IITs Be Greedy?

■ ANUBHAV MANGAL, NASIRUDDIN AHMAD, RAKSHIT JAIN, RAHUL MAGANTI, SAAZ SAKRIKAR, SHARTH SHAH

The decision by the IIT Council this year to raise fees for UG students has been met with divided opinion and brought into focus many broader issues. Insight examines the fee hike and the related issues including financial autonomy and the role of the government in higher education.

The Fee Hike

This semester saw an increase in the overall fees from Rs. 40,000 to 67,876 - excluding mess fees but including Rs. 3,000 as one-time payments. The major chunk of this rise comes from the tuition fees, up 80% from 25,000 to 45,000. The revised fee will be applicable only to the 2013 entrants. The chairman of the IIT Council, HRD minister Pallam Raju explained that the hike was meant to make IITs "financially sustainable, if not profitable." The council also decided that, unlike before, this fee will be reviewed every year. The terms for the merit-cum-means (MCM) scholarship – of a maximum parental income of Rs. 4.5 lakh and a cap of 25% of students to receive the scholarship - have however remained the same. Members of the Council insisted that an easy loan facility will ensure than no meritorious students will be denied entry to IIT because of financial constraints.

The Reaction

The 1st year students Insight spoke to had mixed reactions. Some believed that good facilities, for example, the new Hostel 15, justified the higher fees. However, many students are adversely affected by the hike. One such student said: "The fee hike strains a lot of things. Many freshers are still waiting for the MCM which has not been allotted yet. So we are looking for loans instead. I have applied for a loan at SBI, but it has still not been approved, as the SBI officials are claiming that loan applications have increased a lot this year and it will take time." The ground reality of the 'easy loans' promised by the ministry is worse. There is no mention of any such scheme in the circular sent to IITs announcing the hike. Prashant Saurabh (deputy manager at the campus SBI branch) said that the scholar loan scheme is an initiative of SBI itself.

Despite the hike, the bank was given no special instructions this year by the ministry or the IITs. The number of students availing these loans has risen steadily from 12 in 2009 to 68 in 2012 and around 120 this year, with about half being UG students. However, he estimates that around 300 students actually need such loans, and are not coming forward due to a "fear" of bank loans, especially so in the case of families from a rural background, and a lack of information which he feels the institute is not doing enough to remedy. In fact, SBI wasn't allowed to hand out flyers or make a presentation at the convocation hall during this year's freshmen orientation.

If the story ended here, the fee hike would seem to be routine in a time of sustained double-digit inflation. However, in the light of the Kakodkar Committee (appointed by the MHRD to "recommend autonomy measures to facilitate IITs scaling greater heights") having recommended financial autonomy (to be achieved by increasing UG tuition fees alone to 2 lakhs a year), the issue has become polarising. This recommendation was rejected by a 2011 IIT Council meeting under the previous HRD minister Kapil Sibal, but given the drastic 80% jump in tuition fees to Rs. 90,000 per year, and the prospect of yearly revision, the debate has encompassed the idea of financial autonomy.

The Debate

In this context, the fee hike raises the spectre of privatisation. In IIT-M, a 500 strong student rally in early June demanded a rollback of the hike. Protesters said that loans would lead to debt; they compared the much smaller education subsidies to huge corporate tax breaks, and raised slogans against privatisation. The fact remains that the government does subsidise IIT education to very high levels - the total money spent per student is 3.75 lakhs per year while all pre-2013 entrants pay a total of 1 lakh a year. Prof. Ballal of MEMS says that some students enrol at IITs 'primarily for the brand value', and that they shouldn't complain since the 'brand value of IITs is worth more than their fees'. This brand value is ultimately reflected in the salaries of IIT graduates.

A more theoretical argument in favour of a larger fee hike is given in the Kakodkar report, which argues that financial autonomy is as essential as the IITs' already existing academic autonomy, for them to become "world class institutions." Government funding would then be restricted to capital and research expenses and scholarships. Prof. K. Narayanan from HSS disagrees, believing that academic, not financial, autonomy is necessary and sufficient. Chasing financial autonomy would distort the academic ability the applicants. He believes that government funds given to IIT are an invstment for human capital formation rather than an expenditure. According to the IIT Alumni Impact Study (2008), this is an investment on which the country recovers 15 times what it spends.

Supporters of the hike also argue that paying higher fees would mean that students would value their education more; having paid such high fees, they would be forced to study hard in order to secure better jobs. However, Prof Narayanan counters this argument by explaining the value paradox: that there is a difference between value and price of a commodity, for example, cheap but essential water and expensive but superfluous diamonds. Paying more for a product doesn't imply valuing the product more. One can also argue that having paid higher fees, students would find it even tougher to commit to research or lower-paying core jobs as compared to finance jobs. This would be more pronounced for those who have taken loans; paying off student debt while barely earning a stipend as a PhD is not financially viable. Given the changing focus of IITs to research, and the anyway low tendency towards core research among UG students, this would be a disaster.

A more populist argument for the fee hike would be that IITs which already swallow so much public money should not be given more even as other government institutions languish. Prof Narayanan instead believes that increased funding for IITs shouldn't mean less for others; instead the total government expenditure on education must rise. Government spending on education as a percent of GDP in India is only 4.1%.

Finally, the Kakodkar committee report itself seems to be based on an unrealistic premise. Currently, the existing IITs are struggling to fill the required faculty strength. Despite this shortage, the report projects an increase of UG students to 80,000 and PhD students from 6,000 to 40,000 by 2020! Many professors we spoke to privately stated that these numbers were ill-informed.

The Way Forward

Inflation means that some fee increase is inevitable. Prof. Narayanan believes that such increases should be built into the system and thus be transparent and predictable rather than sudden. Prof. Ballal cautioned that the hike may exclude a "major fraction of poor students" who otherwise would have joined. A public institution has the responsibility towards general good and equity. The government must ensure that students willing to do further research aren't forced to take more lucrative non-core jobs, in order to pay off loans or to "compensate" their parents who have spent so much on their education. It is important to strike a balance between unduly high government subsidy and huge tuition fees, but surely the first priority is to ensure that every meritorious student can enter IIT without having to think twice about his or her financial position. ■

Germany
» Most universities government funded.
» Universities in only 2 of the 16 states charge tuition fees (upto 500€), the rest are virtually free.
» Dual system for higher education: about 20% students enter university, the rest undergo vocational training.
» Free tertiary education was considered a basic human right till a court ruling in 2005. Student protests against fees forced state governments to cave in by 2012. The 2 remaining states will phase out fees next year.

USA
» Most expensive higher education system in the world.
» Average cost of annual tuition ranges from $3,131 for 2-year community colleges, to $6,585 for in-state 4-year colleges to $29,056 for private four-year institutions.
» Over the past 35 years, tuition fees have increased 10 times while cost of living has increased only 3.5 times. Student loan debt has reached a trillion dollars.
» Many high-ranking universities have billion dollar endowments (average $13 bn), from which they hand out scholarships to needy students.

China
» Higher education in China free till 1989.
» By 1997 all universities started charging tuition fees.
» Average tuition in government-funded institutes: ¥5-8000;in private institutes ¥10-20,000. Government colleges have higher admission cutoffs and better global rankings.

UK
» Tuition fees introduced first in 1998, capped at £1000 a year. Increased to £3000 in 2004 and £9000 in 2010.
» Mass student protests (joined by some school teachers and professors) in 2011 brought London to a standstill, but the fees remained.
» Low income students get a tuition waiver; most others rely on student loans.

BITS Pilani
» Tution fees Rs. 78,500 per semester, with a continuous increase from Rs. 25,000 in 2007.
» Funded by the Birla family but also receives smaller incomes from the UGC.
» Merit-cum-means scholarship alongwith UGC and other merit scholarships, with a total of 1820 students receiving scholarship money.

1 € = Rs. 83
1 $ = Rs. 62
1 ¥ = Rs. 10
1 £ = Rs. 100

insight

The Times They Are A Changin'

■ ANUKRITI CHAUDHARI, APRATIM SINHA, CHIRAG CHADHA, PRUDHVITEJ IMMADI, SHARTH MANDAN, SIBAPRASAD MOHANTY, SIDHARTH PRASAD

Academics

Branch Change:

Driving Principle : Performance in the institute better indicator of student's academic capabilities than JEE Rank along with providing more freedom of choice.

Modifications in Rules:
» Eligibility criterion changed from > 99 percentile of the batch to CPI > 8
» Number of students taken into a department increased from X% to 10%
» Batch strength of the original department can go down by more than 15% for CPI > 9

The number of student who changed their branch has doubled from 32 in 2009 to 67 in 2013, of which 58 have opted for one of Computer Science, Electrical, Mechanical and Chemical with the cutoff CPI to enter CS and Electrical - the most sought after - dropping to 9.3 from 9.8 in 2010.

Undergraduate TAs:

After the GSAA for 2009, Vaibhav Devanathan's introduction of UGs as TAs in the *Remedial English Course* for freshmen received positive reviews, the concept was extended to cover several other courses. Over the years, the number of UG TAs rose significantly - especially in freshmen courses - and a proper selection procedure was developed for the same.

Rules for Summer Courses:

Until recently, students would undertake summer courses as opposed to in-sem courses to secure better grades. However, with the following revision of rules in place, this is no longer possible -

A student can register for a Summer course only:
» On the reception of FR grade in the same course OR
» On having 3 or more backlogs in courses not being offered as Summer Courses

This change in rules received both appreciation and criticism from the student community, and the current GSAA fought nail and tooth to bring a one-time exemption to the rule for current final year students.

Growing craze for Internships:

The number of internships have grown up from 531 summer internships in 2011-12 to 703 in 2012-13. On similar lines winter internships grew to 206 from 74 and university internships from 99 to 108. There is growing craze for internships among students, with even the freshmen trying to get one.

Changes in Election Rules:

For Institute Bodies Overall Coordinator:
The procedure to select Overall Co-ordinator (OC) for the Institute Bodies (IBs) changed in 2010. What used to be an internal affair of an IB to choose the next OC, now has become an open election where any student satisfying the bare minimum criteria is eligible to contest. The candidates have to prepare manifestos and are expected to do campaigning to garner votes. But over last three years IB elections never came to the limelight, until recently when we had a non-IB member contesting to become the OC.

For the Institute Secretaries:
A major change took place in the Institute Secretaries election (Cultural and Sports) in 2013. Earlier, the electorate was the entire institute, but this is reduced to a limited electorate having restricted number of representatives from each hostel and institute council of each genre voting in the Institute Secretaries elections. This change was done to ensure that the people voting for the respective secretaries are aware of the scenario and since the particular secretary is responsible for looking after the particular genre only, the closed electorate system makes more sense. While most of the students welcomed this policy, a few expressed that the institute is setting double standards for OCs and institute secretaries.

Change in Freshmen Courses:

Courses removed/ restructured	New Structure
IC102 (Data Interpretation and Analysis) – 6 C	ME102, AE 102 etc – 6 C *Will now be conducted by each department depending on the need*
CH103 (Chemistry) – 6 C	CH105 (Organic and Inorganic Chemistry) – 4C – Half Sem CH107 (Physical Chemistry) – 4C – Half Sem
PH105 (Modern Physics) – 6 C *Was undertaken by CS, EP, CL ME only*	PH107 (Quantum Physics and Applications) – 6C *Made compulsory for all departments*
HS101 (Economics) – 6 C *Was running in the 1st semester for all departments except EE*	HS101 (Economics) – 6C *Will run in the 3rd semester for all departments*
BT 251 (Introduction to Cell and Molecular Biology) - 6C	BB101 (Biology) – 6C *Was taken by 3rd year CL, 2nd year MSc Chem and all freshies this year.*

Sara's Ice Cream Parlour

Coffee Day Xpress

Ganesh Juice Centre (GJC)

Culturals

The Cultural Affairs in the institute have witnessed quite a few significant changes in last few years. We have put some of the most prominent ones.

Trumping in General Championship:

Trumping in Cultural General Championship has been re-introduced after it was scrapped in 2011. Trumping is essentially the chance given to a hostel to predict its position in top 4(in slots of 1-2 or 3-4) in a particular GC before the GC actually takes place. If the hostel gets position in correct slot, it will get additional points, while if it doesn't then points will be deducted. The idea is to make the hostels work hard in a genre for which they have trumped and also to give some advantage to the hostels which put a lot of efforts in a particular genre. While this move is welcomed by some hostels, others believe that their chances of leading the GC has now further reduced

as they don't particularly excel in any genre. This acts as a discouragement and many a times the participation is affected from the respective hostels.

Professionalism in Cult Scenario:

There has been a marked increase in professionalism in cultural scene in the institute in last few years. All the cultural clubs in the institute are now moving towards achieving excellence and professionalism in their genre. There have been several instances of this, professional performances by Institute dramatics group at Prithvi Theatre and NCPA, introduction of MUN , National Debate and international debate participations, Institute quizzing teams participating at international competitions, students getting contracts with professional dance groups, student movie-makers winning international competitions and making movies under esteemed filmmakers' guidance, Music

gigs at Hard Rock Café, Photographs by institute students publishing in magazines and several others. All this will have the impact of increasing the cultural expertise of the students in the campus and will surely increase the venture of students into cultural genres as a profession.

Increased Publicity:

Over last few years we have seen rampant publicity of random events; be it x workshop, y lecture or z competition. While this may seem logical, it often creates nuisance with repeated mails in events/student notices, facebook posts, flexes in every hostel, A4 posters in every wing and it goes on and on. With hardly any restriction by the institute, no wonder the money spent on publicity is increasing every year. Maybe it's time we look at other media of publicity, say through digital notice boards.

Tech

The tech scene on campus has seen a turnaround in the last 2 years despite the persisting logistic issues. The number of events, competitions rose exponentially and the good thing is that the quality has also increased proportionally. We've entered the stage where everything from Humanoids to low cost computing devices and bus tracking solutions are being developed.

Events:

The orientation of the events has changed from more of freshie-year events to senior involved competitions. To name a few, events like raspberry-pie, Messier Marathon, Google I/O have invoked the dormant enthusiasm of many senior students. A handful of events two years ago have now risen now to around 100 events by the 7 clubs.

Projects and Competitions:

Drifting away from STAB, bodies like AUV, MSI, Pratham, IITB Racing, UMIC have started and also became more student friendly as opposed to an uphill struggle for a sophomore or a third year to become involved in a club. The institute fund to these bodies has increased and these teams obtained sponsorship from industry too.

Inter - IIT Tech:

The first Inter IIT Tech was hosted by IIT Kanpur in 2012, and the theme stood as 'Tackling any Social Problem through technology'. Abstracts were invited from all the IIT's and the selected ones were on exhibit during the meet. Some of product showcased from various IITs were : Low cost Arterial Pulse Analyzer, Attached Air Filler in Bicycle, Luggage Tracking System, Efficient Electrical Power Consumption for Home Appliances and Eco Fridge. IIT Bombay is the host for the Inter-IIT Tech this year and the problem statement is being formulated so that it is more Industry or Society relevant and provides a great learning experience for all students involved.

The ITSP saga:

The Electronics Club Summer Projects (E.C.S.P) was started with a mere dozen projects for some enthusiastic freshmen and sophomores in 2010. It has now grown into ITSP (Institute Technical Summer Project) with a whopping 115 projects on display last summers, with over 400 freshers making their hands dirty. All the credits to the Tech-body over last two years.

Facilities:

The workspace issues persist and the most common hangout place for the 'aam techie' remains the hostel-7 tech room. The proposed tinkerer's lab is expected to solve this problem for the techies. This lab is a noble initiative by 1974 Alumni with over 2 crores being poured into it and it is expected that at least 100 students regularly use this lab which can cater to over 40 projects simultaneously. The tech-budget has increased from INR 59,850 in 2010-11 to the estimated 14 lakh INR in the current year. This is excluding the individual hostel budgets for Tech-GC's.

Social

Resume Senti Junta:

In recent past, more and more students are preferring IIT Bombay keeping in mind the job opportunities. Students on campus have become extremely focussed and dedicated towards building their resume right from their freshmen year, not just by increasing their CGPA but also by working for Institute Bodies with a dream POR in mind. Repeated attempts at grabbing a POR and completing academic projects just for the heck of it are testimony to the change in culture.

The extravagance of treats!:

Be it birthday treats, wing treats or job treats, treats have been an integral part of the IITB culture from a very long period of time. However, over the years the extravagance has grown in multitudes. What started out with treats at the hostel canteen, slowly grew into treats at places like Chakras, 5 Spice and eventually to South Bombay. A gruelling example of such a change in culture is Wing Treats - the tradition of sophies treating the seniors as soon as they enter into a new wing, the budgets for which have exceeded 50 Thousand INR in certain cases.

RIP Shack:

The buzz and liveliness of the Nescafe Coffee Shack and the area around it has decreased profusely over the last two years or so. Earlier a lot of cultural and social activities used to happen at Shack and students would just come around after the 12:30pm class to have fun for a while. "Students used to hang out in my place all day long having fun, gossiping around but now things are no longer the same. Only a few school students whose classes are held in MB are my regular customers. The others head straight to the hostels after the classes in LHC. All this has led to my sales going down by about 1.5-2k per day and the dismal state around here." says the manager of the shack, who has been working there for the past 22 years.

An unprecedented level of RG and Lukkha:

People no longer need to meet each other to catch up with and rely heavily on the online platforms such as Facebook & Google hangouts. This has also led to a dramatic increase in the 'RG-giri' - with people indulging in and sharing non-academic stuff so as to distract their batch mates. Pages and websites such as IITB Confessions and their numerous rip-offs become increasingly active during the midsems while Poltry-Farmer and PlacementSatta garner attention during the election and placement period respectively. Unsight and Giveup@IITB have provided satirical humour for the students throughout the last two years.

Infrastructure

Infrastructural facilities has seen a rapid boom in last few years be it construction of new buildings, renovation works or approval of future facilities.

The Never Ending Main Gate:

Its been over a year that our main gate is under construction. While the basic construction of the Y-Point gate and Lakeside gate are completed, we are yet to see the basic frames of our Main Gate. The least that current final year students expect is to see the Main Gate at least once before they graduate!

LHC Model:

With the increase in the student intake it was a necessity to construct larger lecture halls. This resulted in the construction of New Lecture Hall Complex accommodating more than 2000 students at any point of time. Thus, no more MB room tutorials, no F.C Kohli classes and not to mention the Convo lectures!

New Food Joints:

Earlier there used to be GJC (Ganesh Juice Center) and Sara's Ice cream parlor in the location of Campus Hub. These were demolished because of hygiene related issues in late 2011. The old Coffee Day Xpress of Hostel-8 was also revamped to current Brewberry's- a common hangout place for small discussions. While some of the new joints are thriving, we have also witnessed the fall of Coffee Shack and with it the so called Shack culture!

Hostels:

Accommodation remains one of the most gruesome issue. There used to be a time when even the first year students were given single rooms, now it is a luxury only for final year students. Hopefully with the construction of hostel-16 & 17 this issue will be sorted out.

The Campus Hub

Brewberry's - The Coffee Bar

Nescafe Coffee Shack

Interview with Prof. Gopalan (Ex-Dean of Student Affairs)

Can you please specify the reasons behind the changes in the election procedure of Overall Coordinators of Institute Bodies?
Any activity on scale of MI/Techfest/E-Cell, involving a large part of student community of campus should have the support and consensus of the students. Also, the Institute Bodies used to indulge heavily in student body elections and to curtail it to some extent the elections for Overall Coordinators were introduced.

The department festivals were scrapped in 1998 to pave way for Techfest, but they re-surfaced in 2006-07 and are now grooming and growing larger every year. Your views on this?
Department fests need to be curtailed. Techfest originated with this basic idea only. And when the fests were re-introduced, they had to be one-day affair. But now they are going back to being 2-day fests, which needs to be changed. Also, the out-station participants are not being able to get proper accommodation in the institute because of space crunch during the time of these fests and it shows a sorry state of institute.

What are your views on the increase in number of clubs events and orientations?
The large number of orientations at the start of semester takes a lot of time of freshmen in their initial days at IIT. This is not a good trend. Also, the increase in the time and money spent on publicizing events started 4-5 years back and is constantly growing.

This year the freshmen students are allotted a separate hostel, what is your opinion on it?
The step to segregate freshmen is the right step. Their safety is of utmost importance and other things are secondary.

IITB - Y U NO Care?
General Apathy of the Institute towards Students

■ ABHILASH KULKARNI, ALANKAR JAIN, ANSHUL AVASTHI, ATUL GUPTA, GUNISH HANDA, ISHAAN RAKSHIT, MIHIR KULKARNI, PALLAV CHAUDHARY, RISHABH VERMA, SHREYA SRIDHAR, SAGAR SHETH, SHARTH MANDAN, SHREERANG JAVEDEKAR, TANMAY SRIVASTAVA AND YASH TAMBAWALA

Lazy Monday afternoon. I come to my room post-lunch and am determined to spend the rest of the afternoon studying. Wiping off sweat from my forehead with one hand and removing my bag from my shoulder with the other, I let out a big yawn. The only table in our room is already occupied by my roomie and I have no other option but to study on my bed. I push my in-dire-need-to-be-washed clothes to one corner of the bed, my bag to another, and then my pillow to a third. Am I done? No. There's still a laptop, a deodorant, my belt, my water bottle, a mouse(one which a cat won't eat), my headphones, my wallet and a dozen other miscellaneous things to be accommodated in the one corner left. With everything staying on the bed itself, I somehow clear a small area for myself to sit : a phenomenon which even solid state chemistry might find difficult explaining. Two minutes later, I'm no longer sitting – I'm slouching; my head resting on my hand, which in turn rests on a pile of clothes. The room is stuffy and hot, and the fan above chooses not to rotate fast. But a bed is all I need to feel groggy. When I wake up, I realize that I'd dozed off at some point and that it was night already. I get up and head straight to the mess for dinner. Lunch, sleep, dinner...Hmm. When I return, I make a quick mental note of the number of hours left until the next day's morning lecture. Woah! Loads of time! But, the moment I sit down to study, my roomie graces the room with his presence and turns on a peppy dance number. His movements are too pronounced for me to ignore, and the dancing vibes are too inviting to be bogged down by an urge to study. My book gets shut and now we have two people producing seismic vibrations in that tiny cubicle. Numbers swell, decibel levels go up and the next four hours fly away. Everybody leaves and I'm left repenting all the lost time. Roommate dearest, meanwhile, conveniently switches off the one flickering tubelight that we have in our room and lies down. I check the time – already past 11 o'clock. Can't go to the library. As a last resort, I meekly switch on my table lamp and start studying, fully aware of my roomie's aversion to any light while sleeping. Seconds later, I hear him growl, "Kitna mugoge? So jao." I oblige, switch off my table lamp and go to sleep. I wake up next day, go to class, come back, have lunch and....

This pretty much sums up the life of an average student of IIT Bombay. Small, dingy rooms, insufficient tables/chairs and improper ventilation virtually come as freebies with your admission to IIT Bombay. Courtesy the periodic rise in the student influx into IITs, rooms which were once supposed to be occupied by just one person, have with time been split into two. Separated by a wooden partition, each half now houses two people – which boils down to four times as many students living in the same area as compared to what was envisioned while they were being built. With a further 60% hike in student intake being discussed, matters can be expected only to get worse with the construction of new hostels unlikely to match up in pace. That roommates are not exact clones of each other only makes matters worse.

All of the above forces those who want to study to take shelter in the Institute Library, which is cool, well-illuminated, peaceful, clean, has ample tables and chairs – all that a student was found wanting in his room. But its being far away from the hostel area robs it of a chance to be the single biggest game changer for all academic woes of the students, as commuting to and fro the library is difficult and wastes a lot of time thereby acting as deterrents even to those who genuinely wanted to go and study. Also, since it closes at 11 pm, the ones who prefer to study at night can't benefit from it. It, in its present state, caters to the needs of a relatively small fraction of students – those who are motivated enough to go that far, study during the day and prefer studying in solitude rather than through discussions. A lot of problems, though, are expected to get resolved once the study room being constructed on top of the library becomes functional. It shall be fully air-conditioned and open throughout the night.

Illustration by Amol Thakur

All these problems add up to wreak havoc in the academic life of the students, and this is not a handwaving claim. We interviewed a few students who've either stayed in hostels abroad or in the newer hostels of IITB itself to ascertain if better hostels actually translated to better academics or is their absence just an excuse on our part for not studying.

Saransh Garg, a student who has been to the National University of Singapore on a semester exchange program, said that they had a huge 24-hour, A/C study room in every hostel at NUS. Also, the rooms at NUS were singly occupied and about 1.5 times as big as an average room at IIT-B. All this made the academic environment there healthier and a lot more fruitful as compared to that here at IIT-B, he observed. Majority of the other universities around the world also fare better in providing accommodation with bigger rooms as well as basic amenities like a table and a chair per student in the room.

Alankar Jain, a fifth-year student who moved to a single room in H13 from one of the older hostels this year, was visibly elated and said that the difference was huge! He now has more space to work in and has the freedom of choosing when to work and when to switch off the lights and go to sleep. Being the only one in the room allows him to concentrate better. Distractions are way fewer and more productive work can now be done. Of course, there is a table and a chair which is not to be shared and can be used as per one's convenience. He strongly feels that one shouldn't be at any cost made to stir out of his room to study, and the room itself should be good enough for studying in - which he feels is true for his current room. A lot of other seniors who also moved to H13 this year echoed his views.

As per the GSHA, Abhijeet Mukhekar, there's light at the end of the tunnel with the institute authorities more concerned about student welfare now than ever before. Allotment of single rooms to every third year student is expected once H16 gets built. Common rooms in each hostel can be expected to get Wi-fi enabled, replete with charging points as well, by the end of the semester. The mess could then serve as a big, common study room within the hostel. Every hostel room in the institute shall also have two tube lights each by the end of the semester, which would make the room a well-illuminated place to study in. This has already been done in a few hostels. He also said that every hostel is being provided with a printer each. It is to be kept in the hostel computer room and shall be accessible to the students 24 hours via their LDAP ID and Password. When asked if study rooms could be made in every hostel either by joining a few of the existing rooms or by building new ones, Abhijeet cited the problem of space crunch and said that it wasn't feasible. As for the provision of foldable tables in each room, which had been earlier thought of a few years back but never implemented, he opined that it would only be a temporary change which may not be needed once we have new hostels a few years down the line. Everyone would have their own 'single room' then, with enough space for even a usual four-legged table to fit in. It seems to be a tall order though, right at the outset. It remains to be seen how much time the gargantuan task of providing everyone a single room would take.

With a lot of ideas in the pipeline as mentioned above, some have already been implemented to make our academic life easier. The LCCs remaining open throughout the night during the exams, for one, has helped a lot of people who were willing to study and deserves special appreciation.

To sum up, the rooms we live in right now are certainly not upto the mark and it goes a long way in determining the efforts each one of us puts in and the way we fare at academics concomitantly. The issue is dire and should not be trivialized by being called just an excuse for not studying. For the institute to become our second home in practice and not just in speech, it should give us the best of facilities possible to study in.

Freshmen Hostel Allocation Fiasco and Poor Infrastructure

Having entered the institute with high hopes, the students were in for a disappointment when the institute failed to welcome its new batch with the same zest it has every year. Students were extremely disappointed on facing the harsh reality that surrounded the hostels they had been allocated. The failure to have the construction of Hostel-15 completed in time led to the accommodation of over 300 freshmen in the staff quarters - a place very much disconnected from the other hostels.

The students were led to believe by various sources including the warden and other officials that their stay in the staff quarters would be a small duration of 15 days, despite it being clear that it was more than impossible to finish the work in that period. Even those freshmen who were allocated the two 'finished' wings of Hostel 15 were practically given only a roof to stay under, with no facilities like cots, cupboards or water purifiers, which were provided only after 2 or 3 weeks. Even in the staff quarters, word was that they would be shifted the coming weekend, and similar statements were issued every ten days or so. But soon enough, along came tables, and beds for comfort, and with this it became clear that they were to be guests

for long. This continued for two months. With 6-8 students being assigned a single flat, there was general unhappiness amongst those who had to stay in the hall with 2 or 3 other companions.

During the first two days, even though there was no safe water to drink, enough water could be seen overflowing from the terrace, through the staircase, eventually soiling the corridors. The messing arrangement was one of the biggest disappointments in Hostel 15 as well as in the quarters. Students in quarters were allotted messes as far as Hostels 4 and 5. While this obviously consumed sizeable chunks of their day, it also led to most of them skipping breakfast especially when there was an early morning lecture or quiz. To make things worse, there wasn't any bus facility connecting the quarters, though one had been promised by the GSHA. Hostel 15, not having its own mess, was provided food from other hostels for two months. The students grumbled about having to eat cold food, while at times failure to provide sufficient food was also reported.

While some of these problems have been resolved as the students have now completely shifted to Hostel 15, few still persist - like malfunctioning washing machines, unavailability of geysers and laundry service, and out-of-order elevators despite the fact that the

building has 10 floors. Leakage problems have also been observed on the upper floors. Unlike the older hostels, Hostel 15 does not have any dedicated computer room or a lounge as of now. Although specific rooms are planned to be converted into common areas and gymnasiums, there is no timeframe as to when this shall happen. Minor work is still being carried out in and around the hostel, and students complain of persistent construction noise.

The students also feel that lack of freshie-senior interaction has resulted into them not being exposed to the 'IIT culture'. All in all, the students believe that advanced planning on behalf of the institute would have saved them much distress.

The brunt of these infrastructural shortcomings has not been faced by freshmen alone. The seniors have long been living in rooms which are meant to be provided for single accommodation, but are being shared by two students. In view of all this, students are highly disappointed by the indifference harbored by the institute towards their living conditions. In general, students believe that unless the standard of living in the hostels is improved, we have no right to call ourselves a world class institution.

Freshmen orientation mismanagement over the years

They all had their hopes new and high, when they received their acceptance letters from IIT Bombay. But it so happened that this year a significant number of prospective candidates did not receive their letters for provisional admission to IITB, some freshmen have reportedly told InsIghT.

Every year selected candidates are sent a letter specifying the date, time, venue of reporting for registration, documents to be brought for verification, letter to parents, declaration form and fee structure. This year, the letters were sent on July 9. Candidates knew they were required to report in the institute on July 18, as had been informed to them while registering at their respective regional (zonal) IITs. They did not, however, know the details such as time and venue of reporting - resulting in quite a few of them missing the first few speakers' talks. Some candidates received their letters after having booked their tickets to Bombay and hence arrived after 8:30 am on July 18, the scheduled time for reporting.

To say freshmen were at an absolute loss would be

wrong, for it would overlook the efforts of student bodies to ensure their juniors made a smooth transition in getting accustomed to college life. The Freshmen Forum, an online portal where the ISMP mentors disseminate information and handle queries about everything a freshman needs, served as a very useful platform to clear their apprehensions. But since the provisional letter provides the link to the Freshmen Forum and the ISMP site, many entrants were unaware of its existence prior to receiving the letters - if at all they did - by which time it was too late to be of much help. Although the Freshmen Forum accomplished a lot, it could not even faintly compensate for the lackadaisical efforts of the institute.

On July 18, newcomers had to report at L3 (Lecture Complex) whence they would be directed to the Convocation Hall where their orientation was to be held. While students were shepherded by their mentors to the Convocation Hall for registration, parents were sent a live feed of the ongoing situation in the Convocation Hall. Amidst all the hassle, Hostel Allocation was another perpetual bother for newcomers, parents and mentors alike. The allocation list was supposed to be with the security stationed at the Main Gate and the YP Gate, as was mentioned in the letter. Whether

or not the Security had it with them is not known, but many a freshman seemed to have missed it.
Most freshmen were directed by passersby to the Academic Office, where officials seemed to have lost their temper more than once in assuring anxious parents of their ward's allocation - so much so, that a frustrated official is reported to have said, "Aapka beta beghar ho jaayega!" All this because the allocation list had been pinned on to a single notice board and the entire horde of nervous newcomers were struggling to find their way to it. This disastrous turn of events resulted in the mentors being forced to take the job of hostel allocation on their own shoulders.

Sadly, this year's freshmen orientation was in no way more chaotic or unorganized than the previous years. Every year, year after year, hundreds of excited faces come to the institute to have their spirits dampened and the Mumbai rains can only watch at what they cannot do.

IIT Bombay prides itself at its constant endeavor to maintain its standards as much as – inadvertently, maybe - its substandards. This is what the students have come to believe. For it is as the saying goes- 'First impression is the last'.

No system in place for academically weak first year students

In our deeply segregated social fabric, birth in certain castes (historically oppressed castes) can deprive a person of economic, social and cultural capital that the so-called "upper" castes have access to. Due to this reason, and not because of lack of inherent talent, many such students fail to compete with their "general" category counterparts. This is the basis of reservation in institutes of higher education. One can't ignore the fact that because of this system, a number of students being admitted to the IITs today have extremely low JEE scores, and are substantially ill-prepared to face the academic system. Additionally, JEE is administered in both Hindi and English, and a number of students from a Hindi-medium background also appear. Thus, every freshmen batch has certain students who are disadvantaged due to insufficient understanding of basic concepts of PCM, or due to lack of proficiency in English and subsequent incompatibility with the medium of instruction. As this communication gap exists because of the design of the system, it becomes the institute's responsibility to take care of such students so that they enjoy a level playing field during their years at IIT. Based on what has been seen over the past few years, it appears that the institute has miserably failed in its duties, and worse, it doesn't even seem to care.

Until the last year, we had an IPE programme which catered to such students by reducing their course load in the first year and providing basic education in English and PCM. Special remedial classes were organized by volunteering professors and teaching assistants. However, many argued that it failed to identify the entire set of entrants that required such a program. Many students also found it very difficult to catch up with the rest of the batch, having to complete the courses in the summer.

Soon, an expansive survey exposed the factual details of the program. Though the survey indicated that IPE had indeed alleviated some difficulties that students had faced while comprehending and communicating in English, it also exposed the inability of the teachers to reach out to the students - who believed they benefitted much more from the instruction provided to them by TAs instead. Also, the format of previously run English Remedial Programme (ERP) with weekend English classes was necessitated more as compared to the highly-demanding routine of IPE. All these problems surely called for a structural change to the program. But this year, IPE was scrapped following the retirement of Prof H. Narayan, the convener of the program.

Seeing no action taken by the institute, ISMP this semester came up with its own Practical English Training classes to address the language and communica-

tion needs of the same section of entrants. There is no professor in charge of this program, no proper recognition from the institute administration and no plan B in case this program goes bust. The volunteers who take the classes are only so much accomplished to communicate with students at two different levels at the same time- bridging their transition from their local dialect to proper English. The program could catch the eye of just a few, and with the class attendance declining day by day, PET can't sustain for long.

Although the initiative taken by ISMP is in action, the institute should recognize its responsibility in taking care of such students, and ensuring that their level of understanding is at par with that of other students. Such students' progress in the first year should be personally monitored by an appointed authority. Simply providing them with free books and a learning environment turns out to be too passive to help the cause to the fullest.

Since the institute is clearly not successful in its responsibilities towards such students, it brings their hitherto unobvious apathy towards us. Something as serious as the progress of an asset of IIT Bombay is, at times, left at the hands of a student body's initiative. And even if the initiative works well, this, in no way vindicates the institute in failing to deliver a complete uprightness towards its students.

Ethics @ IITB Season Finale

■ ANSHUL AVASTHI, ASHUTOSH TRIPATHI, DEVENDRA GOVIL, HARSH JAGAD, JASVEER JETHRA, MIHIR KULKARNI, NIVVEDAN S, SAAZ SAKRIKAR, SASHANK GONDALA

Over the past few months, InsIghT has highlighted but a tiny fraction of the unethical practices that a large section of students indulges in. We have also conjectured that an absence of rigid guidelines in the Academic Rulebook and a lack of awareness about the existing ones has played a major role in encouraging said practices. Not all hope, however, is lost.

At the outset of the previous academic year, the Director set up an Ethics Committee consisting of Prof. Narayan Rangaraj, Prof. N.S.Punekar, Prof. B.G.Fernandes and Prof. Gopal Srinivasan with the following goals in mind:

Finding out how the students view ethics in general
Attempting to reinforce positive academic ethics
Analysing the current corrective measures taken in case of violation of rules
Drafting a list of changes deemed necessary
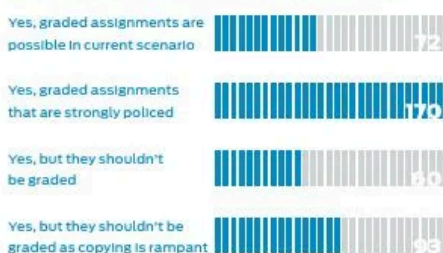
The first step in solving a problem is...

Within a month of commencing work, the Committee floated a survey with the aim of fulfilling their first goal. It eventually garnered over 400 anonymous responses, a summary of which follows. It is also worth noting that it wasn't mandatory to answer any of the questions. Even so, every question mentioned below garnered over 350 responses, making this a fairly large sample set.

Do you think the ethical standards in IIT Bombay are upto the mark?

Very poor and have reached worrisome levels	50
Not good, and we should improve	78
Acceptable, but could be better	159
As good as can be expected	60

The results to the first question are perhaps the most relevant to this article. 45% of the respondents see major problems with the status quo and a mere 15% believe we're fine, while 40% sit on the proverbial fence.
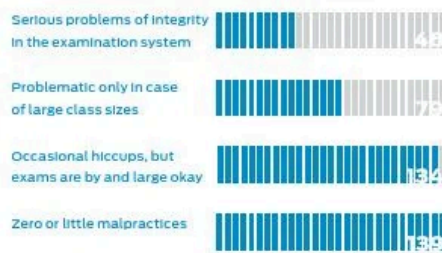
Should take-home assignments be a part of the learning process?

Yes, graded assignments are possible in current scenario	72
Yes, graded assignments that are strongly policed	170
Yes, but they shouldn't be graded	80
Yes, but they shouldn't be graded as copying is rampant	93

24% of the respondents believe that graded assignments are an impossibility due to rampant copying, while another 43% believe that stronger policing is required - compared to the 18% that think that there's
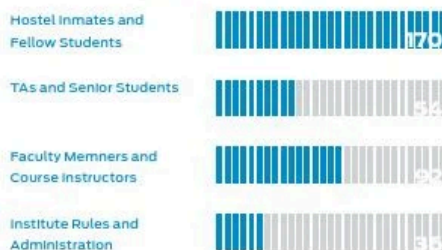
How prevalent are academic malpractices in examinations?

Serious problems of integrity in the examination system	48
Problematic only in case of large class sizes	79
Occasional hiccups, but exams are by and large okay	132
Zero or little malpractices	139

Comparatively, academic malpractices in in-class examinations seem to be far less prevalent, with 68% of the respondents finding nearly no faults with the current system. To the authors, this suggests that the fear of getting caught is the single most important factor preventing people from copying, as opposed to some sort of belief in ethical principles.

Which of thes most significantly influences your ethical standards?

Hostel Inmates and Fellow Students	179
TAs and Senior Students	64
Faculty Memners and Course instructors	92
Institute Rules and Administration	31

Of all the responses, this is perhaps the most unexpected. These responses make it clear that the attitude of one's co-students is a far more important deciding factor than the precedents set by one's seniors.

What is your awareness w.r.t academic malpractices?

I'm completely unaware of the rules and penalties	58
I'm aware of the penalties via one's first-hand experiences	
I'm not aware of the specific rules and regulations	256
I'm aware of the rules and penalties via Official Sources	78

This question brings us back full circle - an overwhelming majority (79%) of the respondents were unaware of the specific rules and penalties that exist to deal with academic malpractices.

To sum up, the survey indicated that academic malpractice was definitely a lot more common than members of the Committee believed at the time. That said, the exact extent of malpractice is highly dependent on the level of policing a test is subject to - which indicates that the fear of being caught is what prevents people from copying, as opposed to some sort of belief in ethical principles . It also establishes that most students are unaware of the specific rules that determine what happens when one is "caught in the act".

While the survey was fairly exhaustive and its results pretty conclusive, there were two important sections it seems to have have left out – these being plagiarism in research and attendance in lectures. We present a brief discussion of the current situation in both arenas before listing the recommendations made by the Ethics committee on all fronts.

Plagiarism in Research

Plagiarism in research has plagued various research-oriented Institutions all across the globe. In contrast to other Institutes of repute, however, the IIT Bombay fraternity has not yet recognized it as an issue that deserves our utmost attention.

The term 'Plagiarism' is used to refer to a vast set of forbidden practices - most of which involve directly lifting sentences or ideas from existing publications (including one's own). There exist a set of norms (such as using quotes, citing the author etc.) that are followed world-wide when one does so. Of course, it is necessary for students to be aware of these norms in the first place, but most departments and project guides provide the instructions necessary to prevent unconscious cases of plagiarism as well.

The extent of plagiarism depends significantly on the department and the lab group. While most professors recognize it as a common practice, there are a handful who believe that their students understand the gravity of the issue and abide by an ethical and moral code of conduct.

For most students, it is more a matter of convenience than anything else. Although report-writing often demands that the writers be extremely precise when they use technical terms, most professors we spoke to believed that students simply choose the easy way out i.e. they refer to pre-existing literature instead. Meanwhile, some students lack the necessary background in English and need to be trained to be able to put forth their ideas on paper. These problems are worsened by the ever-increasing competition to meet targets faster and an environment where violations regularly go unpunished .

Given how severely the image of an Institution is harmed when cases of plagiarism are reported publicly, it's absolutely necessary for us to initiate a "zero tolerance" approach towards plagiarism.

How not to attend lectures at IIT-Bombay

a. Proxies

It's widely perceived that the 80% attendance rule exists because the authorities believe that a certain minimum level of attendance in lectures is required to understand everything that a course has to offer. Contrast this with the attitude of the average student, who does not want to attend a lecture - whether it be due to a lack of interest in the course, a commitment to extracurricular activities or just a desire for some shut-eye. Often, he/she does not mind faking his/her attendance if doing so ensures that the same remains above the 80% mark. As most students already know, this conflict in opinions has resulted in large-scale proxying by students for one another.

What's surprising, however, is how easy it is to fake one's presence in class without being detected. While one once had to ask a friend to proxy for oneself, it's not entirely uncommon to now see students simply leaving the classroom after flashing their biometric I-Card at a scanner. What further encourages the practices is that the penalties if one is caught aren't very frightening - with most students being let off with warnings.

The odd exceptional cases, however, do exist. A recent example is the PH 103 course last semester, wherein a whopping 40 students from the Electrical Department were handed FRs for faking their attendance. As with most matters concerning ethical behaviour, there is currently no official Institute policy regarding the penalties to be dealt when it comes to proxies, with the final action left completely at the Instructors' discretion.

b. Pink Slips

A similar situation presents itself in the case of pink slips. What are essentially supposed to be a verified medical document for genuine medical conditions issued by a competent medical authority can be procured with surprising ease from the IIT Hospital, if one knows which doctor to talk to, leading to widespread misuse. Students not confident about doing well in an exam or (more commonly), bunking a lecture in case of a quiz are easily able to get one and

use it to demand a re-examination. In such cases, the professor usually can do little but comply.

The UG Academic Rulebook has a very interesting take on the matter. Section 5.1 ("Attendance") states that:

"In general, the institute expects 100% attendance. The 20% permitted absence is meant only for ill-health or other emergency situations."

If the loss of attendance due to trivial medical emergencies has already been considered while drafting the 80% Attendance rule, it forces the authors to wonder why (in all but the most exceptional cases) pink slips are handed out at all.

c. Solutions

To their credit, certain professors have devised effective methods to prevent proxying.

Prof Virendra Sethi (instructor for ES 200) is a case in point. As soon as a student enters the class, a TA hands him/her a small paper slip wherein students write their name and roll number, which are collected once the lecture ends.

In the HS 301 course under Prof. Jung, TAs effectively act as proctors, moving around the class with the attendance sheet while personally ensuring that every student marks only his/her name. Often, they also take a head-count to ensure that there have been no proxies.

Such methods have almost entirely prevented proxies from being marked in both courses, simply because of the amount of effort required to bypass the system. The downside to these, of course, is the significant burden levied on the TAs involved - which is probably why more instructors are hesitant to implement similar approaches.

It is the author's opinion that the lack of ethics in issues like pink slips and proxies is only symptomatic of the larger, all-pervasive callous attitude towards ethics that prevails in our Institute.

What now?

After a thorough analysis of the aforementioned survey, several meetings with faculty and student representatives, another faculty questionnaire and an open meeting with both parties, the Ethics Committee has made some recommendations which are yet to be presented to the Senate for their approval.

The major chunk of these recommendations belong to five categories:
a. Proxies
b. Assignments
c. Examinations
d. Internal Reports (Course projects, seminars, etc.)
e. External Reports (Theses, publications, etc.)

The committee has recommended a minimum and maximum punishment (for each category) that should be imposed on any defaulters. The exact action to be taken will still, however, depend on a case-to-case basis.

Besides these, the committee has also recommended a few more general changes, the most important of which are:

» Trying to bring about a change in the students' mentality by increasing debate and discussion about the importance of academic and professional ethics in the Institute. This would also involve aiming to inculcate a sense of seriousness in the way students view ethical issues.

» Centralising the way exams are conducted as the leniency Teaching Assistants and Professors show depends significantly on the venue of the Examination.
» Ensuring that no Professor acts as an invigilator during the examination of a course for which he/she is an Instructor, in order to prevent personal biases from influencing decisions.
» Using 'turnitin' to check for plagiarism in all Ph. D. theses.
» Making public the working of the Academic Disciplinary Action Committee, in order to increase awareness about the disciplinary actions currently taken for different kinds of offences.

In Summary

Currently, the Institute simply fails to recognise and reward honesty as a virtue. As we have already pointed out before, the punishments meted out at IITB are an order of magnitude less severe than those handed out at other Institutes of repute. Merely being located in an environment that often lets people get away with academic malpractices makes it even harder to curb said practices. This lack of deterrents simultaneously de-motivates those who put in a fair fight, and encourages them to indulge in such practices themselves - thus aggravating the problem further. A cursory analysis makes it obvious that harsher regulations are essential and are, quite possibly, expected soon.

If these guidelines are accepted in next month's Senate meeting and executed (probably a lot later), we may see a much-needed crackdown by the authorities in the years to come. That said, Prof. Rangaraj (Convener of the Ethics Committee) believes - and InsIghT agrees - that a persistent, sustainable change can only come from within the student body. ∎

Tum-Tums out, Cycle Stations in?

With the ever-increasing campus populace struggling to be serviced by the ubiquitous TumTums, despite the expansion in their operations, the institute is looking ahead at a novel, greener solution to campus transportation woes in the form of cycle pooling. **Abhishek Khanna** from the Editorial Board reports.

The institute tries to enhance the operations of the TumTums to meet students' transportation demands through the Student Welfare Society. However, there now seems to be a realization that no matter how much you increase the size of the TumTum fleet, within the limits of reason, it is never going to be enough. The General Secretary of Hostel Affairs, Abhijeet Mukhekar, has proposed to freeze most expansion plans for the TumTum fleet and instead focus on institute funded cycle-stations.
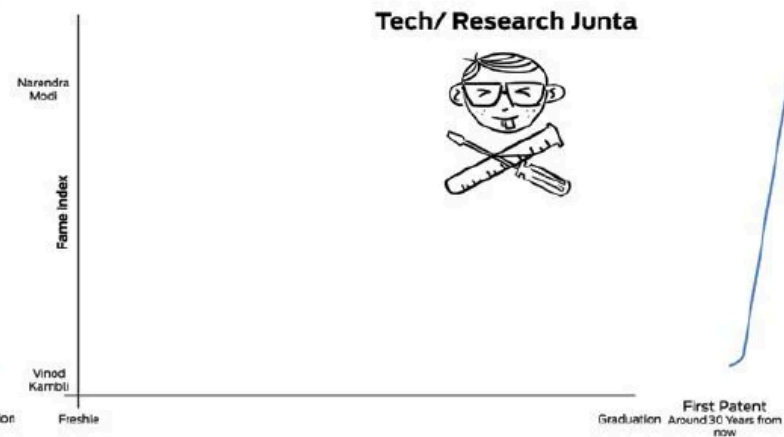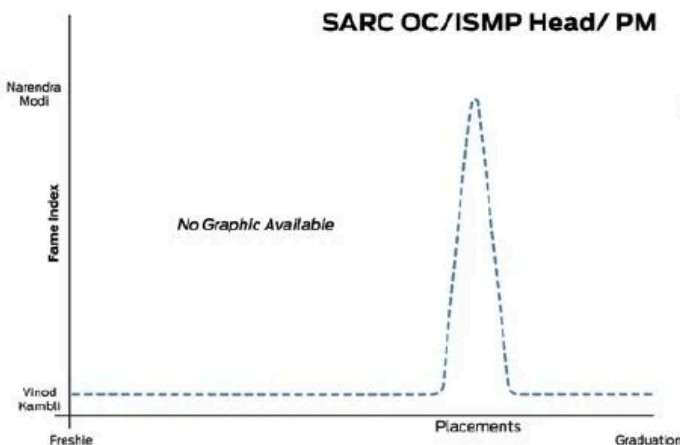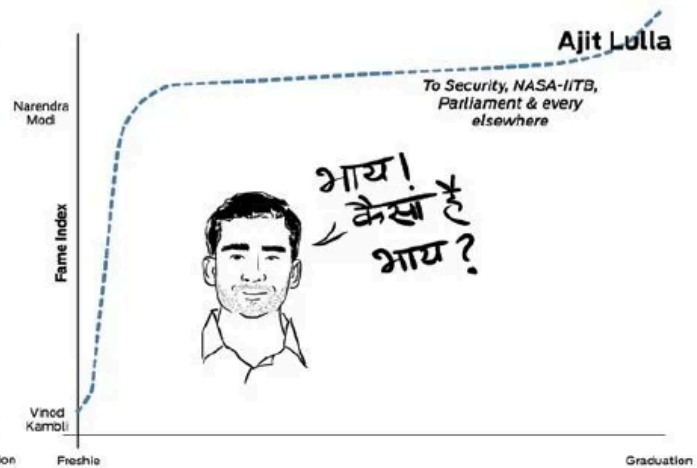
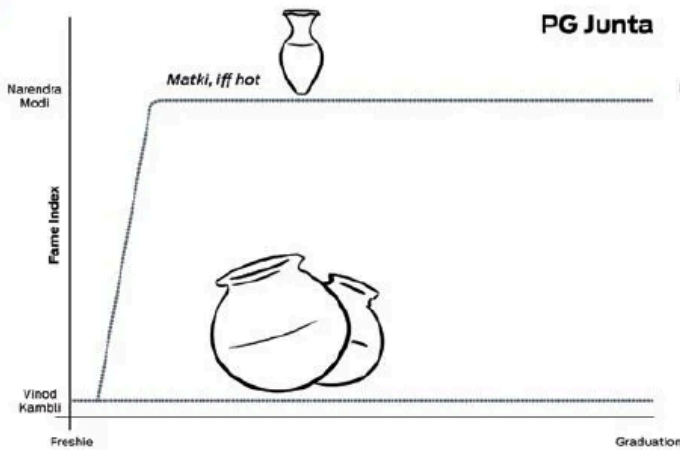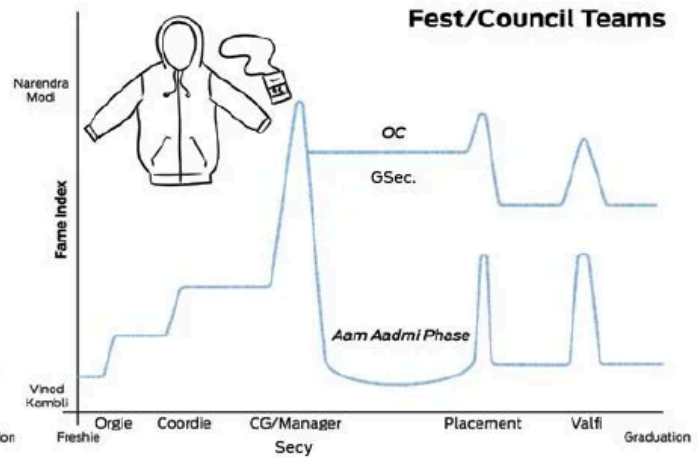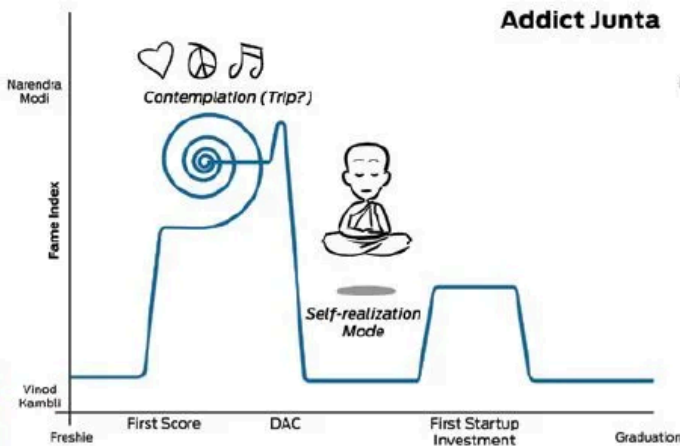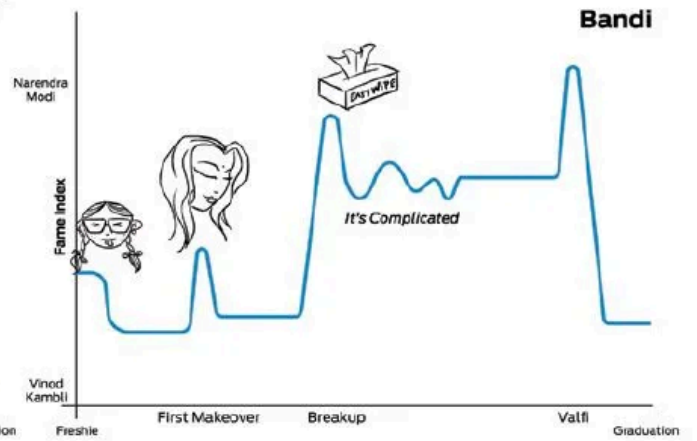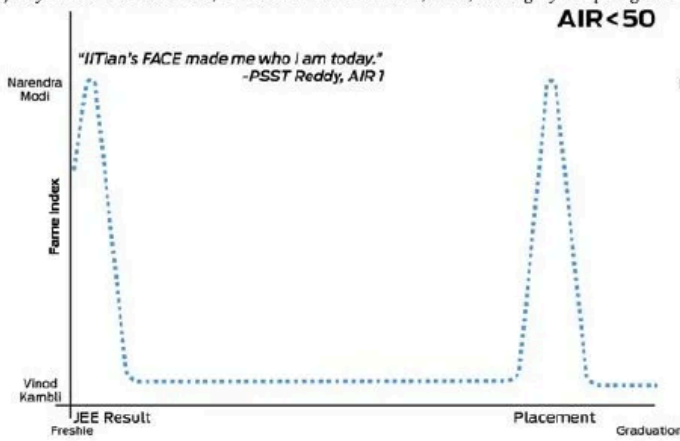Authorities in the Main Building have warmed up to

the idea that bicycles and not TumTums are what will ease transportation woes of students. "With the average age of an IITian student being in the early twenties, I do believe cycling is the way forward" says, Prof Subhasis Chaudhuri, Deputy Director Academic and Infrastructure Affairs. The current proposal seeks to install 20 bicycle stations at hostels and a few other prominent hubs like the Main Gate, YP and LHC. Around 550 bicycles are planned to serve the students at these locations. A feasibility study has been conducted by Gubbi Labs, an urban planning consultancy, for IIT Bombay.

A few choices are still pending before the plan sees on-ground realization. The first is the question of bicycle ownership. While the current plan seeks to have institute-ownership of the bicycles with regular maintenance by contractors, an alternative plan to have student-owned bicycles is also being mooted. Deputy Director Prof Chaudhuri says, "If the insti-

tute purchases and operates the system, the costs are very high. We will have to hire staff to man the stations and maintain the bicycles, which will mean the maintenance will be costlier than the bicycle cost. It might be better if students themselves purchase bicycles en-masse. Wherever required, institute is ready to provide ample support in terms of loans to those who need it as well as facilitate bulk discounts". If the institute purchases and runs the bicycle-pool system, it would be semi-automated. Hired staff would man the logistics of the system.

Since the Tum Tums were introduced nearly a decade ago, the institute has slowly but steadily tried to match demand by increasing the no. of buses to 24 where it currently stands. But the huge disparity in demand for these buses between peak (read 8:29 am) and non-peak (read 3:00 pm) hours is a reality that cannot be denied and needs to be addressed. ∎

insight

*All information and analysis in the following graphs are entirely baseless. No interviews, surveys and calculations are involved. The page is a work of pure fiction and if any sentiments are hurt, **Harshveer** and **Utkarsh**, both, are highly unapologetic.*
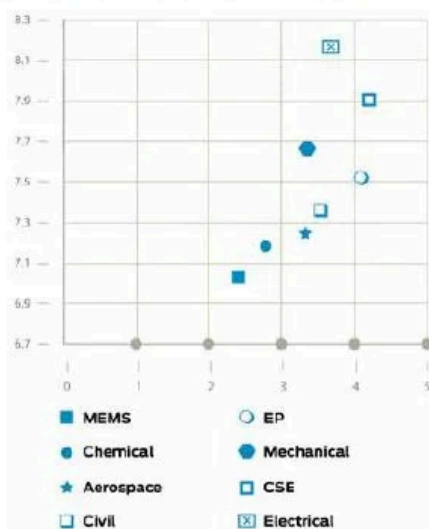
AIR < 50

"IITian's FACE made me who I am today."
-PSST Reddy, AIR 1

Fame Index: Narendra Modi ... Vinod Kambli

Freshie — JEE Result — Placement — Graduation

Bandi

Fame Index: Narendra Modi ... Vinod Kambli

It's Complicated

Freshie — First Makeover — Breakup — Valfi — Graduation

Addict Junta

Contemplation (Trip?)

Self-realization Mode

Fame Index: Narendra Modi ... Vinod Kambli

Freshie — First Score — DAC — First Startup Investment — Graduation

Fest/Council Teams

OC

GSec.

Aam Aadmi Phase

Fame Index: Narendra Modi ... Vinod Kambli

Freshie — Orgie — Coordie — CG/Manager Secy — Placement — Valfi — Graduation

Leisure

PG Junta

Matki, iff hot

Fame Index: Narendra Modi ... Vinod Kambli

Freshie — Graduation

Ajit Lulla

To Security, NASA-IITB, Parliament & every elsewhere

भाय! कैसां है भाय?

Fame Index: Narendra Modi ... Vinod Kambli

Freshie — Graduation

SARC OC/ISMP Head/ PM

No Graphic Available

Fame Index: Narendra Modi ... Vinod Kambli

Freshie — Placements — Graduation

Tech/ Research Junta

Fame Index: Narendra Modi ... Vinod Kambli

Freshie — Graduation — First Patent Around 30 Years from now

As a part of their stay at IIT Bombay, the Cumulative Performance Index (CPI) is probably one of the most influential parameters students come to associate themselves with. The CPI seems to dictate much of a student's fate and inspite of, or because of, departments having sufficient autonomy to decide grading policies and course structures, it becomes only too evident that this holy index shows clear variations across departments, batches and years of a student's stay.

Even beyond the grading policies and course structures, several intangibles factor into the picture. Students from different departments reportedly spend different amounts of time preparing for quizzes, doing assignments, or studying out of pure interest in the subject. InsIghT conducted an Academic Survey to get an idea of how the interest and effort put in by students varies across departments and years. The survey was filled by 300 undergraduates, out of which 207 were B. Techs. This data was then analyzed to yield several interesting trends relating the CPI of students to the interest shown, efforts made et al.

What affects your
Golden Number
A detailed analysis of CPIs

■ ADITI SINGH, AKHIL SHETTY, ANANT KEKRE, ANSHUL AVASTHI, KSHITIJ JAYAKRISHNAN, KUSH MOTWANI, SAGUN PAI, SHREYA SRIDHAR

Next we considered the variation of average CPI of final year B. Tech students across the batches from 2006 to 2009. While no general conclusion can be drawn regarding grade inflation or deflation over the years, trends can be observed for individual departments. For instance, Aerospace department has shown a consistent increase in the final year CPIs across the four batches. Final year CPIs of Chemical and Electrical departments have alternately risen and fallen, while those of CSE and MEMS departments have shown a decreasing trend.

CPI vs Effort : Current B.Techs

- ■ MEMS
- ○ EP
- ● Chemical
- ⬢ Mechanical
- ★ Aerospace
- □ CSE
- ☐ Civil
- ⊠ Electrical

CPI vs Hours spent actively listening to lectures

- ■ MEMS
- ○ EP
- ● Chemistry
- ⬢ Mechanical
- ★ Aerospace
- □ CSE
- ☐ Civil
- ⊠ Electrical
- ⌘ Chemical
- ✧ Energy Sciences

CPI vs Interest in Dept.: Current B.Techs

- ■ MEMS
- ○ EP
- ● Chemical
- ⬢ Mechanical
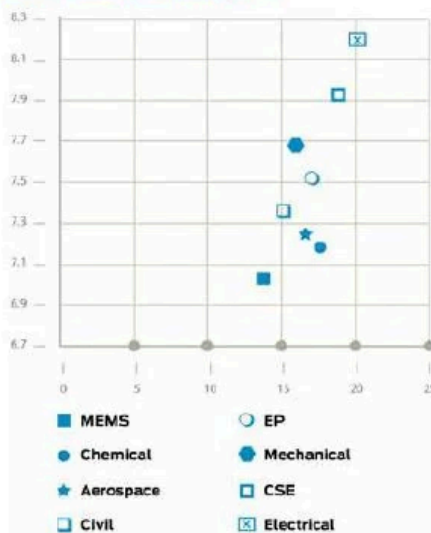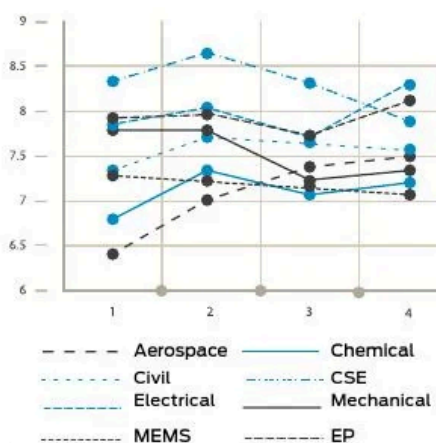- ★ Aerospace
- □ CSE
- ☐ Civil
- ⊠ Electrical

In the survey, respondents were asked to quantify 'interest' in their respective departments, on a scale of 1 to 5. Scatter plots showing the average* CPIs of B. Tech and Dual Degree students currently in campus, were plotted against their 'interest' in the department. A positive correlation can be seen between 'interest' and average CPIs, though the direction of causality is a matter of speculation. It can also be seen that the students from Chemical and MEMS departments appear to be the least interested in their departments, while those in CSE and EP departments appear to be the most interested. This is not unlike the general view pervading in the campus - that students in CSE and EP departments are generally motivated or 'enthu' to learn, while those in Chemical and MEMS departments generally dislike their courses.
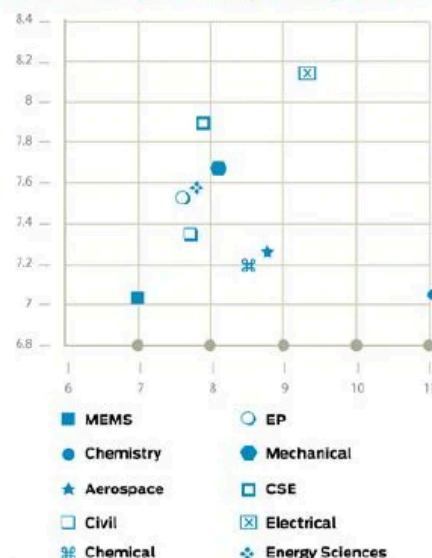
'Effort put in by a student' is another intangible that has been accounted for by the survey. Respondents were asked to mention the time they spent actively listening in lectures, or studying for quizzes and assignments, or for the pursuit of knowledge. The hours spent were clubbed together to yield an index that indicates the 'effort' put in by students each week, towards academics. Scatter plots showing the average* CPIs of the B. Tech and Dual Degree students currently in campus, were plotted against the efforts made. Although a positive correlation can be seen in the case of B.Tech students, the data for Dual Degree students appears to be more spread out. Also, Also, it could be seen that among the Dual Degree students, Mechanical Department seems to make a significantly lower 'effort' compared to other departments and its B.Tech counterparts. In addition to this, Chemical Duals, MSc Chemistry, Electrical B.Techs and CSE B.Techs seem to be putting in the highest 'effort' among the lot.

Grades across years

- – – – Aerospace
- ———— Chemical
- ·········· Civil
- –·–·–·– CSE
- ———— Electrical
- ———— Mechanical
- –––––– MEMS
- – – – – EP

The respondents were asked to mention the number of hours per week that they spend actively listening to lectures. The MEMS students have been found to be spending close to 7 hours a week listening to lectures, while the Chemistry students spend more than 11 hours a week, with the other departments lying in between. At first glance, the graph doesn't seem to be saying much. But considering that the respondents from Chemistry were very few, and hence their data might not present the correct picture, one can see a positive correlation between hours spent listening to lectures and the average CPI of other departments.
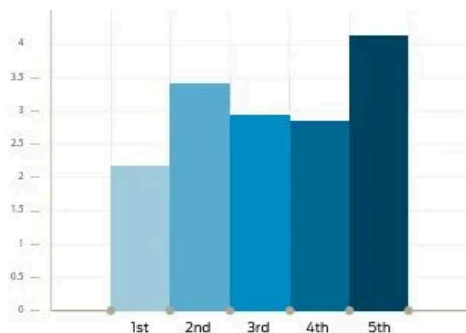
Departments	2009		Difference
	End of 1st year	End of 4th year	
AE	7.03	7.53	0.5
CL	7.23	7.24	0.01
CE	6.91	7.53	0.62
CS	8.14	7.93	-0.21
EE	8.4	8.28	-0.12
ME	7.54	7.4	-0.14
MM	6.74	7.11	0.37
EP	8.06	8.12	0.06
EN	7.64	7.84	0.2

Departments	2010		Difference
	End of 1st year	End of 3rd year	
AE	6.87	7.14	0.27
CL	7.32	7.33	0.01
CE	6.95	7.31	0.36
CS	8.18	8.01	-0.17
EE	8.06	7.88	-0.18
ME	7.78	7.8	0.02
MM	7.05	7.14	0.09
EP	7.13	7.35	0.22
EN	7.33	7.54	0.21

The table compares the average CPI values at the end of the first year with that at the end of the fourth year for 2009 batch, and the third year for 2010 batch.
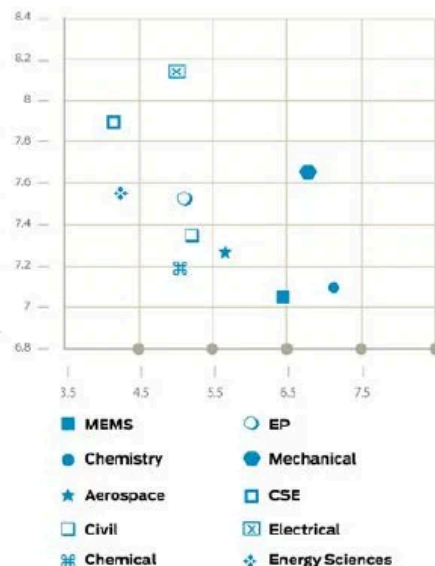
Freshmen CPIs have not been used while calculating this average, since it is assumed that they are not characteristic of the general picture of these departments.

Hours spent per week for the pursuit of knowledge, across years of the stay

CPI vs Hours spent in extra-curricular activities

- ■ MEMS
- ○ EP
- ● Chemistry
- ⬤ Mechanical
- ★ Aerospace
- □ CSE
- ▫ Civil
- ⊠ Electrical
- ⌘ Chemical
- ✥ Energy Sciences

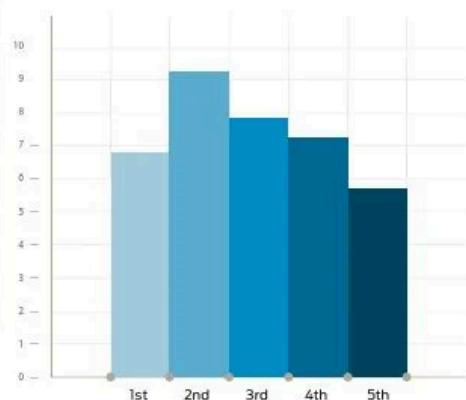## Hours spent actively listening to lectures vs Year of Study

In a time when there is a constant chase for good grades and a bulky CPI, one may wonder about the amount of time spent studying purely with a desire for learning. The number of hours in a week spent on the pursuit of knowledge was plotted against the year of study, from the freshman year through to the final year. The average shoots up from 2.22 hours a week to 3.37 hours a week as one moves from the freshman year to the sophomore year, after which it steadily declines until the fourth year. This could be attributed to the fact that the sophomore year presents students with entirely new departmental courses, which the students try to understand better by showing a genuine interest. However, this thirst for knowledge seems to decline thereafter. The fifth year students spend the highest time - close to 4.17 hours a week - on the pursuit of knowledge, which could be attributed to the massively credited Dual Degree Project (DDP), where short-cuts to grades are generally much fewer than in earlier years.

An analysis of how the average CPI fares against the average amount of time spent on extra-curricular activities seems to suggest that a good CPI has its own costs. Students from the Chemistry department spend the highest time - around 7 hours a week - on extra-currics, while the CSE students find as little as 4.2 hours a week for the same. It can also easily be seen that the CSE department sports one of the highest average CPIs and the Chemistry department one of the lowest. Again, the direction of causality cannot be ascertained, and is left for the readers to contemplate.

When the number of hours spent actively listening to lectures was plotted against the year of study of the students, it was found that this time peaks in the sophomore year, after which it steadily declines until the fifth year. This could possibly be explained by the declining interest in academics in general, or be attributed to the variation in credits taken up by students during their stay in IITB.

In most of the analyses, responses by the B. Tech students have been considered. This is based on the assumption that these responses are representative of their departments, and also allows us to include a diverse set of analyses which would have not been possible had there been a similar additional graph in each case. These omitted graphs, and a few others, will be put up online for better reference.

A first glance makes clear the positive correlation between interest in one's Department and their CPI.

The decline in number of hours spent listening to lectures could possibly indicate a declining interest in academics in general.

Contrary to popular belief, fifth year students spend the highest time on the "pursuit of knowledge", which could possibly be attributed to their massively credited Dual Degree Projects (DDPs).

The InsighT Team 16.2

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Photographs
Harshvardhan Singh and Suyog Wankhede

Design and Layout
Utkarsh Raut

InsighT Expansion

We have striven to delve into as many spheres as possible to keep you connected to the key happenings on this vibrant campus. The first ever **Freshmen Newsletter** was launched three days ago. Through the upcoming **PG Newsletter**, collaborative initiatives such as **IITBBC** and **IITB-Radio**, we have been expanding rapidly.

For the first time, InsIghT will bring **InterIIT Live Coverage** from Guwahati this December. Our reporters will travel with the institute contingent and bring regular video and textual updates, with live streaming of the key matches.

With the huge success of our **Facebook Reader** (4000+ users), InsIghT's outreach is at an all-time high. None of this would have been possible without either your constant feedback or the amazing team we are lucky to have. We are truly privileged to enjoy the connect with readers that we presently do. We need feedback. Kindly write to us at **insight@iitb.ac.in** to give us your suggestions on content and layout.

InsIghT's Work Report for the current tenure may be found at **http://gymkhana.iitb.ac.in/GBMI/insightGBMI.pdf**

We hope you have enjoyed reading this edition as much as we have enjoyed bringing it to you.

Do visit **www.insightiitb.org** for more news.

Cheers!
Anubhav and Suman