क्षितिज

THE HORIZON

vol. 7

EDITORIAL TEAM

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Dear Friends,

The pandemic has affected the lives of every single individual in the world. Education has also been hampered by the extended effects of this health crisis. However, at IIT Ropar during Covid-19 pandemic we accelerated innovation to address the health emergency. To showcase stories of resilience, success, and perseverance, the Literary Society of IIT Ropar proudly brings you our student magazine क्षितिज – The Horizon.

It gives me immense pleasure to unveil this magazine on the 76th Independence Day of our country. The magazine is a unique endeavour to showcase the creative spirit of our student community. This magazine provides a platform for the expression of the intellectual, artistic and stimulating creativity of the IIT Ropar fraternity. I firmly believe that ingenuity in any form is for the larger societal good.

In this regard, our Literary Society has done a fabulous job in exhibiting the artistic minds of our students. While the nation is going through tremendous positive changes, the student fraternity of IIT Ropar proudly presents to you stories of positivity and immense strength. The world has awakened to the reality that India is a treasure-house of talent and intelligence and today's youngsters are taking India to unparalleled heights of innovation.

IIT Ropar feels proud in carving the culture of thinking, reflection, resilience and independence. Here at IIT Ropar students' creativity, collective work, and competition thrive domestically, regionally and internationally. We stand committed to encourage cultural diversity that provides a foundation for the next phases of their careers and lives.

I wish good luck to the editorial team of this magazine. As we stand among top-tier Institutes in India, we are committed to promote the culture of academic excellence, scientific breakthroughs, and high-tech innovation through collaboration.

Dr. Rajeev Ahuja
Director

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ARTURO
IIT ROPAR

A NEW DAWN

-Apoorva Shekher, PhD Scholar

Do you remember a time when the innocuous proposal of "let's meet" did not have to be followed by the now mandatory question "online or offline "? When the sermons and speeches were not preceded by "Hello, am I audible"? The prefixes attached to the word 'line' have inadvertently come to define our lives. This has not only led to an appreciation of the line that makes a virtual connection possible but also to cherishing the experience of meeting without the assistance of this line. However, if there was one silver lining to the havoc that arose out of the pandemic, it has to be the serendipitous convergence of this major upheaval in our lives with the launch of a new education policy in 2020 which at least prepared both the students and the teachers to face the forthcoming battle. NEP 2020 re-emphasized the need of technology for a seamless learning-teaching experience in the times to come. And thus, what had started as a pilot project donned the garb of a massive social experiment to establish a new 'normal' in the education sector. As the role of technology became critical with the onset of the pandemic, our institution

assiduously worked its way to develop crucial digital infrastructure. There was an obvious struggle to keep education moving especially now that the meticulously planned and drafted academic calendars had been torn asunder. Yet, as the saying goes, necessity is the mother of invention and therefore, when the traditional modes of education faltered owing to their infeasibility, online education tools like Zoom and Google Meet came to our rescue, however much they were derided as the subject of memes and satirical videos. I remember departing for my home, along with many others, on the 17th of March 2020 for what I myopically thought would be just a fortnight-long holiday. And in less than a week, the online classes of my Ph.D. course work had started in full swing. The institute recorded about 150 courses for B.Tech, M.Tech., M.Sc., and Ph.D. students which were made available through Google Classroom. What, in the pre-Covid times, was only used as an excuse to blow off college classes, i.e. virtual seminar or the now-popular portmanteau word webinar, became an indispensable means of learning and knowledge generation. During one of the many events organised virtually as part of the Hindi Pakhwada, a participant quipped that it is the post-activity refreshments that act as the fuel to drive the attendees. It is therefore rather commendable that in spite of the lack of such an incentive, we saw so many events having been successfully conducted using online platforms during the pandemic. The hitherto unbelievable became the new norm – from remote convocations and farewells to virtual campus tours, fresher's 'parties', fests, and so on. In the midst of it all, the permanent campus of the institute too was inaugurated virtually in October 2020. I was genuinely amazed to see the pace at which institutions around the world brought in blended learning and teaching for their students. The academic world had been notorious for their sluggish relinquishment of traditional pedagogical models. The pandemic acted like an unsolicited catalyst in triggering the educational institutions' reactions to swiftly adapt to creative approaches to impart learning. As the virus tried to pummel the higher education sector into submission, online learning dawned upon us like a panacea for all our academic constraints. Although the sudden outbreak of this deadly disease forced the nations to come up with a worthwhile alternative to physical classroom teaching, the education was nonetheless disrupted for more than 1.5 billion students of all ages as per UNESCO (Global Education Coalition Report). The progress thus far made toward fulfilling the Education 2030 Sustainable Development Agenda to eliminate various disparities and improve access in education was certainly derailed, if not reversed. As it is, the government in India has had to lure the parents into educating their children using the bait of mid-day meals, clothing, books etc. and the pandemic with the concomitant school and college closures felt like ripping the band-aid off a fresh wound. So, it was soon realised that

there can be no easy panaceas, only relentless striving. The early responses were focused on arranging the logistical paraphernalia of remote learning as an emergency stopgap to reimagine the classroom-based learning models. There was, however, a need to build collaboration with multiple entities working in the education sector (public as well as private) to ensure a certain standardised quality of the educational experience. Moodle was introduced into our lives to create a personalised learning environment as part of online education. The lectures recorded by the institute included content synchronised with only audio so as to reduce the file size and increase its accessibility. Not a single stone was left unturned in the intellectually taxing yet stimulating quest to bridge these digital gaps. There was a need to speedily become adept at conducting hasslefree and transparent online examinations. And while it all might have looked amusing from afar, everything from the pledges written to appeal to the good conscience of the examinees to virtual invigilation was undoubtedly a valiant effort on the part of the institute to succeed in making such examinations scrupulous enough. In addition, the institute's resolve to not let its scholars suffer because of lack of research material was indeed laudable. The VPN version of Cisco AnyConnect ensured remote access to all the significant websites and journals that the institute subscribes to. The pandemic served to rekindle our ingenuity and innovation to further improve the experience of learning. In 2021, the institute developed a tool 'Fakebuster' to detect and identify impostors secretly attending virtual conferences. The experiential methods of learning were also featured in this abrupt shift to online learning and virtual laboratories offered a much-needed opportunity to get remote access to experiment-based research. Building the resilience of our digital infrastructure became pivotal to avert similar calamities in future. And therefore, in 2021, our institute in collaboration with Punjab Skill Development Mission volunteered to provide free online courses in artificial intelligence and data science which can be used in introducing and analysing prediction models to track and combat such pandemics. A 2021 study published in an Elsevier journal (Social Sciences and Humanities Open - SSHO) titled "Students' perception and preference for online education in India during COVID-19 pandemic" revealed the preference among students for online classes with a quiz for evaluation at the end. While patchy connectivity was seen as the major hindrance as per the results of this study, flexibility and convenience in scheduling online classes were touted as the chief gains of remote learning. As a result of the pandemic, therefore, it became imperative to not just fix the

obstacles with respect to access but also simultaneously devise new strategies to make such an adventure even more interesting. Fostering a sense of community among the students was another challenging task in the online environment. Even so, it was made achievable using the creative endeavours of educators. I am reminded of a particular instance when during one such course that I had undertaken, the instructor made the sessions highly interactive by leaving it up to the students to initiate and propel the discussion while acting only as a guide to periodically direct us. This not only built a sense of belonging to the course but also a community feeling among the students most of whom had never even met in person. The ball was entirely left in our court so that we ended up questioning each other, amicably debating the arguments proposed, and if possible, coming to a conceivable common ground by the end of each class. There is a plethora of such examples where teachers employed several innovative hacks to hold the attention and curiosity of their students using rapid fires, debates, audio-visual apps etc. To thrive in a virtual learning environment is no mean feat; it requires an enormous amount of self-discipline along with effective time management skills. Now that the time in teachers' hands in the online scenario was limited, the quality of content in such classes systematically got improved because of the need to achieve more in less time so as to propel the boat of learning we had embarked on. Even though the students' sense of belonging to the institute was retained for the most part during the pandemic because of robust online academic and extracurricular activities, there was a growing need to return to the classroom to build upon this rapport in person. The pandemic surely led the entire academic fraternity into uncharted waters. However,

now that its impact has somewhat subsided and our very lives are no longer hanging by a thread, we have to decide how we choose to reflect on the two excruciatingly slow yet tense years of our lives – whether we view them as a brief interruption or as an opportunity to re-examine the pros and cons of our academic initiatives. Online education does not merely translate into securing access to digitally mediated physical classrooms. It has to incorporate aspects of remote learning, purposefully designing courses, blending space and time online with the help of AI, and reducing the instances of disruption. The transition to the ubiquity of virtual education was definitely forced but the multiple modes now involved in delivering education have altered the ways in which we measure learning outcomes. Teaching has now become more student-centred and even student-led. As the boundaries between traditional and online ways of teaching are being erased, the expectations of students and teachers alike are also bound to change as they realign their focus onto interactive learning, rather than the lecture-based approach of instruction. Such an avant-garde method of teaching may appear precarious, but let's hope it marks the dawn of a new post-COVID world.

LIFE @ IIT
- Aamir Bashir, PhD Scholar

Well, it has been two years since I entered the gates of IIT Ropar for the first time. Since then, I have lived the life of a prince-no worries about the future, no studies to pursue my dream of getting into an IIT. Just kidding, the laborious life starts as soon as we enter the IITs. Indian Institute of Technology, 23 in total, providing 16,234 undergraduate seats and a substantial amount of Post graduate seats too.

It seems like an achievement when the entrance results are declared, and that sense of achievement is taken aback by the results of quizzes we take in classes. The examinations have become the daily routine of my life in IIT, and the continuous evaluations make me feel like always being judged. Of course, I'm not talking about toppers who have to been given the torch of keeping the scores high so that in the comparative marking results, the toppers from the bottom suffer. It feels like I'm growing into a piece of robust machinery which will be capable of handling any tough job thrown at me. But hail the holy mother of everything that has escaped the human touch; I'm enjoying every moment of it.

With the rising sun, one thing is for sure: I have missed my breakfast and have to run for the data science class. The same data science which is fathomed to engulf the whole IT sector in the future. Future, huh! It is the most overrated thing to think of. In the race to get things right for our future, we often forget to live in the present. With 5'O clock on my watch, it is time to get to the playing field to play my favourite sport-take a guess? Yeah, you guessed it right. It is getting kicked instead of the ball; you are right-football. The daily frustrations just vanish with every game we play in the massive football ground of IIT Ropar.

Some things that haven't changed for me is taking a soothing walk in the middle of the night beneath the magnanimous trees wrapping the Transit campus road, and listening to the bird chirps and devouring the smell of flowers that sequin the whole Transit campus.

LIFE AT IIT IN A SENTENCE :

- A platform to nourish yourself and society with respect to science and allied areas

- Fun all the time and full on workload during exams

- It is a race behind fetching as many journal papers as we can

- Full of opportunities and thrill while exploring the same

- An experience for life

BEST THING ABOUT IIT ROPAR :

- The professors here are quite liberal and encourage you to try and explore new things instead of sticking with traditional approach

- Made me confident and met interesting people

- Here everyone is teaching you something, either directly or indirectly

- Calm and friendly environment. Felt connected with nature

- Pool of opportunities

24% gave an 8 out of 10

How hectic is life in IIT on a scale of 10?
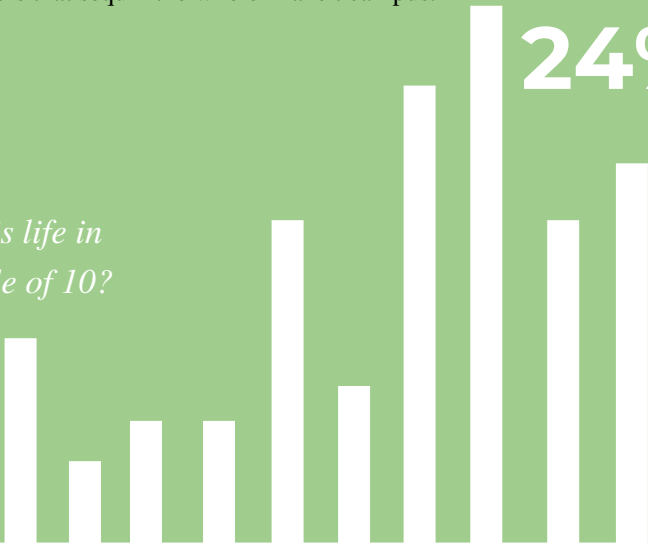
# Coronavirus And Its Vaccine

Jonaid Ahmad Malik
PhD Scholar

The SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2), previously called a novel coronavirus that broke out in the Wuhan city of China, is causing a significant number of deaths and morbidity in the human population worldwide. After China, the countries affected disproportionately were South Korea, Iran, and consequently the USA, India, Brazil, Spain, Italy, Germany, Turkey, Russia, the United Kingdom, and France. The Beta-coronavirus is the genus, and Coronavirdae is the family to which SARS-CoV-2 belongs. For developing a vaccine against SARS-CoV2, the protein S, a spike protein, has become a major target, mainly based on eliciting viral neutralising antibodies. The current scenario regarding the vaccine developmental process consists of 1) 47 vaccine candidates in a clinical trial and 2) 155 vaccine candidates at the preclinical stage. The vaccines against MERS-CoV, SARS-CoV & other coronavirus vaccines have posed toxicity concerns based on previous clinical investigations with Spike protein-based vaccines, including immunopathological and inflammatory effects. Vaccines developed against SARS-CoV2 must be carefully assessed while conducting clinical trials.

Much effort is being made to develop a vaccine against SARS-CoV-2 to tackle the current coronavirus pandemic. More than 150 firms or educational institutions are working on SARS-CoV2 vaccines with strategies that include DNA-based vaccines, RNA-based vaccines, non-replicating viral vector (NRVV), replicating viral vector (RVV), inactivated vaccines(IAcV), live-attenuated vaccines (LAVs), and protein subunits. Several groups are using computer-aided and machine learning technologies to study the interaction between the immune system and viral antigens to identify potential vaccine targets. These techniques have already been tried against numerous other pathogens and are being applied to develop the vaccine against SARS-CoV-2. As the SARS-CoV-2 shares similarities in the genetic makeup of two deadly coronaviruses, i.e., SARS and MERS, vaccine strategies used to combat SARS, and MERS viruses are being adopted to guide the formulation and development of new SARS-CoV-2 vaccines. Presently various mutants of SARS-CoV-2 arrived, mainly concerned with the spike protein, a key component to the design of the vaccine candidates. Various vaccines undergo clinical trials and show impressive results, but their efficacy still needs to be checked in different SARS-CoV-2 mutants. It is important to understand how coronavirus gets mutated to design better new
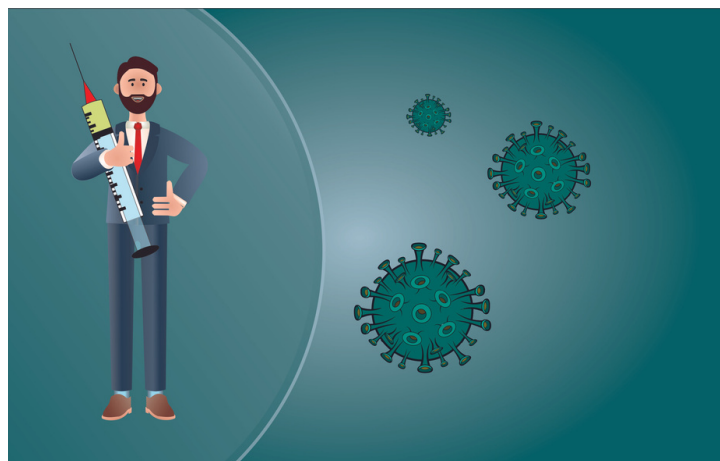
vaccines, providing long-term protection and neutralising broad mutant variants. A proper study approach also needs to be considered while designing the vaccine efficacy trials, which further improves study outcomes. Taking preventive measures to protect from the virus is also equally important, like vaccine development.

Cryptocurrency-The Talk Of The Town

Sahil Mangla
B.tech, First Year

Cryptocurrencies and blockchain have been in the limelight for all sorts of reasons. This form of transaction adds a new chapter in the way we humans have been trading by taking away one of the most crucial aspects present in every single currency that ever existed: the control of a central body/ government on it.

By definition itself, the blockchain works as a decentralised ledger for transactions in a peer to peer network. Cryptocurrencies take advantage of this network and act as a medium of exchange with certain value, not depending on any bank or government. The word Crypto in cryptocurrencies refers to the encryption that goes in towards the numerous techniques used to safeguard a user's token.

Cryptocurrencies hence have been quoted to be more secure in terms of privacy and better safeguarded towards fraudulent transactions. Members over the network have "copies" of the ledger to verify the blocks in it. The "blocks" in blockchain technology contain details about transactions occurring in the network and are verified by all the members of the network. New blocks generated are verified through the nodes preceding them and hence cannot be covered with fraudulent data as it would be easily checked by others over the network.

The cryptocurrency tech was developed roughly nine years ago, by an anonymous developer/ group of developers with the pseudonym Satoshi Nakamoto developing Bitcoin - the first ever digital currency over a distributed p2p network.

Such digital tokens eliminated the requirement of a third party (such as banks) for transaction verification with the means of their public ledger. There are well over thousands of cryptocurrencies present today, but they are mainly categorised into two categories - "Bitcoin" and "Altcoins". Simply put, all cryptocurrencies excluding Bitcoin are grouped as Altcoins. Some major Altcoin, according to market capital, are Ethereum, Litecoin, Cardano etc. Cryptocurrencies can usually be bought from online exchanges or mined directly. Every cryptocurrency also has an upper cap on its total amount due to a technological limiting factor known as "halving". It essentially puts a limit on the amount of that specific currency that will ever exist at a point in time.

The legality of cryptocurrencies is another issue altogether. Unlike fiat currencies like the US Dollar, which is backed by the Federal Reserve, or the Indian National Rupee backed by the Reserve Bank of India, cryptocurrencies have no public or private entity with any sort of control over them. Hence, their legal status in different jurisdictions over the world has been a matter of speculation. El Salvador was the first country to allow Bitcoin as a legal tender for monetary transactions. The European Union and Japan's Payment Services Act define cryptocurrencies to be legal property. The International Revenue Service treats cryptocurrencies to be financial assets instead of a form of money. Cryptocurrencies however are also infamous for being used for illegal and fraudulent activities as an untraceable form of monetary transaction. Even though the cryptocurrency blockchains are highly secure, the wallets and exchanges, acting as a repository for the users, can and are hacked. Millions of dollars worth of coins have been reportedly stolen over the years. Cryptocurrency in itself also is a very volatile asset, with value skyrocketing and plummeting down in a matter of days.

Various people claim Cryptocurrencies to be the future of all transactions, while many others regard it nothing more than an economic bubble. Whatever be the case, the blockchain technology without doubt is full of opportunities and encouraging for all sorts of innovations.

A Sky Full Of Stars

Aashish Chahal
B.Tech, First Year

From the dawn of humanity, we looked at the sky, searched through the stars, and tried to figure out how the universe works. Astronomy, one of the first branches of science, was born as humans decoded the patterns hidden in the sky. For hundreds of years, we have been using our naked eyes to observe the vast sky. Then a new era of astronomy began when Galileo pointed the telescope toward the sky. A vast new window became open to us which was previously closed due to our eyes' limitations. Through these lenses and mirrors, we can unravel the great secrets of the universe. As the size of the telescope increases, the image's resolution increases, and we get more and more insights into the universe. The telescope Edwin Hubble used, had a mirror diameter of 4.5 meters and, through this telescope, he discovered the galaxies beyond the Milky Way and evidence for the expansion of the universe.

The next giant leap was taken with the launch of the space telescope. The limitation of traditional ground-based telescopes is that they can only look at the sky above them. Their view is blocked by clouds and mountains. Also, the atmosphere disturbs the light coming to the telescope, causing a reduction in image quality. So placing the telescope in space can resolve these problems. Multiple space telescopes were launched into space searching the cosmos through the light of all kinds of wavelengths. One of the most well-known is the Hubble telescope. The Hubble telescope was so much ahead of its time that even after more than 3 decades of its launch, it is functional even today. It helped push the boundaries of known science multiple times and the data it sends has been used in thousands of scientific papers. Although the journey of the Hubble telescope is soon coming to an end, its successor has already begun its work.

On the Christmas of 2021, the James Webb Space Telescope (JWST) was launched from French Guiana. This telescope is the biggest telescope ever launched into space. JWST works in the infrared region of light. This is a very difficult task as anything with a temperature above absolute zero emits infrared radiation, including mirrors and instruments of the telescope. In order to get rid of these radiations, JWST is cooled to under 7 kelvins using a gaseous helium cryocooler. It is also placed away from the sun and earth and a massive sunshield is installed to protect it from the radiation coming from the Sun. JWST has a gold-coated mirror with a diameter of 6.5 meters to detect the faintest light. Through this telescope, we will be looking at the history of the universe, getting an insight into the early phase of the universe. As you might know, light has a limited speed. So, light from distant objects takes time to reach us; in the case of galaxies, it could be millions or billions of years.

We see these galaxies as they were millions or billions of years ago. If we look far enough, we can see how our universe looked in its initial phase. In the images, released by JWST, some galaxies are just a few hundred million years after the Big Bang, making them one of the oldest galaxies ever observed. In the coming years, JWST is going to reveal many secrets of the universe and push the boundaries of our knowledge. These space telescopes will fuel the next era of astronomy and will try to answer the deep questions that have bothered us since the beginning.
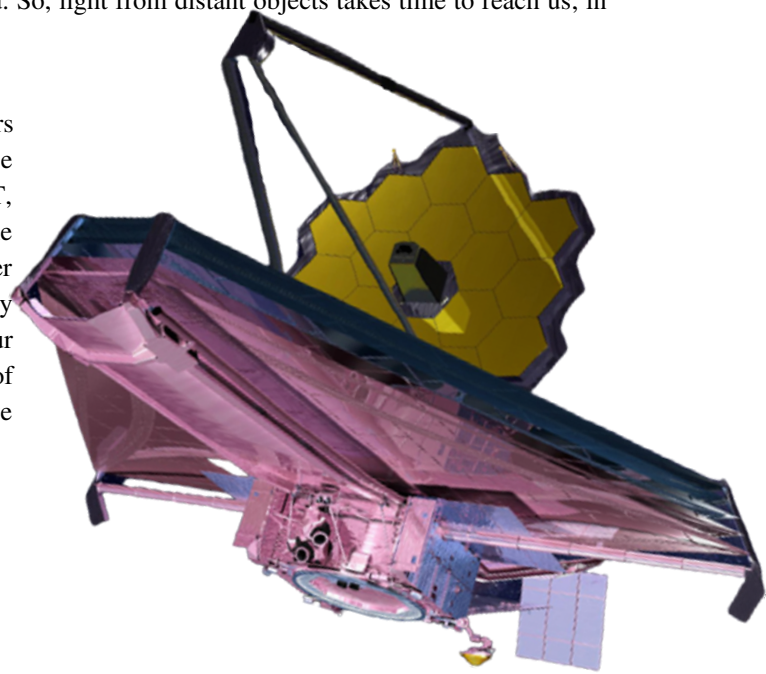
What perspectives have you gained interacting with people from diverse cultural backgrounds?

Kritika Bansal, B.tech First Year

Leaving the comforts of home and coming to a new place is an enriching experience. IITs are known for their diversity. Perhaps the best part of life here is the interaction with people from different backgrounds, who bring in flavours of their culture, values and perspectives.

I hail from the pristine environs of Paonta Sahib, Himachal Pradesh, whereas my roommate is from the hi-tech city life of the IT hub, Bengaluru. Consequently, the most important perspective I have gained relates to the differences we both have observed as a part of growing up in such distinct backgrounds. It is rightly said that language is the most important representative of culture. Any cultural variation can be quickly sensed through variations in language. At my place, Hindi is the most prominently spoken language, whereas in Bengaluru, it is English. The interesting thing here is that, as such, different dialects of the Pahadi language are unique to Himachal, while Kannada is the vernacular language of Karnataka. Even then, while a smaller city like mine prefers to identify itself with the rest of North India through Hindi, a metropolitan city prefers to identify itself through the use of English globally. Another commonly observed metric is that of housing. Growing up, I had never seen apartments. On the other hand, my roommate is very much acquainted with flats. Also, I am not at all used to heavy traffic like my friends in other cities. It is not about the number of vehicles and the pollution they cause, rather it is connected to the economy and the livelihood of the people in the respective places.

Another interesting fact I got to know through my roommate is about the way festivals are celebrated in Bengaluru. There, festivals such as Holi are not so prominent. Hence, the celebrations need to be aligned with the weekends! However, if we see the larger picture, every region has certain festivals and events which are considered more important than the others. What makes any festival special is not the duration or the way in which people celebrate it, rather the enthusiasm and the spirit of festivities that people associate with it matters the most. This, undoubtedly is the common denominator all over the world. We, as humans, always find different ways to express our appreciation for the beauty and vigour of life. As regions change, so do several other things such as the means of entertainment, the ways of addressing others, and even the preferred tourist destinations. People in my hometown rarely watch movies in theatres. Their favourite tourist spots are always hill stations. In Bengaluru, the corporate culture is generally followed; from the beginning, everyone is used to referring to even seniors by their name. When unfolding the essence of others' cultures and traditions, sometimes it becomes hard to even imagine how trivial things differ so greatly. But this also shows that a culture is not about the explicitly visible elements of civilisation, but the more subtle mannerisms that define our everyday lives.

The other stark difference that people from different parts of the country experience here is the extremities in weather. The weather at Ropar, and at my place, generally, touches the extremes. The weather in Bengaluru is usually moderate and does not show fluctuations. Though not a cultural variation technically, extreme weather conditions, when experienced, teach us to be prepared to face the extremities of life and enjoy the uncertainties life offers.

The society at my place was more or less reserved. My mother is a working woman, but generally, it is uncommon to find such women in our family and community. Coming to IIT has made me much more open-minded. From the gradual acceptance of friends having non-vegetarian food in the mess, or getting habituated to the nightlife on campus, or the way I look at relationships, my perspective towards life, in general, is broadening with every passing day. An important contributor to this change is that now I am forced to think about and form an opinion on everything by myself.

To sum up, every interaction with different cultures enriches my understanding of the world around me, and the people who inhabit it. I realise that the exposure IITs provide is not only about academics, but also about the plethora of people who influence us.

રક્ષક ને નતમસ્તક

વગર કર્યે પોતાની ચિંતા,
બતાવી જેમણે પોતાની કર્તવ્ય નિષ્ઠા,
એ તો છે સૌના રક્ષક,
થઇએ આપડે એમને નતમસ્તક!

ભાષણ આપવા વાળા તો ઘણા જોયા,
આજે મેં સાચા દેશ સેવક ને જોયા,
એ તો છે સૌના રક્ષક,
થઇએ આપડે એમને નતમસ્તક!

અપનાવ્યું સૂત્ર સેવા પરમો ધર્મ,
કર્યું પૂરા દિલ થી કર્મ,
એ તો છે સૌના રક્ષક,
થઇએ આપડે એમને નતમસ્તક!

વગર ઇનામ ની ઇચ્છા એ કામ કરે આ વોરિયર,
પછી ભલે એ હોય પોલીસ, સફાઈકર્મી કે ડોક્ટર,
એ તો છે સૌનાં રક્ષક,
થઇએ આપડે એમને નતમસ્તક!

જેમની મદદથી આપડે આપીશું કોરોના ને મ્હાત,
અને કરશું નવા જીવન ની શરૂઆત,
એ તો છે સૌનાં રક્ષક,
થઇએ આપડે એમને નતમસ્તક!

કર્યું એમણે એવું કામ,
આખી દુનિયા કરે છે સલામ,
એ તો છે સૌના રક્ષક,
થઇએ આપડે એમને નતમસ્તક!

Dharmil Baldev, PhD Scholar

ध्येयप्राप्ती

खचू नकोस, नको वाकू,
ध्येयप्राप्तीसाठी एक एक पाऊल
आपण पुढे टाकू

घे तू इतिहासाची साक्ष
सदैव सीमेवर जवानही दक्ष,
परिस्थिती कशीही असुदे
विजयी होण्याचाच ठेव कटाक्ष

न थकता, न झुकता
ध्येयाकडे कर तू चाल,
निराश नको होऊस
आठव तो टिळकांचा बाळ

हसतील लोक जेंव्हा तुझ्यावर
त्यातूनच घे नवी प्रेरणा,
जीवनातल्या प्रत्येक क्षणाला
ववजयी होण्याचीच कर धारणा

जागव तू स्वतः मधल्या
एका वेगळ्या शक्तीला,
कर विचार तू भविष्याचा
चालना दे तुझ्या युक्तीला

रच नवा इतिहास
कर शिखरे पादाक्रांत,
या वाटेवर चालताना
होऊ नकोस कधीच निवांत

आहे तुझ्यात हिम्मत
कर तूस्वतः ला सिद्ध,
आता मागे नको फिरुस कारण
आहे तुझे हे स्वतः शीच युद्ध

<u>कवी</u> : विजय वैशंपायन
PhD Scholar

SENIORS SPEAK

ARNAV BANSAL
CSE 2018

Placed at GOOGLE

What general advice would you give about academics, placements and internships?

"First year is relatively chill so maintain a decent CGPA (8+) and try to explore as much as possible. Join different clubs and work in fests' organizing teams. It will give you a chance to not only enjoy but also manage things at a higher level. There is not much workload so trips and all can also be done in the first year.

Moving ahead, 2nd year is quite tough, especially for CSE people because there are heavy courses, so don't treat them lightly. Apart from that, be involved in extracurricular activities and fests too.

Coming to the 3rd year, it's time to get started with Internships so after the 4th semester is over, start preparing for it and try to grab an internship in the early days itself.

In the 4th year, the most important thing is to get a good placement offer so work for that. Since most elective courses are only left, you can enjoy your last year if you get a good placement."

What general advice would you give about academics, placements and internships?

"In the first year, I explored many clubs but then I joined - Dramatics, DebSoc and Fincom which matched my interests. As workload will increase, you will have to prioritize the clubs,so finally I was active in Undekha only. Later on, I became the Representative of Undekha and was the Event Management Head for Undekha."

What is your advice to juniors, especially regarding what and how they should explore during the first and second years?

"In my opinion, there is not much workload in the starting 2 years. So try to explore as much as you can. Be active in clubs because clubs are where seniors and juniors can interact freely. That's where you can actually bond with your seniors and it's of great help."

What would be your final message for us?

"Don't burden yourself. Just go with the flow. And try to go for an Inter- IIT Event at least once in your college life. You will definitely enjoy it and the memories you will make over there will last forever."

—

PRADYUMNA PARSAI
CIVIL 2018

Placed at WALMART

What general advice would you give about academics, placements and internships?

"I would say that everyone should enjoy themselves to the fullest during the first year but also maintain a decent CGPA around 8 so that academics also go smoothly. During our fest year, we got to do a lot of things as the fest was offline. Try to visit places around college and all. The internship drive starts from the third year so this is the time to seriously prepare yourselves and I was able to get an Internship at a good company. Coming to the 4th year, the academic load is less compared to the previous years. The major thing is placement and I got a PPO from Walmart so it was chill for me. And

after my friend and I got placed we enjoyed as much as we could."

How did you balance academics and clubs along with other activities?

"Coming to clubs, I didn't join any club in my first semester. Then I joined Alpha and Alankar. Gaming club culture was actually promoted by our batch only. So I was quite active in that too. As my workload increased, I had to divide time between clubs, so, I tried to participate in some activities of Alankar and was active in Alpha sessions.
And then in Zeitgeist, I worked in the Event Management Team which was also a really great experience."

How should a non-CSE individual prepare for SDE jobs?

"So, my branch was Civil and I would say it's a chill branch and you can manage the coding and other stuff along with it. During my first semester, I had plans about changing the branch but then working that hard is not really required. You can still grab an SDE opportunity if you have the relevant skills. Also always consult your seniors if you need any advice. I worked on my programming skills and got a decent Internship at Walmart, and also got the PPO later on. So, everything was quite sorted."

What would be your final message for us?

"I would say maintain 7.5+ CGPA because it's a safezone and apart from academics create memories because that is what you will remember about college the most. In short, I would say SAB KUCH TRY KARO KUCH BHI REH NA JAAYE."

—

NAVTEJPREET SINGH
CSE 2018

Placed at GOOGLE

What general advice would you give about academics, placements and internships?

"When the college just started I was confident about coding as I had prior experience with JAVA in 11th and 12th but soon I realized that it was just a small part and there is a lot more to learn. In the second semester, there is a course GE103 - Introduction to Computing which is really important for CSE students so I focussed on that. During my B. Tech I took the core courses very seriously because they are important for CGPA as well as for placements. In my second year, when the seniors were applying for internships, I got a reality check, and then after talking to seniors, I realized it was time to buck up and learn skills. I didn't focus much on Competitive Programming but I completed DSA, OS, and DBMS quite sincerely. In the fourth year, the whole concentration was on Placements and after that just enjoy."

How did you balance academics and extracurricular activities? How was your experience with the clubs?

"Initially, I tried to attend sessions of almost every club. Later on, I prioritized Alankar and Basketball. It's quite obvious that you will not be able to give time to every club so divide your time accordingly. Like, when Sports events were going to be held I focussed on basketball and had to cut short the time for Alankar. You can compensate for this by giving time to a certain club when work pressure is less and you have enough time."

What is your advice to juniors, especially regarding what and how they should explore during college life?

"There are a lot of activities to do and learn from. Attend Inter IIT fests: for both cultural and sports activities. Then we have lots of events in our college like - the General Championship, IYSC, IBCC, Aarohan, Advitiya and Zeitgeist. Participating as well as managing these events are quite fun."

What would be your final message for us?

"Make friends and enjoy with them. These moments will stay forever with you."

—

KARTIK ARJARIYA
MECHANICAL 2018

Placed at CoinDCX

What general advice would you give about academics, placements and internships?

"From the very start, I was interested in Non-Core and was a part of Fincom since the beginning. So, I always tried to learn new things. At the end of my second year, I joined the E-Cell. My focus was on learning Product Management and Marketing.
I also learnt Data Analytics and Machine Learning and my term paper was on "Stock Prediction". In my third year. I joined ShARE which is an international organization and our college also has a ShARE chapter. Basically, it is related to consulting and soft skills. I also became the Learning Unit Manager in ShARE. I would say I was quite good at Consulting and Finance but

was interested in Marketing too and hence, I explored that as well. My batchmate, Ashwin Goyal and I participated in a competition related to Signals and Python, and bagged a gold medal. In my opinion, practical experience is very important and we learn the most from it. This was the reason I tried to do various internships to nurture my skills. Throughout my B. Tech I did 7 internships in total."

How many clubs did you join and how did you manage them?

"Initially, I tried to know a bit about almost every club of interest, and then in the first year, I joined DebSoc, Fincom, Arturo, and Alpha club. Attending sessions is quite great and I learnt a lot from Fincom sessions and this was the club in which I was active throughout my college life. In the second year, I became the representative of the Alpha club and later on mentor."

What would be your final message for us?

"Just try to explore and enjoy things. We went to IIT Delhi Rendezvous and participated in video editing and bagged the 5th prize out of the 13 teams. It was really an exhilarating experience and we not only enjoyed it but it will remain one of the best memories for us. So, I would say try to attend these fests as much as you can. Don't miss out on anything."

—

HANSIN AHUJA
CSE 2018

Placed at GOOGLE

What general advice would you give about academics, placements and internships?

"During my first year, I was focused on academics and along with it, I managed two of my clubs. In the second year, I worked on my competitive programming skills and balanced academics side by side. The internship drive starts in the third year so I got a good internship at Walmart in the early days. So the third year went quite well. Later on, I got the PPO and now there was no pressure related to placement. Coming to the 4th year I did a research internship to explore further. In my last semester, I tried to explore things off-campus since there is no academic load."
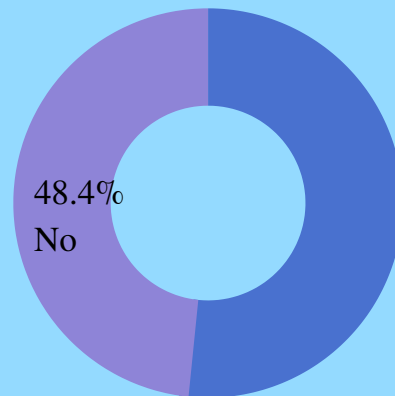
How did you balance academics and extracurricular activities? How was your experience with the clubs?

"I joined two clubs - Dcypher and DebSoc and finally, I was active in DebSoc only. During our time club culture was really great and due to COVID things changed and now it's not the same so try to make it better. I would say that when you really enjoy something it won't feel like a burden and it's the same with the clubs. Shortlist the clubs and be active in your favorite club; that way it will be a sort of recreational activity for you."

Now, a new phase of your life will start. So what are your future plans?

As of now I don't have any immediate plan but in future maybe I will go for higher studies. I have created a decent profile for that. (339/340 in GRE)

% EXPECTING BRANCH CHANGE

48.4% No

EXPECTED CGPA

48.5%

29.3%

13.1%

4%

1% 1%

3%

1 2 3 4 5 6 7 8 9 10

PLANS AFTER GRADUATION

10% Higher Studies

15% Core

6% MBA

14% Start-up

32% Tech Role

17% Non-Core

6% Civil Services
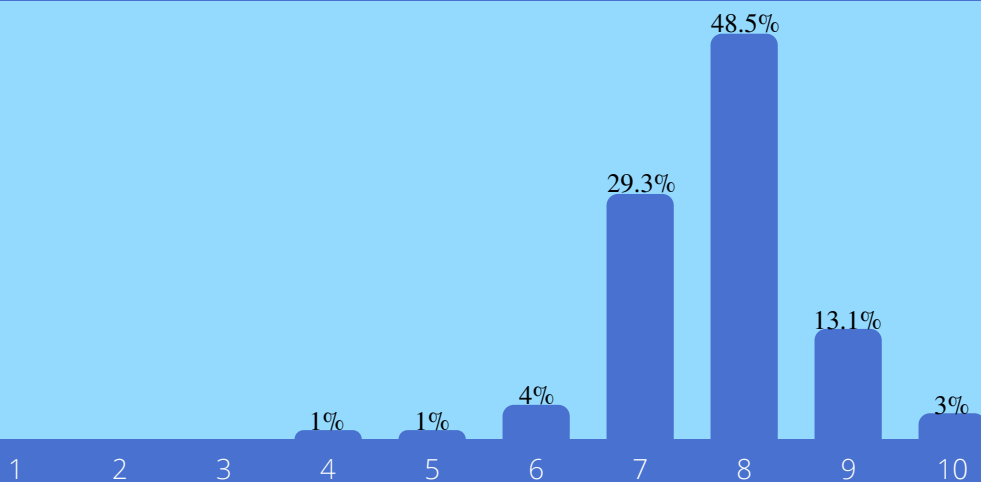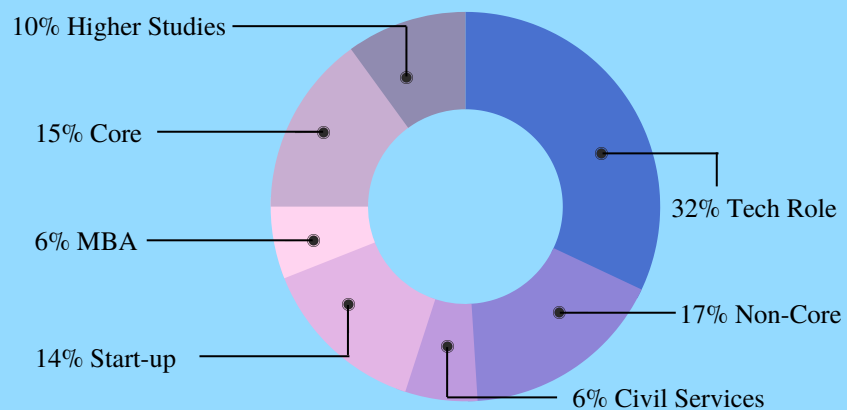
24% Will never do it

16% Never heard of it

60% Only if required

VIEWS ON PLAGIARISM
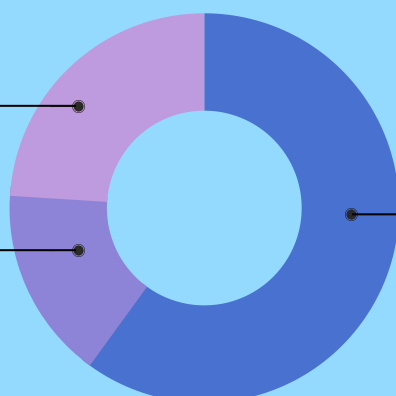
ANOTHER IITIAN IN FAMILY?
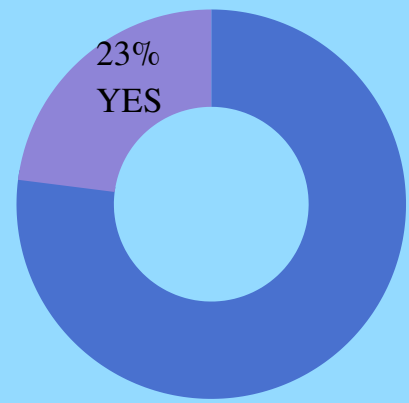
23%
YES

BOCA CLUBS DISTRIBUTION

- 31.3% Arturo
- 12.1% Undekha
- 11.1% DCypher
- 24.2% Alankar
- 11.1% Vibgyor
- 3% Epicure
- 32.3% None

BOLA CLUBS DISTRIBUTION

- 11.1% Alpha
- 17.2% Debsoc
- 9.1% MUN
- 34.3% Oratory
- 9.1% Enigma
- 47.5% None

BOST CLUBS DISTRIBUTION

- 23% Aeromodelling
- 14% Automotive
- 15% CIM
- 15% Monochrome
- 23% Robotics
- 63% Coding
- 32% FinCOM
- 24% Zenith
- 38% Softcom
- 11% None
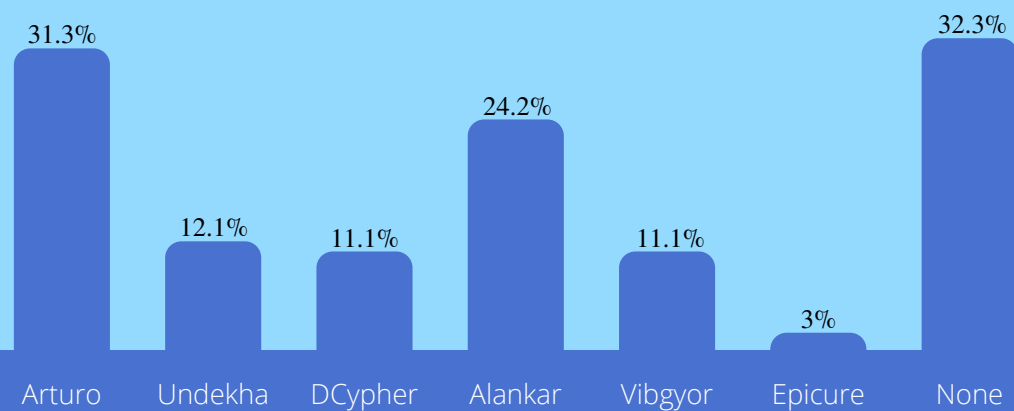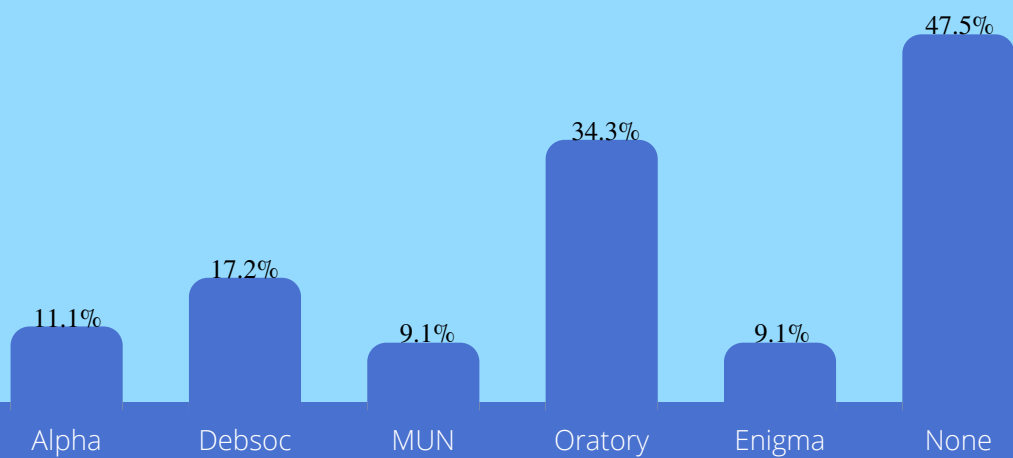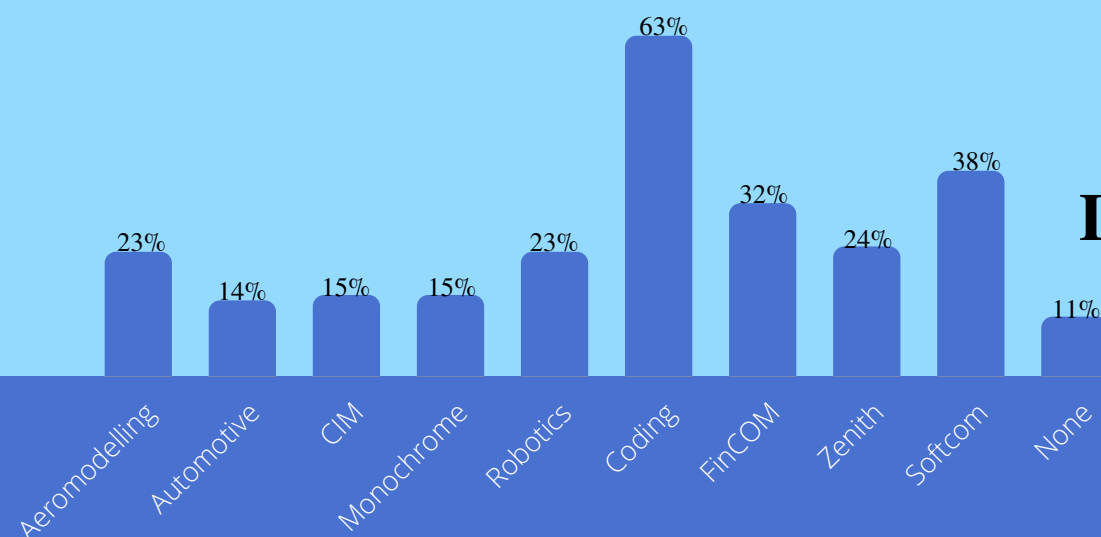
FAVOURITE ASPECT OF COLLEGE LIFE

SENIOR junior interaction

GYM

ROAMING in the hostel at night

CHANGES a teenager into a responsible adult

EVERYTHING. For the whole day you are involved in one thing or the other. Sports, academics everything

CHILLING and refreshment and exploring things.....all with friends

BIRTHDAY Parties at CD!

1:30 AM maggi point trips, hanging out with friends

MEETING new people with different mindsets and goals

HEARSAY ABOUT THE INSTITUTE

HARRAPAN inscriptions on pillars at entry gate are not yet decrypted

THE 3RD floor ghost of Admin Block

WINTERS are awesome here

STORIES of transition from the transit campus to the main campus

OPPORTUNITIES >> number of students

OVERHYPED Oreo shake

FLOODS and how the whole college was submerged

In today's world, social media is one of the best ways to pass time. No matter what your frame of mind is, if you are content or dejected, to cheer up you will use social media platforms. Many of us, especially the older generations, believe social media to have negative and cynical effects. Well, not really! One of the main aims to introduce and develop social media was to promote interaction among people. Social media is also one of the best ways to gain knowledge if used in the right manner. Platforms like LinkedIn have benefited many. Basically, it all depends on the user and his/her usage.

Over the years, generation by generation, social media is becoming popular, especially among the youth. With the expansion of the internet and after globalization, it has become prevalent. Its roots are now expanding, incorporating more and more features. The first ever way of digital communication was telegraph, with email following shortly after and then ultimately followed by our social media platforms.

Rise of Social Media

The first social media site to reach a million monthly active users was MySpace. It achieved this milestone around 2004. This was arguably the beginning of social media as we know it. In 2021, there were 4.48 billion people actively using social media, which is an increase of 13.13% year-on-year from 3.69 billion in 2020. Back in 2015, there were only 2.07 billion users . The growth has more than doubled in just six years! A major reason behind this growth is that most people believe it is the best source of entertainment. Moreover, social media also serves to be a good source of information and an effective communication & interaction platform with powerful learning & networking opportunities. In recent years, it has been observed that many small businesses have opened their pages/ accounts to promote and sell their products. However, social media also has some stumbling blocks. One of the major snags is addiction. According to the recent surveys, many children and teenagers have lost emotional connectivity due to excessive use of mobile phones. This has also made their face-to-face communication skills atrocious. Many neurologists even recommend not using mobile phones for a longer period of time due to its aftermaths on our brains, especially for kids under 15. Insomnia among youth has become very common over the years due to their addiction towards phones and social media. Social media is also accused of painting unrealistic pictures of lifestyles and personalities for the common mass, which may factor in to negative effects like depression.

It is perceived that the growth of social media is on the constructive side. With time, more platforms will be introduced, and new features may get added to the current ones. Man is a social animal, most of us crave interaction and communication with other humans, so social media hands down is one of the best ways to satisfy this craving.

With new technologies like augmented reality coming to the scene, the least we can say is that social media will continue to be the major phenomena for days to come.

Ashwani Sahane
B.Tech, First year

The Korean Wave

Shreya Ganguly
PhD Scholar

It's not bewildering how a string of guitar armoured with melancholic voice can entice the entire globe with its magic. The evolution and the scope of music always had a spell bounding effect on all of us. We all have a song for every mood, to sooth our emotional voids and keep on fighting to live another day. From childhood, we are exposed to a kaleidoscope of genres, numerous languages, countless singers and cultures. Now that we are all grown up and started our own journey of life, we realize that music is not just entertainment; it's a powerful weapon, defining the essence of life.

Boy bands form an integral part of the music industry. From "Queen" to "Aerosmith" to "blue" to "Backstreet Boys", we have come so far. For the past decade, we see the rise and rise of a Korean indigenous boy band called "bangtan sonyeondan" or "bulletproof boy Scouts" abbreviated as BTS. Seven boys with no musical background, with no financial backbone, managed to shine because of their unfathomable passion for music. Their struggle somehow became our struggle, their defeat became our defeat, and their success became ours. We could relate to their music simply because they sang what we, the youth, want to convey to the world. Our dreams, our paths, our wishes were beautifully encapsulated in their verses. From "no more dreams" to "blood, sweat and tears" to "the moment is yet to come", they are now the no.1 artists breaking all records and stereotypes. Their fans are called "army" and rightfully so. Their humility, gratitude, simplicity and brotherhood impress everyone across the world. From performing at the Grammys to giving a speech at the UN, these boys are rising even higher. It is their undying love for music and diligence which will keep them forever in the history of time. The message is simple, never lose hope and keep on surging forward without any fear and inhibitions; and of course keep the spirit of friendship alive.

Let's not forget the Korean TV shows which are keeping us hooked to our seats. There is a show for every genre: horror, suspense, romance, comedy. From fierce zombies to mind games…the spectrum of shows is infinite. Who would have thought a show where contestants participate and play deadly games would take the world by storm? Or, a South Korean woman accidentally falling in love with a North Korean soldier would make our hurts flutter? Yes, the originality of the scripts, the nonchalant grace and charm of the artists worked magic both on and off- screen. We again could relate to the characters, empathize with them, grow and mature with them. From the portrayal of real life struggles to taking us to the mystic land of magic, Korean drama had it all. How can we forget the brotherhood between a goblin (god) and the grim reaper (devil) or the banter between a Korean-Italian mafia and a lawyer? How can we not support a dentist travelling to a village and finding her true self, or an old wrestler restarting his career to pursue his dream of becoming an MMA champion? The dramas became our lives, our solace after a rough day. We can feel their struggles and relate to ours, we can live their lives because the characters represent us, an ordinary person with extraordinary dreams. The evolution of Korean Entertainment industry would continue to break boundaries in future, and we are here for it!!!

Entrepreneurship

Anmol Verma
B.Tech, First Year

We often hear the stories of entrepreneurs who have started their own successful businesses. The first thing that comes to one's mind after hearing the term "entrepreneur" is a person creating a business targeting some problem statement. After defining entrepreneurship, it is now time to define who an entrepreneur is? An entrepreneur is someone who develops a business model, acquires the necessary physical and human capital to start a new venture, operationalizes it and is responsible for its success or failure. The first and most important skill for any entrepreneur should be the capability to think out of the box. Note that investors usually tend to invest in ideas and concepts which they feel would generate adequate returns for their capital and investments and hence, the entrepreneur needs to have a truly innovative idea for a new venture. An entrepreneur must also have good social skills as he/she will, at some point in time, be responsible for handling a team for their work. Further, the entrepreneur needs to be a leader who can inspire his or her employees as well as be a visionary and a person with a sense of mission, as it is important that the entrepreneur motivates and drives the venture. Entrepreneur loves the term creative destruction, it refers to the replacement of inferior products and companies by more efficient, innovative, and creative ones wherein the capitalist market based ecosystem ensures that only the best and brightest survive whereas others are blown away by the gales of creative destruction. We all know these great-minded people: Bill Gates, the founder of Microsoft and Steve Jobs, the founder of Apple were college dropouts. But their innovative idea, conviction and determination eventually led to greatness and success. They ensured that their work was also sustainable and beneficial in the long run. Their resilience and courage made them noteworthy in the field of science and technology.

Chak de India!

Shreya Ganguly
PhD Scholar

In a country where Cricket resides in the soul of every individual, a country where in every nook and corner cricket is played and celebrated despite any odds, it's very hard for another sport to grow and thrive. But the Tokyo Olympics 2020 proved to be the game-changer for Indian sports and its madness. We see the emergence of versatile talents in versatile fields; we see Indian women shinning in boxing, weight-lifting and badminton. We saw the charisma of Indian hockey teams (men and women), and of course we see the rise of our "golden boy" , Neeraj Chopra through Javelin throw.

Born in a remote village in Manipur, from carrying sandbags on her shoulders to winning the silver medal at the 48-kg weightlifting category, the struggle of Saikhom Mirabai Chanu touched every Indian's heart. She showed us that if you have a dream and talent, nothing and no obstacle can stop you. She became an inspiration to every Indian girl who struggle every day to earn their rights in the society.

Lovelina Borgohain, a 24-year-old girl from Assam, powered her way to win the bronze medal in boxing for India. Her strength, perseverance and love for the sport made her a winner from the beginning. Her confidence and self-belief made her achieve the impossible dream.

India had immense faith on P.V Sindhu, a badminton star of our country, and she delivered in style. Winning medals in back-to-back Olympics established her expertise in her game, with focus, dedication and willpower being the key to success.

Wrestling is a sport which has always been a gem of Indian sports. Two powerful wrestlers hailing from Haryana, India proved this point. Ravi Kumar Dahiya bagged a silver medal, while Bajrang Punia bagged the bronze. The adrenaline rush throughout the match for the audience hooked to their TV screens was unmatchable. The joy in the atmosphere was immeasurable when we saw history being written in front of our eyes.

Neeraj Chopra, a 22-year-old with strong muscles and even stronger willpower, powered the javelin into the Tokyo sky which landed at 87.58 m, more than enough to secure us the Olympic gold. After Abhinav Bindra, he is the first person to win gold in any individual sport for India. His unfathomable confidence, patience and impeccable focus gave us goosebumps when our national anthem was played at the highest international platform. The whole nation stood proud with our heads held high. "We are Indians, we are invincible" echoed in our bloodstream.

Lastly, we witnessed the resurrection of our national sports. YES!! Hockey was back to shine, to conquer. "chak de India" ran in our veins when the men's hockey team won the bronze medal in the Olympics. India beat the favourites, India beat Germany!! The boys played like they have nothing to lose, we could see the dream in their eyes, we could see the hard-work in their perspiration.

Special mention: golfer Aditi Ashok and fencer Bhavani Devi , the rising stars of Indian sports. They were absolutely magnificent to watch, a medal or not, they are our pride; we can visualize them winning medals in Olympics 2024, Paris.

To conclude, our country is filled with hidden talents and diamonds. We need to develop a proper platform and opportunities for them. We Indians can make a miracle happen if we dare to take a chance and believe in our dreams.

LITERATURE

The Wayfarer

Aamir Bashir, PhD Scholar

After deserting the last milestone, I looked into the faraway horizon and saw nothing but dust embroiling the orange skies. The men trudged with rusty chains; trudging along the ridge screeched the lords, begging for mercy. Little children were attached to the massive chains and were dragged by the bloody ankles of their fathers. Women, unlike men, were dragged by the muscular unicorns with chained horns. The piercing cries also made the brains turn. In the ongoing struggle to escape the approaching sun and searching water, the crowd moved forward. The people fell, striving to survive and were woken up by their children. Some women also had children attached to their bellies, but they kept them on top to save them from the abrasion of desert sand. While the onlookers were surprised to see me sifting through the crowds as I had no human attached to my feet, they cheered me for beating everyone in the race to live. The oasis was quite visible from the place I reached. It had freshwater, and the smell of food motivated me to run at speed. I was the first to reach the water. As I ambled near the water, I was stopped and asked to prove my identity.

"But I am stark naked with nothing on me", I said in a soundless voice.

"Of course, I have the right to quench my thirst. I have been told," I said to the guard.

"No, it is for the child bearers," said the hoarse voice behind the mascot that stood at the gates.

I moved on to reach the next water pond, where only women with swords marched from one end to the other. I was forbidden to drink from it too. What was my mistake, not having a child? Not being a woman? I wondered as I walked slowly back to the desert. I was sent back towards the sun, from where everyone was coming back. I saw a man with a white beard donning a satin gown and wearing white shoes, a queer look.

"Oh, another wayfarer. Welcome, my brother," he opened his arms to welcome me.

"Thirsty? Sip some water from my can," he gave me some water to quench.

"What is the deal with the springs, I thought I was the one to get the water first, but it turns out I'm an outcast," I said while gulping the mouthful of cold water.

"Yeah, it is a gamble. Sometimes we lose, and sometimes we win; it all depends upon the perspective. The people with responsibilities, those children," he pointed towards the people, "get the benefit by quenching their thirst from springs, while the people like you and me roam freely without any baggage, so we don't get any water too. Simple, isn't it?"

"No, who decided it for me?"

"Well, it is a roll of the die, whose name comes up, is the lucky bastard."

"Where do you get water if we are prohibited from drinking at any spring?"

"That is the actual game. There is no water, no destination, just the illusion of getting somewhere and taking a rest. There is nothing. It is only visible to the eyes that are open," he brushed his fingers on my eyes and face, and I saw nothing, just the path, no heat, no thirst, just sand. I heard the whispering sound, "O wayfarer, just travel."

I woke up with my phone alarm screaming on my pillow.

Crimson Karma

Manav Chauhan, B.Tech First Year

Red and blood these hands, I wash them.
Weak chains, yet weaker veins
The blood that runs amok them
The blood that long-lost them
To where it flows, who yet knows
Yet long haunt behind them
At damp of night, write morning flow
And morning grows to mock them
The mocker mocked as the mocking fades
The stains of blood upon them.

TANGLED

Shubha Tanaya, B.Tech First Year

There was a time
when words didn't count
but feelings did resound.
It was as simple
as it sounds.

It was simple yet warm; pure love.

But as I grew old
the world turned cold.
Everything was a mess
it was all very complex
like a game of chess.

And now is a time
when even the best of our words
fail to disentangle
my very simple emotions.

Fail Again

Aamir Bashir, PhD Scholar

When the flailing leaves fail to fall
When the sunset occurs beyond the last knoll
When the hands of the clock freeze in time
When the sounds stagnate in the heavenly chime
When the tapping of feet attains the halt
When the wheels stop without a fault
When the sheets remain rolled without grime
When the chatter is blabber with no prime
When the perching birds are sheltered by pall
When the tides of the sea forget the sprawl
When the snowflakes stop with the freezing time
Just look me in the eye and feel the climb
Life was good; death is for all
Let's embrace the death without a bawl
Just hold my hand and fail again.

गीतः- सुधि

Adarsh Prakash Pandey, M. Tech

मन हमारा कह रहा जो अब न गीतों में मिलेगा।
तुम हृदय की हिचकियों पर अब ज़रा सा ध्यान देना ।।

अब न आएंगे कभी हम,
जीत कर फिर हार जाने।
या कभी भी अब पुनः हम,
प्रेम के कुछ गीत गाने।।

राधिका सी बन कभी अब तुम हमें मत ज्ञान देना।
तुम हृदय की हिचकियों पर अब ज़रा सा ध्यान देना । ।

आज अधरों तक गए हैं,
चक्षु से कुछ अश्रु खारे।
चित्र जब हम फिर तुम्हारा,
आँख से अपलक निहारे ।

आज से तुम नेह के हर आँसुओ को मान देना ।
तुम हृदय की हिचकियों पर अब ज़रा सा ध्यान देना । ।

अब किसी भी वेदना में
याद ना तुमको करेंगे।
और उत्सव भी हुआ तो,
आँख से आँसू झरेंगे।

फिर प्रणय की बात पर तुम अब न अपना प्राण देना ।
तुम हृदय की हिचकियों पर अब ज़रा सा ध्यान देना । ।

संघर्ष से ही सफलता

Sakshi Bhagdikar, B.tech First Year

प्रतिदिन के संघर्षों में,
पूर्ण होते स्वप्नों में,
नव जागृत आशाओं में,
नष्ट होती बाधाओं में,
पुनः अन्वेषित करना है स्वयं का अस्तित्व।
सत्य तथा तथ्य के द्वंद्व में निर्णायक हम नहीं,
सफलताओं के देदीप्यमान नायक हम नहीं।
अंधकार के साम्राज्य के नहीं हम दुर्बल
निवासी,
हम तो हैं जीवन यात्रा के अध्यवसायी प्रवासी;
उत्साह व आत्मविश्वास से युक्त,
समक्ष उपस्थित है अवसरों का गगन उन्मुक्त।
जिज्ञासा का वरदान है प्राप्त,
किंतु हमें पराजित करते संदेह के घात।
अंतर में है प्रकाश कुंज,
फिर क्यों हो प्रश्नों का चक्रव्यूह?
समर्पण के पवित्र जल से
सिंचित होता श्रद्धा का सुन्दर आश्रय,
विपत्तियों में हताश होने का क्या है आशय?
ज्ञान के अथाह सागर में , नर है जल एक
कण,
विनम्रता पूर्वक परिस्थितियों से करता शिक्षा
ग्रहण।
यही तो है मानव जीवन का चरम लक्ष्य
स्वयं को स्वयं से ही पृथक करता क्यों मनुष्य?

THOSE WHO HAVE LEFT

Deepan Maitra, B.tech Third Year

When Latika reached out to the doorbell, she felt she could see herself running up the door from the other side of it, scampering with a thumping noise on the ceramic tiles of the floor. It is a strange feeling, she thought, a sort of detachment she was new to. The dampened silence brought her back to senses. No one would open the door this time. The reverberating shrill noise of the doorbell will reach each corner of the deserted house, but no one will emerge to take her in. These were the exact moments which Latika found so irritable to ignore, these moments of a gnawing hollowed void that drew out some hidden drops of her tears from her eyes, every time without a miss. She has the keys, she recalled. Or did she? She rummaged through the handbag, tossing out empty sachets, discarded receipts and strewing them around the doorstep, and she found it—the key. And the will to finally go in. A wrapper on the floor made a crumpling noise when she stepped on it. The blood rose in her face again to realize the litter she had made. Regardless, she unbolted the door and pushed her way in.

 The first thing she thought of when she closed the door behind her, was of an odd pungency hanging in the air. It seemed as if the air inside was at least a week old, scurrying around the room to escape but in vain. A sticky, almost visceral gloom lingered wherever she looked. Latika felt dizzy. Drops of sweat trickled down her collarbone and down to her patchy shirt. She understood she needed water, she was thirsty, each part of her was demanding drops of water like parched grains of sand. The dining table was close. In long strides Latika went up and fetched a bottle, opened it. That same pungent smell hit her again, now sharper and more distinct. She sniffed. She couldn't drink this. At last, the bottle she was carrying in her handbag quenched her thirst, and Latika could finally focus on the next feeling trying to catch her attention. Dread. Or was it remorse? She couldn't tell, it was all hazy—these distinctions.

 Even up in her mind, there was disarray all around. Anger, fear and irritation danced together in a maddening frenzy. Such was their dramatics that Latika felt she needed to hammer her head against the wall to silence them. But there was this larger, much grander silence that was pervading in the house—Latika realised, it was actually more of an aftereffect. Of absence. What was wrecking her bones and trying to rattle each inch of her body was this aching note of absence that had engulfed the house, and like the stale air in the house, she too felt she had nowhere to escape.

 Latika had always known partings were hard, departures were gut wrenching. But in all wild imagination, she had never known arrivals were so tricky too. This wasn't the first time she was coming back to her house after a long day of travel from miles across the country, this wasn't the first time that she was drenched in sweat due to the rising temperature on the road, this surely was not the first time she had unlocked the

front door with her spare keys and came inside the house to find it empty. In that dreary July afternoon when even the crows had suddenly gone quiet, Latika felt droopingly lost. Then she knew it. She knew what was different this time. In those earlier days, in those happy days of the previous years, the house was often empty. However, it will still be her home —where she could come back to. Today however, it felt discarded. Abandoned. It wasn't so much of a home anymore. Latika was feeling dizzy again. One departure had changed everything concerning this house. With a chill Latika finally gave in to bear with the fact: her mother was really gone. Departed. And the house would be perpetually discarded because the one woman who wore the life of the house like a shawl draped over her frail frame, had left. Without a warning.

Latika didn't know how long she had been standing at the side of the dining table, her mind playing on repeat, already broadcasted episodes of grief and agony. A sharp pain broke that reverie. She had been clasping the edge of the chair with so much strength that her fingers were hurting. Latika moved away. Then a coldness creeped in within her, as stealthily as a predator. An icy thought dawned upon her. The house wasn't empty after all. There should be, one man remaining, the lone prisoner of the lost times. Latika hurried across the hallway to reach the room on the other side, and peeked inside. 'Papa?', she called out. Colours had risen to her cheeks.

For this long a time, how could she have forgotten that her father did exist within the house? Latika felt guilt sneaking up. This was especially challenging for her, all these frenzied emotions bobbing up

and down, the unforeseen ebb and flow of it—how to account for them?

The room she had come up to, was remarkably darker from the hallway. That same sticky pungency still hung in the air, melting down any sort of joy that raised its head. Latika was not being able to see her father clearly, if at all he was there. There was a huddled lump on the bed, was that her father? Latika felt a stranger to her own life, how and why had it come to this? The anger crashed on her again, avalanching down without restraint. In soft steps, she moved closer to the bed. There was someone on the bed indeed, deep asleep and clutching the head-pillow in his arms like he depended on it for survival. Latika's eyes had adjusted to the dimness by then, and she sighed. 'Papa, I'm home. It's way past 2 already, why are you sleeping at this hour?'. No response came. She plopped on the bed and it creaked under her weight. Reaching out, she touched her father's shoulder, and immediately drew back with shock. Icy cold. Latika's mind was racing now, all sorts of ill thoughts had started clouding her senses in inauspicious tidings—she shuddered. 'Papa! Papa!', she screamed, shaking her father on and on. She could feel her breath as gasps, her panting echoing across the dimly lit room. 'PAPA!', Latika almost wailed now—frantically shuddering at the thought. What if!

Her darkest thoughts were not true, though. Soon Latika's father jolted up and looked around, scared and heaving, until he understood it was Latika by his

side. The daughter looked at her father—never like she had looked before. The image of her father reminded her of a battered painting, once colourful and serene—but now in a condition inexplicable, all due to weathering and the evil lashes of time. Minutes gave away to more. Yet Latika's father didn't speak. She stared and sat up straight, and tried to make all sorts of conversation. But the man in front of her, was hauntingly silent. No word came from his mouth. In his eyes though, Latika could see the briefest glimmer of recognition when he had first looked at her, but it was gone before she could look at it closely. Her father wore a vacant, drained expression like a looted emperor left only with his jewelled crown. Latika had given up by then. She felt a sort of disconnectedness that she wasn't accustomed to, as if one part of her was alien to the other—and any kind of coherent thought was tough to muster.

As soon as she was about to get up, the window clasped shut with a thundering noise, springing Latika to her feet. Roars of wind suddenly started to enter the room through the windowpanes—gusts erupting within and shaking everything along with it. A distant lightning lit up the room to make Latika see the scared face of her father in a flash and before she could reach out to him, the accompanying thunder teared the sky with a deafening howl and made Latika feel as if the sky was crashing

down upon her. Her father was shivering, he was looking here and there as if there was a beast lurking in the edges of the shadows and Latika felt a rising urge to wrap her arms around him for comfort. When she tried to move closer, her father drew back in fear—his face more contorted than ever, like a child afraid of anyone but his mother—his body stretched behind. Latika felt her eyes become moist and pain climbed up with her heart. Another thunderous noise rattled the room. The lashes of the wind were now stronger—blowing incessantly in stormy gusts. She heard the sound of the rain before she saw it, and no sooner had she run to the windows to bolt them shut, than a fresh spray of rain drizzled her face. Latika forced the window shut, but the wind kept howling behind, sounding as if some unnamed visitor was trying to break in. In a second, maybe responding to some unfathomed telepathy, she wondered if there would be clothes up in the terrace—now swaying in madness, the wind trying to wrack them off the rope and take them home. Latika ran outside the room and scampered up the stairs.

 Panting, she reached the terrace and looked around. What was visible was a sight of destruction, but a devastation so majestic. The downpour of the rain made everything be seen through a sheen of shifting grey, and it seemed that the sky had alighted on their terrace and wreaked havoc. The flower pots strewed around in broken bits of brown and ochre, the flowers blooming out like bright ember in that atmosphere of destructive pouring. Latika found the clothes on the rope—fluttering like crazy, risking to fly off. Latika wondered, is this another alien world—the bright sky of sunshine swallowed within this chasm of quivering rain in the blink of an eye! Was she really up on her own terrace, touching the hem of the clothes that belonged to this house she was standing atop—or was it something far from what can be sensed, a realm of opposites where her mother could still be downstairs trying to close all the windows on time—frisking about the house in her unclamped saree to not let the water seep in? Latika felt a moment of unimaginable joy as she measured the possibility of this sensation, the tears mixing with the rain, and she felt the urge to run downstairs and see for herself if her mother truly had returned. Barely had she turned back, when a long strand of cloth out of nowhere, came flowing down from the sky—a saree of polka dots and wide borders and yellow satin—as gift from the sky. Down it came, making a whisking noise as it flew against the wind, the edges shaking like a tattered flag. Latika's body got the littlest of time to react as the descending cloth fell over her, wrapping her wet frame. The more she tried

to break free, the more the saree hugged her stiff, the other end strewn on the ground. Up in Latika's mind, a fantasy was running free—the wildness of regaining the embrace of motherhood one last time, in one unearthly occurrence. She strode towards the terrace door, the saree bracing her as though it were she that it had come to clothe. Just as she was about to take the first step down the stairs, Latika's father stood in front of her—his eyes locked on Latika's self. Where was the man whom she had left downstairs—the one in front of her had eyes blazing in joy, his body radiating enthusiasm! Latika, oddly enough, felt she was trespassing a scene she wasn't supposed to be a part of. She felt her participation in this moment was wrong and punishable—and all she wanted was to run down and take that wretched saree out of her body. 'Pavitra, Pavitra—it is you again! I knew you were up here, collecting all the clothes', her father was crying now, tears streaming down his ached face. She knew. These tears were tears of unbridled wonder, of joy that knew no bounds. Pavitra—her departed mother, the one she was running down to find, and whom her father was scampering up to find—where was she, in the middle of this torrential downpour? Then under the light, Latika looked down the saree she was clutching around her body—yellow satin, polka dots—her mother's, Pavitra's. Latika again felt she shouldn't be here, and that she was belonging to a moment that was too unreal to exist—but all she wanted then, was the moment to be real.

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ACHIEVEMENTS

IIT Ropar ranked 22 in Engineering Category and 35th in the overall Category in the NIRF India Rankings 2022.

Prof. Rajeev Ahuja, Director IIT Ropar ranked among top Materials Science Scientists in Sweden & India. He stands among top 5 scientists in Materials Science with H-index of 91 and with 35,857 citations.

Mr. Thallam Prashanth, Research Scholar receives the Best Paper Award in the International conference on River Corridor Research & Management (IRCRM 2022).


Ms. Kanupriya Varshney, Ph.D scholar of Dept of Electrical Engineering has been selected for the IEEE WISC Scholarship 2022.

As per the latest Times Higher Education Asia University Rankings 2022, IIT Ropar is ranked 68th, grabbing once again the spot among top 100 Institutions in Asia.

IIT Ropar student's team "The elucidators" bagged 1st prize among 848 teams in Aeonea, organised by IIT Roorkee. The team pitched a product and marketing strategy for Ed-Tech Startup "GeeksforGeeks".
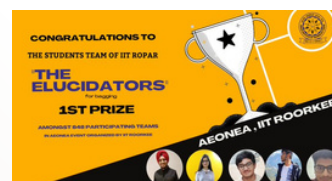
Ms. Amanjot Kaur, Ph.D scholar of the Dept. of CSE, has been selected for the IEEE WISC Scholarship 2022.

Mr. Rahul Bansal, B.Tech student at IIT Ropar and Mr. Phalgun Vyas, student of IIT Madras bag the Third Prize in Invention Factory Program held at IIT Bombay for their prototype of an "Active Thermo regulatory Vest"

Mr. Pritam Jakhar, B.Tech EE 2018, has secured All India Rank 9th in the prestigious UPSC Civil Services Exam 2021.

Ms. Kirti and Mr. Parshant has won Gold and Bronze medals respectively in the individual category in the Finals of PAN INTER - IIT YOGA COMPETITION conducted at IIT Bhilai.

Dr. Malkeet Singh, Prof. Harpreet Singh, Prof. Christopher Berndt and Dr. Prabir Sarkar for the Grant of US PATENT on the invention of "Scrap Recycling-Based Additive Manufacturing Technology."

Prof. Neelkanth developed first of its kind Nanobubble generator, which has advanced aeration system that creates nanobubbles in water. Nanobubbles has property to decontaminate the pollutants in water and the technology scaled up and ready to use by industries.

Dr. Neha Sardana receives IEI Young Engineers Award 2021-22 under the Metallurgical & Materials Engineering Division of The Institution of Engineers.

Dr. Rajesh V Nair among top "75 under 50" on Ministry of Science and Technology's "75 under 50 scientists shaping Today's India".

Researchers at IIT Ropar developed Semi-Automatic Food Processing Device For Preparing Sweets and Savouries. Congratulations to Dr. Prabir Sarkar and his team on grant of this patent.

Researchers developed a Biomimetic Implant Device for Osteogenesis Imperfecta. Congratulations to Dr. Jitendra Prasad and his team on grant of this patent.

Ms. Leena Arora for was selected for the Newton Bhabha PhD Placement Programme for the year 2020-21. The fund fosters long-term sustainable research collaborations between UK & India.

Dr. Tharamani C. Nagaiah, Department of Chemistry IIT Ropar on being admitted as a Fellow of the Royal Society of Chemistry through "Leaders in the Field" Scheme.
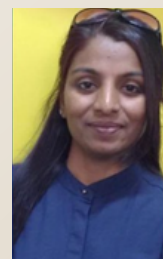
Ms. Shreya Ganguly, Research Scholar in the Department of Civil Engineering, IIT Ropar received "Best Presentation Award" presented at the Hydro International Conference 2021.

IIT Ropar in association with Harvard University, MIT USA, MGH Global Health and Dayanand Medical College developed a Machine Learning model that accurately predicts In-Hospital outcomes at the admission to a cardiac unit.

The researchers at IIT Ropar have developed an electronic massager for calf muscles that can reduce the risk of fainting among the blood donors during or after the blood donation.

BOCA

BOCA celebrates the spirit and enthusiasm of the students in a very unique way of its own. This board controls and supports all cultural activities happening in the campus.

Undekha is a family of artists nurtured with passion, acting, rehearsals, emotions and fun. The primary events of Dramatics Club are: Monoact, Stage plays and Street plays. The club conducts regular sessions and annual workshops by reputed directors. The club has been active in events like Zeitgeist, the annual cultural fest, Cultural nights and Monthly Club performance.

D.Cypher is the dance club of IIT Ropar. It has two team Western and Bhangra which performs in various events. The club organizes various workshops for the students and competitions on various events like Diwali, GC, fests etc. and have regular sessions throughout the year.

The music club of IIT Ropar, Alankar encourages members to pursue their interests in various fields of music and conducts regular sessions for instrumental and vocal students. The clubs also provides a wide range of instruments for the students to choose from. The club organizes regular jamming sessions and competitions for the students.

The fine arts club of IIT Ropar, Vibgyor provides its members the opportunity to express their thought and ideas through the medium of art. The club conducts numerous sessions on the various art techniques and the proper use of different art tools for the students. The club also conducts activities and competitions for the students.

A relatively new club, Epicure brings forwards the culinary talent in the students by guiding them and providing a platform to express their cooking skills. The club conducts regular sessions for the students and also organizes competitions to make the best meals according to the theme matching the occasion. The club also actively participates in several inter college competitions.

The photography club of IIT Ropar, Arturo provides its students the opportunity to master the art of photography by providing them an arsenal of high-end gears. The club organizes workshops and talks on various techniques employed in photography. The club is also responsible for capturing all the major events that take place at the institute premises.

The Board of Literary Affairs (BOLA) promotes the art of speaking on various platforms and provides an outlet for cultivating literary talent.

Alpha Productions, IIT Ropar is a channel for students to express their creative and revolutionary ideas and expressions to the world through the latest medium of internet (movies and films). All the student creations are expressed by this club of the board. The club conducts regular sessions and talks to teach students about movie making and video editing.

The debating society of IIT Ropar, DebSoc selects members through a vigorous interview process and conducts a wide range of sessions from mock debates in the Asian Parliamentary format, to knowledge sessions by experts and alumnus. An end of year freshers tournament is conducted each year. Members participated and won in several debating competitions throughout the year.

The oratory club of IIT Ropar, Enarrators aims at providing a stage to speak and discuss topics from all

walks of life of life. The club and its members also handle anchoring in various events at the institute. The club regularly organizes open mic sessions and round table discussions for the members.

Enigma Club is the official quiz society of IIT Ropar. A great place for quiz enthusiasts, it organizes regular quiz sessions for the members. Members participate in various quizzes, with the students bagging laurels in several national level quiz competitions.


The movie screening club of IIT Ropar, Flimski takes care in making the weekends fun for everyone at campus by screening movies and sports matches at the campus premises every week, with huge attendance from the students.

The MUN (Model United Nations) Society of IIT Ropar provides the students a platform to experience the field of diplomacy and global politics by conducting regular mock sessions. The club teaches the MUN format and also hosts knowledge sessions for the members.

Poetry is the universal language of emotions and expression. Alfaaz, a fairly new club, aims at nourishing poetic culture in the campus. The club hopes to achieve its objective through the efforts of enthusiastic poets of IIT Ropar . Alfaaz will serve as a platform for such students.

BoSA
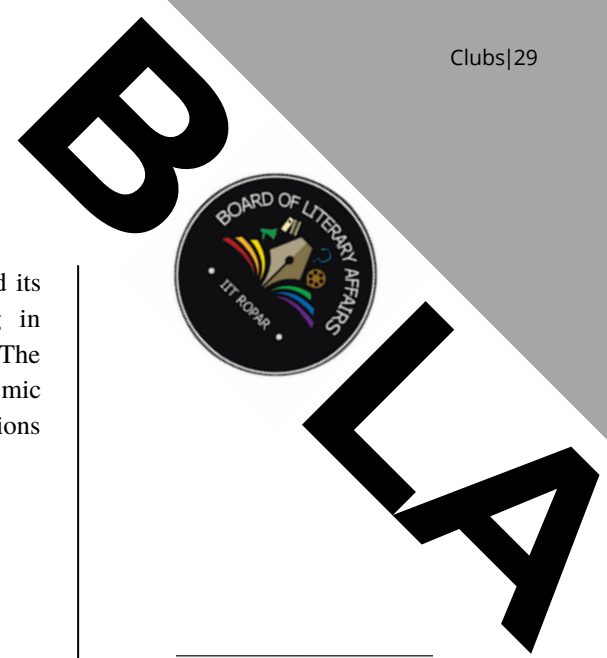
All the sports related activities of the Institute come under the Board of Sports Affairs. Under this board, there are various clubs, each dedicated to one sport.

The major events that this board conducts are - IYSC (Inter Year Student Championship), Aarohan (Sports Fest), etc. The club members actively participate in events like Inter IIT sports meet.

The various sports club under this board are:
Athletics, Badminton, Basketball, Chess, Cricket, Football, Hockey, Lawn Tennis, Table, Tennis, Volleyball, Weightlifting.

The Board of Science and Technology has clubs set up to kindle and nurture the love for technology, each club with its own specialization and guest lectures by prominent personalities in the world of technology and science.

The CIM (Computer Integrated Manufacturing) Club aims at harnessing the power of computing for simulations and designing. Students are taught about the basics of softwares like SolidWorks, AutoCAD and ANSYS. The club conducts various events and sessions throughout the year.

The Automotive club educates its members about the various technologies associated with the automotive industry. The club conducts several sessions ontopics like MATLAB, IC engines etc.. The club members have been active participants in several national and international competitions like E-Baja.


The Aeromodelling club is a group of aeromodelling enthusiasts who aims to build prototypes of miniature sized airplanes, drones, gliders and other air- borne machinery. The club conducts regular sessions and talks by experts. The club members are active in various competitions.
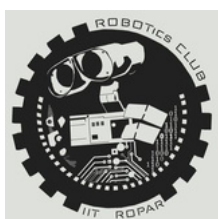

The club conducts various sessions, like a series on TinkerCAD and an ROS learning series that saw participants from over 20+ universities. The club also hosts competitions like TinkerCode for students of various institutes. The club members participate in several competitions, clearing stage 1 of the prestigious ROBOCON this year.

Fincom enhances the problem-solving skills of the students. The club runs its own courses on finance (FnC101), data science (Data101), product management (PM101) and consulting (Consult101) with more than 120 students registered in each course. It conducts regular quizzes, assignments, seminars and panel discussion by guest lecturers.
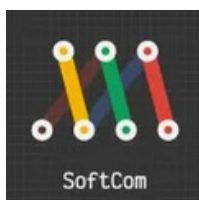
The Software Community teaches the members about the tools required for the development of any form of software. Sessions are conducted on topics like web development, app development, machine learning etc. The society also contributes in making applications and websites for the institute and the various fests.
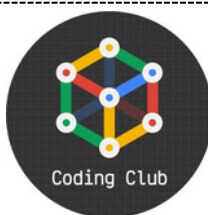

The coding club teaches the students all the aspects required in competitive programming and problem solving. The club divides its members into different tracks according to their familiarity with coding. The club conducts regular sessions and talks with alumni and also hosts sponsored contests on a regular basis.

Zenith provides a platform for all space enthusiasts to explore their interests. The club conducts several discussions and documentary screenings. The club also takes regular star gazing sessions for the members. The club also releases its monthly magazine, AstroMag for the students.
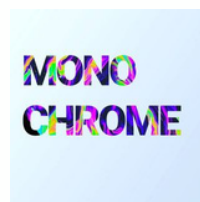
The digital art club of IIT Ropar, Monochrome encourages students to show their creativity through the aid of computers. The club conducts sessions to teach basics of softwares like Photoshop, Illustrator and Premier Pro for the members. The club contributes in all design related aspects of the college; from posters to logos.

"Pehchaan Ek Safar" (Quest for Identity), is a non-profitable organization run and governed by the students of the Indian Institute of Technology, Ropar which started in Jan 2019. The prime objective of society is to ameliorate the weaker section of society and the people in need without any discrimination. Pehchaan Ek Safar primarily operates two projects: Paathshala Project and School Outreach Project.

Under Paathshala Project, the volunteers teach the underprivilegedchildren living in the vicinity of the IIT Ropar campus daily, support them in availing school education and focus on their overall growth. Additionally, students are also helped prepare for competitive exams like the Navodaya Vidyalaya Exam.

The outreach project focuses on communicating the science behind cutting-edge technologies and exposure to the recent developments in STEM through activity-based learning. Team Pehchaan feels the need to be at the forefront of the battle against illiteracy.

ShARE

ShARE is an innovative start-up at the crossroad of education and consulting. It runs a leadership program to turn bright university students into Do Well Do Good leaders, and helps corporates to serve both the shareholders and the society.

The program is offered to bright students from the world's best universities after rigorous hiring. Currently, students from 44 countries and 110 universities are taking the program. In India, it is available in premier institutions like IIMs & IITs.

ShARE Global Mentors include Tony Blair (former UK president), Hailemariam Desalegn (former PM of ETHIOPIA), along with Trainers/Partners from McKinsey, BCG, Bain, etc.

ShARE
GROWING CHANGE MAKERS

ENACTUS

Enactus stands for Entrepreneur Action and Us. It is a worldwide non-profit organization comprised of top business leaders and university students intended to make a better and more sustainable world. Guided by academic advisors and business experts, the student leaders of Enactus create and implement community empowerment projects around the globe. IIT Ropar is one of the few IITs to have an Enactus team. The team has previously worked on several projects like Prabhas, Vastra and Dhun. This year Enactus IIT Ropar continued the work on STrend and Shwas and made it to the top 16 teams in the nation.

ISMP

ISMP stands for Institue Student Mentorship Program. The sole purpose of ISMP is the smooth induction of students to college life in a fun and entertaining way. When it comes to any advice, the best option is to consult your seniors as they go through similar issues and will be able to understand you better. This program facilitates interaction between juniors and seniors and helps them bond with each other. Our ISMP Team consists of the Core Team and mentors selected from the senior year, and the entire program is under the guidance of a faculty advisor.

Society for Women Engineers (SWE)

SWE is an international organization that encourages and celebrates women in STEM. SWE, IIT Ropar was started in 2018, by - Radhika Wadhawan, Tanushree Yandra, Srinidhi Reddy and Parnavi Shrikhande and our institute is one of the few Indian Institutes to have an SWE Chapter. SWE's vision is to help build networks and convey knowledge about the opportunities for women. Today the demand for female workers in Tech industries is growing day by day, and we don't have enough women workforce, so, SWE aims to encourage women to take up roles in the STEM industries. SWE organizes talks and panel discussions with successful women in the industry from time to time to help in polishing technical skills and spreading awareness on inclusivity.