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From The SquareOne Desk

Hey Juniors! Welcome to your destination IIIT Bangalore,

After an extended long time of resilient hardwork and late-nights in front of the notebook (not the one made of paper), here you are putting your first steps in college. So are you ready to take off? Take a deep breath and relax (especially your eyes).

This handbook aims to give you guys an overview of the college: it's clubs, academic life and the best of life that we, IIITBians, experience. DO give it a read and don't hesitate to ask for help and ask questions to any of your mentors, seniors, professors and of course, us!

So tighten your seatbelts, as you are set to have the most amazing time of your life - your college life. Remember, with every step along the way you are making memories which you will cherish when you finally graduate 5 years down the line. Live in the moment, make lots of friends and explore the new world opening itself to you!

We are delighted to welcome the 'Class of 2026' to IIIT Bangalore!
All the best!

Message From The Director



Dear Students, A Warm Welcome to the Academic Year 2021-2022!

Our campus is open and faculty and staff are eagerly waiting to welcome you all. We are here to support you all in each and every step of your academic journey and career development. Nothing should stop you from achieving the academic excellence you wish to achieve. This year, take advantage of every opportunity to develop yourself into a better person and also utilize the resources and services of the institute, that help you in your comfortable stay and learning process at the institute.

Precaution and Prevention of COVID-19 is as important at IIITB. I want to assure you that we are monitoring the COVID-19 situation closely and have updated our policies and procedures to prioritize the health and safety of the IIITB community. You are strongly encouraged and advised to get the COVID-19 vaccine immunization shots, as the best way to protect yourself and other members of the Institute.

I look forward to meeting you all during the semester where you will have the opportunity to share your experiences about our institute.

With best wishes, Debabrata Das

Know Your Campus

Aryabhatta

Also known as the "Old academic block", Aryabhatta is the de facto heart of the college. It houses the main reception, library, classrooms, labs, administration office, the director's office, faculty offices, etc. You can go and meet faculty anytime to ask questions or seek



clarifications or advice. There is a library where you can go to study, you can also borrow books. There's a sports room where you can go and get sports equipment issued. This block also consists of labs and a PhD scholar's office. There is also a coffee cove where you can get coffee, tea, boost etc. during the college hours and weekdays.

Ramanujan



Also known as the "New Academic Block", the Ramanujan block houses computer labs and classrooms on the ground floor, research labs (MINRO and SRL) on the first floor, along with seminar halls on each floor. It was inaugurated in 2017 and

construction for the second and third floors, which will include an auditorium, was recently completed and will soon be functional. At the front of the Ramanujan Block is "The Thinker's Statue" which is by far the most popular spot for IIITBians to get a good photo for their social media accounts.

<u>Multi-purpose hall</u>

Multi-Purpose Hall or MPH is the recreational area for all the students at IIITB. It is on the ground floor of Bhaskara. It consists of two well-maintained badminton courts, multiple table-tennis courts and men's gym, Shape Up. There are carrom boards and chess Boards also at MPH to enjoy in your free time. You may even find IPL, UCL, World Cup streaming there sometimes.



The MPH also houses the newly built state of the art SAC room, Music club room and Dance room.

You can always come here and jam with your buddies in the music room or maybe practice some dance moves in the dance room!







<u>Visvesvaraya</u>

Visvesvaraya was previously housing the innovation center of iiitb, a hub for Information and Communication Technologies (ICT) innovation and entrepreneurship. But it has been now shifted to the ramanujan block.

Now this building is being converted into a new hostel.

College Life And Facilities

Food Matters:

There is a common mess and canteen for all students on the ground floor of Bhaskara. The mess provides four time meals i.e., breakfast, lunch, afternoon snacks and dinner. The menu of the mess changes after every two weeks and all food items at the canteen are present at affordable rates. The canteen timings are subject to change from time to time, but it usually stays open till 2 AM in the morning and reopens at 7 AM.



MEDICAL FACILITIES

The college has doctors available on campus for the following days and timings.

- Dr Sachidanandam Muniswamy Tues, Fri and Sat 6:00 pm to 9:00 pm Contact: 9449026209 or sachidanandam.cm@iiitb.ac.in
- Dr Bharathi P Mon, Wed & Thur 11:30 am to 2:00 pm Contact: 9611966833 or <u>bharathyp@iiitb.ac.in</u>

The consultancy is free but you need to buy the medicines on your own. There is an Apollo Pharmacy Store at walking distance. The Institute also has counselling psychologists who visit the campus every week. Every student gets a YourDost account, which provides online counselling services. In case of medical emergencies kindly contact the security personnel at the front desk in Aryabhatta, who will arrange for an ambulance any time. This is a free service provided by kaveri hospital.

VISITORS

Timings on regular days for visitors to the campus are between 10 AM and 7 PM. No one except the students is allowed to be in the hostel rooms at any time during their stay at IIITB. This ensures the privacy and safety of you and the other students around you.

LAUNDRY SERVICES

There are three modes of laundry services on campus Washing Machine and Dryer on campus.

You can use the washing machine on any day of the week and dry your clothes using the dryer. The washing machines are run using a card which will be given to you by the college management. The latter two are available on a given set of days in a week. Contact them for more details on pricing and days of availability.

ENTRY AND PARKING

Parking facilities on the campus are available for all students and faculties at three locations:

- 1. The front gate
- 2. Under Bhaskara
- 3. Under Ramanujam

Sports Facilities

The available sports facilities in the college are:

- · Basketball court
- · Volleyball court / Tennis Court
- Throw Ball court (in front of Lilavati)
- · 4 Indoor Badminton courts

A general-purpose field where sports like football and cricket are usually played. Indoor games such as Chess, Carroms and Table Tennis.

All the sports equipment can be issued from the sports room for a given period of time. Both men and women have separate gyms and have treadmills and bicycles for cardiovascular workout & also have all the required equipment for weight lifting and strength gaining exercises.

The men's gym - **Shape Up**, is located in the MPH & the women's gym - **Caloriebee** is located inside the women's hostel. Our fitness expert Mr. Girish Govind is available during the gym timings who is responsible for making daywise workout plans and instructing your workout!

The timings of the gym are:

- Monday Saturday: Morning 6:00 AM 9:00 AM Evening 3:30 PM – 8:30 PM
- Sundays and on Holidays as per the IIITB Calendar Gym will remain closed









Sports Committee

The sports committee is a student-run committee. We hold the responsibility of managing the sports environment at our campus. We conduct sports events, take care of sports equipment, settle disputes regarding the ground, etc.

The major sports events we have at our campus are:

- 1. **Umang**: This is the inter college sports fest where teams from various colleges of Bangalore compete in multiple sports: Basketball, Football, Throwball and Volleyball.
- 2. **Spandan**: This is the intra-college sports fest of IIITB where you are free to participate in individual and team competitions. This is not just limited to sports events, but also comprises of board games and gaming events.

Apart from this, we also conduct small scale events time-to-time where you get the chance to participate in auctions for various sports. For queries, email: sportcomm@iitb.ac.in

Clubs @ IIITB

SAC

Student Affairs Council (SAC) is the elected body of IIIT-B students that is responsible for bridging the gap between the students and the administration. SAC plans and organises a multitude of events, both formal and informal, throughout the academic year, that encourages participation from all students. It helps in maintaining harmony between students and ensuring that their ideas and suggestions are well represented. SAC is also the first point of contact for the admin for discussing any policy changes or rule initiations/modifications.

Contact: sac@iiitb.ac.in

8-Bit

8Bit is the official magazine of IIIT Bangalore. It is an entirely student-run committee, where they are the sole in-charge of editing the magazine. The magazine provides an outlet for your creativity - all your thoughts, artistic endeavours and humour. Here at 8Bit, the bonds are formed over lively discussion sessions and late-night editing and designing marathons. This club has been very active during the pandemic.

Contact: 8bit@iiitb.ac.in

Chhayachitra

The Chhayachitra (Photography Club) aims to capture each and every beautiful moment of the college's fests and celebrations.

Nothing escapes their cameras! Every smile, every moment - whether it's of joy, or just relief from all the exhausting work and every group photo is caught by them. What better feeling can a photographer get other than the perfect click!

Contact: chhayachitra@iiitb.ac.in

Google Developer Student Clubs

Google Developer Student Clubs are university-based community groups for students interested in Google developer technologies. By joining a DSC, students grow their knowledge in a peer-to-peer learning environment and build solutions for their community. This club takes sessions occasionally via zoom during the current times. The objectives for Google DSC IIIT-B will be as follows:

- Creating awareness and preparing candidates for the various opportunities available for them.
- Providing a platform for inviting speakers and conducting regular sessions/workshops on technical domains.
- Mentoring peers through their projects, competition preparation, etc.

Contact: gdsc@iiitb.ac.in

CAMP

This club is all about competitive programming!. Competitive programming involves the application of algorithms and data structures to solve complex problems within the specified time and memory constraints. The club was formed in 2016 and is led by ACM-ICPC world finalists. The club's activities involve group discussions, problem solving and competitions. This club also conducts classes for beginners to help them get started in competitive programming Contact: VaradaDesikan.PS@iiitb.ac.in

ZENSE

Zense is the oldest running club at IIIT Bangalore. They are a developers' community. They build and break things while working with the bleeding edge of technologies. Their goal is to unite passionate developers and provide them with a platform to collaborate and innovate. They organise seminars on new technologies, conduct hackathons and promote Open Source culture at IIIT Bangalore.

Contact: <u>zense@iiitb.ac.in</u> or visit <u>http://zense.co.in/</u>

ENIGMA

Enigma is the robotics club of IIIT Bangalore. The main interaction that the first years would be having in Enigma is through the training programme they have in Arduino. One of the biggest advantages of being in the Enigma club is that it exposes you to different fields and pushes you to learn a lot on your own. Apart from this, Enigma also conducts seminars on various topics like Machine Learning, Signals and their Systems, Inter-Device Communication etc. This club takes sessions occassionally via zoom during the current times.

Contact: enigma@iiitb.ac.in

Impulse(Dance Club)

Every time you feel the pressure of assignments and work, Impulse comes to the rescue. Yes! Impulse, our Dance Club provides everyone the opportunity to relax, let their hair down, and show their moves. It was founded in 2016 by Tanu Bordia and now consists of over 10 core members. Some of the members of our club are indeed great dancers, whereas others are passionate about dance and organizing great events. Indeed, we have had tremendous participation and the club has grown by leaps and bounds over the last 5 years. As you might have guessed, we dance! We perform at all major events starting from Foundation Day, Infin8 (Annual Cultural Fest), Sangam (Alumni Day) to Independence Day, Garba Night, etc. But behind the scenes we take up the responsibility of conducting events like DJ night, Prom Night and regular Zumba sessions. We also collaborate with other clubs and SAC to turn these events into a reality. Last but not the least, there are always informal dance jams, where anyone can come and have some fun!

Contact: impulse.danceclub@iiitb.ac.in

Debate Society

Debate Club conducts debates on discord during lockdown ,student-professor debates, multilingual debates, etc, and aims to bring a powerful debate culture to IIITB. This club also conducts impromptu debates on the Discord lounge of IIITB.

Contact: debsoc@iiitb.ac.in

Music Club

Music club has been around as long as the college itself. They have had amazing people, with incredible passion and talent. They organise musical nights, where everyone who's part of the club, gets to perform. They also have a band, called Shadow, which has delivered stunning performances in not only the college but also in inter-college competitions. Being a part of the club is a wonderful opportunity to meet people equally passionate as you, people with varied tastes in music and people who might give you a new perspective in the way you look at music. Those late-night jamming sessions and musical nights will be totally worth the time you invest.

Contact: <u>taabeer_themusicclub@iiitb.ac.in</u> or <u>http://bit.ly/</u> ShadowIIITB

<u>Parwaaz</u>

One of the most successful groups, Parvaaz has won many accolades for the college in various inter-college festivals with their enthralling performances. Parvaaz performs stage play, mime, theatre, street play, short films, parodies etc., The members of Parvaaz has raised and created awareness on issues like food wastage(along with Food committee), and sexual harassment(along with Internal Complaints Committee), essentially capturing the zeitgeist of quintessential campus life. They also work in collaboration with Chhayachitra in producing promotional videos like Sangam, Yamini promotion, Campus life video etc. and also with the music club and placement committee for the parody of Kabir Singh, namely Fakir Singh. This club conducts workshops occasionally via zoom during the current times.

Contact: parvaaz@iiitb.ac.in

<u>Shatranj IIITB</u>

"Chess isn't always competitive, it can also be beautiful" - GM Beth Harmon

Chess club IIITB welcomes you all to our world of 64 squares - you can control it, dominate it, learn from it and most importantly, have a lot of fun while playing in it! 'Chess is for nerds' is the myth we aim to bust by showing you how uniquely cool this game can be.

Founded August 2021, in the momentum of the Chess Boom across the world, we aim to do our part in helping this game spread its wings further wide...

Who can join us? Absolutely everyone! Everyone gets a piece of the cake, be it beginners, intermediate or advanced. Improve your intuition, pattern finding and memory retention; a skillset to die for. Learn a new game, show off your skills to your friends, and most importantly- ENJOY:)

Contact:- chessclub@iiitb.ac.in

Art Club

Art is an act of expressing feelings, thoughts, and observations. The thing about art is that it's so diverse that there are as many ways to understand it as there are people.

Art Club does many activities, which include all forms of art. We aim to conduct Art competitions on different themes, workshops to explore different mediums and art styles by renowned artists and Art sessions where anyone can come just paint and have fun. All our activities include both experienced and inexperienced people to just join, learn, explore and enjoy. We have had Canvas painting, Rangoli and glass painting events in the last year.

Contact: art.club@iiitb.ac.in

Aksh(Literature Club)

Founded in 2019, the intention of Aksh is to create a psychologically safe environment among students and staff to foster their literary skills such as poetry, writing and reading, and also developing in them the logic and curiosity to know more. Literature helps us understand the world in a better way and it brings diverse groups of people together on the same page. It also acts as the means to create a common platform for self-expression, discussions, and mutual learning. Club also works on discovering unique ways to develop an understanding, respect and appreciation of others' ideas and thoughts. It ensures to promotes inclusiveness in terms of language, culture, participation and decision making, in its activities.

Contact: <u>literature_club@iiitb.ac.in</u>

aksh.theliteratureclub@iiitb.ac.in

Turiya Club

Turiya club focuses on improving the spiritual culture in IIITB. It often conducts sessions, awareness programs on mental wellness, Time management, and spirituality. Wondering what the name Turiya is it means "Higher state of consciousness". The most popular events conducted by Turiya Club are Kalaamrutam, Aitihaasika. Kalaamrutam is conducted on the auspicious occasion of Vaikunta Ekadashi. Various Artforms of Lord Vishnu were accepted as Submissions and prizes were declared for the best submissions. Aitihaasika is a fun quiz on our Epics Ramayana and Mahabharata. There are two rounds, the top 15–20 teams of the first round are eligible for the second round, Prizes are declared for top3 teams. Some sessions on Inner wellness, Time Management, Meditation are conducted in collaboration with ISKCON Bangalore once a month.

Contact: turiya.club@iiitb.ac.in

Lean-In Club

Lean-In club in IIIT Bangalore is a female-students club that was started in 2018. The aim was to build a close-knit group to guide and support more and more women who wish to make their career in tech.

We conduct various sessions and workshops on Open Source programs, Research opportunities, Competitive programming and other domains of IT. These sessions cover a wide range of activities - resume building, getting started with open source and git, interview preparation tips, introduction to machine learning, data structures and coding, how to start a research career, reviewing applications etc. We also invite female speakers (ex: alumni) to deliver talks on their career (ex: how to build a startup). All these activities provide girls with various opportunities to interact with people from different technical backgrounds and explore multiple avenues for growth.

Giving women equal opportunities and motivating them to thrive in STEM careers would help in reducing the gender gap that exists in this field. We wish to achieve this and build a diverse and talented community in tech. Prof. Bidisha Chaudhuri is the faculty supervisor. (bidisha@iiitb.ac.in) Contact: leanin@iitb.ac.in

<u>Aikyam</u>

Aikyam is the social service club of IIIT Bangalore. It is an initiative taken to help the poor and the needy. Aikyam plans 'Aikyam Trips' to visit orphanages and spend the day with the children there. It usually collects funds from the students in college before any trip. It buys the necessary items for the children there and also gives the funds collected to various orphanages. Apart from this, it collects articles like clothes, food and books from the students and donates them to the needy. It also conducts activities at the college to spread social awareness among the students.

Contact: aikyam@iiitb.ac.in

AI Club

It's a reading club that focuses on papers regarding the latest advancements in Machine Learning. Group members are also encouraged to present the research that they are doing. It also acts as a group to discuss all the latest trends and becomes a platform to interact with like-minded people.

Contact: Discord Lounge

Internet Committee

The campus provides you with 24/7 WiFi service from a reliable ISP. Your credentials will be given to you as soon as you join IIIT-B. You will be notified through mail whenever there is any maintenance or shutdown. For any internet-related complaints, contact the Internet Committee.

Contact: ic@iiitb.ac.in

Food Committee

The Food committee, is a student organizing committee, acting as a liaison between vendors of all the food services (Mess & Cafeteria) and the student body. Their role is to faithfully represent the diverse food preferences within the student body, while at the same time honoring sustainable, nutritionally valuable, wholesome food. They aim to connect students to their food, and to facilitate student ownership and thought over choices in the dining halls.

Contact: foodcommittee@iiitb.ac.in

Branding committee

Branding committee looks into the matter of promtoing IIITB's brand through internal and external interaction. We conduct various events throughout the year with the purpose of promoting IIITB and enhancing its brand. We spread information about academic activities and various research happening in IIITB by students & professors in several domains and on social media platforms. Apart from that, we help various other clubs and committees for promoting their events/activities internally and externally. Bangalore on IT is a public lecture series, an initiative taken by the Branding Committee to gain expert knowledge and renew motivation.

Contact: branding@iiitb.ac.in

Placement committee

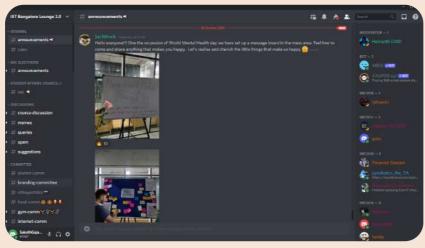
Placement Committe (Final year students) in IIIT Bangalore is an interface between students and the numerous companies that visit our campus. We help students prepare for placements as well as organise company drives on campus. Being a part of Placement Committee gives us an opportunity to interact with each and every member of our batch, and after the placements of each and everyone, the feeling of joy and satisfaction we get is just out of the world. We work closely with the administration and faculty members of the Placement Cell which in itself gives us an immense amount of exposure compared to others.

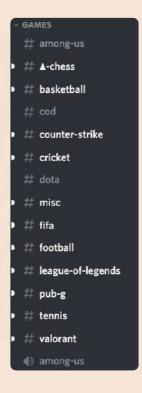
Contact: placement.committee@iiitb.ac.in

There are also few clubs like Innovation Studio, Screening Club and SPIC-MACAY on campus.

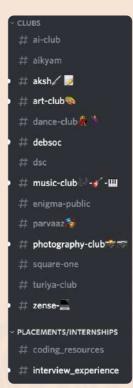
Discord Lounge

This is the server for all the students at IIITB on Discord. It is a platform where all clubs discuss and announce workshops and sessions to be conducted on campus or online. There are also debates and discussions conducted on the server for students to share their views or just express themselves. We also have a memes channel where you can share your creativity and humor. As college is now being held online, the clubs and events are also being held virtually. Various competitions and discussions possible online are held frequently and the lounge stays as the platform where most of it is held.









Events @ IIITB

Infin8

Infin8 is an inter-college techno-cultural festival conducted by IIIT Bangalore every year. It involves various events under a variety of genres where the students of our college participate with enthusiasm and competition. Food stalls are invited and this action-packed 3-day fest is thoroughly enjoyed by all the students of the college.





<u>Spandan</u>

Spandan is an annual sports meet organized by the students of IIIT Bangalore in the month of March every year. It is a 3-day event fully loaded with outdoor as well as indoor games. The cheers from the fans are spread everywhere in the campus which makes the whole atmosphere jolly. It doesn't just end there. We also get a chance to meet our alumni who revisit our campus to participate in the games and share the memories they spent with their peers.





Foundation Day:

IIIT Bangalore celebrate its foundation day every year on 15th September. The yearlong celebration of the college has reached 22 years. The event celebration is always being special with the chief guests and other dignitaries from various fields. Cultural events of variety genres are the main attraction of the event. It is incredible that over 1000 students are studying in IIIT Bangalore.







<u>TEDxIIITBangalore</u>

TEDxIIITBangalore is an independently organised event that aims to help people interact and share their knowledge and ideas and inspire others. We envisage that our event consisting of live talks, interaction and workshops, shall bring about a new ideology and perception to many. During this pandemic, TEDxIIITBangalore held TEDx Virtual, which was conducted on youtube by the team





Many other events happen in the college annually. Some of them are

- Umang
- RISE Research & Innovation Conference
- Yamini Overnight Classical Music and Dance Fest
- ISTEM Hackathon Hackathon for visually challenged developers
- RMIT Math and IT Conference

Practical Matters

Things to bring

_Your luggage, which will consist of clothes, footwear, toiletries and other personal items.

- Notebooks and other stationery items
- Sports shoes (First years have compulsory Physical Education classes)
- Scientific calculator
- Lock and key for the room
- · Shoulder/Laptop bag and water bottle
- Any medicine that you may require (There is no pharmacy inside the college but an outlet of Apollo pharmacy is located very close to the campus)

The following things will be available in the campus at competitive prices (can be brought from outside too):

Mattress – 3x6 ft and bedsheets, pillows, bathroom supplies - buckets, mugs, soap, clothes hangers, etc.

There is a D-Mart outlet located approximately 1.5kms away from campus for purchasing necessary daily-use utilities, snacks and clothes. For any stationery related equipment, there is a store named Kumkum enterprises at a walking distance from the campus.

Important – Electric appliances such as iron, stove, induction plate, etc. are not permitted in hostel rooms. Use of these will attract punitive actions and penalties from the Institute.

HOSTELS

Bhaskara

Bhaskara, the "Boys' Hostel" or "Men's' Hostel", houses around 400 rooms on 7 floors. For the first two years male students are expected to share their room with two other students. They will get single rooms from third year onwards. The rooms are well ventilated with two windows per room.



Lilavati

Lilavati is the girls hostel of IIITB. It has two wings: one for the iMTech and the other for the MTech, MSc and PhD students. Students get single rooms for all the 5 years. However, they will have to shift their rooms every one or two years. There are two guards

in the hostel, round the clock, and there is also housekeeping staff who clean the rooms on a daily basis. There are around 260 rooms spread over 5 floors. Calorie Bee, the girl's gym is present within the hostel and there is a gym instructor as well.



<u>Drinking-Water</u>: There is a Reverse Osmosis (RO) plant which ensures that drinking water is provided to the students round the clock. There is a water kiosk present on each floor for the same. Alternatively, students can take canned water near the canteen area. The water machines have 3 modes, cold, ambient and hot!

<u>Elevator</u>: Bhaskara is equipped with 3 elevators which operate round the clock leelavati is also equipped with 2 elevators. Also the elevators have advanced accessibility features.

Fire Safety and Emergency Exits: All buildings are well equipped with various fire safety measures. Sprinkler heads in the walking area of Bhaskara are sensitive and it is important that students do not tamper with these or with other fire safety equipment like extinguishers, etc. There are emergency exits which are at a considerable distance from every room and are required to meet at the assembly point. Students are requested not to ignore the alarm.

Recreational Areas: There are couches on the first floor where you can hang out, meet up for group projects and team discussion etc. Also, there is an outdoor badminton court on the first floor of Bhaskara(well you can always innovate new rules to fit the conventional sports there). Similarly there are common rooms in leelavati also along with a pantry!







Laundry service: There are 5 washing machines provided by the college and there are also dryers to dry your clothes. There are stipulated timings for using these machines.

<u>Washrooms and Drying Areas</u>: There are sufficient amounts of washrooms in both the hostel buildings which are cleaned everyday. Also there are few drying areas in every floor which can be used by the students for drying purposes.

Laptop Guide

To all those who have waited years to finally get their own laptop and are still confused and undecided, we have the guide you need. We made this laptop guide for everyone, literally everyone. Even your grandparents!

Okay, that might be a little bit of a stretch but you get our point. Ask yourself a few questions, what do I want my laptop to be capable of, how do I intend to use it, how long do I want it to last? With the answers to these questions in your mind(or not, it's fine), let's go ahead and find you a perfect laptop for your needs.

Let's first get in touch with all the terms that are used to describe a laptop's specifications so that you know what is inside your machine, what is good, what is bad, and what is unnecessary.

PROCESSOR:

The thinking and working part of your laptop, commonly also called the CPU. Your laptop's power will be defined primarily by this component. Processors have a lot of terms attached to them to describe them and we will try to explain most of them:

Core count: you would have heard of processors having 2 cores or 4 cores or maybe even more. What exactly a core is is unimportant, what you need to know is that, more cores = better performance. But the price of processors as you increase the number of cores also increases exponentially. So it's important to find a processor which hits the sweet spot between performance and pricing.

Clock Speed and Cache: The former is a basic measure of your CPU's speed and the latter is something you will learn about in your computer architecture course. Either way, higher is better. But don't focus on these while making a choice. For the most part, these are just marketable numbers.

Companies and their branding:

There are 3 companies that make laptop processors, Intel, AMD and Apple. Only 1.5 years back, it was an easy decision to choose between processors, since intel was dominating the market back then. Now, with the entry of Apple's own processor and AMD improving it's processors, it's much tougher to make a clear choice. Before we get to comparing these, let's first talk about how these companies name their processors.

• Intel: The i3, i5 and i7 are the main laptop processors that Intel makes. An i9 also exists but it is rare and generally is not too different from the i7 for laptops. These are followed by a generation. So i5 10th gen, i7 11th gen, i7 12th gen, etc. Yes, bigger the number, better the product, but it's not always so simple. An i7 10th gen is probably better than even an i5 11th or 12th gen, so be cautious. Try to avoid an i3 at all costs. These are 2 core processors that are very underpowered and will get outdated very quickly for college purposes. Get at least an i5 10th gen or up. The few extra bucks that you spend on upgrading from an i3 to an i5 will grant you a substantial boost in performance and laptop longevity.

Brand Modifier

Intel Core processor series uses brand modifiers such as i3, i5, i7 and the latest i9. Higher brand modifier number offers a higher level of performance and additional features such as Intel Hyper-Threading Technology. Therefore an i7 is better than an i5 which itself will outperform an i3.

CPU Generation

For each Intel CPU brand there are 1 or 2 digits numbers representing CPU generations which are then followed by 2 or 3 digits SKU numeric digits.

Intel Core i9-11900F

Company Name

Brand Name

Intel offers processors under different brand names, Intel Core, Intel Pentium, Intel Celeron, Intel Xeon, Intel Atometo.

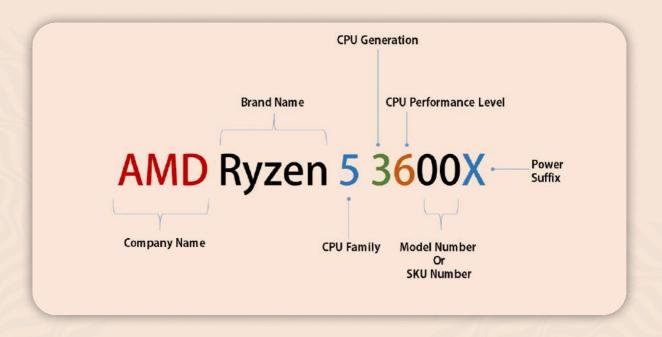
SKU Numeric Digits

Till 9th gen CPUs, SKU numbers are 3 digits and for the current 10th gen CPUs, SKU numbers are 2 digits numbers. As per intel, a higher SKU number will generally have more features in same processor brands and these numbers are not recommended for comparison across different gen CPUs or product lines.

Product Line Suffix

These letters are used in the end as a suffix and are an important indicator of the processor's capabilities. However there is a catch here. For modern 2 in 1 laptops which are thin, light and for everyday usage have 10th Gen CPUs installed in them, intel uses the letter "G" as a suffix then followed by a number from 1 to 7. Thus a suffix G1 to G7 indicates the level of graphics offered by the processor with higher number G7 showing greater graphics capability over lower numbers such as G1

- Intel is also infamous for confusing names recently. A general rule is that a processor with an "h" prefix at the end means high performance and a "u" or "G7" at the end means power efficient. So between an i5 10300h and an i7 1160G7, both are 4 core CPUs but the former is more powerful since it's designed to get maximum performance while the latter will end up having better battery life. It's confusing, we know, so try googling the names of the processors that you find and try to check out their core count, see how they perform in performance tests and make an educated choice.
- AMD: Amd also has a similar naming scheme, Ryzen 3, 5 and 7. These too have generations, 4th and 5th gen(The latest and best). And as before, a ryzen 5 5th gen is probably weaker than a ryzen 7 4th gen. There are Ryzen 3rd gen processors still on the market but avoid them as they are outdated and weren't very good even when they were new on the market. In Amd's case, all three Ryzen 3, 5 and 7 are good. A general rule here is that the Ryzen 3 has 4 cores, Ryzen 5 has 6 cores and Ryzen 7 has 8 cores. Simple enough. There is no confusing naming here. A Ryzen 7 is always better than a Ryzen 5.



Just like before, processors with a "h" prefix stand for high performance and "u" stand for power efficiency. So, a Ryzen 5 4600h is preferred over a Ryzen 7 4700u because the 4600h is designed to squeeze as much potential out of the processor as possible while the 4700u is designed to save power and get a longer battery life.

• Apple: Apple currently only has 1 processor on the market, which is the Apple M1 chip. It is a very powerful processor and simultaneously also highly power efficient. It is one of the best laptop processors out there and probably the best laptop processor for non gaming purposes. For a lot of people, if their budget permits, Apple's laptops are truly one of the best choices out there. It does come with it's own list of problems which we have discussed in a later section which you can jump to.

RAM:

More RAM, more tasks you can run simultaneously. 8GB RAM is a recommended minimum for most people while 12GB and 16GB is perfect to future proof your machine. RAM speeds also matter. But to keep it simple, DDR4 RAM is the best one available. There are different speeds of RAM in DDR4 but that doesn't affect performance noticeably (unless you are also a geek like me;)).

STORAGE:

There are 2 types, SSDs and HDDs. SSDs are much faster while HDDs are cheaper. An SSD is highly recommended as it can save a lot of time when you are opening applications, booting up to windows or linux or just moving your files around. As a comparison, when booting into windows, a basic SSD will take about 10-15 seconds or even lesser while a HDD will take over 2 mins which is a lot.

Luckily, most laptops today come equipped with an SSD beforehand and HDDs are slowly being phased out.

So get a laptop with at least 256GB of storage(512GB and up is recommended for dual booting). You can always buy an external HDD or SSD if you need more space. Our college also gives 1TB of cloud storage on OneDrive and with college WiFi being absurdly fast, accessing your data won't be any problem.

DISPLAY:

The size of your laptop screen is totally dependent on your preferences. Most of us have a 15.6/14/13 inch screen. A 17 inch screen is too big and makes the laptop too heavy to carry around. Refresh rate is another thing to consider.

Refresh Rate:

A higher refresh rate makes everything on your screen smoother. This is only for gamers however. No non-gaming laptop have high refresh rate screens and are still stuck with 60hz screens. Gaming laptops can have 120hz/144hz/165hz/240hz panels which are important for ESports.

Also, get at least a 1080p screen or better. You will thank us later.

Screen Resolution:

Screen Resolution is very important when selecting a laptop. We would highly recommend to go for atleast a 1080p panel. 1080p has become the standard resolution nowadays and you can get it in almost all the current gen laptops. If your budget permits, You can also go for a Quad HD display (1440p/1600p) which is trending nowadays. Personally on using a QHD display on my laptop, I find a noticiable difference compared to 1080p panel when I am watching multiple lines of text on my screen. Also the overall UI looks very fluid on a QHD display. A 4K display is an overkill for laptops as you won't notice any difference between 4k and QHD.

Brightness:

If you want your laptop to be usable in outdoor environments, get a screen with greater than 300 nits display.

Colour Accuracy:

Color accuracy is not an issue for college usage, but if you want to get in creative fields like design or content creation then watchout for a screen with 100 percent srgb color gamut.

Here are some youtubers that post reliable laptop reviews:

- Dave2D
- Jarrod's Tech
- Geeky Ranjit

- Linus Tech Tips
- · Matthew Moniz

GPU:

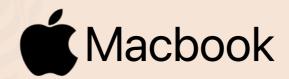
- GPU of the graphical processing unit, commonly called a graphics card. This is an important part of your system as it is what causes stuff to show up on your screen. Everything that you see on the screen is handled by the GPU. If you aren't interested in graphical work like video editing, 3D modelling, game development, photo editing or gaming, etc. Then a GPU isn't really something you need to be considering while buying a laptop. For you, the basic integrated GPU with your CPU is good enough.
- For the other bunch, a dedicated GPU is a must. Without it,
 doing any of the above tasks will be nearly impossible or just
 plain frustrating. So look for a laptop with an Nvidia GPU if you
 want to stick to windows and do some gaming occasionally. For
 those who aren't going to be gaming much and don't mind an
 Apple device, an M1 Mac is maybe the best option. Not much to
 say here.
- For the windows peeps, avoid an AMD GPU since these have bad driver support currently. Nvidia GPUs are the way to go right now. Look for a GTX 1650/1660 or an RTX 3050/2060/3060 and up. An RTX card is good for singleplayer gaming and the former ones are good for simple FPS games like CSGO and Valorant.
- A dedicated GPU can also be used to train ML models(machine learning) but that is never recommended. People will generally train ML models online on cloud. Running ML training on your laptop can be detrimental for its health.

Here are a few links to help you out:

https://www.notebookcheck.net/Mobile-Graphics-Cards-Benchmark-List.844.0.html

https://www.techspot.com/review/2046-geforce-laptop-gaming-performance/

https://laptopmedia.com/in/top-laptop-graphics-ranking/



If you don't have any interest in gaming and have a budget >80k, M1 equipped Macbook Air is the best choice for college work!

Some of the best features of M1 macs:

- MacOS has a UNIX based environment which is perfect for coding and development purposes.
- It has an extremely good battery life. It lasts for a complete day (13-15hrs) on a single charge.
- As of now none of the students with the M1 macs have any software compatibility issue.
- The M1 processor is currently one of the industry leading processors. This translates to faster app bulid times, seamless video editing experience and an overall smooth experience.
- It's integrated Graphics Card (=nvidia 1650 MaxQ in terms of raw performance) is also very capable for all the graphic heavy softwares.
- It's screen resolution and color accuracy gives a better experience in fields of graphic designing and content creation. A sharper screen with 16:10 also permits displaying multiple lines of code on a single page.
- It has a 400 nits display panel which allows outdoor usage.

Some things to know before buying a mac:

- DO NOT buy the intel equipped mac.
- Macbook Pro don't have a significant advantage over Air, So, instead of spending more for a Pro, you can use your budget in buying an Air with upgraded storage and RAM options.
- · Buy it from the official website with the student discount offer.
- Storage is non expandable but the college provides 1 TB of cloud storage.
- RAM is also non expandable but 8 gb ram is more than sufficient in macos.
- Lack of ports might act as an issue as only 2 type C ports are available in the current generation of macs (late 2020) but you can always buy a multiport adapter.

Some Extra Pointers:

- Watch youtube videos and check how well built the laptop is.
 Check what material is used to make the laptop, check the hinge strength, check the screen flex, backlight bleeding. Laptops that use plastic aren't bad, but there is chance that the plastic might be too flexible and the laptop may break easily. Similarly, if the hinge is not strong enough, you could be risking your laptop's screen getting separated just as it falls out of warranty period naturally.
- Most laptops will have a pretty good keyboard, but still, check them out if you can in a physical store. Also check how the trackpad feels and how well it tracks your finger.
- Look out for student discounts. Our college provides student discounts for Dell.
- DO NOT BUY A SUBSCRIPTION FOR MICROSOFT OFFICE. Our college provides 1TB of Onedrive cloud storage. The college email also gives you Microsoft office 365 subscription for as long as you are in college.

Office 365 A1 for students

Project for Office (Plan E1) Common Data Service

Education Analytics

Microsoft Kaizala Pro

Whiteboard (Plan 1)

Willeboard (Flair I)

Office Mobile Apps for Office 365

To-Do (Plan 2)

Azure Active Directory Basic for Education

School Data Sync (Plan 1)

Microsoft Stream for Office 365 E3

Microsoft Teams

Microsoft StaffHub

Power Automate for Office 365

Power Apps for Office 365

Azure Rights Management

Microsoft Forms (Plan 2)

Microsoft Planner

Sway

Yammer for Academic

Office for the Web for Education

Skype for Business Online (Plan 2)

SharePoint (Plan 1) for Education

Exchange Online (Plan 1)



Feel free to reach out to your seniors for any further queries!

Happy laptop hunting!

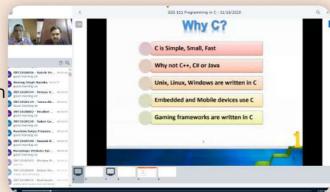
Kaushik & Vatsal

Online Learning

There have been a lot of changes in the way things work in the past year. Online Learning, as adopted by the college, has become the new normal. Thus, you don't need anything as of now, except for a stable wifi connection and a laptop / PC with a webcam to be able to attend various classes and sessions (and of course "Proctored Examinations"). In order to overcome disruptions due to power cuts, getting a small UPS enough to support a computer and the internet router would be a good idea. Also keep your laptops charged as you could miss classes or assignment deadlines in case of a power cut.

Codetantra

The platform used by the Institute for conducting its online lectures is CodeTantra (You'll soon fondly call it CT soon). This tool has provisions to ask doubts to professors via chat or by



unmuting yourself and answering polls, which will make the lecture more interactive. Your attendance and participation index is also monitored by the tool, so try to participate well in the class. Feel free to ask the professor your doubts during the class via the chat window. You could also personally mail them queries or post your doubt on the General Discussion Forum on LMS.(We'll get to that soon)

The recordings of the lectures are available online for you to refer to, in case you missed the lecture or if you feel like revising. All the lecture notes and the slides are uploaded on the LMS too for a quick reference.

LMS

LMS (Learning Management System) is an online portal which is used for all course management. It will contain the details of each course you take, along with discussions, assignments, announcements and grades. This is where most of the assignments, project reports etc. are to be submitted. Any queries in any course can be discussed here along with your classmates as well as the professors of the respective courses. The college also has tied up with Impartus for capturing lectures conducted in the physical classrooms. Data Centre shall provide you with the credentials to access LMS.

Submission status	Submitted for grading	
Grading status	Not graded	
Due date	Sunday, 2 May 2021, 11:59 PM	
Time remaining	Assignment was submitted 3 days 9 hours late	
Last modified	Thursday, 6 May 2021, 9:37 AM	

<u>Grading</u>

Every professor decides what the distribution of grades for quizzes/midterm/end term/project would be.

The Institute follows a 4-point grading system. A student is awarded a letter grade in each course he/she is registered for, indicating his/her overall performance in that course. There are twelve letter grades: A, A-, B+, B, B-, C+, C, D, F, S, X and I.

<u>Scholarships</u>

The institute awards scholarships to deserving students each year. The college provides need-based scholarships for deserving students. Merit-based scholarships will be provided to 6 students from each of the 2nd, 3rd and 4th-year iMTech batches (total 18 students) who are selected based on their CGPA. Final year iMtech students who qualify GATE will be eligible for the AICTE postgraduate scholarship.

Credit system

The integrated MTech programme is a five-year state of the art course in-line with current trends and technology. The curriculum includes core and elective courses, special topics in electives, project & reading electives and an internship or thesis.

The courses in the first semester will be:

- Mathematics-1 (4 credits)
- Digital Design (4 credits)
- Programming in C (2 credits)
- Programming in Python (2 credits)
- Economics (4 credits)
- English (2 credits)
- Physical Education 1(0 credits)

SEMESTER	CREDITS	DESCRIPTION	
	40		
Semester 1	18 credits	6 common core courses	
Semester 2	20 credits	6 common core courses	
Semester 3	20 credits	4 common core courses 1 CSE / ECE core course	
Semester 4	23 credits ECE/19 credits CSE	2 common core courses 2 CSE /3 ECE core course 1 Elective from Maths and Science Pool	
Semester 5	19 credits ECE/23 credits CSE	2 CSE /3 ECE core course 4 CSE / 2 ECE Elective courses	
Semester 6	20 credits	5 Electives	
Semester 7	20 credits	5 Electives	
Semester 8	20 credits	5 Electives	
Semester 9	20 credits	Combination of Project and Courses	
Semester 10	20 credits	Thesis/Internship	
Total	200 credits CSE/ 200 credits ECE		

Discipline

General Rules and Regulations:

- There should be complete silence on corridors near classrooms during class hours to maintain an academic atmosphere. Students must not loiter in the corridors during class hours
- No student is allowed to leave the lecture hall without the faculty's permission or until the lecture is finished.
- Students are not permitted to smoke or use Tobacco/Alcohol on the institute campus. They are liable to severe disciplinary action (even dismissal) if found violating the norms on the campus.
- Strict disciplinary action (even dismissal) will be taken against any student found in possession of, or under the influence of drugs or alcohol.
- Ragging is forbidden by the laws of the country. Students found ragging will be handed over to the police. They may be dismissed from the institute.
- Unbecoming language or conduct, obscenity in word or deed renders a student liable to disciplinary action which may involve suspension, fine or dismissal.
- The campus must be kept clean at all times. Littering with sweet wrappers, waste paper, defacing the walls or desks, damaging the institute property etc. are offences and are liable for punitive action.
- Though the institute is not responsible for the conduct of its students outside the premises, it will take note of any serious misconduct outside the campus.
- Students must observe punctuality. At the discretion of the Course Instructor,, the student may be permitted to enter the classroom if he/she is late. However, if the student is regularly late to the class, he/she may not be permitted to attend classes.
- Every student is required to carry his/her identity card in the institute and display it whenever required. The card should be shown to any member of the staff or institute officials whenever asked for. These identity cards are also used for recording the movement (Entry/Exit) of the students.
- The institute expects every student to take active participation in non-academic functions and cultural programs. However, such events shall be held only after class hours. Practice for all programs should be held outside of class hours.

IIITB Campus COVID-19 Guideline & Protocols

This guideline will be monitored/maintained/updated from time to time by Student Covid Action

Task Force with the consultation of Medical advisors, Institute Administration, and Bengaluru Municipal Corporation.

Section 1: During BioBubble stay in campus

- Students are required to wear masks compulsorily when they are in common areas of academic block, Mess area, while collecting food parcels or while in contact with people from outside the campus, while moving across in public places and while interacting with staff and faculty. After the office hours(i.e, 8AM - 6PM) students need not wear masks while moving across in public places.
- It is advised to wear masks(but not compulsory) in the study rooms and library, there will be an entry book maintained in all the study rooms and labs to keep track of contact. Limit of number of students allowed to use the room at once:

Library: 35

• A204: 35

A102: 20

Students cannot gather in more than a group of 20 people in a place without prior permission inside the academic block.

- Students restriction outside the campus is restricted, those who
 need to visit outside the campus for below allowed reasons need
 to take prior permission from respective wardens at least 1 day
 before going outside the campus. Students need to follow the
 covid protocol very strictly on their visit outside biobubble.
- Doctor Consultation (A prior appointment needs to be shown for approval and on return a proof of visit to hospital needs to be shown(i.e, hospital bill or prescription, Pharmacy bill's won't be accepted)
- Banks(Only if the case is really urgent, students need to mention the exact reason. If the reason is verified then permission will be given)
- **Note**: For highly time sensitive medical emergency approval(Like Physical injury), students can mail the same day to respective wardens, consult with a paramedic in campus and take permission of the security officer to visit the hospital.

- Students can order food via online apps and other platforms and can receive the food in gates 1,2,3. Administration may impose restrictions from time to time depending upon the situation, the Administration & Task Force will keep the students informed.
- Students can receive their couriers after they have been brought to IIITB Reception. It is advisable to collect the items 24 hours after the arrival as a matter of abundant precaution.
- Students are not required to wear masks while engaging in sports activity.
- In any case students in biobubble should not come in direct contact with the students in quarantine. If any found strict action will be taken and the student will have to go through the quarantine again.
- If any student is found to have symptoms of covid 19, they will be quarantined until their test results come negative or till the advice of the campus doctor. Note: you can get your temperature and oxygen levels checked in the reception.
- All the students will be tested in a round robin order every 2 months. Every batch in campus will be divided into 8 batches and will be tested once in every 2 months. This is done to detect and isolate any asymptomatic spread of cases in campus.

Section 2: Actions Taken by administration

- All the staff and faculty of IIITB who visit campus are tested every month for COVID19, those who travel outside of bangalore need to home quarantine for 1 week and undergro
- test before coming back to campus.
 - All the kitchen staff have been provided with stay inside the campus, this is done to maintain the hygiene of the food served in the mess area.
 - Vishwesraya block has been completely vacated and would be used as a Isolation center if any cases are detected in campus.

Section 3: Student Covid Action Task Force (SCATF)

 This task force is created for self-regulating covid restrictions on campus, and will act as a bridge between institute administration and students. This student body will consist of 1SAC member from each batch and 1 food committee

member from current and previous year's food committee.

 SCATF needs to make students on campus aware of the regulations and see to that it is

being maintained.

 SCATF will be informed from time to time about developments in restrictions by the government and medical situation in the campus, who will be responsible in making sure the information reaching all the batches.

First Year is Chill*!



Hey!

Time is of essence! To say that I wasted a lot of it in discovering the world of gaming and binging new anime series would be wrong. Sike! That is exactly what I did for a large part of the year.

College was a blur for me at the start! So many new things to do, interacting with new people, making new friends, trying to learn new subjects and realising that college was not going to be the cup of tea you thought it will be! It is fun to study some of the subjects but it gets very draining trying to keep your head above the water in a sea of information that you now must swim through each day! If I am being completely honest I got lucky in the first year. I ended up making many good friends really early on and so much of my time that was spent in cribbing about assignments was in their company! At times it does get overwhelming but it will pass and so will you XD so don't stress much.

I was told, "The first year is chill!" and so I will tell you the same. It is indeed chill but only if you want it to be. So I will advise you to enjoy, make new friends explore new things and most importantly say yes when someone asks you to watch 'Attack on Titan' even if you don't know what it is (thank me later). If you ever feel a little lost and need help feel free to approach us, we will be happy to help you out! Cheers!

~Shreyansh



Hi! At any point of your academic journey don't get too much stressed out with your studies. Take it easy. But that does not mean that you can chill out without limit. Try to have a perfect combination of studies and extra-curricular activities and try to plan your way ahead. Specially in your first year you should try to explore the various facilities provided to you by your institute.

ii) Feel free to reach out to us in case of any doubt. We would be treating you as our younger brothers and sisters, so don't keep distance and feel free to discuss anything. We would be able to set you in the right track as we have already experienced the things that you are experiencing now.

i Be proud of your institute. You are in one of the best institutes of India with the best of faculties.

Thank you, Riddhi Chatterjee. Hey All!

Transition to college life can be taxing, first year can be hectic and overwhelming in the beginning, don't take stress. Instead, focus on developing all aspects of your personality.

When it comes to academics, just try to understand the concepts well, don't worry about grades!

Best Wishes, Shreeya V

Hey Everyone !!!

 College Admission: It's a wise idea to not look back on the college decision once made. Regrets do not solve anything and only keep you from giving your 100 % wherever you are. Remember that its not important what you do, but how you do it is what matters.



- · Induction: Try to keep yourself fully engaged and involved in the induction as you'll be getting to know a lot about what the college holds for you. Be on a lookout for the plethora of clubs you'll be getting introduced to which you could join in college.
- · College Starting: An excellent college environment is made by excellent peers much more than excellent teachers. Thus the most of your learning will happen through your friends and peers which will be a good thing to choose wisely. Also instead of getting bogged down by Imposter syndrome in the beginning one can tackle it by spinning the self-doubts on their head. Instead of thinking of how someone in your class has been proficient at coding since middle school, think of it as a learning opportunity and how much you could learn from such a peer.
- The latter half of the semester is more rigorous thus being punctual and attending offline classes regularly is important. Thus, don't let the backlog of lectures pile up before Semester exams as IIITB is notorious for having multiple assignment/quiz deadlines just before them. As procrastination only helps in the short term try not to feed the instant gratification monkey inside your head xD.

<u>Pro Tip:</u> If the general and unanimous opinion of the batch is that you all are getting slayed left right and center by the unending amount of quizzes, submissions and deadlines, then writing detailed and specific emails (You'll have TC don't worry;p) to professors on behalf of the whole batch will help definitely. Just don't overdo it. xD

Try to experiment and identify your own personal learning style. This could be through reading, listening, watching or the most profound, by doing. Once you identify how to learn, learning just about anything becomes way simpler and effective

-Dewanshi Dewan.

Acknowledgement

First and foremost, we are extremely grateful to Prof Debabrata Das for his inputs and Prof Amit Prakash, Debasmita ma'am and Swati ma'am for their constant help and support!

A huge thanks to Sai Rithwik bhaiya and Square One 2020 for mentoring us in building this handbook.

We would also like to thank Anshul Madurwar, who helped us with the design of the handbook.

We wish the freshmen the best of luck. Hope you guys have an amazing time in college!

SquareOne - The Team



Monjoy



Ankrutee



Kaushik



Saketh



Chinthan



Vatsal