A Critique of DAC

■ **ANISH GUPTA, CS PRAKHYAT, DARSHIL RAMBHIA, DIVYESH MISTRY, NIVVEDAN S, RAHUL MAGANTI, VARDHMAN KUMAR, VASUDHA KOTIA**

In popular perception, DAC is the stick used to make students toe the line, not very unlike monsters being used to discipline children. However, since very few students ever face a DAC, what actually goes on in there is a mystery to most. Having received a few complaints from DACed students regarding the proceedings in the committee, InsIghT set out to find the regulations governing the Disciplinary Action Committee and what really goes on in a typical DAC.

We must admit at the outset that dishonesty or grossly improper conduct must indeed be dealt with strictly. DAC is hardly the most potent tool to promote an atmosphere of honesty (changes in pedagogy, examination principles, etc. would serve much better). But even those accused of the most heinous crimes need to be held innocent, and this article will nitpick on the present situation to head towards a system which is fair and trustworthy.

Quick facts about DAC and ADAC

	DAC	ADAC
Passed by Senate on	April 2nd, 1986 (94th Senate)	1997 (137th Senate)
Chair	Dean SA	Dean AP
Committee Members	Asso. Dean SA, An HOD, GSHA, Secretary (HGSC), SC/ST FacAd	Dean SA, Asso. Dean AP, Two HODs, UG/PG APEC Convenor, GSAA UG/PG, SC/ST FacAd

DAC is often used to refer to both the Disciplinary Action Committee (DAC) and its sister, the Academic Disciplinary Action Committee (ADAC). The former is chaired by the Dean SA and the latter by the Dean AP. There is one student representative in each - GSHA in the former and GSAA in the latter. Since we haven't found major differences between their proceedings, we shall all use DAC to refer to both of them, unless otherwise mentioned.

What goes on in a typical DAC?
From top to bottom

There exists a two-decade old document* which outlines the composition and the disciplinary offences which could warrant a DAC. However, it does not describe the exact due processes to be followed in the hearing itself for the establishment of guilt. While the document does list out penalties in categories, even a loose specification is missing as to which offence attracts what penalty.

In case of a perceived disciplinary breach, a complaint is registered against a student by faculty or other institute functionaries and brought to the notice of the Dean. The Dean then analyses the case to take a call on whether it is DAC-worthy. If yes, a DAC is then convened. It is to be noted that the student is not always notified of the exact charges against him/her in order to prepare for a defence.

During the DAC meeting, the defendant is first asked if s/he knows why s/he is there, following which the complainant and the defendant are heard and questioned. The defendant is then asked to leave and the committee then discusses the guilt and punishment.

*Document available at www.tinyurl.com/DACRules

Students have claimed that the complainant faculty members are usually present in the committee room during the decision making process. Once as conclusion is reached, a report is prepared stating the guilt and the recommended punishment, and is forwarded to the Director for approval.

Though the above process might seem harmless, We noticed numerous flaws in the current system based on conversations with various stakeholders. The issues are described first and InsIghT's recommendation to address the problem is given subsequently in *italicized text*.

Problems and Recommendations

Lack of a proper constitution or a description of the due processes

Although there do exist old, battered pieces of paper describing the DAC, they all lack a few critical components - A description of the full due process to be followed in a DAC hearing, the formal process of establishing guilt, the rights enjoyed by the defendant and the match between the offence and penalty.

It is conceivable that the decisions are taken as per the collective wisdom of the faculty panel present in the committee. It is also conceivable that the faculty members do set store by precedence and circumstance. However, one is bound to wonder whether the collective wisdom of faculty members always matches with the course of natural justice, particularly when emotions or relationships are involved, where a generational gap might make the verdict go the either way. Making punishments subject to the moral values rather than a predefined code always has its risks.
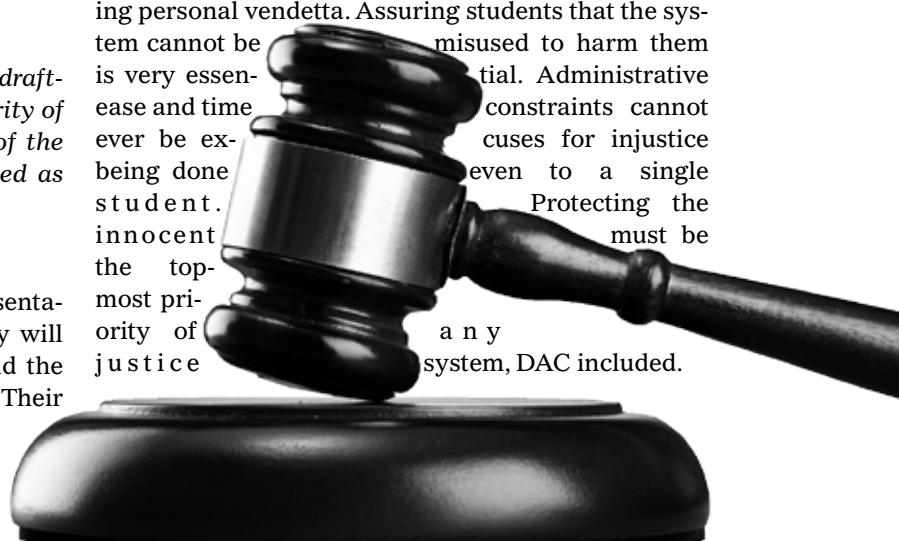
To understand the mission and proceedings of a DAC, InsIghT spoke to our Director, Prof Devang Khakhar. He says that ensuring that the guilty don't go unpunished is a prime concern for him. He also noted that following all formal processes in a DAC similar to a legal procedure would take a lot of time. The Director awaits the recommendations of the ethics committee on the issue of how to deal with Academic Dishonesty. Ex-Dean SA, Prof. Gopalan says, "We take the decisions based on precedence and circumstance" On the same issue, the Dean AP, Prof. Shiva Prasad has this to say. "I haven't read the ADAC Constitution thoroughly, but we generally follow the precedence set." The Dean SA says, "DAC functions under the rules of natural justice but not in the way the trials are undertaken by the court of law."

To establish any fair judicial process, a formally drafted constitution describing the functions, authority of the constituted committee and a description of the due process should be laid down and publicised as and when relevant.

Role of Student Representatives

When asked about the role of students' representatives in the ADAC, the Dean AP says that they will act as mediators between the student body and the administration and not as defence attorneys. Their primary role is seen as making the committee aware of the general perspective of the students that might be elusive to the faculty members. The student representatives might get intimidated since resisting against the decisions of the committee might affect the cordial relationship with the Dean which naturally essential to the successful discharge of their routine responsibilities.

InsIghT feels that Student Representatives should be more empowered in the present set-up to ensure that a proper, unbiased discussion is initiated. At the very least, this empowerment can be given by numbers in student representation. Given the pressure that the General Secretaries face to maintain cordial relations with the Dean, we also feel that it isn't desirable to have a situation where the General Secretaries are the only student representatives.

The process of guilt establishment and a level playing field

There is no formal process followed for establishing the guilt against a student. A student against whom the charges are framed, is asked to leave the place after a preliminary inquiry. However, students claim that the complainant faculty member remains in the room and takes part in the debate and discussion over the guilt. If that is true, this clearly violates the first principle of Natural Justice - No one shall be a judge in their own cause. The presence of the complainant in the committee presents a clear duress to the committee members where they might have to take a call against the wishes of a colleague.

We feel that it is not fair on part of the committee to award this special status to the complainant, which is not granted to the defendant. It should also be actively ensured that all the members of the committee are disinterested parties. The defendant must also be allowed to declare if there is an interested party present in the committee and appropriate action be taken, guaranteeing that the defendant would not face any backlash for it.

Right to an impartial trial and transparency

People who are DACed have claimed that they're often very nervous and are intimidated by the committee at that moment. Even when there are DAC proceedings against freshmen, who are likely to be easily intimidated, no affirmative action is taken, say the ISMP heads. They feel that his/her mentor should be asked to sit in the DAC Committee along with the SMP Faculty Coordinator.

We feel that the defendant should be given an option to bring in another person to argue in defence. They should also be allowed to bring in witnesses to the committee proceedings to ensure transparency. The right of a free and fair trial and the right to a proper defense is essential for justice.

To be able to trust and follow the rules laid down by a system, it is essential to be able to believe that the system is just. There have also been claims of students being threatened to be DACed as a means of satisfying personal vendetta. Assuring students that the system cannot be misused to harm them is very essential. Administrative ease and time constraints cannot ever be excuses for injustice being done even to a single student. Protecting the innocent must be the topmost priority of any justice system, DAC included.

Campus Infrastructure
What's Up, What's Gone and What's On

■ ABHISHEK KHANNA, ANSHUL AVASTHI, BIKASH BEHRA, APRATIM SINHA, NANDITHA RAO, SIBAPRASAD MOHANTY

Dude, where's my hostel?

H10 demolition

Readers will remember that the girls residing in Hostel 10 were asked to vacate their rooms this summer, with most of them forced to go back home. However, the demolition work was eventually delayed in getting permits for felling trees in the region. The permission was obtained in early August and the felling completed by the 21st. The demolition work started thereafter and was finished in the first week of September. The engineer working on the site commented that the H10 building structure was very weak and has, thus, not taken them much time to demolish. The construction of the new H10 building is expected to start in October and the project is expected to be complete in about 2 years. The nine-floored building will boast of 800 single rooms (8x14 ft).

Summer of 2013

For several years now, there has been severe shortage of accommodation for girls on campus, which has generally been attributed to the lack of planning. This summer, the problems were only worsened since the HCU allowed interns from all IITs who were interning in Mumbai to stay in the institute's hostels. While this is a standard (and much appreciated) policy across all IITs, the HCU didn't check with Hostel 11's Hall Managers before promising accommodation to applicants from other IITs. Resultantly, there were more than 100 interns who were directed to H11 by the HCU and had to be put up in the TV room, library, dormitory and the corridor outside the Hostel library.

Poor ceiling/flooring in H11

In the monsoon, the roof of the H11 D-wing (the H8 wing) leaked through the stairs in the 2nd floor till the ground floor. The stairs had cracks and we were not sure if they were going to fall on heads soon! There were several rooms in H11 A-wing and D-wing that had water leaking inside the rooms and the girls had to shift. The estate office guys tried doing some cement patches on the roof to stop the leakage. The flooring of the rooms in H11 D-wing ground floor is in a very bad shape. A letter has been given to the estate office and the work is still awaited. The cement in the roof of washrooms in H1 A-wing have fallen off and is in a bad shape. ■

H15 & H16 - A saga of delays

As the hostel accommodation scene in the institute limps towards normalcy, dreams of single rooms for all 3rd year UG onwards were dashed this summer when the long delayed construction of H-15/16 was, would you know it, delayed again. Constructed to house all freshmen separately after the Supreme Court directive on ragging, the hostels were, as per the Director's independence day address supposed to be completed by June 2013. When asked about the same, Dean IPS (Infrastructure Planning and Support) Prof Venkataramani attributed the delay to a variety of factors, explaining that the contractor in charge came up with a cash flow problem owing to unfriendly conditions in the external market, leading him to stall working on the project for a certain period. The Dean also pointed out to us the highly variable delay in acquiring clearances from government agencies such as the Forest Department when cutting down trees for construction, sometimes taking up to 8-9 months.

Suyog Wankhede

Saam, Daam, Dand, Bhed
The good, bad and ugly

But how is it that even with the truncated goal of only H15 being readied by the July 2013, was the institute not able to ensure handing over by start of semester? Or atleast foresee the possibility and plan ahead for it rather than falling back on a last minute plan to place half the male freshmen in staff quarters? Here the Dean admits that that they were put into bad faith by the contractor who, even until a few weeks before July, promised to hand over the entire hostel in time and not just 2 out of 3 wings.

So what about punitive measures at such a juncture? The Dean said he recognized the possibility of such action but believes it to be more prudent to continue a delayed project rather than shut down a contractor and enter the process of finding a new one. The Dean also talked about how the speed of any construction activity in campus would be a function of the external market and conditions we exist in, and with contractors and suppliers not being ideally mature, delays such as these are not unsurprising.

So is it all bad? No, we do get things right once in a while. The 2 new faculty residential buildings came up with a very acceptable 5 month overshoot. The Dean also pointed out how the quality of living and facilities available in new buildings is clearly better and things would only improve further on as said contractors continue to work more closely on the institute on multiple projects.

Single room kab milega?

Back to the most important question : *single room milega kya?* Honestly, no-one is making any promises this time around. Even when H16 does start operating (current schedule is summer 2014), it will probably be used to relieve pressure on female accommodation and married research scholars, for whom QIP was originally intended. Conservative estimates would provide single rooms to all 4th year UGs and above. When the new 10 storied H10 building arrives in two years, single rooms for 3rd year UGs is also on the cards. Single rooms for everyone ? H-17/18 being planned behind H4 with a capacity of 2000 seems to be the light at the end of this tunnel . That opening is still 4 years away though. ■

The gleaming new Computer Center

Soon to be added to the growing list of impressive buildings in the academic area, the new CSE Building taking shape next to KReSIT is also scheduled to be handed over by early next year. Billed as a new and permanent home for the servers of Computer Centre, the building will also house 5 teaching labs which will replace the OSL as the freshmen lab for CS 101 and remain open 24/7 for the rest of the institute.

More interestingly the institute also plans for addition of supercomputers to the building along with providing research workspace for alumni sponsored projects.

The funding and construction for this 33.4 crore project is being managed by BARC with IITB as the parent client. ■

Powai's *Ayodhya*?

Crucial to the development of the land behind the H14 stretch of the pipeline, close to NITIE campus, are the unauthorized dwellers there. Dean IPS says that concerted efforts are on to relocate them in a humane way. Registrar of the institute, Shri B Punalkar, confirms that there are ongoing efforts to relocate them close to Nahar. However, the Devi Temple in front of the Main Gate and a mosque behind the H14 area, both claim to have owned the plot of land around IIT Bombay from even prior to the institute's existence. The matter as yet stands unresolved. ■

New Gymkhana and SAC Phase II plans

Student Gymkhana facilities are set for a major facelift under the plans for SAC-II. With an approved budget of nearly 25 crores, these plans are aimed at future-proofing our Gymkhana and addressing many a student complaint and suggestion.

The first part to this redevelopment is to replace the current building housing the old badminton court and gym, opposite H11, with a 15000 sq foot, 3 storied building. The new building will house 3 squash courts, a TT hall large enough for 5 tables, an 4500 sq foot Gymnasium and large amounts of roofed activity space on the terrace for Yoga and Aerobics classes along with a few offices for student representatives.

The second part is even more important if one remembers how every year our outdoor sports facilities are rendered unusable by the monsoons for two or more months . The area under consideration is an entire 150m stretch of the Gymkhana grounds behind the main field, from the boundary of the new badminton courts all the way till the corner turning near H4, that currently provides for our 2 volleyball courts, kho-kho field and a whole lot of unused space. It is now to be redeveloped on the ground and, most importantly, covered with a roof. The running roof will provide shelter for 2 new Basketball courts, 3 volleyball courts with one on synthetic turf, 3 cricket pitches, a kho-kho field on synthetic flooring that would double as general activity area, and another small astro-turf field that could be used for games of hockey or football during the rains.

Now, the development of these facilities is integral to our capabilities for hosting the Inter-IIT Sports Meet in Dec 2014. So one hopes that this puts a non-negotiable deadline in front of the institute for completion of this project. Oct 2014 is the currently scheduled completion date with work slated to start by end of this year.

1	Gymkhana
2	Open Air Theatre
3	Spectator Gallery
4	Outdoor Sports Roof Structure
5	Joggers' Track

The last part of SAC-II is something we might not see completed in the immediate future but is easily the most visually impressive change on the cards. An expansion plan to the OAT has been agreed to in principle but not approved yet. This would double the seating capacity to 6000 people (15000 standing), and involve improvements to the surrounding SAC such as making space for a permanent food outlet and seating area inside. At best, this should be expected not before Dec 2015, hopefully in time for a grand Mood-I sponsored inauguration. ∎

Main Gate
A sneak peek into delayed glory

It has been that way so long, most students in campus had almost come to expect the mess of bamboo sticks and tarpaulin covers we call our Main Gate as permanent. But finally, this year, we get to replace what certainly was a cause of embarrassment to every campus resident. Scheduled to be ready by December, the new Main Gate would not only sport a new, more concrete look, the adjacent complex will consist of a 2 storied building housing the new Security office, moving from their current position in the Main Building. Expansion to the road in front of the Main Gate is also underway, going from 2 to 4 lanes. The entire project, involving all 3 gates has cost the institute 2.3 crores.

An expensive and intricate glass facade would be integral to the imposing look which the main gate would sport.

When quizzed about the inordinate delay in its completion, project contractors blamed long drawn procedure in obtaining permission from the BMC to cut down trees when expanding roads. ∎

Trouble in **TumTum Land**

∎ **ABHISHEK KHANNA, ANKIT JOTWANI, KRUPA BATHIA, NASIRUDDIN AHMAD , RACHIL MALIWAL AND SIBAPRASAD MOHANTY**

On 23rd April 2013 the institute mourned over the death of Mr. Milan Vitthal, one of the drivers of our Tum-Tum. Over the last few months there were several speculations regarding his death, the reaction of our hospital and the following strike by the Tum-Tum drivers. InsIghT finds out what really happened.

Rumor: Mr. Milan Vitthal was in a critical situation and wasn't allowed in IIT Hospital, as a result he died.

Truth: Mr. Vitthal was on duty that day, he wasn't feeling well and decided to take a break when he had a heart attack and died on the spot. He was never taken to the IIT Hospital, even after his death. We met the CMO (Chief medical Officer) of IIT Hospital, Dr. Nisha Shah- "He was never brought here and anyone in the emergency situation will always be treated in this Hospital. We doctors are here to save lives, we treat people first and then identify them." she said.

Rumor: There was a strike by the Tum-Tum drivers over his death, demanding lack of facilities provided to them.

Truth: "There was only one day mourning over his death by the fellow drivers. There was no protest as such," said a driver who asked for anonymity.
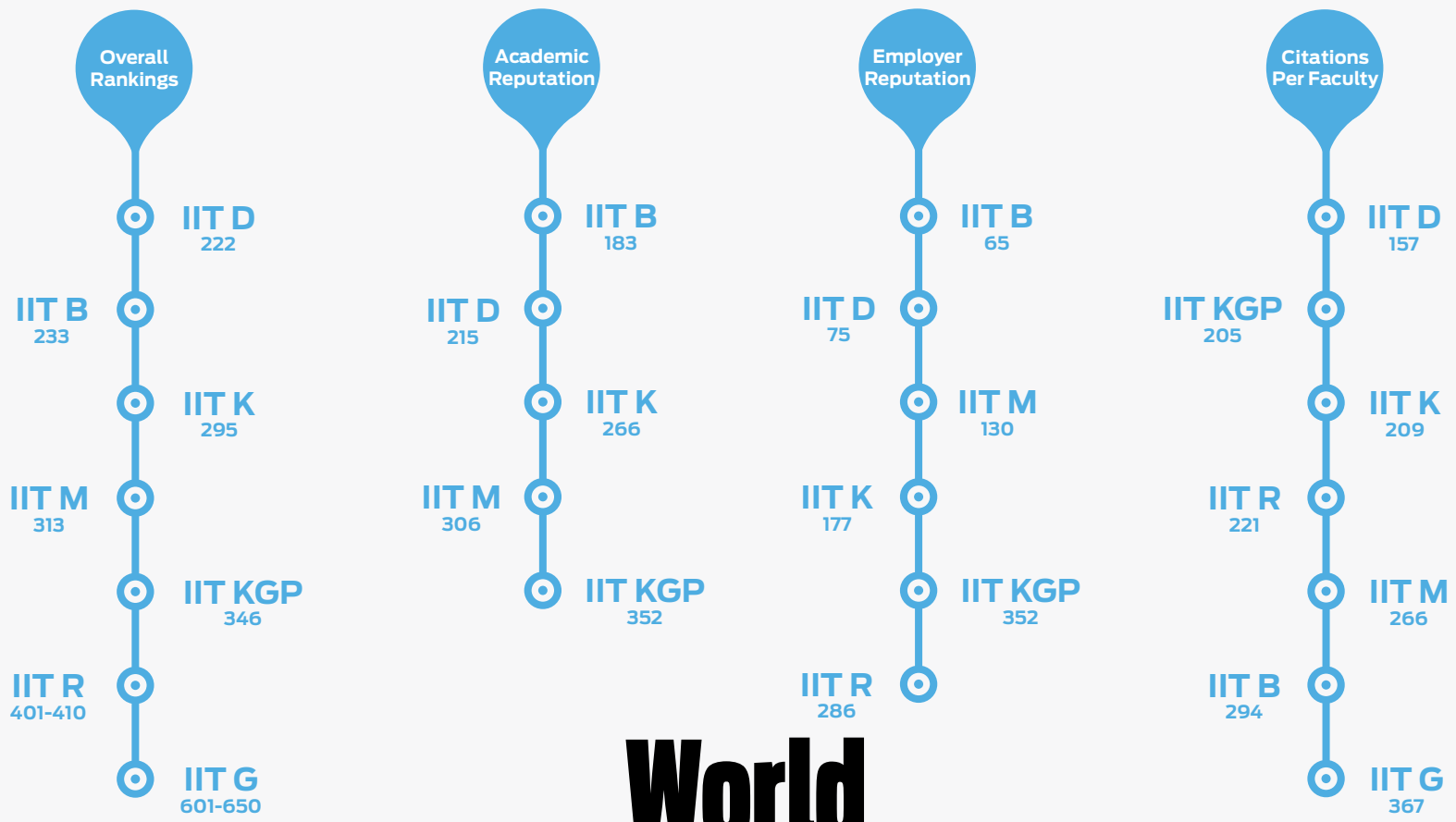
We found that Tum-Tum drivers are indeed facing problems- poor maintenance of vehicles, unusual work timings (some of the drivers have to work the whole night) to name a few. Some of them complained about the heat in the driver's seat during hot summer days and the overcrowding of the buses. But overall they are all satisfied with the facilities provided. Some of the bachelor drivers are also provided accommodation by the institute. They have a platform to raise their issues and are also a part of NASA (Non-Academic Staff Association).

We met with Mr. Vijay Kumar, head of SWS (Student Welfare Society) which was set up earlier in this year to manage and run the Tum Tum services. According to him some of the drivers might be discontent as they do not enjoy the perks of a permanent employee but it was made very clear during the time of contract. "The circular issued by the institute for hiring the drivers very clearly mentions that the post is purely temporary and payment is going to be made on a daily basis. Also before hiring, the drivers were very clearly told not to have any hopes of being made permanent employee." he says.

Currently, the institute is planning to outsource all the Tum-Tum drivers through a contractor. An in-principle nod has been given by the Director, quotations have also been received but as such nothing has been finalized. As per the tentative plan, the contractor will provide 4-5 drivers and if it works out, the entire facility will be outsourced to the contractor. The only question that remains, what will happen to all the hard working existing Tum-Tum drivers?∎

Overall Rankings

- IIT D — 222
- IIT B — 233
- IIT K — 295
- IIT M — 313
- IIT KGP — 346
- IIT R — 401-410
- IIT G — 601-650

Academic Reputation

- IIT B — 183
- IIT D — 215
- IIT K — 266
- IIT M — 306
- IIT KGP — 352

Employer Reputation

- IIT B — 65
- IIT D — 75
- IIT M — 130
- IIT K — 177
- IIT KGP — 352
- IIT R — 286

Citations Per Faculty

- IIT D — 157
- IIT KGP — 205
- IIT K — 209
- IIT R — 221
- IIT M — 266
- IIT B — 294
- IIT G — 367

World University Rankings
With a Pinch of Salt?

A critical analysis of the QS World University rankings reveals the many flaws and blatant inconsistensies in the most popular university ranking system of the world.

■ **ABHINAV GARG, ANANT KEKRE, ATUL GUPTA, DEVENDRA GOVIL, KSHITIZ SWAROOP, NIVVEDAN S, SHIVAM GARG, SOMESH SONTAKKE**

A plethora of rankings exist out there that tell us where IIT Bombay stands amongst the universities of the world. One of the most popular by Quacquarelli Symonds (QS), the QS World University Rankings 2013, recently ranked IITB to be the 233rd best University in the world overall and 56th best in Engineering and Technology. On their Indian counterparts, we rank 3rd in the country according to *The Outlook's* rankings while we haven't appeared in *India Today's* rankings for the past 3 years.

The IITs failing to make the top 200 in the QS World University Rankings made the headlines yet again, with media statements renouncing faith in the Indian Education system. Amidst this, at a recent IIT Council meeting it was resolved to pay more attention to the rankings and concentrate on branding and marketing the IITs. We, at InsIghT however, took a step back to critically analyse if the rankings do really give us a true picture to judge ourselves by. We have come to realize that we have just opened a Pandora's box.

> **How relevant is the proportion of international students to an institute, which is primarily funded by taxpayers with an expectation to serve national interest?**

What the Rankings look at

Different agencies use different parameters to arrive at their respective rankings. For our analysis in this article, we have just taken the most popular of them all, the QS World University Rankings. The various parameters that QS looks at and the respective weightages are as shown in the pie chart.

The first question one could ask is how good these parameters are at estimating the worth of a university. For instance, how relevant is the proportion of international students to an institute, which is primarily funded by taxpayers with an expectation to serve national interest? Secondly, the relative weightage assigned to the various parameters is highly vulnerable to criticism. It wouldn't be very wrong to assume that employability is the most important factor for most undergraduates. A point that was raised repeatedly in our discussions pertained to the disproportionate weightage of 20% to Student-

Faculty ratio as opposed to a meagre 10% to Employer reputation, substantiating our assumption.

Different people and universities have widely different priorities and a one-size-fits-all solution is hardly appropriate. A ranking based on a priority list that is not our own may not be so relevant to us. However, in order to standardize, there seems to be no way out but to stick to some set of parameters and gulp down the bias of the rating agency that comes with it. Just to illustrate, It so happens that IIT Bombay's world rank shoots up from 233 to 65, much ahead of all other Indian Institutes, when just Employer Reputation is considered and it goes off the ranking list when considering just the Student-Faculty Ratio. But, before we begin to sound like the fox with the sour grapes, let's move on and assume for now that parameters and the weights used by QS are agreeable.

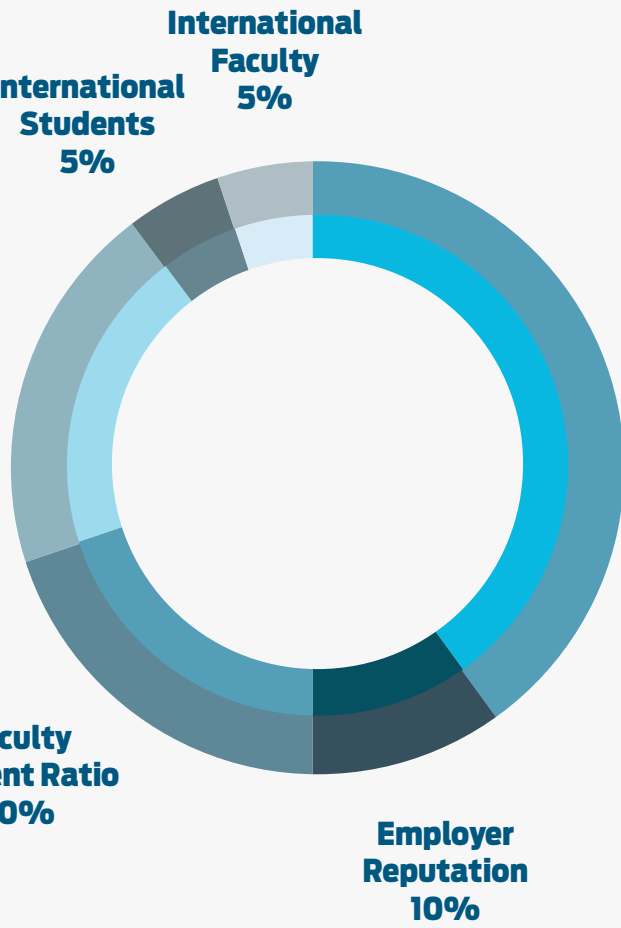### Reliable Data or Utter mess?

A recent news report carried by the NDTV suggested that IITs didn't make it to the top 200 because they refused to pay a huge sum of money (in lakhs of dollars) to the ranking agency for participation and that the rankings suffered because outdated publicly available data was used instead. Although no ranking agency was named, the reference to the top 200 seemed to strongly suggest QS. Intrigued by this, we investigated further on this and found the news report to be untrue. Neither is the institute charged by QS for participating in the rankings, nor is the data used by QS outdated publicly-available data.

QS obtains its data from three sources - The data for Academic Reputation and Employer Reputation is

> **It so happens that IIT Bombay's world rank shoots up from 233 to 65, much ahead of all other Indian Institutes, when just Employer Reputation is considered and it goes off the ranking list when considering just the Student-Faculty Ratio.**

sourced from its own surveys conducted across universities and employers; Citation data is sourced from Scopus and the rest is sourced directly from the Universities themselves.

Pie chart

- **International Faculty** 5%
- **International Students** 5%
- **Academic Reputation** 40%
- **Employer Reputation** 10%
- **Faculty Student Ratio** 20%
- **Citations Per Faculty** 20%

Among the four parameters that contribute to 90% in the rankings, Academic Reputation and Employer Reputation seem a complete black box except for the fact that, on a first glance, there seems to be a significant bias towards Western representation in the surveys conducted.. Since, we don't really know much about the exact survey methodology, we will refrain from commenting any further on these two parameters.

Student-Faculty Ratio

The data for the calculation of Student-Faculty Ratio (SFR), that has 20% weightage, is sourced directly from the respective institutes. With our current SFR

	IIT Bombay	IIT Delhi	NUS
No. of Students	8475	7614	37429
Faculty Members	565	423	2196
Ratio	15	18	17
QS Score (2012)	28.9	35.4	81.4

of 15.3, we are far away from the ideal 10 and thus suffer in the rankings hugely on that count. According to QS, "Student Faculty Ratio is, at present, the only globally comparable and available indicator that has been identified to address the stated objective of evaluating teaching quality."

> "It is common practice for some Universities to include Post-Docs or Research Staff in the faculty count, resulting in better student-faculty ratio" says Prof. Devang Khakkar, our Director.

Whether SFR really is the best indicator of teaching

quality is up for debate, but even assuming so, we noticed potential problems with this. Even with the guidelines given by QS, the definitions of student and faculty are extremely fuzzy and are prone to possible opportunistic interpretations by the respective institutes.

To validate our guess, we checked the SFRs of NUS, IITD and IITB. According to QS, the normalised score for SFR are 81.4, 35.4 and 28.9 respectively*. We also obtained the exact figures of faculty and student counts from official sources[†] and arrived at figures of 17, 18 and 15 respectively. QS's normalized scores and the actual raw data show no correlation whtsoever. Although QS data suggests otherwise, we actually are better off than both NUS and IITD in Student-Faculty ratio.

"It is common practice for some Universities to include Post-Docs or Research Staff in the faculty count, resulting in better student-faculty ratio" says Prof. Devang Khakkar, our Director. We rank significantly better than IIT Delhi in terms of both Academic Reputation and Employer Reputation. SFR is one parameter where IITD has an edge over us in the final rankings, which as it turns out is not entirely accurate.

Citations per Faculty

'Citations per faculty' is another parameter where we lose out significantly to IIT Delhi. In fact, we rank lower than all of the other old-five IITs and IIT Roorkee. When asked about the surprisingly low figures, the Director pointed out that the QS figures hugely

under-represented our actual figures. Since QS fetches the data independently through the Scopus database, the anomaly was rather puzzling.

A visit to the Dean R&D office offers a possible explanation. All papers, on submission, need to specify an affiliated institute where the research was undertaken. IIT Bombay does not enforce a standard convention for stating the name (Which is enforced by some of the other IITs) which would render the variants of 'IIT Bombay' - such as I.I.T. Bombay, IIT Powai and IITB as different institutes in a Scopus search. The Dean R&D office fetches all our citation data from Scopus using a query with 18 different variations of the name string 'IIT Bombay', while the same cannot be expected from QS. If actually true, this could have put our figures in serious jeopardy.

Bottom Line

While we have analysed only the QS Rankings, the other rankings are likely to be very similar or, going by the popular sentiment on the Internet, much worse. Does this mean that they are absolutely useless and should be completely ignored? Perhaps not. In the absence of any other alternatives, these rankings are indeed the best avaliable indicators of global standing of universties, especially when one is looking at applications for Higher Education and there is no other way to compare universities. However, in order to judge ourselves, these rankings should perhaps be taken with, not a pinch, but a handful of salt. ∎

> We rank significantly better than IIT Delhi in terms of both Academic Reputation and Employer Reputation. SFR is one parameter where IITD has an edge over us in the final rankings, which as it turns out is not entirely accurate.

Rankings in the IIT Council meeting

The major issue discussed in the recent IIT Council meeting is the global standing of IITs. A press release stated that although the undergraduate engineering programmes of the IITs are some of the best ones offered globally, there is scope for improvement on composite indicator rankings.

The IIT council seems to be taking an active interest in understanding how we are ranked so as to work on the areas where we lack. A Committee of IIT Directors is looking into the issue and are already in touch with the QS ranking officials to understand the methodology of the ranking agencies and systems, as per the press release.

The Gossip Box

IIT Bombay not being featured in *India Today*'s rankings puzzled many a people. In June 2012, when *India Today* published their rankings, there was a footnote - IIT-Bombay is not featured in this ranking as it did not share the factual data on time. The then-PRO Ms. Jaya Joshi registered a strong objection to the statement in a letter to the Editor of *India Today*. The letter stated that IIT Bombay was never approached by any representative regarding the data for 2011 or 2012 rankings and the last time IIT Bombay was contacted was in 2010 when they were provided the required details. The Public Relations Office says they never received a reply to the letter and IIT Bombay hasn't participated in *India Today*'s rankings since.

Improve our rankings - at what cost?

Very recently, just as we were getting ready to publish this article, we came across an article in the Indian Express titled Rank Inconsistency written by Prof. Gautam Barua, the former director of IIT Guwahati, where he expressed his reservetions against using the rankings as a measure of our performance. He says *"If we want Indian institutions to get appreciably higher QS and THE rankings, we must allow the institutions to do the following:*
a) spend heavily to aggressively market the institute among academia and corporations in the US and Europe;
b) substantially increase the number of foreign students. The government must allow undergraduate admissions, allow assistantships for foreigners and remove ceilings on incomes for foreign faculty;
c) hire a large number of temporary "teachers" to boost the faculty-student ratio (which counts the number of "academic staff", and which apparently is done by many US universities); and
d) create a network among Indian institutions to encourage citations of papers of other Indian institutions, that is, scratch each others' backs."

None of these would perhaps be of any benefit to us except to improve our rankings. Is it still worth spending time, energy and money on them?

* This is the data for the year 2012; We were unable to obtain all the data for 2013. Scores are normalized out of 100. We also do not know anything about the normalization function except that it should be negatively correlated with SFR.

[†] IIT Council website and PRO's Office

What's a POR

■ **ATUL SHUKLA, ATULIT KHANNA, DEEP SHAH, FAIZAN MOHD, HARSHVEER JAIN, HIMANSHI SWARNKAR, RAHUL MAGANTI, SARTHAK JAIN, SHARDUL VAIDYA, SHUBHAM SINGHAL**

In a world of decline - the declining rupee, the declining number of tigers, the declining CPIs - one thing that is holding constant is the desire of people to work, and there is no better example than our own campus. To back this desire is the ever-increasing number of Positions of Responsibility (PORs) which currently stands at a staggering 847. This isn't a seniors-only thing, this year has already seen its first elections that took place in Hostel 15 for the unofficial post of the Freshmen Representative (they call him FR – hope he's not from chemical). The flush in this loaded industry has forced InsIghT to venture into the world of PORs, following up on our series 'What's in a POR?'. Amazingly this world, just like the world of humans, has a well-established categorization of perceived relevance. To enhance our understanding of this fifth world, the fourth estate - InsIghT - explores the reasons for people wanting to step into this new horizon, what they learn in the process and how you, the people of IIT Bombay, rate the impact of the various institute bodies.

Why a POR?

So why do people take up PORs? There was only one way of answering this question, ask the people! So here at InsIghT we met with some ex-institute post holders along with our usual thing, something we've become really good at – Surveys.

Something that was common to many POR holders was the 'self realization and introspection' part as **Jitesh Phulwani**, MI '12 OC puts it crisply. For Zishaan, TechFest '04 OC, the opportunity to lead a team of 20 of India's finest minds that early in his life was one he couldn't have refused, after being a part of the Techfest team in his managerial third year. Jitesh also echoed similar sentiments. Some like Rohit Chhawchharia, who was awarded Institute Organizational Special Mention for his exemplary work as a Coordinator, TechFest '12, interest and passion is what matters in taking up a POR. He now is the Operations Manager for Team Shunya. " My ambition of representing India on an International platform and doing something tangible related to Civil Engineering inspired me into taking this up."

For **Poorna Chandra**, who served as GS Cult '12-'13, it was all about networking and knowing as many people as possible, which itself is a feature of a GS post. According to him, everyone when enters this institute has certain checkpoints that he or she should try to get ticked as one gets out of this institute. Further, he says that this is a decision he took towards the end of his second year. "While taking up a certain POR , people are either need driven or it is about filling up that selfish tickbox. Either way people feel obliged to take up some responsibility either by passion or by external persuasion."

When InsIghT asks **Zishaan** about the effect of POR during placements, he says that it is a myth created and not even an iota of truth exists. "Every company has some work profile and they pick up peo-   ple who satisfy their needs. One com-

pany might need a student who codes in Python and another may need a student who is good at leadership and his POR authenticates it. Having done recruitment from various IITs now, I judge people who opt for PORs as hardworking and capable because they are meeting the work pressures and tensions of being in a POR," says Zishaan who also has recruiting experience.

Through our survey, we asked the people of IITB why they did or did not take up PORs. For most of those who did, what mattered most was getting that learning experience of a POR followed closely by working for something you were genuinely passionate about. While networking was a feature associated with every POR (perceived big or small) the fact that at the end, the Position-Of-Responsibility is also a Point-On-Resume was important for almost 40% of POR holders. For those who haven't held a POR, we got a good mix of answers, academic commitments being priority number one. 50% of non-POR holders also said that they were not interested in taking up a POR as they wanted to pursue things they found more relevant like having their own start-ups and pursuing their passions in cultural arts and sports.

The POR ladder

Now we come to the tricky part. While debating what an article like this should have, on a number of occasions we would end up comparing the relevance of different PORs. This led to us to believe that there exists a ladder with respect to various PORs. People told us that it is justified as it is a comparison of work, some said that it is wrong as all PORs have similar learning curve with amplitude depending on magnitude while others said it didn't exist. To figure this out we asked your help in building this ladder, an analysis of how people perceive the impact of various institute bodies on their lives. The results –
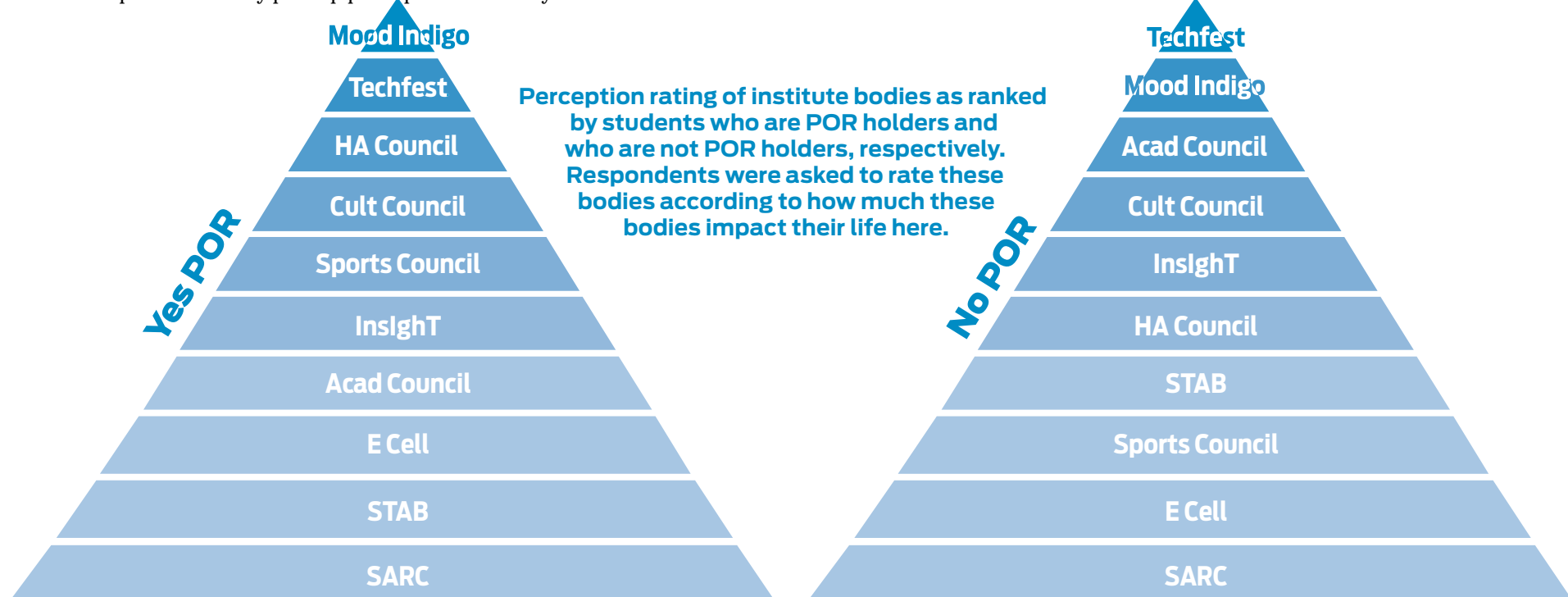
Yes POR

For those who've held or are holding a POR, Mood Indigo leads the way followed closely by Techfest. These students then rated the various councils in the order as shown below – Hostel affairs has a greater impact than the cultural council which leads the sports council which leads InsIghT, then the academic council, followed by E-Cell, STAB and SARC rounding up the various bodies(Only SGEC considered).

No POR

For those who've never held a POR Techfest was the body which has the greatest impact on their life, followed closely by Mood Indigo. Third on this list is the academic council, which means it has gained 4 places from the previous list. This is further followed by the cultural council, holding its fourth position on both lists, followed by InsIghT, the hostel affairs council (down by 3 places), STAB (gained 2 places), sports council (*dropping 3 places), ECell and SARC in that specific order.

Afterlife of a POR

IITB has a great blend of students of different thinking and philosophies. While some take multiple PORs, others do not take any. The statistics above have shown that point on resume, networking, lust for power and fascination towards glamour - all count as reasons, though the weightage of these are varied depending upon individual priorities. Different people have their contrasting objectives but the major factor behind taking the post is one's inherent like for that POR which forces one to invest huge amount of time and effort. The statistics in the survey in which 264 students responded support the basic notion of interest as being the principal reason for taking up a POR. The Point on Resume which turns out to be the second most influential reason for opting a POR, is perceived by Companies using their own methods and tend to arrange these POR's in an order of their "superiority" over others. Finally, it is the companies' views that form the general perception among the bulk and creates a "social ladder" with in.

Yes POR

Mood Indigo
Techfest
HA Council
Cult Council
Sports Council
InsIghT
Acad Council
E Cell
STAB
SARC

Perception rating of institute bodies as ranked by students who are POR holders and who are not POR holders, respectively. Respondents were asked to rate these bodies according to how much these bodies impact their life here.

No POR

Techfest
Mood Indigo
Acad Council
Cult Council
InsIghT
HA Council
STAB
Sports Council
E Cell
SARC

What's in a POR

The race for PORs (at least 847 number, as the adjacent page tells you) causes much trepidation, heartburn and elation. This race also causes intense debate, amongst students who live for it, students who despise it and amongst faculty who see it as a huge diversion from academic motivations.

InsIghT ran a series last summer, titled **'What's in a POR'**, chronicling the tale of those who lost the race but lived to tell a grand tale. These stories, while heart-warming, show us how this race is transient, illusory and most of all largely irrel-evant in the longer run. InsIghT brings out the best of the series.

To read the full interviews, visit our website: **www.insightiitb.org**

Zishaan Hayath
Angel Investor, co-founder Chaupaati Bazaar

Excerpts from his interview:
In 2002, I contested for Insti Lit Secy during my second year. I campaigned hard. My opponent was a friend but a weird temporary rivalry crept between us during the elections. I lost by a margin of <100 votes. When the results came out, it hit me that I didn't completely control the things I wanted in my life. People consoled me that my opponent had 200 more people in his hostel and that it made all the difference. I went back to my room to sleep, but couldn't. I realized I never wanted anything this bad. And this made me cry more. The next few days, I moved around like a zombie - eating less, smiling less. It always feels like end of life when you want something bad and don't get it.

Well, life moved on. One night, I was walking on the road between H5 and H8. A bike braked beside me (yes, students had bikes on campus) and the guy said, "Chal baith." I asked, "Kahan?"
"SAC."
It was my Techfest manager chat (now it's an interview, I guess). I joined the team and had a thrilling third year organising Techfest 2003.

I made a great set of friends. At the end of third year, I was OC Techfest. I had a fabulous fourth year and made another great set of friends. Insti colors and cita-tions happened. In my fifth year I got recruited by ITC and I'd like to believe that Techfest helped me get shortlisted.

Abhishek Agarwal (Monty)
Analyst at Deutsche Bank

Excerpts from his interview:
In the sixth semester, I contested for the post of GS Cult. This was something that I had been thinking over since I missed the opportunity of becoming the IDS. Because of a couple of debacles a year ago, I prepared myself for both the sides of the coin. My manifesto provided a new outlook to the cultural activities in the institute. I started from zero and earned 1728 votes, but fell short by 361 votes.

After the results were announced at SAC gate, I started walking towards my hostel. After reaching H5, I told my friends that I would again con-test for GS Cult the next year. People thought I was speaking off the spur of the moment with a gambler's mindset who would keep playing till he wins. But I was mentally prepared to do this all over again the next year.

I decided to contest the Hostel GSec election. Though, opposed again, I won an election finally. This was the first winning moment after a long losing streak. The journey had actually started now. By beginning of 8th semester I had done by my job well. The Institute Elections were coming up and I had two options in-front of me now – GSHA or GS Cult ?

After giving a considerable thought, I decided to contest for GSHA, because from a learning point of view, GSHA had more to offer for me during the election than GS Cult , as I had observed it in my year as a GSec. I again set out to campaign and made it with a decent margin this time. We also won the PAF that year. The Academics also were better and I managed a 8.8 in both seventh and eighth semester.

If we start appreciating the learning from failures, we would be making the most of them. POR jolts only make you strong for future. Trust me once you move out of campus, these things may seem very petty. Campus is not the end of your life.

Advitiya Sharma
Co-founder, Housing.com

Housing.com, after multiple rounds of heavy funding, is unquestionably the hottest startup to come out of IIT Bombay in recent memory.

Fascinated by the change one can bring about well-constructed visions. To be at the forefront of change, Addu stepped into the post of the Institute Football Secretary. In a journey which saw him receive the Best Office Bearer award, he proved his capability to himself. A natural contender, he contested for the post of the GS Sports.

What followed is best described in his own words, "The results came out, and I had lost. I had been eager to follow my ideology through this path, and realising that I wouldn't be able to do so by being a GS, was quite disappointing. But there were other avenues that could offer me the chance to work and learn. I had been rejected, but I was still in love. In the next two years I served as a Mentor, Contingent Leader for Inter-IIT, Hostel Ward nom. and Captain of the Football team."

Addu soon co-founded the housing team. "It was in my fifth year that me, along with a bunch of friends, decided to work on a housing portal that would make home-search hassle-free. At that time we engaged in countless discussions about how it could be brought to life, how it could be designed to become a strong tool for people searching for homes. And it was an amazing phase. It also gave us the chance to shape something using our own ideas and do things the way we wanted to and felt fit. And I believe all the experiences I've had during my stay at IIT help me shape Housing better every single day."

insight
What's the perfect team?

■ AMEYA BEHERE, ANKIT KUMAR, AYUSH KANODIA,
CHAITANYA POTTI, ISHAAN RAKSHIT,NITHIN NETHIPUDI,
RAJ AGARWAL, SAIDEEP REDDY

Teams are meant to supplement the usual learning process by assisting individuals with a distribution of specific jobs over varied skill sets, and encourage learning with collaboration. When it comes to course projects and labs, we all have cribs regarding the type of team allocation or the type of people we were teamed with.

InsIghT delves deeper into this issue and finds out whether a utopian model of team allocation really exists, and what are the yardsticks of such a broad comparison. From this huge pool of tried-and-tested methods, we try to narrow our choices down to a point where we have a fair idea of what actually works from this huge array of methods.

The yardstick of judgement: When is a team formation good?

There cannot be a unanimous vote when it comes to the ideal manner in which teams should be allotted. The metrics on which people base their perspective are diverse. Professors, in general, tend to have views which are orthogonal to those of the students.

Professors' View

Prof. Parag Chaudhuri (CSE Department) says every student in a group must be given a fair opportunity to learn and make an effort. According to Prof. Partha Sarathi (Chemical. Department), groups should be formed in such a way that each group has a good mix of students, based on measures such as CPI and interest in the course. Some professors argue that students shouldn't have a say in team formation, to provide them a flavour of real life situations. In the words of Prof. Dinesh Sharma (MG department), they must learn to comply and adapt.

Students' View

Students want to choose their own team members for a number of reasons. They want to learn from the course, want the team to gel well and prefer an accurate prior estimate of the commitment and skill sets of the members. At the very least they expect from each member the willingness to put in a decent effort. Students with varied academic standings have different views - high performing students tend to form cliques among themselves. Students with lesser CPIs wish for more balanced distributions. Others base their choices on physical proximity and accessibility.

Current Allocation Methods and Issues:

Here, we broadly lay out the methods currently used by professors to make teams:

Random Allocation

Team members are selected randomly and sometimes changed every week (e.g. IC 211). There are numerous minor variations of this process. Professors believe this helps students to work professionally with unknown people, and is "broadly" fair.

Has some serious issues. In some teams the entire load falls upon one or two individuals, which is unfair. Students are known to plagiarise without informing their team members, resulting in team penalties. Coordination often becomes an issue in a team of unrelated individuals.

CPI Based

Professors try to bring together academically weak and strong students. Students are divided into large CPI-based pools and each team is made to have one particular member from each pool. A broadly uniform average CPI is maintained.

Biased at times, as CPI is not necessarily an indicator of willingness to work. There have been cases where an individual's lethargy holds back the team's performance. The general problems of having to deal with random team members exist too.

Free Will

The discretion to choose team members is completely left to students. This solves the problem of coordination since students naturally form teams that gel better. Teams tend to be based on similarities in academic performance or physical proximity.

Professors say that this does not prepare students for real life situations where one needs to come out of one's comfort zone. Another major issue is that such teams can be majorly skewed in terms of aggregate academic skills. Students being left out is a problem.

Psychometric Tests

Some professors, like in AE 207, take a psychometric test of the class to obtain relevant parameters such as previous knowledge, physical proximity between students, interests, CPIs etc. Teams can then be allocated as per the specific needs of the course.

Such measures are subjective, so accuracy is difficult to achieve. Students often fill such forms without much interest, which makes this system random. At times, students look through the game theoretic dynamics of this form of allocation, and fabricate their responses unfairly.

Suggestions and Possible Remedies: A conclusion

Regular Evaluation and Awarding Variable Credit

Perhaps a rigorous and continuous evaluation system can be put into place which allows the final grade to account for individual calibre and contribution. With varied level of efforts and time put in by various members, it's unfair for everyone to get equal credit for the task. Vivas, surprise tests and a feedback system can be conducted. Some professors support giving people in a team more credit if it can be established that they have worked more.

Mixed Allocation

In labs, hybrids of the contemporary allocation fashions can provide a good balance between random and choice-based allocation. One such method is to divide the class into a fixed number of buckets (based on say, CPI), and then ask students to make teams among themselves under the restriction that the team should comprise exactly one member from each bucket, thus satisfying both the relevant requirements.

Maximal Randomization

With random allocation, it is often argued that it is fair, as it "evens out", with no one to blame specifically. Randomizing teams separately for each lab works better than having the same randomly allocated team for all the labs, where co ordination across labs is not required. While such a system might create problems on a case to case basis, at an overall holistic level it is the least biased of all the existing methods.

Careful Reviewing, Implicit and Explicit

Forming tentative teams for the first, say two labs, and then carrying out assessment gives better insight to professors and students as to how good a certain allocation method is. Taking frequent reviews of students and trying to accommodate as many opinions as possible is desirable. Psychometric tests as one component of a wider, integrated allocation strategy might help us in ways more than one.

In many courses, the team that one gets defines what he or she learns from that particular course. While on one side of the scale is the professor's desire to ensure the each student understands the subject matter and takes on an active role in the team, on the other side is the student's desire to maximize his or her learnings or grade from the course. Sadly, it is often the case that both these aims cannot be achieved simultaneously. While there is a need to achieve a compromise between both extremes, it is also necessary to realise that there is no one single solution that will fit all courses. It is the course dynamics which should determine how the team allocation is done. For lab assignments and courses with few credits, an appropriately done random allocation might do the trick. But for courses with more weightage, it has to be meticulously planned out and well executed.■

Everything about
THE SENATE
IIT Bombay

■ ALANKAR JAIN, ANIRUDH VEMULA, KANISH SONI, RAHUL MAGANTI, SRINIVAS NUTI, TANMAY SRIVASTAVA

What is the Senate?

The UG Academics Rule Book describes the Senate as "a statutory and supreme body that governs all academic matters of the Institute", right from admissions to conferring degrees and everything in between. The Senate is chaired by the Director, IIT Bombay and his/her rulings are final with regards to all academic issues. Other Senate members include the Registrar, IIT Bombay who serves as the ex-officio Secretary of the Senate, all full-time Professors of the institute, all Heads of Departments, Centres, Schools or divisions other than Professors and some other members of the academic staff. Students are represented in the Senate by General Secretary Academic Affairs (GSAA UG and PG), General Secretary Hostel Affairs (GSHA), Institute Student Mentor Program (ISMP) Coordinators, Institute Doctoral Representative and Institute Masters' Representatives. The Institute level Senate sub-committees include the UG Academic Performance Evaluation Committee (UGAPEC), PG Academic Performance Evaluation Committee (PGAPEC) which monitor the performance of each student in the institute and the UG Programmes Committee (UGPC) and the PG Programmes Committee (PGPC) which assess the academic programmes and make recommendations to the Senate about revisions, modifications or improvements in the same. The Dean, Academic Programmes (Dean AP) is the convener of UGPC and PGPC. Conveners for UGAPEC and PGAPEC are designated from among Senate members. Administrative support for all academic matters to the Senate is provided by the Academic Office, with a Deputy Registrar (Academic) as in-charge. Typically, there are two parts of a Senate meet: one involves discussions on the proposals of UGPC and PGPC and the second focuses on the suggestions by UGAPEC and PGAPEC. Student Representatives are not allowed in the second part of the meeting.

Birth of a new policy

A new policy germinates either at the department level in the DUGC/DPGC or at the institute level at the UGPC/PGPC. Additionally, it can also be initiated through a committee appointed by the Director. Next, this policy is extensively discussed and its utility and implications are closely examined. The policy is then sent to the Director, who, based on his discretion, takes a decision either to approve the policy or forward it for Senate's approval. Only in the second case does a policy become part of agenda of a Senate meeting. During a Senate meet, these agendas are raised and discussed upon. Opinions and concerns of all Senate members are considered and final decision regarding approval is taken by the Director. As informed by Dean AP, if an ordinary student wishes to initiate a policy, he/she can pitch the idea to the Associate Dean AP. If the Associate Dean AP finds it relevant, he/she shall take it further. Alternatively, the student can also contact a student representative and ask him/her to raise the issue on his/her behalf.

Are Student Reps doing enough?

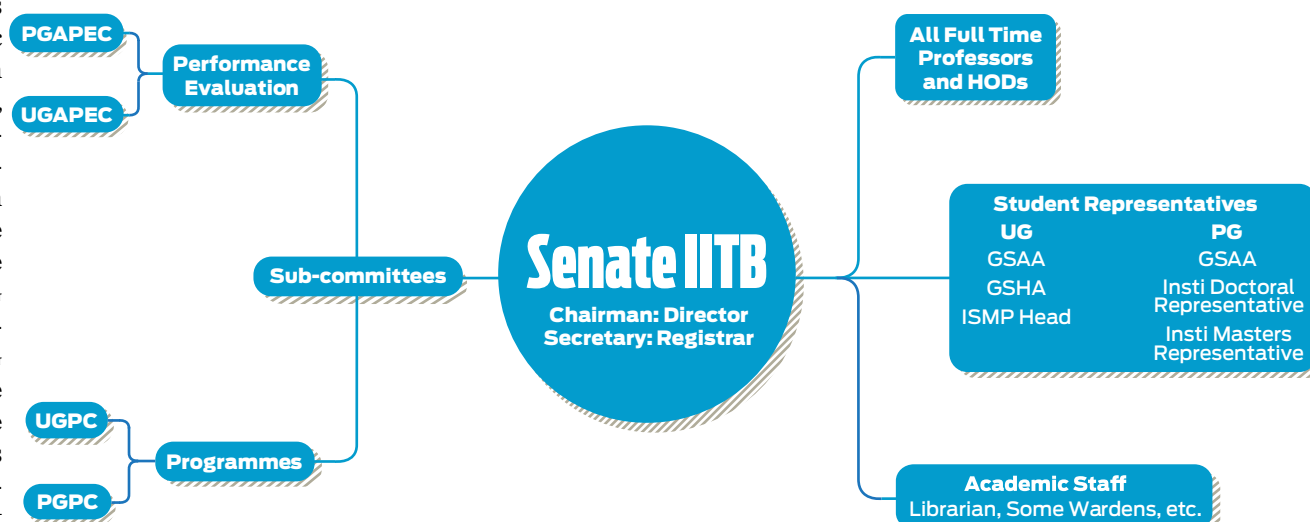Student representatives' role in the Senate is to be the voice of the student community by presenting students' point of view and raising students' concerns on the floor of the Senate. Student representatives have equal say like other members of the Senate on any agenda. Since only 7-8 students represent a campus of around 8000 students, their role becomes all the more important. This year, there have been cases of student reps missing out on Senate meetings because of not being added to the respective mailing lists in time. Some of these issues remain unresolved till date and as a result of these administrative hassles, student representation has gone for a toss. However, it is not solely administration's fault. Student Representatives must share the blame for not doing enough to initiate policy changes. Policy changes brought out solely because of students' initiative have been few and far between. Over the years, student representatives' role has become exceedingly that of an event manager, with the number of events organized by a student rep becoming an important yardstick to judge the quality of a tenure. It has been observed that student reps do not enterprisingly take the initiative to do extensive groundwork and pitch ideas through various committees and try and get them tabled for discussion in the Senate meetings. It is not an unfair or far-fetched demand from student community to ask for their reps to take up projects that lead to some new policy. If you think about it, a lot can be done. Groundwork and research work can

delegated to their respective councils or even to InsIghT. It is imperative that student reps do more to justify their name and to get maximum out of a platform as important as the Senate. Also, since students are one of the biggest stakeholders in the decisions approved by the Senate, we feel there is an acute need to increase student members in the Senate.

Critique of the Senate: Problems & Solutions

In the first Senate meeting of the academic session 2013-14, only 76 Senate members were present out of 266. This was less than one-third of the total strength of Senate, which, as described in the IIT Bombay Statutes, is the quorum required for a meeting. This wasn't a one off incident; the Director told us that typically only one-third of the Senate members attend its meetings and that this low turnout can be attributed to the fact that many Professors view it as a waste of time if the agenda to be discussed doesn't concern them. The Senate is the apex body that takes decisions which have far-reaching consequences for the entire institute. It is for this reason that we believe low attendance is a grave issue that should worry us and hence deserves to be probed further. Based on our interaction with some Professors, we have come to a conclusion that a major reason behind low attendance is inefficiency of the current system which makes the probability of any major and meaningful contribution from an ordinary Senate member very low and lack of follow up and sluggish pace of policy making.

Currently, there is no voting in the Senate. Decisions are taken by the Director based on the general consensus of the house. We feel that the strength of the Senate is too large for the possibility of a clear consensus on any issue. Since decisions are taken by a

single person in the end, in the absence of voting, it becomes very difficult to ascertain whether a particular decision was based on the decision of the majority in the meeting. Thus, currently there is a lack of a concrete and objective way in which an ordinary Senate member can influence the final outcome of the deliberations.

IIT Bombay Statutes mandate that the agenda of a Senate meeting should be circulated to all Senate members atleast one week in advance. That currently, isn't happening, which makes it difficult for Senate members to prepare adequately. Also, the Director told us that minutes of the meetings can be made public, which isn't the case right now. We believe that makes the functioning of the Senate less transparent, especially for the student population who remain blissfully unaware of the Senate. Even if that is not done, Student Representatives should put up relevant and concise minutes on Student Notices. As Prof. RK Mallik says, "If the administration doesn't do it, this should atleast be done by the student representatives."

In words of Prof. Supratim Biswas, Professor, CSE Department, "The composition and proceedings of the senate have not kept pace with the rapid changes in the academic environment of the institute over the past decade. While, we find significant increase in the number of academic programmes, student population and senators, a senate meeting today invariably begins with a lack of quorum (hence reconvened after adjournment), packed agenda, minutes exceeding hundreds of pages, absence of stimulating discussions, all of which are clear indications of a serious problem with the present model. A critical review of the academic processes and systems including the business of the senate is an immediate need to improve the ambience and effectiveness of academic system including the senate, its supreme body."

All said and done, during the course of research for this article, we increasingly got a feeling that Senate is not considered as important as we had perceived it to be initially. Based on its description in the UG Rulebook and IITB Statutes, Senate comes across as a rather important body of the institute. But the same official documents also make the Director the centre of power, and since there's no voting, we reiterate, it becomes impossible for an ordinary Senate member to objectively express his decision. So, it is, in a way, due to the design of the system that Senate has become more of an approving body, which is a far cry from our romanticized version of Senate being the real power centre of the institute. We feel, if a greater amount of democracy is injected into the functioning of the Senate, more people from this institute would be able to take part in the process that decides for the future of this institute.

Summary: Our Suggestions

In nutshell, we suggest the following:
1) Fix dates of mandatory four Senate meetings in advance in the academic calendar
2) Circulate agenda of the Senate meetings to all Senate members a week in advance
3) Make minutes internally public within IIT Bombay within a stipulated time after each meeting
4) Introduce voting in the Senate meetings
5) Reduce the size of the Senate
6) Student Representatives: Undertake major policy level projects

References:

1) http://www.iitb.ac.in/RTI/legal/IITBStatutes.pdf
2) http://gymkhana.iitb.ac.in/~academics/UGRuleBook.pdf

Mission & Vision of IIT Bombay

A Commentary

■ **ALANKAR JAIN, ANUDEEP S, CHIRAG CHADHA, MS KRISHNA DEEPAK, RAMYA POLINENI, VISHAL SINGH**

The official Mission & Vision (M&V) statement of IIT Bombay states: "The Vision of IIT Bombay is to be the fountainhead of new ideas and of innovators in technology and science. Its Mission is to create an ambience in which new ideas and creativity flourish and from which research and scholarship and leaders and innovators of tomorrow emerge." The problems that face IIT Bombay in the realization of this M&V, such as infrastructure hassles and slow policy making, are being tackled in a number of articles in the current print issue and will be the subject matter of some future InsIghT articles. In this commentary, we shall discuss how the institute has sought to fulfill its M&V over the course of its long and turbulent history, despite the changing trajectory of the institute right from its inception, not taking into account the various challenges that have and continue to face our institute.

How was IIT Bombay set up?

Even before India attained independence, a high-power committee of the Govt. of India instituted in 1946 recommended the establishment of four higher institutes of technology, to be named the "Indian Institutes Of Technology" or IITs, of the level of their counterparts in Europe and United States in order to set the direction for the development of technical education in the country. These institutes were designed to provide the necessary dynamism and flexibility of organization in the light of expanding knowledge and changing socio-economic requirements of modern society. It was envisioned that graduates from the IITs shall help to inculcate scientific temper and inquisitiveness in the minds of the then, largely illiterate masses. It was felt that an urgent requirement of quality engineers and technologists was to take up activities of nation building. Planning for the Institute at Bombay began in 1957 and the first batch of 100 students was admitted in 1958. In 1961, by an act of Parliament, the Institute was declared an "institute of national importance" and was accorded the status of a university with the power to award its own degrees and diplomas. IIT Bombay was established with the cooperation and participation of the UNESCO, utilizing the contribution of the Govt. of USSR.

Brand IIT & The middle class Indian dream

IIT Alumni get great respect from their peers, academia and industry. The "IIT brand" was reaffirmed when the United States House of Representatives passed a resolution honouring Indian Americans and especially graduates of IIT for their contributions to American society. The post 1990s era has seen the trend of brain drain get reversed with hundreds of IIT graduates, who have pursued further studies in the USA, returning to India. With the formation of 8 new IITs, increase in number of UG seats and change in pattern of the Joint Entrance Examination (JEE) from subjective to purely objective (keeping in mind the increased number of applicants), there has been din about dilution of the brand created by its illustrious alumni which has really taken IITs global. We feel it would be premature to say that and we should wait for the coming 20-30 years to see what the current batch of alumni does. Times have changed today and so have the needs of the country. There are a number of engineering colleges in the country today and very few IIT undergraduates (UGs) devote themselves to "nation building" in the way that was envisaged at the time of establishment of IITs. So, how do we interpret "institute of national importance" in the modern context? An Institute of National Importance is defined as one which serves as a pivotal player in developing highly skilled personnel within the specified region of the country/state. Going by the definition of the term, providing world-class education to Indian students can itself be looked upon as national service and is something that makes IITs institutes of national importance. With the number and variety of opportunities in the institute, IIT Bombay continues to provide its students exposure to hone their skills in many fields, preparing them for diverse career opportunities. The Director, IIT Bombay feels that it is perfectly okay for UG students to not take up careers in science and technology and consider IITs as stepping stones to achieve bigger goals and that the institute is fine till students continue to contribute to the society in a meaningful way.

The Future

Off late, there have been increasing efforts from the IIT Council to move IITs towards the US University model.

Diversity of Education

Today, older IITs have a number of departments, schools and centers which offer degrees in disciplines other than pure sciences and engineering. For IIT Bombay, those include Department of Humanities and Social Sciences (HSS), Industrial Design Center (IDC) and Sailesh J Mehta School of Management (SJM SOM). We have been informed by the Director, IIT Bombay that work on introducing undergraduate programs by IDC and Dept. of HSS is in their advanced stages. When asked about slow growth in work on this front, the Director described our model of growth as an organic one, unlike in western countries, where experts from a discipline are invited to start schools and departments. That isn't possible in our context because of an upper cap on the salary of Professors, as mandated by the Govt. of India, as a result of which, it becomes difficult to attract these experts and the best we can offer is the position of a Chair Professor.

Focus on Research

There has been a marked increase in the intake of postgraduate (PG) students over these years. Starting off as a solely UG institute, today we have an equal number of UG and PG students. With number of citations per Professor being an important parameter in determining world rankings of universities, there has been greater focus on research and development activities in the institute. That is reflective of and also sets the trend in the country as a whole.

Recent Developments

The council of the Indian Institutes of Technology (IITs) has decided to increase the number of students admitted to the prestigious engineering schools by 60% and is now going to focus on branding and marketing IITs in India and abroad, and engage with global ranking agencies to improve the standing of the schools. IITs have agreed to be accredited by the National Accreditation Board (NAB), albeit in their own different way. NAB accreditation is essential for India to be part of the Washington Accord that allows smooth student mobility from Indian engineering institutes to foreign institutes and vice-versa. It also makes Indian engineering degrees equivalent to foreign ones, helps institutes foster better ties in research, curricula and sharing of resources, and also improves a country's image in the higher education league table. ■

Black & White
InsIghT takes a look back into its past

Having completed 15 years of its life, InsIghT takes a trip down memory lane. **Anshul Avasthi** collects souvenirs from the nostalgia path as he brings out pieces which reflect how largely this institute has changed without changing.

Orkut – The New Obsession

You stay here? Then you know what Orkut (Ongoing Rage: (S)krap Uttering Terrain) is, maybe even have blogged about it some rainy afternoon some hours before your XY230 midsem. Also you know what a blog (Big Logs Of Gibberish/Gyan) is, perhaps have even referred to it in your 400th scrap to some chap you believe is a mathematician in Nebraska who you knew in your 6th standard. If you also know what Xorpia, Hi-5, Yahoo 360 and blah-di-dah are and understand them, then boy do you really need to get out of your room more and see the real world, its quite pretty. Especially when it rains, there are bathed trees looking lush and heavenly, little froggies, gentle breeze and different aromas ... ahem, but I digress. I was talking about the various causes of digression in our lives.

The fact that you are hooked to Orkut is because you can't help being human.
- People love talking about themselves.
- People love knowing other people.
- People love a good digression every now and then.

Now a certain Mr. Orkut Buyukkokten, a Google software engineer, for some reason didn't really like the devil very much (notice how the colour of the site is an angelic blue) plus he had read in some blog that man is a social animal. So he said to himself "How the devil do I displace the devil from idle minds and make money while at it? Hmm, I wonder. How about I bring all the idle minds together and they can figure it out?"
And Orkut was born. "Orkut is an online community that connects people through a network of trusted friends. We are committed to providing an online meeting place where people can socialize, make new acquaintances and find others who share their interests.
Join orkut to expand the circumference of your social circle."

Somewhere something went terribly wrong. The trusted friends turn out to be people you want to disown. Ain't it fun when your scrap book becomes a chat board; you're forced to be in the friends list of owners of embarrassing communities related to things like pigeon poo; you're unknowingly connected to people who join communities like 'I love my husband'; the little box on the top right has friends who due to a sudden loss of mind decide to call themselves 'go Czech go' (I mean while Germany, Brazil, England exist, why Czech?!). You get reunited with some folks you never thought you would come across again (actually this is an advantage). Socializing takes on a whole new dimension and pick up lines undergo redefinition. "Will you do frandship with me?" "Hey there…nice pic. Never knew there were pretty gals in IIT…would've strived harder to get in" "Hi..felt like adding u, but the no. of ur frens makes me sad") You succumb to temptation and before you know it you graduate from playing peeping tom to online stalker who has to Orkut an hour before an 8-credit endsem with 70% weightage.
A brilliant concept to begin with, but what the guy with the weird name didn't take into account was the strange ways of the idle mind. What began as a perfectly productive venture by and by got reduced to a mere mockery of its founding principles - a propaganda spreading ground, a random picking up joint!

Second law of humandynamics- the total amount of idleness in the universe only increases!

(Tannizhtha Sanyal is a third year student of the Dept of Aerospace Engg. She can be contacted at tannishtha@iitb.ac.in)

Making connections where none previously existed!

Trust the math geeks to find an 'intriguing problem' in the most unlikely of places. What could possibly be mathematically intriguing in "Orkut"? Read on.

1. A graph is a set of vertices connected together by paths.
2. Every user of Orkut is a vertex.
3. Every friend of yours (assuming you are a user) is joined to you by a path.
4. While visiting a profile, it shows you a link between you and the new person as a chain of intermediate friends.
Conclusion: Orkut can be modelled as a graph.

Connected nature: Since Orkut is an invite-only feature, it implies that if there was only one user to begin with, every user should be linked to every other user. But if you navigate through Orkut clicking on profiles of random people, you will notice that for some, a connection is not shown. This can mean two things,
a. You have reached a fully unconnected subgraph, which in turn implies that there was more than one user to begin with.
b. The link that existed between your subgraph and the new one must have been broken when a user deleted his/her account and the subgraphs once connected became separate.

Dense nature: A graph with a large number of paths as compared to vertices is called dense. Some claim that orkut is a very very dense graph. The evidence is in the fact that if you try clicking on random profiles, it would be difficult to reach someone who is separated from you by more than 5 friends in between. The maximum reported is 7 provided a link exists. Compare this to the number of registered users currently showing - 25,050,669. Even with these many nodes, one doesn't find a chain longer than 7!
Some open questions:
- How many cycles of length 'n' are there per 100 people?
- Do chains of length greater than 7 really not exist?
- How does Orkut decide what chain to show if there are more than 1 possible?

Crazy you think?

- Fundae by Vivek Upadhyay (vivek_u@iitb.ac.in)

Issue 9.1 (2005)

12.30: Coffee Shack

Deepti and Rutika go behind the scenes to uncover the story of the man-in-charge, Mr. Vijay.

Q: How long have you been working at Coffee Shack?
A: I've been here ever since it started 18 years ago when I had joined as a helper at the counter. Back then, we sold Maggi for 2 Rs and coffee for 1!

Q: Was Shack as crowded when it started as it is today?
A: Definitely, if not more. Back then, we had 80 chairs and 15 tables as against 30 and 6 now. There were no hostel canteens in those days, so people used to flock here all the time. In fact, during Mood Indigo, we used to be open 24/7!

Q: Has Shack always been a regular venue for 'meetings'?
A: Yes yes. In fact earlier, there were lectures held here almost every Saturday. It used to be a lively discussion between the profs and their students, followed by a coffee treat sponsored by the prof!

Q: Would you ever consider leaving the city or switching jobs?
A: No way! A few years back, I went to work in Abu Dhabi for 2 years but that experiment ended soon enough.

It was no match for Mumbai. There's nothing like Mumbai city during Ganpati!

Q: Any interesting incidents you remember?
A: During the '93 bomb blasts, there was a bomb alert right outside Main Gate and we had to evacuate! And of course during the July 26th rains last year, I had to walk through waist high water to Ghatkopar like many others.

Q: Any plans for expansion for the Shack?
A: We have already submitted an application for the expansion of shack. Once it is approved, we intend to add sandwiches and colas to the menu!

Issue 9.1 (2005)

A count of all the posts that the Institute has to offer

Body	Official Posts	Unoffical Posts	Total
Students Gymkhana	Institute Secretaries, GSs, Nominees, Placement Body, Student Mentor Head	Student Mentors, Cultural Club Convenors	39 + 25
IBs	OCs and CGs/Managers		66 + 0
Media Bodies	Chief Eds and Editorial Team	Reporters/ Journalists	8 + 45
Departments	D Gsec, Dept Web Secy, Placement Nom, PG Nom, PT Noms, Dept Association Head, Dept Fest OCs, CRs	Dept Newsletter Editors and Reporters, Fest Incharges	25 + 6 per dept.
Hostels	Secretaries, Councillors, Gsec, Ward Nom	Hostel Fest OCs, incharges, PAF OCs	29 per hostel
Technical Clubs	Technic OCs, Science Club OC	Convenors and Core members	4 + 29

Issue 9.6 (2006)

Little known facts about IITB

Gauri, Aditi and Karthik present some lesser known facts about the institute that we all are a part of.

If you thought you knew everything there was to know about IIT, think again. Here is a collection of weird, interesting, lesser known and completely random facts about the institute we live in.

1. A landmark that hardly anyone ever notices, there is an *Ashoka* tree on the way from Coffee Shack to LT which was planted as a mark of IITB's foundation by the President of Soviet Union, Lionel Brezhnev in the year 1961.

2. 30 years ago, the only computer on the campus was a computing machine EC1030 in the basement of Maths department. Programs had to be manually punched on a card and the output could only be seen the following day!

3. The lakeside road between guest house and H8 was once used for the filming of the popular horror show *Aahat*. A creepy stuffed doll, which was used during the shoot, is still hanging from a tree on that road.

4. "*Dayaa be, the food is too bad. I can't eat it.*"- and so go another 200 grams of food into the waste. It is heartening to know that H12/13 mess has a great system of keeping a check on the amount of food wasted everyday. They put up the weight of food wasted after every meal on their notice board. They are actually planning to set up a biogas plant for their mess.

5. H3, which was awarded the best mess prize last semester, wastes about 10kg of food per day, that is to say, food for about 20 people, significantly less than the other hostels. Here is a rough estimate of the food wastage in various other hostels per day. H9 – 40kg, H10 – 50kg, H6 – 40kg and H12/13- 120kg.

6. For those eager to know about what goes on at Hostel Ten, here is an interesting tidbit. There is an annual inter-wing fashion competition at H10 where the hostelites are supposed to walk the ramp, showcasing their own creatively designed costumes. They even give titles to participants similar to those awarded in beauty pageants. These titles are then proudly displayed on the wing noticeboards.

7. Any questions about the existence of a math club would in all likelihood draw blank stares. Well, there is a math club in the institute and it's not a very small one though it is informal. It has around 15-20 "die-hard" members who in the mystery of mathematics and computer science. The meetings are held in GG with talks given by the budding mathematicians of the institute. The last two topics to have undergone serious scrutiny were generating functions and combinatorics. If interested, you can contact Sangram Raje, the "informal" convener of the club.

(Gauri Joshi is a 3rd year Dual Degree student of the EE Department, Aditi Goyal is a 3rd year B. Tech student of the EE department and R. Karthik is a 2nd year student of the MEMS department.)

Issue 10.5 (2007)

Spike Calculator

This spreadsheet is a labor of love. Therefore, take it with a pinch of salt. Long ago, an illustrious alumnus decided to have in his credit a research paper of such significance, that it would be cited over and over again for years to come. A thorough check of all the 847 PORs, 1234 different common resume points and 4567 resumes later, **Abhishek Padmanabhan** came up with the *Paddy Algorithm™*, the formula which predicts the consulting-company-shortlist-potential of a person. The jobless people on the InsIghT Editorial Board then formed a club called **SSK** *(shortlist se katta)* and sat down to errorcheck, spellcheck and egocheck the document.

A test experiment on a few random resumes set yielded satisfactory satisfactory results. It again confirmed the fact which everybody knows and no one admits, that acads still remains the most rewarding section to *machau*.

This is a work of pure leisure and does not represent the recruitment policy of any particular company or companies.

POR
(choose max 3 posts)

Post	Points
Institute Gen Sec	1
PM	1
ISMP head	1
MI/TF/ECell OC	1
Insight Chief Editor	1
SARC/STAB OC	1
Department/Hostel Gsec	0.7
PAF OC	0.7
CGs	0.5
TF Manager	0.5
Ecell Manager	0.5
Institute Secretary	0.5
Hostel Co/Warden Nom	0.5
ISMP Mentor	0.5
DAMP	0.4
Dept Fest OC	0.5
SARC	0.45
Insight Ed Board	0.45
Department Posts: Level 1	0.35
CC/DPC	0.3
Conveners	0.3
Dept Fest Manager	0.2
Hostel Secy	0.2
Cordies	0.2
CLs	0.15
Department posts - level2	0.15
Tech Mentor (at any level)	0
Orgies	-0.1
Department Fest Cordie	-0.1
Department Fest Orgie	Ditch

Acads
(max 5 achievements)

Achievement	Points
DR1	1
International Olympiads	1
Patent	1
CPI 9+	0.7
Sem topper	0.5
UROP/URA	0.5
Publication	0.5
India level	0.3
AP	0.2
BTP/DDP	0.1
CPI < 8	**-0.1**
CPI<7	**-0.4**
JEE top 100	0.2

Scholarships
>2	0.3
1 to 2	0.15

Professional Experience
(max 4 rows)

	Points
C1 company PPO	1
C2 company PPO	0.6
Category 1 intern	0.5
All Other Interns	0.2
Entrepreneurship more than just an fb page	0.4
Won competition	0.7

Other
Bandi	0.25
Banda	0

Extra Currics
(max 4 rows)

Inter IIT
Inter IIT Gold	1
Zero-medal Inter IIT, Male	0.6
Zero-medal Inter IIT, Female	0.4

Social
Social POR	0.4
Mentoring	0.25
CTARA	0.15
Participation	0.15
Fest(MI/TF/etc)	0.1

Awards
Person of the Year	1
Institute Color	0.7
National Winners(others)	0.5
PAF/Hostel Color	0.3
Institute Special Mention	0.3
Fest Winners	0.2
PAF/Hostel Special mention	0.1

Tech
Robocon/FS/Baja/etc	0.5
Techfest Competition Winners	0.3
Pratham	0.3
ECSP/ITSP	0.1
Other Competition winners	0.1
F1 Car/linefollower	-0.1

Other
GC winner	0.2
participation outside insti	0.1

Rules

// The sheet has **4** sections, written in white
// Each section has a maximum of **1.5** points
- so no, if you are GSHA and GSAA you still get **1.5**
// You may choose max **3** POR rows, **5** Acad rows, etc as indicated
// In the POR section, highest POR will have its points multiplied by **1**, second by **0.85** and third by **0.7**. For example, GSHA and GSAA has (1*1) for being OC and (0.5*0.85) for being CG.
// Calculate total score across the sheet

If your total exceeds **3.0**, you have a fair chance at being shortlisted for a top-tier consulting job.

Glossary for freshies

Ditch - if you have to write Dept Fest orgie in your placements resume, then POR section *aap ke liye ditch rahega*
URA - Undergraduate Research award
PPO - Pre-placement Offer

The InsIghT Team 16.1

Chief Editors
Anubhav Mangal and Suman Rao

Editorial Board
Abhishek Khanna, Alankar Jain, Anant Kekre, Anshul Avasthi, Atulit Khanna, Ayush Kanodia, Chirag Chadha, HarshVeer Jain, Nivvedan Senthamilselvan, Paul Samuel, Rahul Maganti, Sibaprasad Mohanty and Somesh Sontakke

Execution Panel
Abhinav Garg, Ankit Jotwani, Anudeep S, Apratim Sinha, Ameya Behere, Anish Gupta, Anirudh Vemula, Ankit Kumar, Atul Gupta, Atul ShuklaBikash Behra, Chaitanya Potti, CS Prakhyat, Darshil Rambhia, Deep Shah, Devendra Govil, Divyesh Mistry, Faizan Mohd, Himanshi Swarnkar, Ishaan Rakshit, Kanish Soni, Krupa Bathia, Kshitiz Swaroop, MS Krishna Deepak, Nanditha Rao, Nasiruddin Ahmad, Nithin Nethipudi, Rachil Maliwal, Raj Agarwal, Ramya Polineni, Saideep Reddy, Sarthak Jain, Shardul Vaidya, Shivam Garg, Shubham Singhal, Srinivas Nuti, Tanmay Srivastava, Vardhaman Kumar, Vasudha Kotia and Vishal Singh

Photographers
Arpit Agarwal, Suyog Wankhede and Jasvipul Chawla

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. Through the upcoming **Freshmen Newsletter**, **PG Newsletter**, collaborative initiatives such as **IITBBC** and **IITB-Radio**, we have been expanding rapidly. We are also planning to launch a subscription service for our alumni soon.

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. Do join the InsIghT team by looking for **iitbinsight** on Google Groups.

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