaging
16. Ham Radio 101: Dive into the World of Amateur Radio and Electronics!

TSS is an integral part of Learners' Space, where one can learn and choose from various courses that develop some of the necessary applied skills required to build a solid technical profile.

COURSE NAME [Conducted By]	REGISTRATIONS	DESCRIPTION OF COURSE
Web Development:	658	Dive into the world of web development with our beginner-friendly course. Master the art of crafting stunning, dynamic websites by

From Basic to Beyond [Web and Coding Club]		learning essential frontend and backend technologies. No prior experience needed – just bring your curiosity and creativity. Start building real-world projects and transform your ideas into reality today!
Machine Learning [Web and Coding Club]	697	Master the core concepts of Machine Learning . Join this course to dwell into the world of Data Science where you will design your own machine learning model in various fields .Exploring from basics to advanced algorithms one will be equipped to confidently navigate the intricate landscape of machine learning.
Immunology and Vaccinology [BioX Club]	92	This course is about one of the most puzzling and interesting system of the human body -The IMMUNE SYSTEM. Learn how our body protects us from harmful microbes starting from when these microbes enter the body to how our body identifies and kills these harmful microorganism. Formation and maturation of immune cells and the process they use to destroy harmful microbes and how immune cells form memory against the disease caused. Further learn how some microbes target the immune system (e.g. HIV, cancer) and autoimmune diseases and how our cells react. Finally know how vaccines actually work, how it is prepared, and different types of vaccines.
Foundations of Astronomy and Astrophysics [Krittika]	140	One might wonder why, when and how we and the objects around us came into being. We might have found answers to some of these questions, but our understanding of the cosmos is still quite limited. One might be curious and want to explore this branch of Science. This Learner's Space course will provide a foundation in Astronomy and Astrophysics with a wide range of modules covering the basic workings of Celestial objects and their phenomena, Telescopes and also methods of studying as well as detecting these objects.

Tools for Cyber Security [Cyber Security Community]	387	Prepare to fortify your cyber defenses with our dynamic course on essential tools for cybersecurity! From mastering the command line prowess of Bash and Linux scripting to harnessing the power of Python, and C, and even diving into the intricate world of assembly code, this action-packed program equips you with the skills needed to navigate the cyber landscape with confidence. Join us and unlock your potential in cybersecurity.
Introduction to Cryptography [Cyber Security Community]	383	Dive into the exciting world of cryptography! Explore ancient ciphers, unravel modern encryption, and master hashes and digital signatures. Perfect for curious minds and tech enthusiasts, this course turns intricate concepts into captivating journeys of discovery. Join us and become a cryptography expert with insider secrets and interactive exploration!
Introduction to Game Hacking [Cyber Security Community]	216	Embark on an exhilarating journey into the world of game hacking! Dive into the intentionally vulnerable MMORPG, PwnAdventure3, and learn the secrets of modifying player attributes to arbitrary values, disassembling binaries to unlock game secrets, developing custom features, and much more. Join us and unleash your creativity as you explore the fascinating realm of game security!
SynBio 101 [BioX Club]	78	Synthetic biology is a field of science that involves redesigning organisms for useful purposes by engineering them to have new abilities. Learn how to engineer biological systems and program organisms to perform novel tasks!
Circular Economy & Policies: Fundamentals & Applications in the Energy Sector [Energy Club]	136	This course explores the principles of the circular economy using the Butterfly Diagram to illustrate material flows and Life Cycle Assessment (LCA) for evaluating environmental impacts. We will analyze case studies from industry leaders like TATA Group, and Saudi Aramco. These examples highlight the dynamic interplay between

		environmental policies and circular economy practices, especially in energy production. Join us to understand how circular principles can revolutionize business models, reduce waste, and create a more sustainable future.
Carbon Capture [Energy Club]	147	Carbon Capture is a quintessential technology accounted for in all Integrated Assessment Models (IAMs) for climate change analysis, including SSP scenarios, IPCC reports and post-growth frameworks. This course will delve into the science, technology, and policies surrounding carbon capture, equipping you with the knowledge to contribute to a sustainable future. Join us to explore how this critical solution fits into both global and Indian strategies to fight against climate change.
Smart Grids [Energy Club]	124	The TSS Course on Smart Grid Technologies offers a comprehensive exploration into the future of energy systems, focusing on the innovative technologies revolutionizing the electric grid. Participants will gain in-depth knowledge of the evolution and features of smart grids, including their infrastructure and associated smart energy, information, management, and protection systems.
Proof writing in Mathematics and Theoretical Computer Science [Maths and Physics Club]	162	This course dives into the fundamental structures that underpin modern mathematics, revealing the beauty and power of groups in solving complex problems.
Group Theory [Maths and Physics Club]	216	This course dives into the fundamental structures that underpin modern mathematics, revealing the beauty and power of groups in solving complex problems.
TechnoTail Workshop [Tinkerers' Laboratory]	183	Discover the TechnoTail Workshop, where innovation meets hands-on learning! Start with mastering Conda, PyTorch, OpenCV, TensorFlow, and basic Data Science. Then dive into laser cutting, CAD, PCB design, microcontrollers, and circuit making. Cap off

		your journey by building a Sophisticated Quad-pedal robot dog. Join us for a dynamic, immersive experience that blends creativity with cutting-edge technology!
Aerial Robotics [Aeromodelling Club]	192	Has mastering the science behind the development and control of UAVs been your lookout ever? If yes, then this course is the gateway for you. Dive into the world of autonomous flying robots and learn UAVs' flight dynamics and design. By the end of this course, you will have learnt how to develop dynamic models, control algorithms and path planning to maneuver in complex three-dimensional environments, along with real-world examples of the possible applications for the rapidly growing drone industry.
Introduction to Astrochemistry [Chemistry Club]	79	Have you ever wondered what stars are made of? Do you want to know how we try to find life on far-off planets? If yes, we have the perfect course for you! This course melds astronomy and chemistry, offering a stellar journey from interstellar clouds to the origins of life. Uncover the mysteries of space through the lens of chemistry. Explore how stars, planets, and even life itself are forged in the vastness of the universe. Join us as we strive to understand the intricacies of outer space through the dance of molecules.
Unveiling the Chemical Industry: Mastering Techno-Commercial Aspects [ChemE TL and Chemistry Club]	109	Unlock the secrets of the chemical industry's success! Join our course and delve into the captivating world of this diverse and dynamic sector. Discover the key to analysing and solving techno-commercial challenges faced by chemical businesses in today's complex and competitive landscape. Gain insights into chemical processes, market trends, economics, and management strategies. Embrace the future of the chemical industry as you acquire the skills to excel in this fascinating field. Enrol now and unlock the potential of the chemical industry's techno-commercial aspects!

Control Theory Bootcamp [Electronics and Robotics Club]	297	This course equips you with the fundamentals of control systems, the building blocks for intelligent machines. We'll delve into the mathematical core of control theory and then propel you into the world of practical application with MATLAB Simulink, the industry standard for control system design and simulation. Get hands-on experience designing a PID controller, a workhorse in the field. And to cap it off, you'll build your self-balancing bot. As a bonus, we'll explore the fascinating world of swarm robotics. In case you're wondering what that is, well have you seen Big Hero 6? Yeah.
Proteomics [Electronics and Robotics Club]	60	This four-week summer course provides a comprehensive introduction to proteomics, focusing on fundamental concepts and practical techniques. Each week covers specific topics, including DNA and protein structure, proteomic sample preparation, mass spectrometry, and the role of proteomics in medicine. The course culminates in a week-long project emphasizing computational biology and coding, leveraging topics from the latter weeks. Designed for students with basic coding knowledge, the course includes weekly quizzes and a final project to reinforce learning.
Introduction to Astronomical Imaging [Krittika]	137	Even though the Universe appears to be beyond our reach, it communicates with us, giving us information through electromagnetic radiation. Astronomical Imaging teaches us how to gather and interpret this information. This learner's space course will explain its workings and teach you how to process those famous images from Hubble and the JWST.
Ham Radio 101: Dive into the World of Amateur Radio and Electronics! [Ham Radio Club]	150	Join Ham Radio 101 and dive into the essentials of ham radio, from basic electronics to hands-on practice. Build your own antennas, track satellites, and prepare for your ham radio license. Connect with a global community of enthusiasts and unlock

		the wonders of space communication!

Intern Connect

Career Cell, for the first time ever, launched Intern Connect, which is aimed at connecting students who have travelled to different cities for their internships. An information document about students was shared city and location-wise. City-wise groups were also formed to facilitate easy communication among the students. The links are accessible only through IITB LDAP ID to keep these IITB-centric and secure.
Link to Intern Connect Responses

Internship Preparation Program

With an aim to ease one into the internship process and to help gain an understanding of the various aspects one needs to cover before approaching internships, Career Cell conducted the Internship Preparation Program encompassing profile-based preparation sessions, Core preparation sessions, resume-making sessions, internship resume repository, and Internship Guide 101.

- **Profile-based Preparation Sessions**
To aid the understanding and bring more clarity about the profiles offered and preparation for the same, Career Cell, in collaboration with the Finance Club, Consult Club, Analytics Club, and Web and Coding Club of IIT Bombay, successfully conducted sessions for internship preparation of different profiles with the help of experienced seniors.

Session Name [In collaboration with]	Speaker
Internship Preparation for Profiles In Finance [Finance Club]	Aayush Jalan, Atharva Yeole, Priyansh Gopawat, Hitaansh Shah
Internship Preparation for Profiles In IT/Software [Web and Coding Club]	Pranjal Panghal, Yash Rampuria, Ishan Upadhyay

Internship Preparation for Profiles In Consult [Consult Club]	Aryan Chordia, Arjun Simha, Surabhi Gupta
Internship Preparation for Profiles In Analytics [Analytics Club]	Manan Garg, Archit Gupta, Aryan Bhosale
Internship Preparation for Profiles In FMCG [Analytics and Consult Club]	Akshat Taparia, Ananya Srivastava, Pratham Kulkarni, Maithri Suresh
Internship Preparation for Profiles in Product Management [Consult Club]	Vishesh Mandhan, Kartikey Kawale
Internship Preparation for Profiles in Quant [Analytics and Finance Club]	Arhaan Ahmad, Kanad Shende, Nilabha Saha, Premankur Chakraborty

- **Core Preparation Sessions**

To aid the understanding and bring more clarity about the internship opportunities in the Core domain and preparation for the same, Career Cell successfully conducted the Core Internship Preparation Sessions in different departments with the help of experienced seniors

Session Name [In collaboration with]	Speaker
Internship Preparation for Profiles in Chemical Core	Arush Gaur, Bhavina Gajghate, Aditya Mahesh, Krina Gami
Internship Preparation for Profiles in Electrical Core	Anoushka Dey, Anway Deshpande, Rishabh Shetty, Shobhit Maheshwari

- **Internship Guide 101**

Career Cell as part of the Internship Preparation Program launched the second edition of the Internship Guide 101 which is a compilation of resources, websites, books, and suggestions as well as some personal views of seniors who have gone through the process and successfully acquired internships in sectors beyond just Analytics, Consulting, Finance, FMCG and IT/Software. This booklet comprises of resources and also covers profiles in Core, Quant and FMCG in a detailed way. Relevant preparation material has also been collected, compiled and hyperlinked into the booklet, which has been limited to SSO-based login to maintain the privacy of views represented by IITB students.

Link to Internship Guide 101

- **Internship Resume Repository**

Career Cell collated the Internship Resume Repository this year by collecting and compiling 120+ resumes from the students who took an internship in 2023 and got successfully selected in 55+ companies in the domains of Analytics, Consulting, Core, Finance, FMCG, IT/Software, and Quant. To make the resume repository IITB students-centric and secure, we used an SSO-based platform this year.

Link to the Internship Resume Repository

- **Resume Making Session**

Career Cell in the final leg of the Internship Preparation Program conducted a Resume Making Session especially for the third year undergraduates to help them understand the basics of a well-drafted resume and to address any queries they might have regarding drafting their resumes. The session was conducted by four very experienced senior students, Himank Gupta, Swadhin Dash, Priyanth Elango and Prakriti Shahi

Core Internship Booklet

To ease the crucial process of core intern applications, Career Cell and EnPoWER released the second edition of the Core Internship Booklet! The booklet covered all the nitty-gritty in the application procedure, eligibility criteria, and scholarship for 100+ core intern programs worldwide. Links to additional resources such as the Resume Repository and Core Intern Directory had also been included in the booklet, along with invaluable experiences and advice from seniors who have been a part of core internship programs.

Link to CORE Intern Booklet

Placement Preparation Program

To aid the preparation of students for the placement process and to help gain an understanding of the various aspects one needs to cover before approaching them, Career Cell

launched the Placement Preparation Program with the following activities:

- **Placement Resume Repository**

To start off the Placement Preparation Program, Career Cell released the updated Resume Repository for this year, collecting and compiling resumes of multiple students placed in various companies across 7 profiles. We have added these along with links to all the previous years' resume repositories(2017-2023). All the drive links are accessible only through IITB LDAP ID to keep these IITB-centric and secure.

Link to the Placement Repository

- **Placement Bluebook**

As part of the Placement Preparation Program, Career Cell unveiled the 5th edition of the Placement Bluebook. This edition serves as a comprehensive one-stop booklet, gathering resources, websites, recommended readings, and insights from former seniors who secured placements in various companies across diverse sectors including finance, consulting, analytics, and beyond. The booklet is structured company-wise and contains information about more than 120 companies. Relevant preparation material has also been collected, compiled and hyperlinked into the booklet, which has been limited to SSO-based login to maintain the privacy of views represented by IITB students.

Link to the Placement Bluebook

Interviews Cracked:

Interviews Cracked' is a first-of-its-kind Instagram initiative designed to offer IITB students essential guidance and insights related to interviews. Every Friday, informative posts that address potential interview questions and how to effectively respond to them are shared. It provides practical tips, sample answers, and explores the reasoning behind each question. Through its engaging content, 'Interviews Cracked' has become a valuable resource for anyone preparing for interviews and striving for success

Grad Mentorship Program:

EnPoWER in collaboration with Career Cell, organized the GRAD Program to aid students who want to pursue further studies in universities abroad and in India. This program consisted of a session, a mentorship program and a booklet.

GRAD School 101:

The objective of the GRAD School 101 session was to assist students in navigating the university application process for further studies. The session encompassed a wide range of topics, including essential components such as crafting a compelling Statement of Purpose (SoP), securing strong Letters of Recommendation (LoR), initiating the university shortlisting process, and building a robust academic profile. The speakers for this session were Raavi Gupta (Columbia), Vikhyat Agarwal (EPFL), Soham Joshi (Stanford), Prapti Sao (Stanford MBA)

GRAD Mentorship Program:

The motivation behind this mentorship program is to help students who want to pursue further research in their topic of interest in global universities. Final year IITB students were allotted mentors belonging to various domains in different countries who have just graduated from IITB and secured admits into top universities around the word. These mentors will help them apply to programs that best align with their research interests.

Link to the mentor profiles

Management Programs: Deferred MBA, MFIN, MIM

Career Cell conducted a session for students wanting to pursue an MBA, and wondering where to start. The session was aimed at understanding the Deferred MBA and programs like MiM and MFin, which are excellent routes to pursue programs from prestigious schools such as Harvard, Stanford, and other top-10 Global Schools. Various topics such as the profiles admitted, career prospects after the M7 MBA, how students fund a global MBA and others surrounding the same were covered. The main speaker of the session was Mr Sumeet Verlekar, Admissions Mentor, Berkeley MBA, who has guided recent IIT Bombay students to Stanford, Wharton, Kellogg and top B Schools. He was accompanied by the following students who shared their personal experiences:
Vivitsa Jain
Aryaman Mihir Seth
Eknoor Singh
Kaivaly Daga
Mohit Kedia
Meenal Agarwal
Muskaan Chandra
Prapti Sao
Sunandinee Mehra

Resume Making Series:

This time Career Cell in collaboration with EnPoWER successfully conducted a 2-session series aiming at helping the second-year students in their resume-making journey.

1) Introduction to Resume Making:
This online session aimed at walking the sophomores through the basics of making a Resume. The speakers for the session were:
Harsh Shah
Yash Rampuria
Ananya Srivastava
Chaitanya Aggarwal

2) Formatting the Resume:
This session aimed at helping the second-year students format their Resumes using Word and Overleaf (for LaTeX). This session was conducted online. The speakers for the session were:
Aarohi Deshpande
Taniishq Kadam

Profile Building for IIMs Session
Career Cell, in collaboration with WeSpeak and IMS Learning Resources, conducted a session on profile building for IIMs. The session aimed at educating the audience about the importance of profile building for IIMs and other top B-Schools, along with essential tips and tricks to build a strong profile for the MBA journey. The session also focused on the selection process for the IIMs and pinpointed focus areas in the journey. The session was taken by Akshay Agarwal, an IIM Calcutta 2018 Graduate

Product Deck Making Masterclass
Career Cell, in collaboration with Doremon Den, conducted a session on product deck making. The session focused on educating the audience about product decks and how to brainstorm ideas and make product decks from scratch. The session also included a detailed walkthrough of various product decks and product management as a career was also discussed The speakers for this session were:
Tanay Kedia (PM @ PayTM, Forbes. IIT BHU Alum)
Anuj Agrawal (Consultant @ Mastercard. IIT BHU Alum)

HSBC Session on the Careers in the Banking Sector and Case Study Workshop
Career Cell conducted a session on the different careers available in the banking sector in collaboration with HSBC and Consult Club. The session covered insights into the different fields in

the banking sector. The session also had a case-solving workshop for the students conducted by Sattva Consulting. The speaker for this session was Ms. Sonali Shahpurwala, the MD and Head of Inclusive Banking, at HSBC India.

Career Pivot Series

Career Pivot Series is a series of posts and sessions aimed to inform the students at IITB about people and their career paths who've pivoted their careers from one industry to another. The series covers the pivot journey of seniors and alumni and how they went about it. It aims to let students know that a career direction shift is possible and provides tips for the same

Work As A Part Of Council Duties:

Catered to problems and grievances during registration

Career Cell provided support in catering to all registration-related queries and issues of over 5000+ undergraduates of IIT Bombay through multiple mediums like WhatsApp, Instagram and Facebook

Joint first-year students' orientation

Career Cell played an active role as part of the team responsible for organising the Freshie Orientation. It was a week-long orientation which was conducted in the first academic week of the first-year students in an offline mode.

Technical Orientation - Career Cell provided active support in conducting the Technical orientation conducted by Student Support Services, UGAC for the incoming first-year students to acquaint them with the various platforms and online services used at IIT Bombay. The orientation was conducted in an offline mode and witnessed the attendance of 1400 freshmen. Two parallel sessions were organised, running in two LAs. The students were introduced to the SSO Login, and familiarised with Webmail, Internal ASC, External ASC, ResoBin and Moodle. There were 5-6 volunteers in each session to personally help the freshers in setting up their logins, and resolving any other doubts and queries they had.

Financial Aid Orientation - Career Cell also conducted the Financial Aid Orientation to acquaint the incoming freshmen regarding the fee structure and financial aid given at IIT Bombay. We covered scholarships such as the remission of fees, MCM Scholarship, etc. to aid with the doubt-solving and addressing of these queries and concerns. We also strived hard in helping the students get familiarised with various scholarship portals and how to navigate through them.

Commencement Ceremony
Career Cell alongside the rest of UGAC coordinated with the Public Relations Office, PGAC, and the SMP Team to organise the logistics of the Commencement of 5000+ to-be graduating students. UGAC ensured a smooth photo-op with the Director for all the students in the Convocation Hall, guaranteeing that the event unfolded without any disruption and assisted the Public Relations office in screening the Commencement Ceremony Session and Hon'ble Minister of Education Shri Dharmendra Pradhan's address in VMCC and LHC rooms.

Allowing use of NPTEL and Self Study courses for discontinued courses
Presented a proposal to allow students within their stipulated program to be allowed to register for NPTEL or Self Study courses for any course that has been discontinued in the new curriculum and has no appropriate equivalent course being run. This was passed in response to the issues being faced by students who weren't able to find equivalent courses to their backlogs. The proposal has been passed in the UGPC and is awaiting presentation in the Senate.

Proposal to allow running of Summer Courses if students registered is lower than 5
Presented a proposal to allow summer courses to run even if the number of registered students is less than 5, as there are some discontinued courses with <5 students with a backlog in the course, who would be able to clear their backlog if this is permitted. The proposal has been passed in the UGPC and is awaiting presentation in the Senate.

Finance Club

About the division:

Finance Club, IIT Bombay, is an eight-member team established with a vision to develop and cultivate finance-related interests in the institute. We play a pivotal role in promoting different fields of finance amongst the student body at IIT Bombay and provide a platform for them to delve into the same through our carefully tailored competitions and speaker sessions, many of which are held in collaboration with prestigious firms worldwide.

Our primary mission is to impart financial knowledge and awareness and help connect like-minded individuals. Our thoroughly structured and carefully curated workshops, sessions, and competitions on various topics like corporate finance, fin-tech, trading, and investing, as well as interactive contests like our algorithmic trading competition in collaboration with Citadel Securities, Australia, help us achieve this goal. We also launched the Investment Team as a part of the Finance Club, a group of trading enthusiasts within the institute.

Our infographics, blogs, and other online content have been a staple in keeping students aware of day-to-day financial activities and proper terminologies. Our sessions, workshops, and competitions help every student at IIT Bombay in their pursuit of either being more financially aware or a career in the field.

Projects:

- **FinSearch (Jun '24 - Sep '24)**
  A two-month-long research-focused program called FinSearch was launched to encourage investigation, research, and the development of research interests in finance. The program consisted of 8 projects covering a diverse range of topics. These projects simulated actual academia and research projects in the domain of finance. They covered multiple topics, including deep reinforcement learning, asset pricing theory, exit strategies used by venture capital firms, the role of ESG metrics in investment strategies, and many more challenging the financial research acumen of the participants. In groups of three or four, the students worked on a project that suited their interests. There were no prerequisites for the program. Each group was assigned a mentor to assist in directing teams toward the appropriate sources of information and fostering a more straightforward comprehension of the project.

https://gymkhana.iitb.ac.in/~ugacademics/

Curated modules covering relevant resources were provided for each topic to give them a head start on the project. The modules comprised roadmaps that assisted them in sticking to the deadlines for the mid-term and the end-term report submission.

The team had to prepare a mid-term report based on a given set of guidelines. Under the mentor's direction and supervision, students studied and analysed the allocated project topic with enthusiasm. Finally, they had to turn in a well-organized final report that included a presentation and a video that summarised their research and included supporting data.

Competitions:

- **Equity Research Competition (Sep '24)**
  Equity Research was a week-long stock-picking and analysis competition where students formed teams of 1-3 to select and analyze any publicly listed company on the Indian Stock Market. Teams were tasked with thoroughly examining the stock and preparing a pitch presentation. To familiarise students with the competition and guide them in developing the right approach, we organized a session that covered the essential aspects of stock analysis and provided valuable resources.

  The first session introducing Equity Research was led by Mr. Suhas Hari, Head of Research at ICICI Prudential AMC. During this session, students learned how to select a stock and conduct both fundamental and technical analyses. They also explored methods for evaluating a company's financial health through SWOT, ESG, and Porter's Five Forces analysis. Complex financial jargon and ratios were explained clearly, making the concepts accessible to all participants.

  In addition to the introductory session, the 2nd Edition of the Equity Research Guide was launched. Students enthusiastically prepared quality presentations, developing the right skills for investing and analysing equities and markets.

Bootcamps:

- **Learners' Space (Jul '24)**

Essentials of Finance Bootcamp: As part of the eighth iteration of Learners' Space, the Finance Club and the Career Cell organised an introduction Bootcamp to finance. Finance principles were gradually built up across five sessions, with an assignment following each session. Renowned alums and prominent business executives took part in the five-week program. The Essentials of Finance Bootcamp was the most popular course at this year's Learner's Space, with over 820+ students registering. Over 90+ students finished the boot camp and received a certificate of completion for fulfilling the attendance requirements and turning in their assignments on time.

The week-wise breakdown of the Bootcamp was as follows:

Session Number	Topic	Description
Session 1	Personal Finance	For this session, Mr Anik Ganguly, Manager at Bain & Company, an IIMA'20 graduate, was invited to teach the students about basic personal finance. The essentials were discussed, such as expense control, a financially unbreakable personal plan, and investment portfolio building. He also gave a thorough overview of the main fund management strategies and the best practices to be followed for investing and building a diverse profile.
Session 2	Introduction to asset classes	This session focused on the various Asset classes such as equity, debt, real estate, etc, for which our alum, Mr Anurag Dubey, Vice President and Portfolio

		Manager at JP Morgan Asset Management, was invited. He shed light upon equity shares, derivatives, mutual funds, hedge funds, etc., discussing their liquidity and elaborating on their role in generating income.
Session 3	Fundamental Analysis	The third session centred on understanding financial statements, balance sheets, cash flow and financial ratios. For this, a lecture by Mr. Kanush Agrawal an IIT Bombay alum, currently working at Revolut as Global Strategy and operations manager was provided. Additionally, relevant resources bridging the gap between various financial statements establishing the basis for evaluating companies to build a portfolio were provided to the students.
Session 4	Technical Analysis	This session aimed to delve into the basics of technical analysis and provide valuable insights on various technical indicators, candlestick patterns, market trends, price movements, etc. for which Mr. Manan Goyal, an IIT Bombay alumnus, and an Analyst at Axxela was invited. He began by explaining the practical applications of technical analysis and then delved into its intricacies.

Session 5	Psychology behind Investing	The last session aimed at discussing how psychological biases affect investment decisions and market behaviour. Mr. Animesh Hardia, CFA, FRM, an IIT Kharagpur alumnus, and Senior Vice President at 1 Finance was invited to conduct this session. It began with an in-depth exploration of the significance of behavioural finance, analysing the diverse psychological biases and behavioural patterns that influence investment decisions and their impact on the market and concluded with the speaker sharing his personal strategies.

Blogs:

- **Aditya Birla Blog (May '24)**
  Published the second blog in collaboration with Aditya Birla Sun Life Mutual Fund, which was authored by Mr. A. Balasubramanian, Managing Director and CEO at Aditya Birla SLMF. Through this blog, the readers discovered how India is soaring as the world's fastest-growing major economy, reaching great heights and setting the stage for an exciting future. This blog explored the four key pillars driving India's impressive journey, from innovative reforms and robust capital markets to a consumption boom and digital transformation. Additionally, the readers learned about India's remarkable 8.4% growth in Q3FY24 and the forecasted 7.6% growth for FY 23-24 and understood how strategic changes like the PLI scheme and GST, along with massive infrastructure investments, are transforming India's economic landscape.

  The blog also highlighted how India reached a $4 trillion market cap, attracted a surge in foreign investments, and how the demographic dividend is fueling a consumption boom for decades. Lastly, it delves into India's digital transformation, from the JAM trinity to the UPI revolution,

propelling the nation towards a cashless economy.

Sessions:

- **Barclays Careers in Finance (Jul '24)**

  Mr. Hirdesh Rohatgi, Director of Barclays International India center and an IIMA graduate, delivered a session in which he provided valuable insights into various roles in the banking and finance sectors, offering students a deeper understanding of career paths, industry trends, and skill requirements. The speaker delved deeper into the responsibilities of an investment banker, explaining how they assist companies in raising capital, facilitate mergers and acquisitions, and offer strategic financial advisory services. The event was conducted online with 100+ attendees. Students were provided with a wide overview of the financial realm with a remarkable emphasis on the different verticals in the banking sector and their critical role in helping businesses navigate complex financial affairs.

- **Citadel Securities Session and Competition (Jul '24)**

  In collaboration with Citadel Securities, Finance Club hosted an insightful session on the basics of quantitative trading, which also provided a glimpse into the daily life of a quantitative trader. A virtual trading competition was conducted on the company's platform after this informative session. The competition featured three games, each based on a different industry sector, culminating in announcing winners for each category. The winners were rewarded with exciting prizes, making the event educational and rewarding for all participants.

Guides:

- **Equity Research Guide (Sep '24)** 📄 **ERC Guide.pdf**

  Finance Club launched the second edition of the Equity Research Guide to facilitate learning of Indian equity markets. Students learned how to use the guide effectively to assess a stock and make informed investment decisions.

  The guide starts by teaching the readers how to analyse an industry in general and then how to choose a good company within the industry for further research. The reader is taught how to analyse a company's finances and business practices and how to find the right time to invest in the company's stock. Fundamental analysis and all the financial ratios have been simplified, so readers with no prior knowledge about finance will also understand them. The guide also covers technical analysis, comprehensively explaining topics like momentum

indicators. The guide includes case studies of some listed companies, which help readers understand the applications of the concepts they learned. We also provided many resources for further understanding for those who want to delve deeper into this topic.

This guide aims to teach beginners without prior experience about stock picking and aid veterans in sharpening their equity research skills. By breaking down complex financial concepts into manageable steps, the guide aims to empower beginners to confidently navigate the process of evaluating a stock and ultimately making informed decisions about its purchase. The Equity Research Guide supported students in preparing final reports for the Equity Research Competition by providing them with a structured and accessible framework to follow.

Information Dissemination and Publicity:

The Finance Club leverages LinkedIn, Facebook, and Instagram channels to disseminate information. The Instagram page for Finance Club has 5600+ followers, while its LinkedIn Page has more than 4000 followers.

- **Did You Know?**
  A series of infographics where we take up well-known financial topics and make them easy to understand by breaking down complicated terms and explanations into more straightforward language to educate our audience in a way that's easy to understand.

These are some of the topics that were covered:

1. **The Japanese Yen is Collapsing**
   This infographic was based on the ongoing currency collapse in Japan, briefly explaining what a currency collapse is and its implications on the country's economy and global impacts. It further enlightened the viewers about the Bank of Japan's monetary policies and challenges. The post elucidated the events that led to the situation and its impacts on cross-border trade with India.

- **Budget 2024: Key Highlights**
  Developed and launched a comprehensive infographic summarizing the key highlights of the Indian Union Budget 2024. Designed for clarity and accessibility, the infographic effectively distilled complex budgetary information into a visually engaging format, making it easier for a wide audience to grasp the key takeaways. It provided a concise overview of critical elements such as the distinctions between Short-Term and Long-Term Capital Gains (STCG and LTCG),

Fiscal Deficit and Inflation targets, the updated Tax Slab System for FY25, Standard Deductions, and Indexation Benefits. Additionally, the infographic featured a sector-wise breakdown of the budget, showcasing major government initiatives in areas like Nuclear Energy, Solar Power Grids, and the Semiconductor industry, offering readers a quick yet comprehensive understanding of the budget.

- **Finance in a Flash**
  Launched a new weekly series designed to educate our audience on various financial topics through an interactive and engaging quiz format. Every Friday, three short, exciting quiz questions are posted on Instagram stories, with each week focusing on a specific theme such as personal finance, fundamental analysis, and more. Clear and simple explanations for each question are provided later that day to enhance learning. Winners are announced shortly after, and exciting rewards are offered at the end of the series. This initiative aims to make financial education accessible and enjoyable while fostering greater engagement, delivering educational value, and building a strong sense of community among our followers.

- **SOTM (Stock of the month)**
  The monthly release of a trending stock of the previous month. Factors such as sector analysis, revenue streams, and competitor analysis are evaluated. Reasons for the movement in stock price are assessed, and the future outlook of the stock is explored. The first stock that was analyzed was Bharti Airtel Ltd for September.

Miscellaneous:

- **Internship Preparation Program (Jun '24)**:

  Finance Club, in collaboration with the Career Cell, organized a program to assist third-year undergraduates in preparing for their impending internship season. The main speakers for this event were senior students from IIT Bombay who had successfully secured prestigious internships in renowned finance companies such as Morgan Stanley, Optiver, Deutsche Bank, Tower Research Capital, and Citadel Securities.

  Throughout the program, we held two sessions exploring job profiles in finance and quant. The accomplished students imparted valuable insights pertaining to their individual preparation, internship experiences, selection processes, current work environments, and the

nature of their roles. Additionally, they provided recommendations for beneficial resources and preparatory materials. These enlightening discussions facilitated students to make informed decisions and effectively plan their preparation for this pivotal phase of their careers.

- **Barclays Women in Banking (May '24 - Jul '24)**
  An exclusive mentorship program aimed at fostering talent and promoting diversity was conducted in collaboration with Barclays for the third-year female students of IIT Bombay. An initial informative session regarding opportunities for women in the banking and finance sector marked the beginning of the program. This was followed by a rigorous three-level filtration procedure to identify promising candidates. Out of the participants, five female students were selected and were offered exclusive mentorship opportunities with experienced professionals from Barclays, providing them with personalized guidance and support to further their careers in banking and finance.

- **Website**
  Curated a website containing the details of all events the club has conducted throughout the year. It is a one-stop solution to all finance-related topics. We also have a section for resources that contains a detailed plan on how to learn various finance topics, ranging from Corporate Finance, Options Pricing, Valuation, Passive Investing, and IPO analysis, among many others. The website also contains the Equity Research and Market Making Guides created from scratch. All these resources have been compiled after interacting with seniors who have excelled in finance.

Investment Team:

The IIT Bombay Investment Team is a student-led group of 28+ carefully selected individuals among our institute's best investors and traders. The introduction of the Investment Team has been a pivotal development, significantly expanding the club's activities and impact. We developed a three-tier structure for the investment team, dividing it into fund managers, sector heads, and junior analysts, and carried out the selection process for these sector heads with the assistance of experts in the field, taking the sector report, motivation, and an interviewing process into account. After undertaking extensive training programs, the team aims to maintain an institute-wide portfolio. The team works hard to engage students in hands-on learning activities that bridge the gap between academic finance theory and real-world application. We added a new dimension to the investment team this year, fostering multiple collaborations:

1. Venture Capital Division:

The Venture Capital Division of the Investment Team at IIT Bombay launched a LinkedIn series called "Investment Spotlight," which provides a weekly review of notable investment deals, including venture capital, debt financing, and mergers & acquisitions. The series highlights key companies involved in these deals, the type of investments made, and the associated financial details, offering valuable insights into current market activity.

Additionally, the division conducted a comprehensive analysis of the beauty and personal care sector for Roots VC. This research focused on industry trends, key market drivers, competitive landscape, and potential growth opportunities, providing strategic insights into this rapidly expanding sector.

2. Equity Research Division:

The Equity Research Division of the Investment Team at IIT Bombay, in collaboration with FINESSE, the Finance Club of Shailesh J. Mehta School of Management, launched the "Equity Insights" series to deliver detailed stock analysis to enhance participants' investment acumen. Throughout five comprehensive offline sessions, the team covered stocks like IEX, Adani Ports and Logistics, Basilic Fly Studio, and Exide, each representing different industries and providing participants with a well-rounded perspective on sector-specific challenges and opportunities.

During these sessions, the equity research team conducted fundamental and technical analyses to evaluate each stock. This included analyzing key financial ratios such as Price-to-Earnings (P/E), Price-to-Book (P/B), and Return on Equity (ROE), alongside studying revenue growth, profit margins, and cash flow statements. The team also explored macroeconomic factors influencing these stocks, such as changes in regulatory policies, economic indicators like GDP growth, and sectoral trends. For example, while analyzing IEX, the team discussed how the evolving power market and government policies impact energy trading platforms, while Adani Ports' analysis focused on trade flows and global supply chain disruptions.

In addition to fundamental research, technical indicators like moving averages, Relative Strength Index (RSI), and chart patterns were used to time potential entry and exit points. Each session was structured to present research findings and foster discussions on how real-time market developments influence stock performance, thus encouraging participants to think critically about investment decisions. These interactive offline sessions offered a platform for attendees to ask questions, debate valuation models, and gain hands-on experience in equity analysis, preparing them for real-world equity research roles.

3. Quantitative Finance Division:

The Quantitative Finance Division of the Investment Team at IIT Bombay has successfully developed over 15 quantitative-based strategies, incorporating techniques like moving average crossovers, mean reversion, volatility breakout strategies, and momentum trading. Additionally, they leverage key indicators such as Bollinger Bands, Relative Strength Index (RSI), and stochastic oscillators in their models.

The team also hosted an exclusive session on derivatives featuring Mr. Adwait Patwardhan, a trader at Axxela, who provided valuable insights into advanced trading strategies and market dynamics. The session gave the team a unique opportunity to understand the role of market liquidity, order flow, and price discovery mechanisms in the context of derivatives trading, which are essential for developing robust quantitative trading strategies.

ANALYTICS CLUB

About the Division

Established in 2016, Analytics Club is one of the major representative bodies for the interests of all students of IIT Bombay in the domain of data science and analytics. We carry out various sessions, bootcamps and hackathons on Machine Learning, Artificial Intelligence, Big Data Handling, Data Visualization, etc. and try to promote the community of students pursuing these fields in the institute. The vision of the club also includes helping students stay informed about opportunities in the field of Analytics and guide them in their journey to help them build a career.

We also help the Data Analytics and Visualization team (DAV Team), who carry out analytics on real-time institute data. DAV Team consists of a small cohort of students dedicated to helping the institute with Data Analytics techniques by drawing valuable insights from the huge amount of data available at the institute level.

We also cover various topics in the interest of MTech and PhD students of the institute and their participation is very valuable to the club in all its activities. We strive to spread awareness about the plethora of opportunities available in this rapidly growing field and help students gain relevant skills.

IPP (Internship Preparation Program): [June '24]

Successfully organized 3 sessions on fundamental topics important for interviews of analytics-related profiles. The sessions were aimed at helping 3rd-year students prepare for internships in the Quant, FMCG and Supply Chain, and Analytics domains. All the sessions were segregated based on broader profiles offered by various companies. In these sessions, the students were addressed by seniors who had previously bagged internships in well-known Quant, FMCG and Supply Chain, and Analytics firms.

Important preparation techniques, queries regarding how to handle tests and interviews, how to target various companies and how to prepare for general profiles, resume-making process, busting myths and answering FAQs were the major agenda points covered during the sessions. The students much appreciated the sessions, and all the relevant materials and session recordings were provided to students via mail and posted on our social media handles with an attendance of 150+ students.

- **Session by Seniors**:
    - Quant Profiles [8th June 2024]: This session was taken by Arhaan Ahmad (Citadel Securities), Kanad Shende (Graviton Research Capital), Nilabha Saha (Tower Research Capital) and Premankur Chakrobarty (Optiver)

- - Analytics Profiles [11th June 2024]: This session was taken up by Aryan Bhosale (American Express), Manan Garg (Sony Japan), and Archit Gupta (Adobe)
  - FMCG and Supply Chain Profiles [10th June 2024]: This session was taken up by Akshat Taparia (ITC), Ananya Srivastava (P&G), Pratham Kulkarni (ITC) and Maithri Suresh (HUL)

- **Bootcamps**:
  - Organized comprehensive self-paced bootcamps with a well-structured curriculum, including daily tasks and resources- designated readings, assignments and video lectures all accompanied by WhatsApp group for enhanced communication and collaboration with 290+ participants.
  - The contents of the bootcamp were compiled and provided in the form of Notion pages. The contents were curated with the help of seniors who had immense knowledge in the fields of Analytics and Quant and had previously bagged internships in these domains.
  - 2 separate bootcamps for Quant and Analytics were compiled and released with the internship preparation session.

- **IPP Resource Repository:**
  - Interviewed 15+ seniors with profiles in analytics from 8 different companies and prepared a cohesive booklet with insights into the key projects they did in the institute, resources and reference materials they used to prepare for tests, what type of questions they were asked in interviews, how they prepared for interviews, their overall interview experience, the selection process for each company and profile and the work their role involved as an intern.

Learner's Space (LS): [July '24 - August '24]

Learner's Space is a learning platform where a student's enthusiasm is the only prerequisite to join a course. The Analytics Club launched two courses as a part of the Non-Technical Summer School (NTSS) for the 8th Edition of Learner's Space- Excel and SQL for Big Data Handling and Python for Data Science. The courses were curated and compiled after extensive research and shared with the participants through a Notion Page which was updated daily with the course material for each day. Each of the courses consisted of exhaustive video lectures, reading material, assignments and online hands-on speaker sessions to help the students get an in-depth understanding of the topics.

Course Name	Registrations	Brief Description of the course
Excel and SQL for Big Data Handling	518	The main aim of the course was to familiarize the students with the basics of Excel and SQL, and how these technologies can be used to handle big data. Both these technologies are important tools used by companies all over the world for Data Analytics. ● The course covered basic topics like arithmetic operations, important functions, sorting and filtering, and some more involved topics such as data visualization and the use of pivot tables in MS Excel. It gave them a strong fundamental understanding of Excel, along with some useful applications. ● The course on SQL covered the basics of SQL, including Group By and Having Statements, Basic Querying, Joins, and Subqueries. These introduced the students to the world of querying and managing big data using the Structured Query Language, which plays an important role in all data analytics related jobs. The course spanned over 5 weeks and consisted of an online hands-on speaker session conducted on MS Teams, which was attended by 90+ students. The session on 'Excel and SQL' was scheduled on 14th July 2024 by Mr. Prateek Kurkanji, Business Analytics lead at HighRadius. He had also worked as an Analytics Consultant at EXL Analytics. He covered the practical applications of Excel in areas like Sales Analysis and Demand Forecasting involving solving a live case study and shared cheat sheets and other resources with the students to explore further topics themselves. 3 long assignments for Excel and 2 assignments for SQL were given for the students to complete. Around 110 students satisfactorily completed the assignments for both Excel and SQL. The certification criteria were satisfactory

		performance in the final assignments.
Python for DS	524	This course aimed at building a foundation for Data Science and Machine Learning. The course spanned over 4 weeks during the summer. It involved learning the following: ● Basics of Python Programming. ● Introduction to NumPy and Pandas libraries in Python. ● Basics of Exploratory Data Analysis and Introduction to the Data Visualization Libraries in Python like Matplotlib and Seaborn. ● Basics of Statistics and Probability used in Data Science. ● Various Supervised learning algorithms including Linear and Logistic Regression, Decision Trees and more. ● Various Unsupervised learning algorithms and concepts including Hierarchical and K-means clustering, Principal Component Analysis, Anomaly Detection and more. ● Provided additional optional content about various topics for future learning. There was also a speaker session scheduled on the 27th of July 2023 by Mr. Akash Srivastava, an AI/ML Computational Science Senior Analyst at Accenture. The session involved diving into the Real-world Data Science Project Pipelines used for solving real-life ML problems. The course also involved hands-on practice through 2 weekly assignments and a final project curated by us. The criterion for certification was satisfactory performance in the final project and 1 out of the 2 weekly assignments. Around 110 students satisfactorily completed the course and were awarded the certificate. The students completing the overall course rated it at 8.52 on a scale of 10 on average.

Exploring Masters in CS and DS: [1st September]

An online speaker session which was conducted by the Analytics Club, aimed at providing information to the students, from both CS and non-CS backgrounds, regarding the pursuit of a Masters in CS/DS from foreign universities. The speaker session provided great clarity to the students regarding the following points related to Grad School Apping:

- Broad overview of Master's Programs in AI/ML:
    1. MS in Computer Science (with specialization in AI)
    2. MS in Computational Science
    3. MS in Data Science/AI
        Additionally, an Electrical Engineering specific option:
    4. MS in Electrical Engineering (with Machine Learning specialization)
- How to build a strong profile to get selected in some of the top foreign Universities
- Application Process: Rough Timeline and College Shortlisting
- Tips on GRE/TOEFL
- Tips on SoPs and LoRs

The goal of the session was to enable the students to make well-informed decisions regarding MS in AI/DS and to provide them with all the necessary information and motivation required to start preparing for their journey to getting selected in top foreign universities.

This session was taken by distinguished speakers who were from non-CS backgrounds and had got into some top universities in the US:

- Pratik Shah: A graduate of IIT Bombay, Mechanical Department, currently pursuing a Masters in Computer Science at Georgia Tech
- Manav Doshi: A graduate of IIT Bombay, Mechanical Department, currently pursuing a Masters in Computer Science at University of California, San Diego

Infographic Series and Online Presence:

We continued the infographic series based on real-life/case studies about the application of data science in daily life scenarios and how to go about learning AI. The infographics are a ten-slide series released through our Instagram handle. The infographics created were based on ongoing events and relatable daily life instances. These posts significantly help to increase the reach of the club and keep the social media pages of the club interactive.

- **A Data Driven Olympics**: Our first infographic discussed the role of Data in the recently concluded Paris Olympics. This was done to bring to the students' attention the vastness of the applications of Data Analytics and to show how data is being used in multiple spheres ranging from Sports Metrics Analysis to Sustainability in the Paris Olympics itself.

- **Pricing of Concert Tickets:** Our second infographic discussed how artists price their tickets considering the recent Coldplay ticket sell-out. It examined the impact of pricing models on the purchasing pattern of concert-goers and how ticket resales in the secondary market leading to substantial gains with huge margins. It then emphasized on what happened in the Coldplay ticket sales with statistics regarding the same.

Consult Club

About the Division:

Founded in 2016, the Consult Club's inception was rooted in the cultivation of sharp problem-solving acumen and a proactive approach to institute-wide challenges. As the epicenter of all things consulting and management-related, we pride ourselves on being the driving force behind these transformative activities.

Being a member of the Consult Club comes with a multitude of benefits - you'll have the opportunity to enhance your critical thinking and problem-solving skills, connect with industry experts, expand your professional network, gain practical experience through consulting projects, case studies, and workshops, and on a personal level, you can build confidence, teamwork, and communication skills while working on consulting projects and collaborating with club members.

In the tenure so far, we've witnessed an exhilarating surge in enthusiasm, with a remarkable turnout for our in-person and online events and competitions. We've conducted numerous speaker sessions with professionals and experts from the Consulting and related domains, curated two 3-week long comprehensive courses to introduce students to the world of Consulting and Management and Business Development right from the basics, Released the second edition of our newsletter, Conducted, ConsultX, our institute-wide flagship case competition, organized the second edition of BCC, our national case study competition.

Work Done so Far:

BOOTCAMPS

Learners' Space 2024:

As a part of the Learners' Space program, this year the Consult Club offered courses on consulting and business development as follows:

- **Consulting 101:**

  Consulting 101 encompassed a comprehensive introduction to the world of consulting, providing students with great exposure to what consulting really is about. This program aimed to help develop essential skills such as structuring thoughts, generating ideas, and

making guesstimates, which are the tools that consultants use on a daily basis. Through interactive sessions, shared content and resources, and regular thought-provoking assignments, participants gained practical exposure to consulting concepts and real-life case studies covering profitability analysis, market entry strategies, and mergers and acquisitions. The course would serve as an excellent way for anyone looking for exposure to consulting to achieve that.

Course Structure:

The 3-week long course was divided into three parts: Guesstimates and Issue Trees, Critical Thinking and Problem Solving Frameworks, and Market Entry and Mergers and Acquisitions.

1] Basics of Consulting: The course commenced with introduction to what consulting exactly is and types of consulting followed by solving Guesstimates and Issue Trees to give a fair idea about the work as a consultant as well as for tackling interviews in the field. The curriculum provided the foundation to begin preparation for the consulting field.

2] Critical Thinking and Problem Solving Frameworks: The following week was dedicated to Critical Thinking, where resources were provided to enhance one's critical thinking, followed by an introduction to various analysis tools like SWOT analysis and PESTEL analysis and various problem solving frameworks like PDCA, Six Sigma, and MECE principles.

3] Market Entry and Mergers & Acquisitions: The third week focused on Market Entry and Mergers & Acquisitions, providing a comprehensive overview of various aspects, such as Profitability, Competitive Analysis and Growth Strategy. This week concluded the Consulting 101 course with providing all consulting aspirants the fundamental concepts of consulting .

- **Management and Business Development 101:**

Following its successful introduction in 2023, the Consult Club launched the second edition of the Management and Business Development course at Learners' Space in 2024. This comprehensive course covered a wide array of business fundamentals, structured into three key modules: Business Strategy, Marketing, and Supply Chain Management. Each week focused on essential aspects of business development, emphasizing interactive learning through real-life examples and application-based assignments, ensuring a practical approach to the subject matter. To further enrich the learning experience, three insightful speaker sessions were included, offering valuable perspectives on an entrepreneur's mindset, problem solving, and supply chain management.

Course Structure:

The 3 week long course was divided into three parts: Business development, marketing, and operations management, as follows:

1] Business Development: The course commenced with Business Strategy, covering a range of essential topics, including various techniques, sales, product management, product analysis, types of business organizations, people management, and leadership theory. The curriculum provided a well-rounded understanding of the building blocks of a business, concluding with a start-up analysis.

2] Marketing: The following week was dedicated to marketing, commencing with the basics of marketing, which included the 4P system and marketing campaigns, supported by practical examples. Key topics included market research, innovative marketing strategies like 3D advertisements, and search engine marketing with keyword auctions. The week culminated with customer acquisition techniques.

3] Supply Chain Management and Operations: The third week focused on Supply Chain Management and Operations, providing a comprehensive overview of various aspects, such as Operations Risk Management, Operations in Service Industries, Sustainability, Green Operations, Operations Strategy, Technology in Operations Management, Performance Measurement & Improvement, Quality Management, Capacity Planning & Resource Management, and Project Management. This week encapsulated the complete spectrum of business development.

Course Name	Speaker Details	Session Summary
Consulting 101	Mr Nabh Agrawal, Associate Consultant at Bain & Company IIT Bombay Alumnus (Batch of 2023)	Nabh began the session by explaining the methodology for solving guesstimates and their practical application in consulting. He then engaged with students to solve a sample guesstimate on estimating the number of smartphone users in India. Following this, Nabh introduced the concept of issue trees, using a scenario in which a company's board of directors is concerned about the CEO's punctuality. He facilitated a discussion, encouraging students to contribute their perspectives on how to address the issue.
Consulting 101	Mr Rushin Shah, Associate Consultant at Bain & Company IITB Alumnus (Batch of 2023)	Rushin started the session by outlining the structure of profitability problems and strategies for approaching them. He then led a discussion with students to address a case involving a company's decline in revenue and profits. To provide further clarity, he highlighted industry-specific factors to consider when solving profitability issues, using two sample cases—one involving an airport owner and the other an FMCG company experiencing revenue downturns.
Consulting 101	Mr Tej Vaidya, Senior Director at Sutherland, Ex-BCG Consultant IITB Bombay Alumnus (Batch of 2016)	Tej's session focused on growth strategies, competitive analysis, and mergers and acquisitions. He provided in-depth theoretical insights on these topics, incorporating relevant factors and real-world examples to engage the students and enhance their understanding.

Course Name	Speaker Details	Session Summary
	Mr Rahul Lakhmani, CEO and Co-Founder of Skiify IIT Bombay Alumnus (Batch of 2012)	Rahul began the session by covering the fundamentals of brand building and the operational dynamics of a startup. He then guided participants through a case study, leading an interactive problem-solving session where both he and the attendees collaborated to identify a key issue faced by a U.S. airline. Following this, Rahul shared his personal journey as a startup founder, discussing the challenges he encountered along the way, and concluded with an engaging Q&A session.
Management and Business Development 101	Mr Shrenik Jain Founder and Ceo Megafuse, Ex Associate at BCG Ex Product Manager at Amazon IIT Bombay Alumnus (Batch of 2019)	In the first half of the session, Shrenik reviewed the course material, illustrating each topic with personal examples. He explored the differences between marketing strategies employed by startups and those used by large conglomerates. To instill an entrepreneurial mindset in the participants, Shrenik led an activity called "Thinking Like a Founder," where he engaged the audience with thought-provoking questions, encouraging them to consider how a startup founder navigates challenges. The session concluded with a Q&A segment
	Mr Ameya Mittal Wharton MBA candidate Consultant at BCG Ex Consultant at NRI IIT Bombay Alumnus (Batch of 2021)	Ameya delved deeply into supply chain and operations topics, building on the students' existing knowledge from the course material. He shared valuable insights from his experience as an MBA student, discussing how his academic background influenced his professional journey. Ameya also recounted the challenges and rewards of balancing his role as a full-time consultant with the demands of founding a startup. His firsthand experiences provided practical

		perspectives, making the session both informative and relatable. The session wrapped up with an engaging Q&A, where participants had the opportunity to explore these topics further.

Internship Preparation Bootcamp: Launched a one-week internship preparation bootcamp for consult profiles on Notion Page to thoroughly prepare students for consulting interviews by combining theoretical insights with practical exercises. It includes daily tasks and a repository of resources offering a comprehensive and self-paced curriculum with reading materials including content on fundamental consulting concepts and casebooks of the top business schools of India as well as video lectures of case interviews.

PREPARATION SERIES

Internship Preparation Program (IPP)

- **Product Management:** The session was conducted in the month of June with 2 seniors who were then doing an internship in the Product Management space at Nobroker and Kotak Mutual Funds. The session helped answer all the questions aspiring students may have if they were looking for Product Management roles for the upcoming internship season. Right from what the work is like, why they were interested in the field, how to prepare for the product decks or assignments required, interview details, and opportunities available in IITB or externally for IITB students in the field.

- **Consulting:** The session was conducted by three 4th year students in June, just before the upcoming internship season for the 3rd year students. We had 3 speakers (from the consulting firms NRI, Strategy & McKinsey & Co.) who at the time were halfway through their summer internship. The session completely encompassed all the things that any possible aspirant for consulting would need. Starting with what consulting even is, to how they developed an interest in the field, preparation tactics, buddy process, resume-making methods, final interview day experiences and their current experience at their place of work, how the expectations matched, and what prospects they can look at having done their internship for placements or beyond.

- **FMCG & Supply Chain:** The session occurred in June and featured four third-year seniors who were interning at P&G, ITC, and HUL in the FMCG and Supply Chain sectors. The session

helped answer all the questions that aspiring students may have if they were looking for roles in the FMCG & Supply Chain industry for a summer internship. Right from what the FMCG & Supply Chain industry is to brief about the work profile, preparation strategies, the selection process, interview layout, and opportunities available were discussed thoroughly.

COMPETITIONS

Prodcom

A collaboration with Devcom where the objective was to have a competition where students could create their product decks to help improve Insti App and help bring in new ideas and features that could increase the traction.

- **Increase user retention on ResoBin** throughout the semester. Students stop using ResoBin during the semester, as there are not many resources available. Develop a mechanism which incentivizes people to put more resources
- **Develop an idea for a completely new app** that solves a problem faced by a student within the institute.
- **Increase user interaction and traction on Instiapp**, both in terms of new users and engagement of current users with additional features; or change in the layout of currently existing features.

Garnering registrations in large numbers with over 200+ people interested, the month-long project competition was completed by over 35 people individually. Participants, apart from getting the learning and application of the PM concepts and certificates for completing the project, were also given the incentive that the winning solutions would be implemented by Devcom in the new tenure, one of the reasons why Prodcom was conducted at the start. This would help bring about the ideas that they submitted in their decks to fruition.

ConsultX

Consult X, the novel flagship event of Consult Club, was conducted to address significant problems covering an audience of the student community, Mumbai residents, and some widespread issues at the country level.

Event Overview: Consult X was not just a competition; it was a dynamic platform designed to empower students to address real-world problems creatively and innovatively. The event began with a rigorous groundwork phase, involving extensive surveys and interviews conducted among students residing in various hostels. These interactions aimed to identify pressing concerns that

significantly impacted the daily lives of our student body. This year, we not only gathered insights from over 200 students but also engaged with various professors who are experts in relevant fields such as transportation, law, etc. Their insights contributed valuable perspectives to our problem statements, enriching the overall depth of our research and understanding of the issues at hand.

Problem Statements: The identified problems were not trivial; they were carefully curated to reflect the most urgent issues faced by students:

- **Crowding in Mumbai Local:** Finding ways to tackle the overcrowding issue in Mumbai local trains to make commutes safer and more comfortable for passengers.
- **Electricity theft in India:** Tackling the widespread issue of electricity theft in India to ensure fair distribution and reduce losses for utility companies
- **Campus hygiene:** Improving campus amenities and practices to guarantee a hygienic, safe, and healthy atmosphere for faculty, staff, and students.
- **Mental health resources:** Improving access to mental health resources and support services on campus to promote the well-being of students and staff.
- **Pending Justices:** Addressing the problem of delayed justice within the legal system, which results in unresolved cases and extended wait times for individuals seeking resolution.

Competition Structure:

- **In-Depth Research:** Participants were encouraged to conduct comprehensive research on their chosen problem statement, diving deep into the core issues. Talking with relevant stakeholders
- **Critical Thinking:** Students were empowered to think critically and propose practical, viable solutions to the identified challenges.
- **Resource Hub:** The competition's problem statements served as a valuable resource hub, providing access to articles, research papers, and expert opinions relevant to the problem statements. These resources aided participants in their problem-solving journey.
- **Brainstorming Session:** Aman Goel led discussions for participants who were having trouble coming up with ideas during a brainstorming session. During the session, he discussed various problems, gathered feedback from attendees, and shared his valuable insights and perspectives to help refine their solutions, enabling them to achieve their best outcomes.
- **Final Pitching:** The top selected teams will pitch their solutions in November to a distinguished panel.

BCC

We are organizing the second edition of the Bonsilia Case Challenge (BCC), a nationwide case competition hosted by IIT Bombay. This competition is open to Engineering and MBA students and welcomes participants from various other streams, making it a truly diverse and engaging event. BCC is again being conducted in collaboration with Avenues, SJMSOM, with "Learning while Traveling" being this year's sponsor. Collaborating with SJMSOM helped bridge the gap of domain expertise and experience that hosting a large-scale nationwide case competition requires; the finals of BCC are to be hosted at IIT Bombay, where the finalists will have the unique opportunity to present their case studies to a panel of esteemed guests. BCC is now live on unstop and taking in registrations.

Competition Structure:

- **Round 1: Quiz:** BCC will kick off with an engaging quiz hosted on UNSTOP, meticulously crafted to cater to the diverse audience. This round served as the initial screening process, helping the organizers select the best teams from an impressive pool of registrations.
- **Round 2: Case Study:** After the quiz, the selected teams will be presented with a thorough problem statement. The problem statement is set to be challenging and will test the individual's ability to tackle business problems in a cohesive yet innovative manner.
- **Round 3: Finals at IIT Bombay:** The top 10 teams will be selected based on their performance in the quiz and the depth of their case study solutions and will be invited to IIT Bombay for the finals. In this round, these teams have the opportunity to present their solutions in the form of a comprehensive 3-page PowerPoint presentation, showcasing their analysis, insights, and recommendations. The finals will serve as a platform for the finalists to demonstrate their expertise, creativity, and ability to articulate their ideas effectively.

Collaboration and Recognition:

- **Collaboration with Avenues, SJMSOM:** The collaboration with Avenues, the esteemed business festival of SJMSOM, has added prestige and credibility to the competition. It will provide a platform for the finalists to present their ideas in front of industry experts and fellow participants, fostering an environment of healthy competition and knowledge exchange.
- **Prize Money and Recognition:** In order to acknowledge the hard work and creative solutions of the winning teams, BCC is providing a sizeable prize pool of Rs. 3.1 lakhs. The recognition and rewards serve as a powerful incentive, motivating participants to showcase their best work and compete at their highest potential.

Brahmastra

IIT Bombay, in collaboration with IIT Kanpur, IIT Kharagpur, IIT Roorkee, and IIT Madras, successfully organized BRAHMASTRA 2024, a national-level case study competition for undergraduate students. The event encouraged participants to tackle future-oriented public policy challenges with innovative solutions. Key highlights included no registration fees, a cash prize of Rs. 30k, exciting goodies, and pre-placement interview (PPI) opportunities. The top 10 teams will present their solutions at IIT Kanpur in front of an esteemed panel of judges. The competition also offered an exclusive networking dinner with organizers, judges, and distinguished guests from the title sponsor.

SESSIONS

Product Management Session

The session was organized with the objective of equipping students with essential skills for tackling product management cases while also fostering enthusiasm for ProdCom. It was an honor to have Mr. Rahul Pareek speak to us. He is a renowned product manager at Morningstar and was previously employed by Morgan Stanley and Paytm. Mr. Pareek provided valuable insights into the foundational principles of product management, explaining key technical concepts such as "solution space" and "problem space." His presentation not only simplified the complexities of product management but also painted a picture of the day-to-day life of a product manager, including their routines and challenges. Overall, the session proved to be an enlightening experience, inspiring students to explore the field of product management with greater clarity and motivation.

Session on Business Development

This year, we were honored to host Mr. Aman Goel, co-founder and CEO of Greylabs AI and Cogno AI, for a highly engaging business development session. The speaker shared his entrepreneurial journey, detailing how he scaled his startups and tackled challenges at different growth stages. The session was highly interactive, with Mr. Goel addressing various student queries related to starting and scaling their own ventures. Over 150 students attended, demonstrating strong enthusiasm for the startup ecosystem. Following the session, a dynamic brainstorming discussion took place on the problem statement for *ConsultX*, our ongoing case challenge. The participants, guided by his insights, explored innovative solutions and strategic approaches, making the discussion both productive and inspiring.

Case Solving Workshop

Recognizing the importance of equipping students with essential skills for case competitions, the club organized a comprehensive case-solving workshop. This initiative was conducted in collaboration with HSBC as a kickoff event for their upcoming case competition. The workshop featured Ms. Sonali Shahpurwallah, Managing Director and Head of Inclusive Banking at HSBC, as the speaker. Ms. Shahpurwallah shared her insights on the fundamentals of case solving, detailing various strategies and methodologies that can help students excel in competitions. Additionally, the session provided invaluable information on India's banking sector, increasing students' understanding of the industry landscape and enhancing their readiness for banking cases. Overall, the workshop served as an excellent platform for students to develop critical skills and gain a deeper appreciation for the complexities of case competitions and the banking sector.

INFORMATION DISSEMINATION

The Wisdom Herald

Last year, the launch of "The Wisdom Herald", Consult Club's inaugural newsletter, marked a pivotal moment in our communication and outreach efforts. The first edition, focusing on Apple's Vision Pro and its foray into Augmented Reality (AR), garnered positive feedback for its in-depth analysis and relevance, effectively establishing a platform for engaging discussions on emerging technologies and their implications in the consulting sector. Building on this momentum, we successfully released the second edition of "The Wisdom Herald" this year, titled *The Global Chip War."* This edition delved into the semiconductor industry, exploring the strategic importance of this critical sector and the geopolitical dynamics among global superpowers vying for dominance. Our coverage not only highlighted the key players and technological advancements but also provided a nuanced understanding of the industry's impact on global supply chains and national security. This continuity has strengthened our club's role as a thought leader, offering the audience a valuable resource for staying informed about cutting-edge trends and developments.

Infographics Series

This year, we strategically decided to enhance our social media presence by launching a series of infographics on Instagram. These infographics served as a visually stunning medium to convey insightful information, aiming to spark interest in the technology and business domains. Our objective was to present global trends, both past and present, concisely yet compellingly. The first infographic series, 'Demystifying Duopolies,' dwelled deep in the historic rivalry between Apple and Microsoft—two tech giants that have dominated the digital market for decades. The launch was met with overwhelming positive feedback from a diverse range of audience. We are confident that future

editions of these infographics will continue to captivate our readers' curiosity and further elevate their engagement.

Industry Primers

We introduced the first edition of Industry Primers, a collection of in-depth industry reports. The document is designed to provide readers with a detailed overview of various sectors, highlighting key trends, growth drivers, benchmarking practices, recent deals, and career opportunities. By offering this valuable insight, we aim to equip students with the knowledge they need to explore different industries more effectively and enhance their preparedness for placements.

Social Media Presence

The Consult Club is present on Instagram, LinkedIn, and Facebook with a reach of over 3000+. We constantly update the students about what's new in the field of consulting and what events are lined up for them here. Also, to keep the students aware of external competitions and opportunities, our social media handles play an important role.

- **LinkedIn:** A LinkedIn page for Consult Club, IIT Bombay, was made to cater to and reach out to the professional audience. It also facilitates the connection between top corporate firms, speakers and our alumni, who are more active on LinkedIn. The clubs' LinkedIn has been made extremely active, covering all the events of the club. The page has more than 3400+ followers, a 30% increase in reach from the end of the last year, through various strategies employed for garnering interaction, including but not limited to the newsletter.
- **Instagram:** In our continued efforts to benefit and reach out to maximum people, Consult Club IIT Bombay regularly updated its Instagram page to cater to the entirety of its audience. The page serves as a medium to carry out some exciting engagement with the audience through the variety of features Instagram has to offer, including details about major upcoming events both within and outside the institute. The page currently has more than 3000 followers.
- **Consulting WhatsApp Group:** Consulting is a field that is best learnt through hands-on applications. Case study competitions are one of the opportunities through which students get a feel of structured problem-solving. To improve on the hands-on learning culture by promoting participation in case study competitions, we regularly utilized the WhatsApp group to disseminate information. Please reach out to any of the team members to get yourself added to this group. We also disseminate information about upcoming events on this group.

Consulting Core Group (CCG)

After a restructuring from last year, this year's CCG currently comprises 9 partners . The goal of the group is to help make the best resources for internships and placements for consulting and product management roles. They serve to be the elite consulting group that solves both institute-related problems and outside consulting services for startups or established companies.

- **Casebook**

Consulting Core Group began working on its flagship project: The Consulting Casebook. We have curated 80+ cases from students with day 1 interview shortlists in the 2024 internship season. We have formalized the cases into interview transcripts adding visual depictions, flowcharts and key frameworks and metrics. We have also added introductions to each consulting topic: Guesstimates, Profitability, Market Entry, Mergers and Acquisitions, Pricing and Unconventional cases, along with common frameworks, general approaches and dos and Don'ts in interview cases.

- **Product Management Introduction Booklet**

CCG has started working on an introductory booklet for Product Management which covers What is PM?, Scope of PM, Tips for interview preparation and profile building, Key metrics and common frameworks, Root Cause Analysis and Few Industry Case studies. We have collated preliminary data and are in the process of curating the final content and finalizing the design.

- **Guesstimatrix**

In June 2024, we launched the official Instagram page of the Consulting Core Group, IIT Bombay and introduced a unique series called Guesstimatrix. This series features engaging guesstimate questions related to the institute or trending topics, with our approach shared in a creative and informative post. We actively encourage student participation by inviting them to submit their solutions and give shoutouts to those who send in their approaches to the guesstimates. To maintain engagement, we reveal the question for the next week on the last slide of each post, giving students time to brainstorm. This interactive series has been a part of our page since its inception, sparking curiosity and analytical thinking among the students of the institute.

- **Training Sessions**

CCG has organized 4 training sessions to get the associates and partners a better hang of the consulting domain and a deeper understanding of cases and frameworks. We had 2 sessions

on guesstimates and profitability frameworks organized by the board of advisors, where frameworks were explained along with some hands on case solving.

A session was organized featuring speakers from the Consult Club at IIM Ahmedabad, who shared their experiences in creating their renowned casebook. They discussed their approach, resources, innovative ideas, and strategies that contributed to making their casebook widely recognized.

Students from SJMSOM, currently pursuing their MBA, conducted a session for the partners. He provided valuable insights into the consulting lifestyle, case competitions, casebook preparation, and pursuing an MBA, offering guidance on navigating these areas

Data Analytics and Visualization Team

About the Division:

The DAV Team is an interdisciplinary closed group that was founded in 2018 with the objective of exploring institute data to provide relevant insights to the student community and solutions to the administration. The underlying motive of the team is to utilize the power of Data Analytics to help in drafting policies and to help students gain exposure to real-world data, thereby enhancing their skills in the domain of data science. Apart from working on institute data, we also collaborate with external organizations such as startups and well-established companies to work on their data, participate in national and international ML hackathons and competitions, and complete self-learning projects.

Ongoing Projects

Chat-Based Resolution of Academic Queries

The team is developing an AI system capable of resolving document-related queries for both students and academic office staff. With a large number of documents, rules, and files within the institute, manually addressing such queries is inefficient. This automation tool aims to efficiently identify and extract relevant content from these documents, making the process smoother for users.

The chatbot will help students navigate complex documents like the UG rulebook and department websites, providing quick answers to simple queries. The project is being developed in collaboration with Prof. P. Sunthar, ASC head, and employs RAG models for document extraction.

Work completed:

- Converted the Gymkhana Constitution into a reST file for proper formatting and storage.
- Developed parsers and configured functions for reST files to match the original file
- Automated the conversion of PDF documents to reST files using Python parsers.
- Created functionalities to chunk data and develop a database for the RAG model.
- Leveraged NLP techniques to summarize text paragraphs into keywords to improve RAG framework efficiency and added metadata to each data chunk to enable multi-level processing.
- Created a MongoDB database for storing the documents in an ML model readable form
- Developed a complete RAG model pipeline for converting data chunks into vectors stored in the database.
- Presented a detailed demonstration of the conversational agent's features to ASC head
- Worked on making the environment student-friendly and suitable for official academic use like webmail and Moodle.

Work to be completed:

- Generalize the document models to apply to a wider range of institutional documents.
- Finished end-to-end development of the bot with a master document accessible via the web.
- Integrate OpenAI with ChatWoot and roll out functionality for ISMP and UGAC groups.
- Develop test files to address issues related to scaling across different documents.

Grading Stats Report 2.0

This is a revised version of the earlier grading report, aiming to analyze course grading trends and performance across different academic years. The analysis focuses on identifying safe courses for students and understanding the impact of institutional changes like branch removal.

Work completed:

- Identified shortcomings in the previous report and implemented modifications.
- Developed an algorithm to identify "safe" courses with good grading trends.
- Analyzed grading trends across different academic years (e.g. 2nd-year vs. 3rd-year courses).
- Examined the impact of branch change removal on first-year course grading.
- Compared and contrasted the findings with earlier reports.

Work to be completed:

- Organize and filter the content for a comprehensive presentation.
- Finalize and design the report for publication.

Eateries Analysis Report

The team is developing a report that analyzes various factors such as hygiene, taste, convenience, and other parameters of hostel canteens and eateries on campus to uncover trends and student preferences. So far, broad survey questions have been formulated, and the data collection process has been planned. The next steps involve distributing the survey, collecting responses, and performing a detailed analysis to derive insights.

Online Presence:

LinkedIn: The Team maintains a LinkedIn page to gain credibility across external organizations and to provide easy access to students of the work we have done. Following upon the work done in the previous tenure, we have increased our outreach across the student community by increasing our follower count from **911** in the previous tenure to **1024** in the current tenure.

Instagram: The Team's Instagram page consists of bite-sized versions of most of the work that gets published in DAV. Building upon it we have improved our outreach further by increasing the follower count from **336** in the previous tenure to **488** in the current tenure.

Website: The team will soon launch its website to increase visibility within the student community and showcase the team's work. The site will feature full reports and presentations from the past five years.

Midterm Work Report of Department Research Coordinator - Department of Mathematics
Vishnu Ravi

1)Connecting with sophies.

Due to the small size of the department, I was able to personally guide every research enthu sophie and thirdie. I gave them timelines, and am personally overlooking their journey. Made connections with faculty, and procured 5 projects for sophies and thirdies in the math department in the areas of

- Time Series Analysis
- Algebraic combinatorics
- Math pedagogy

Faculty contacted are Prof. Radhendushka Srivastava, Prof Avinash Bhardwaj, Prof V Narayanan, Prof Akash Kumar

2) Making a repository of student research

Spoke with the relevant alumni and seniors of math to ascertain the research possibilities of Math UGs. Garnered a sort of rough pipeline of research pathways available to Math UGs. Planning a talk in the first or second week of october, with seniors and maybe willing faculty.

The following seniors are working in the corresponding areas.

- Swayam Chube - Pure math - Topology,NT, Algebra
- Om joglekar - Pure Math - Alg Combinatorics
- Anish Amol - Theoretical CS - Logic
- Om swostik Mishra - TCS - Logic
- Samyak Jha - TCS and applied combinatorics
- Vishnu Ravi - combinatorics

Aiming to contact persons at CMI/ISI/IISc to broaden the national math ug research database

3)Seminars

Obtained math department key permission to conduct informal night seminars. So far held talks based on PDE, Combinatorics for enthusiastic UG students. The students who spoke were Samyak Jha, Vishnu Ravi and Swayam Chube.

Mid-Term Work Report - Mechanical and MEMS DRC

1)   University Internship Programs Database:
Created database of available university programs providing research internship to research enthusiast undergraduate students in their Third Year to help them getting an University Internship when big programs like DAAD and Mitacs are not available for current year. The purpose is to keep them up-to-date with various university programs so that no one misses an opportunity.
The Database contained :
Details about the program such as Eligibility, Deliverables, expected deadlines and documents needed for application.

2)   Student Industry Connect:
EnPower has started this new initiative to connect UG students with industrial experience via conducting Hackathon and having session by the company. Where I have contacted various industries from Manufacturing, Mining, Automobile to collaborate with us and conduct a hackathon. Brought L&T to collaborate with us and held a hackathon, which will help students get real - time industry experience and will get the opportunity to interact with industry experts. I will see the smooth process of the event and hackathon as a direct contact with the industry.

3)   Dhatuki - Annual Newsletter of MEMS Dept :
Looked into the publication of the annual newsletter of MEMS Department "DHATUKI". The articles includes Professors interviews, student interviews, department initiatives like Department Open Day, Metals and Materials Summit and Industrial Visit.

4)   Freshie Booklet for Mechanical Department :
To introduce freshers with department research activities and research environment, wrote an article briefing about the department's research areas, achievements and resources it provides. The article includes research of professors in specific fields and testimonials of students who has done research in IIT Bombay.

5)   Enthuse:
Assisted EnPoWER in Enthuse to introduce over 1400 freshers to research at IIT Bombay.

Department Research Coordinator - Department of Economics

Department Research Blogs

● Started department research blogs - an initiative in which students volunteer to author articles based on economic events, get it reviewed by professors and peers and publish it on the department blog.

1st research blog:

https://economicstudentssupport.wordpress.com/2024/09/04/budget-2024-25-continuity-or-leapfrogging/

Topic: Budget 2024-25: Continuity or Leapfrogging

Authors: Harman Agrawal and Eshani Malik

Faculty reviewer: Prof. Surajit Bhattacharyya

This led to a creation of a whatsapp group of 15 2nd, 3rd, 4th and graduated students who discussed their views on the union budget and provided their thoughts on the article

After the first draft was written, prof. Bhattacharyya provided his inputs, leading to a final draft, which after another round of reviewing was posted on the department blog

2nd research blog:

In progress

Topic: Changes in interest rates: what do they mean

Authors are currently working on this and should prepare this by the end of october

Further research blog initiatives:

Aim to publish 5-6 blogs throughout the tenure, including asking students to write their experience and findings in course projects

Student Industry Connect

Contacted 10+ organizations for Hackathons or other similar ventures which they would like to sponsor.

Sophomore Internship Info Session

Spoke at the sophomore internship session to guide sophomores on what research pathways look like and if it would be an appropriate path for them in their second year and beyond

Enthuse

Assisted in the execution of Enthuse '24 and helped in procuring a plant - a token of appreciation to the professors - at the last moment

Department Freshman Orientation

Helped in the execution of the department freshman orientation

https://gymkhana.iitb.ac.in/~ugacademics/

Department of Energy Science and Engineering

DRC Midterm Work Report

1. **Enthuse**

   DRC assisted EnPoWER in Enthuse to introduce over 1400 freshers to research at IIT Bombay

2. **Research database**

   A comprehensive database was made of the student research at the department of energy science and engineering. It included students who have done SLP, foreign research internships as well as prof. Projects under the Department of Energy Science and Engineering.

3. **Professor research for Ensider**

   A comprehensive database was made of the research going on in each lab, as a part of content creation for the department newsletter "Ensider". The DRC will be further coordinating with the editors of Ensider to highlight the UG research going on in the department in the newsletter. It will also feature multiple department labs in detail so as to facilitate students with selection of appropriate labs for pursuing research.

4. **SLP assistance:**

   To assist third-year students interested in participating in the Supervised Learning Project (SLP), DRC provided guidance on the project process, topic selection, and mentor choice. We also connected them with experienced seniors who could share their insights and experiences.

5. **Freshmen orientation:**

   The DRC helped the ESA council and DESE-DAMP team in ideation and execution of the department UG freshmen orientation. As a part of department orientation, the freshmen were given a brief tour of some prominent labs of the department, in order to inculcate the spirit of research and enthusiasm as they
   enter the department and IIT Bombay. The DRC was responsible for planning, coordinating and executing the tour.

6. **Workshop session with Industrial Energy Assessment Cell (IEAC), IIT- Bombay:**

   DRC along with Industrial Energy Assessment Cell (IEAC), IIT- Bombay organized a workshop on the topic "**Advancing Industrial Efficiency: A Deep Dive into Industrial Energy Assessment and Sustainability**". It included learning about the role and initiatives of the IEAC, IIT Bombay, gaining insights into energy assessment processes and methodologies.It explored case studies highlighting successful energy conservation strategies in the industrial sector. This workshop provided a valuable opportunity to enhance your understanding of sustainable practices and their practical applications.

7. **The Student Energy Career Training program:**

   Student Energy is a global youth-led organization empowering the next generation of leaders to accelerate the transition to a sustainable, equitable energy future.
   The Student Energy Career Training program offers comprehensive training, real-world research projects, and networking opportunities with top energy companies. This program was a new initiative for the department, introduced after thorough evaluation and understanding of its benefits, content, and opportunities by the DRC. Interested students were connected with experienced members from other colleges and received guidance on the application process.

8. **Competitions:**

   Few international case study competitions were highlighted to the students so as to provide them with real life problem exposure and hands-on working experience. These included:
   1. Tata Imagination Challenge 2024.
   2. USAEE Virtual Case Competition
   The participating students were provided with appropriate support if and when needed.

9. **Industrial Hackathon:**

   As part of the UGAC industrial hackathon initiative, a comprehensive database of energy core companies was created and contacted to explore potential collaborations. A few positive responses were received, leading to the selection of Ampere-hour energy as a partner. They are currently in the process of providing a problem statement for the hackathon.

10. University intern preparation season:

The DRC in collaboration with the IPT are planning on conducting a university internship briefing session for third year students. This will be a focussed and comprehensive session covering everything from Apping, cold mailing and LORs to visa and scholarship application process, to tackling actual on-ground issues of living in a foreign country. It will also include how to apply for univ intern programs like Caltech SURF etc.
A potential list of speakers:
1. Jash Saravia
2. Meet Makhuiya
3. Akash Sansugu
4. Dhruv Garg