PAF 2008 saw a diverse range of topics being dealt with in true IITian style. While some were contemplating why PAFs happen, one group went on and actually showcased why they should happen. Then there were those who went on and did a biopic based on the biggest manipulator of markets in Indian history. While some touched upon the issue of regionalism and created golden marvels, another bunch went on and explored the realm of college politics while they staged a metaphorical act. All in all, this PAF season saw four good PAFs and most of you (we hope) saw them. But what most of you never saw was the fun and ecstasy that makes PAFs special for IITians. We take you behind the scenes as we pick from memory, both ours and those of others, those moments of PAF 2008 which made it the enriching experience it was.

Arsh- Hostels 7,8,13
Based on the life of a raging bull who stormed the Bombay Stock Exchange, *Arsh* was the first PAF of the season.
The BSE building and the Chowpatty resembling Marine Drive, were not intended to be the way they turned out. When the team started working on the PAF they expected to create the best prod of the season, but soon enough realised that they couldn't quite pull off the much anticipated architectural wonder. Thus, a replica was made to hang from the OAT trusses.

PAFs have always been about connecting with the audience in ever newer and more innovative ways. In *Arsh*, they kept us in suspense by announcing that we weren't to turn off our mobile phones but simply to keep them on silent. We wondered why till some people received messages from an unknown number, conveying the fact that the Sensex had achieved a record figure, and that some stocks were at an ultimate high. Apparently a member of the PAF team got one such message from Vodafone. Sparked by this he suggested that during their PAF they should send out some similar update. So two of the sophomores got on it and found out two sites which could send free SMSes, and picked the one that could send more.

U Turn- Hostels 4,9,10
The PAF done in 12 days, U-Turn chose an IITian centric theme. It portrayed the dwindling enthusiasm of students working on a PAF and shown during the Holi exodus, was aptly timed too.
The idea of the PAF, although floating around for some considerable time, was finalized only 12 days before the actual

PAF 2008 – A Lookback

Instead of a standard review, we've come up with a behind-the-scenes take on the PAFs of 2008. Aakash, Nithya and Aishwarya remind us again how precious the Performing Arts Festival is to us IITians, and of the lengths people go to to keep this tradition alive.

showing. Students had in fact been already working for a while on an entirely different theme. The night before, the dance heads had already choreographed an elaborate fashion show sequence, visualized with a two storey high center stage prod, for the original PAF.

For all the haste in which it was done, U Turn emerged a very strong contender for the top position. In the twelve days preceding the PAF, an about 40 strong core team worked night and day to bring it all together. H9 again justified its title as one of the best prod making hostels, and an almost lifelike StaffC center stage emerged, complete with the MB looming above it. The Bhavani Juice Center replica

also deserves special mention; even the masala shaker used was authentic. The sugarcane machine was a great coup for the prod junta, made as it was of thermocol wheels, turned by 12V motors.

One special touch was a scene in which the spotlight scouts actors in the audience, especially planted there. No other PAF, in recent times at least, has breached the fourth wall so effectively. The highly popular original song 'Kaise Karoge' was the product of a single nightout. The tongue-in-cheek NASA scene was of course inspired by the non-academic staff strike on Foundation Day.

1984- Hostels 5,6,12,Tansa
The winning PAF of the season, this presentation of the 1984 disturbance in Punjab has some pretty great stories behind it that will surely go down in PAF lore.
The martial arts piece which everyone enjoyed to the fullest is a war dance from the streets of Punjab. Of all the people performing, only one actually hailed from the state. Some 10 rolls of medicated tape were used up to bandage wounds during

the final two days. The weaponry was brought from a nearby Gurudwara.

The script for 1984 had been discussed at least thrice in the past five years and was always discarded on the basis of extensive prod requirements. The biggest trouble the team faced was the creation of a water pool in front of the Golden temple. Finally, with the help of used up Techfest flexes, a 6 inch high standing water body was created. Filling it with water took all night! As it turned out, one of the lead dancers of the Bhangra was also the only person who knew how to tie proper pagris. He was so busy tying pagris for 40 odd people before the PAF that he never got time to fit into his costume and so, couldn't perform at all in the end. The choreo performed in UV light to portray Operation Blue Star made the prod team sit and think of ways to illuminate the right spots of the temple using UV lights The whole structure was painted a shade of white that would not glow in UV. Only windows on the top floors were covered with white chart rolls to accentuate the effect.

A certain insatiable sophie who was seen in various scenes of the PAF, first as the balloon seller then as the *durban* at the parliament and then during the riots, was so determined to play a major role that during the Operation Blue Star choreo, even when asked not to jump off the first floor, he jumped impromptu. He created a huge splash both in the pool of water on the main stage and amongst

The Show Goes On - Hostels 2,3,11
The last PAF of the season was interesting in many ways. The burning effigy incident, witnessed by an entire OAT, again proved the necessity of trying out everything at least once in a runthrough. Despite a colourful Nautanki and extremely neat prod, this PAF failed to make too great an impression upon its viewers. However, given the short period of time in which this PAF was put together, and the interesting and highly relevant nature of its subject, it was quite a laudable effort.

The story was inspired by, and indeed pretty much a dramatized version of, a real life story. The experiences chronicled are those of an uncle of one of the PAF team members who participated in agitations during the protests against the Mandal Commission recommendations in 1990.
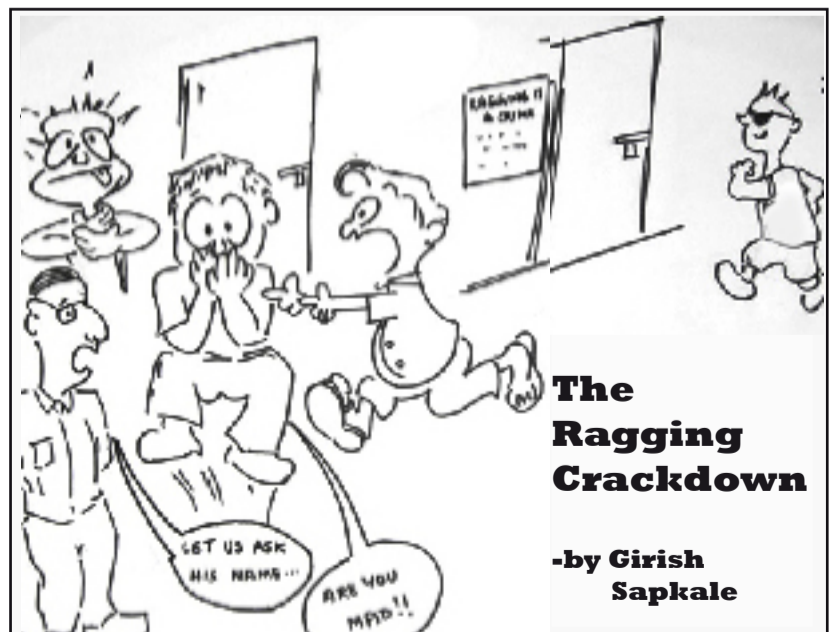There was plenty of choreo in the PAF, with interesting themes and good synchronization. We learned later that even during the final run through, the dancers were dancing to metronomic counts as the tracks were still undecided.

Drinking water in the SAC was a common problem faced by all four teams, with both the SAC's water coolers out of order. There was only one tap that provided water for drinking, washing, diluting paint and everything else. Some clever person put a *peene ka paani* sign over the tap and people proceeded to drink the water, doing their best to believe it. The girls of H11 proved incredulous however. Water was thus fetched from H3 everyday.

The fountain at the entrance to the Azaad Vishvavidyalaya main building was the product of four days of continuous labour by the tech junta. The scene where the fountain was lit up and all else remained dark certainly made their effort worthwhile.

01

Lookback cartoons
From pages 1 through 6 we have cartoons chronicling the past , very eventful academic year. From pink swimming pools to the new PT policy, to Biswas Committee reforms, our team of cartoonists give us their take, tongue firmly in cheek.

The Ragging Crackdown

-by Girish Sapkale

GS, Academic Affairs: Ganesh Mani

A. Solving the issue of PTs for the current 2nd year students

B. Proposing changes in parts of the new Biswas Committee curriculum based on the feedback given by 1st year students.

C. Ensuring an efficient student mentoring program.

GS, Cultural Affairs: Sajid Shariff

A. Establishing the Film Club under the photography secretary to screen movies for leisure viewing and foster 'Movie Making'. The club would receive professional expertise from IDC and professionals from outside the campus.

B. A PG Showcase: In the beginning of the

Our New Representatives

The recently concluded General Elections have given us a new body of General Secretaries. Here are three points that each of them feel will be their main priorities during their tenure, along with a picture of each to facilitate easy recognition

odd semester (after the PG orientation), a cultural festival will be organized for the PGs to showcase and tap their talent and encourage inter-batch/department interaction. The showcase would be a good mix of fun filled and talent based events aiming at easy participation.

C. Setting up an IITB 'Chronicle': Every cultural club would work on a documentation of the club guidelines, vision, history of events, participants/alumni database and every notable incident that had contributed

to/affected the cultural sphere of IIT Bombay.

GS, Hostel Affairs: Ashwin Soni

A. Initiation of a forum for students to voice their opinions/register their complaints. These would be brought to the notice of the concerned student representatives for immediate action. This measure would help increase transparency.

B. The setting up of an Indian Railways

Reservation Counter inside the IITB Campus.

C. Improving and expanding infrastructure and facilities. Examples: Tumtum coupon vending machines, dhaba/late night canteen in the Srushti area, extra LAN ports in rooms which are doubly occupied.

GS Sports: Rohit Drolia

An important point of focus: Inter IIT

A. Proper scheduling and conduction of Inter-hostel events.

B. Ensuring good quality track suits and better messing facilities for the Inter IIT contingent.

C. Increasing the number of PG vs. UG events to ensure better interaction between

The Deans of our lives

The Dean of Student Affairs has always been the professor closest to the students of IITB. Karthik Shekhar and Rajlakshmi Purkayastha meet some of the remarkable men who've held this post, and ask them what it was like being DoSA

"Look boss, I am neither a visionary, nor do I head a planning commission", exhorts Prof. Gopalan, the current Dean, Student affairs (DOSA) on being asked about his vision for IIT students, making the two senior students across his table feel rather silly. *"I am a trouble shooter who works from crisis to crisis, please understand that!"* he says, and just when we get a feeling that our overworked Dean is going to request that he be excused for the day (it was 5:30 pm and he had just finished resolving the 4,9,10 OAT entry fiasco), his expression changes into a mischievous smile and he adds with a wink, *"There are other people on this floor to make vision statements and sign on MOUs; this office knows only to execute"*. The interviewers feel relieved as they are granted leave to ask further questions.

With Prof. Gopalan's tenure coming to an end, we thought it would be fitting to interview him and three of his predecessors- Prof. Ghosh ('95-'98), Prof. Shevgaonkar ('98-'00) and Prof. Amarnath ('02-05') to get a perspective on the role that the DOSA office has played in maintaining that much needed balance in student life at IITB. It is the office of immediate relevance to us; it is the office that is answerable for us and to us; it is also the office which has had to face brickbats and severe criticism whenever it has chosen to step on the hard line.

What were the biggest challenges that you faced during your tenure?

"The government was continually egging the IITs to increase their intake and IITB was the first to take the initiative in 1995" says Prof. Ghosh (DKG), *"The first major challenge that we faced was to pair up freshies in hostels. This was vehemently opposed by some parents and there were innumerable logistical issues like the small size of rooms in hostels like 9"*. Prof. Shevgaonkar (RKS) adds, *"Ragging was a major nuisance that we had to put an end to and because of some serious incidents, one of which even involved a case of sexual abuse, this aim became expedient"*. It was DKG and RKS together (who was incidentally the chairman of HCU then) who decided to crack the whip by formulating a 'zero-tolerance policy' on ragging then, twelve years before the Supreme court passed a legislation making it a criminal offence. RKS recollects, "While senior students across hostels were merrily deliberating on the inter hostel ragging policy over mess tables, we announced a zero tolerance imposition. Opposition came from all sides including the faculty, some of whom were alumni and of the opinion that minor ragging is integral to the student culture out here".

As the years went by, incidents of ragging

reduced drastically and the later Deans would find themselves confronting '21st century problems'. *"Implementation of the LAN-BAN and the motorcycle were difficult steps since both (the former in particular) provoked huge dissent from the students"*, says Prof. Gopalan (PG). He added that one of the major challenges that he faced was that of ensuring student accountability in fiscal matters especially with increasing scales and budgets of student activities. Prof. Amarnath (CA) whose tenure may be remembered as one during which the

> *"I wanted them to change things, raise the bar and think out of the box. But in return they only questioned my authority"*
> **-Prof. C. Amarnath**

status quo between the Dean's office and the students over various issues reached disturbing heights remembers that he found the representatives particularly uncooperative and insular to new ideas. *"I wanted them to change things, raise the bar and think out of the box. But in return they only questioned my authority"*, recollects CA.

What were the high points in your tenure?

PG and CA both found it difficult to pinpoint discrete events, but on the whole expressed satisfaction on the fact that student activities and events were organized well and professionally- especially MI, TF, Surbahar, etc. On the other hand, they also felt that regulation was necessary to ensure the maintenance of quality events. The decision to revitalize PAF from its convocation hall avatar to its OAT avatar was made during DKG's final year as DOSA and was first implemented during RKS's first year. Also, it was during RKS's tenure that the genesis of Techfest and InsIghT happened. *"The idea of Techfest immediately excited me. However, I cautioned the students who had drafted the proposal towards my concern that any such initiative should be sustainable in the long run"* said RKS who is currently the Dean, Resource

and Management. Incidentally, it was during his tenure that we won the Inter IIT with a record margin. And who can forget IIT's brilliant performance on the international level in Robocon, where the students mentored in CA's UMIC represented India at the highest level possible.

What were the low points in your tenure?

All four Deans unanimously agreed that the loss of a life is the biggest tragedy that can occur on campus. DKG recalled that the MI '95 OC Kiran Sithala met with an accident and passed away in Saki Naka some days after the festival. Among the more varied experiences include a case of overdose of bhang during Holi in DKG's tenure and the grillnig of CA by a mob of 300 students at OAT when the livewire show was cancelled after the death of former Prime Minister P. V. Narasimha Rao. In RKS's tenure a group of politically active mess workers on strike before endsems, and students had to cook their own food! PG mentioned that he was getting increasingly concerned about the proliferation of alcohol and drug related activities in hostels in recent times.
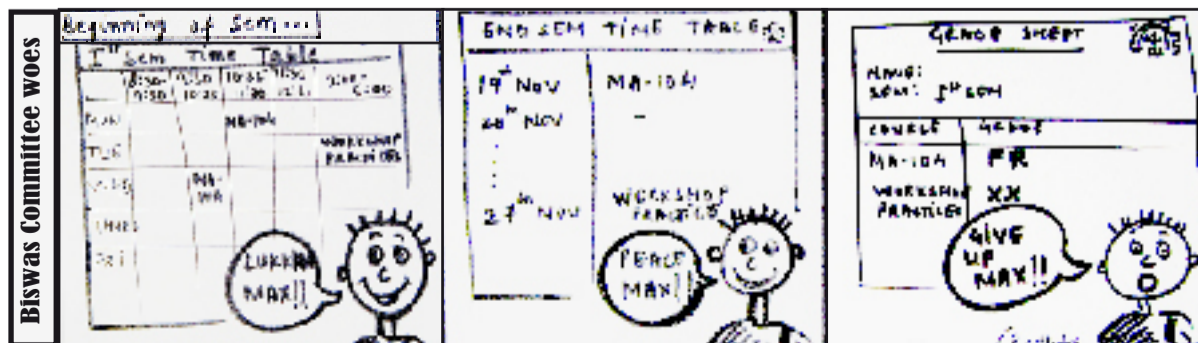
Comments on student culture at IITB, past or present

"Our students are a disciplined and well behaved lot unlike those in the universities. Being residential and well insulated from external perturbations, we have students who are career minded and focused", stated DKG. To this RKS, quoting Bachchan's Madhushala, said that nothing's changed as far as student attitude is concerned. *"A twenty-one year old thinks the same today as he did ten years ago. The walkman in his hand has changed to an i-pod, that's all"*, he continued, *"but something that is certainly disturbing is that our UG students are slowly drifting away from their bread and butter- academics. With white collar jobs taking precedence over high-tech

jobs, the absence of an academic spirit in the UGs is disconcerting"*. CA described the increasing infatuation with resume-driven as opposed to passion-driven activity succinctly as 'Certi-culture'. *"One is not angry but immensely anguished"*, harangues CA, *"when one see that students don't follow honor codes, fail to acknowledge that some events lack class and are impervious to constructive criticism"*. Even PG agreed that the number of events need to be regulated. *"With so many activities out there"*, he said, *"There is a devious tendency among students to try for a nibble at every different cake which compromises on the quality of output"*. DKG fondly recollected being playfully taunted once by Prof. Nag, former Director of the institute who said, *"Dipan, there is nothing great about IITs. We are like apple polishers who do nothing to improve the intrinsic character of the apples that come in* (referring to the students)." Pat came the repartee from DKG, "That may be so, but at least we ensure that they do not rot like the other universities in India."

Towards the end of our interview, we asked PG what he thought would be the challenges for the future Deans. *"There will definitely be the logistical problems associated with the influx increasing in the near future"*, he said and went on to add, *"but a major challenge for the Dean's office would be that of handling students experiencing psychological problems and depression appropriately"*. Commending the ISMP for its work, he was full of praises for the organization citing the manner in which it has grown to play a significant role in tackling these problems. He severely criticized what he referred to as *"armchair activism"* and wished that students and faculty members should play a more proactive role rather than confine their ideas to debate on newsgroups. Finally we asked him if at the end of the day, he felt that students ought to make more use of the Dean's office. After a heavy silence he answered, *"Yes. I feel they definitely ought to"*.

(Karthik Shekhar is a fifth year student of the Chemical Dept. Rajlakshmi is a fourth year student of the MEMS Dept. They can be contacted at kshekhar@iitb.ac.in and rajlakshmi@iitb.ac.in respectively.)

Biswas Committee woes

Training & Placements in-charge, Prof. BK Mathur, Placements 2007-08, being interviewed.

How was the feedback of companies about students of IIT Kharagpur?
There was feedback from several companies that there were students who did not appear for interviews sincerely. There is a marked difference between lack of knowledge and insincerity and the latter is something that the companies do not receive very well. The students must realize that the institute's reputation is also at stake along with their future. Everybody must put in more thought into the companies they would like to appear for. Not performing by choice is something that must be avoided.

Why has only one big consultancy company come to KGP for recruitment

IITKGP's placements

As a part of our initiative to offer you more insights into how people in other IITs live, Vivek analyzes excerpts from an article that appeared in the placement issue of the IITKGP newsletter, Scholars' Avenue.

while companies like BCG, Bain, AT Kearney make regular appearances at IITB and IITD?

> IITKgp's UG Student Wishlist
>
> BCG, UBS, Shell, Goldman Sachs, Boeing

All these companies already come to IIT Bombay

Bain didn't recruit from any IIT this year. AT Kearney and BCG were approached but they refused, since their requirement is very low (4-5) and therefore they just visit IIT Bombay and Delhi.

Why not grade companies and adopt the system of IITB, where companies are graded A, B, C?
The purpose of the grading system allows students placed in companies in a lower grade to sit for companies of higher grades later. This arrangement is not feasible in Kharagpur since the number of students

registering for placements is huge and thus a one-job norm has to be followed.

128 companies have visited the campus and 953 students have been recruited. These sure were hectic and eventful days for the final years with as many as 8 companies visiting the campus on some days. It is interesting to note that this number is still on the lower side as compared to some other IITs; for example, IIT Bombay had 14 companies on the first day.

Problems they face which we do too
- *The lackadaisical attitude of students towards Pre-Placement Talks and cases of not appearing for interviews after having applied for the short-listing procedures.*
- *The discrepancy in the choice of departments by various companies and*

some departments being preferred over others.
- *Insufficient preparation by students with performance even bordering on poor in some cases. No department was spared in this regard, with many recruiters opining that their knowledge was very restricted and bookish.*

Problems they face which we don't
- *Students discarding their campus offers and the don't care attitude of the students who lack the courtesy of informing the company about their choice.*

- *Another pertinent post-placement issue is the relevance of extra academic activities. People who had invested their time and efforts in personality development and extra academic activities have reaped huge benefits this year. Hence, in contrast to certain pre existing notions, the companies have sent a very clear message that an all round personality is what they are looking for rather than sheer academic knowledge.*

Apping Results for 2007-08

After covering the placement season for years, InsIghT felt that the parallel process of applying for a PhD or an MS should also be brought to light. Here we present a summary of the app results till date. For the collection of data, people from each department who have sent an application for PhD/MS were contacted and asked to compile the information of their respective departments. The figures regarding number of people may have an error of +/-1.
While compiling the data, many people expressed their desire for the creation of a centralized apping cell which could co-ordinate the entire institute's apping process. The

need for some such cell is very clear from the fact that there is an increasing trend of applying to fields other than those taken in the undergraduate years and the resulting overlaps in students applying. We hope that future generations of students interested in post graduation would take the initiative of starting a centralized system which could be as simple as a single portal where everyone expresses their fields of interest.

(Vivek Upadhyay is a fourth year student of the Department of Computer Science. He can be contacted at vivek_u@iitb.ac.in)

Department	No. of applications	No. of positive replies	No. of students keen to accept	Universities which have accepted	Order of stipend ($ pa)	Maximum no. of accepts for a person	Special Cases of people applying in fields other than the field of their undergraduate studies
Chemical	4(DD) + 8(BTech)	10	10	MIT, Stanford, Minnesota, Princeton, Cornell	26,000-30,000	5	Applied Math, Bioinformatics, Biophysics, Biotechnology
MSc Chemistry	3	3	2	Princeton, Cornell, UCB, UPenn	27,000	2	Neurosciences
Electrical	7(BTech)	2	1	MIT, Stanford, UCB	24,000-31,000	5	Applied Math; Success in EE down considerably compared to last year
CSE	11(BTech)	9	4	UCB, Stanford(MS), CMU, Princeton	22,000	3	Mathematics
Aerospace	8(BTechs) + 2(MTechs) + 3 (RAs)	7	7	MIT, Stanford, Georgia Tech, CalTech, Cornell	24,000-30,000	6	Large no. of BTechs applying (7 out of 20)
Mechanical	12 (in total)	7	6	MIT, Purdue	22,000-25,000		Aerospace, Nuclear Engineering
EP	11	10	9	MIT, Harvard, CalTech, Cornell, UCSB, CMU		5	Mathematics, Neurosciences, CSE, Robotics, Electronics; 11 out of 23 applied; Unprecedented positive reply from Harvard and MIT in physics
Civil	7(BTech) + 2(DD)	9	9	Stanford, U Michigan, UIUC, Purdue		5	Of the 7 BTechs who applied for MS, funding received only by 1. In general, problems in funding
Materials Science	3(BTechs)	3	3	MIT, Stanford, UCSB	26,000	5	

Show us the Money

This issue of stipends for DDs and PGs has now been partially resolved. Mohit and Ajanta relate the details...

The issue of stipends of DDs and PG students has been a contentious one, with a lot of speculation surrounding the actual facts. Among the many unanswered questions were queries about the final raised amount, who gets the raised amount, from what dates the arrears would be paid and so on. For our article, we took inputs from the PG nominee (Academic Affairs), the RSF coordinator and the MHRD (Ministry of Human Resource Development) official documents to try to understand the exact situation.

Increase in stipends – a necessity
So why increase the stipend at all? To quote the MHRD itself, "Attractive fellowships have to be instituted to attract promising candidates to take research as a career. It is becoming increasingly difficult for the academicians engaged in basic and applied research to get research fellows interested in pursuing research as a career."

Keeping the above points in mind, the MHRD issued a directive about PhD stipends' increase. The issue at their level was tackled with great co-ordination

amongst all the seven IITs' PhD nominees to end the delay. Our own students filed numerous RTIs, after which the UGC and MHRD released the amount of money to pay the pending dues as well as cover forthcoming expenditures. Barring private fellowships and National Doctorate Fellows (whose case is on the verge of being resolved) everyone else will start getting the increased stipend from April 2008, with arrears amounting from April 2007.

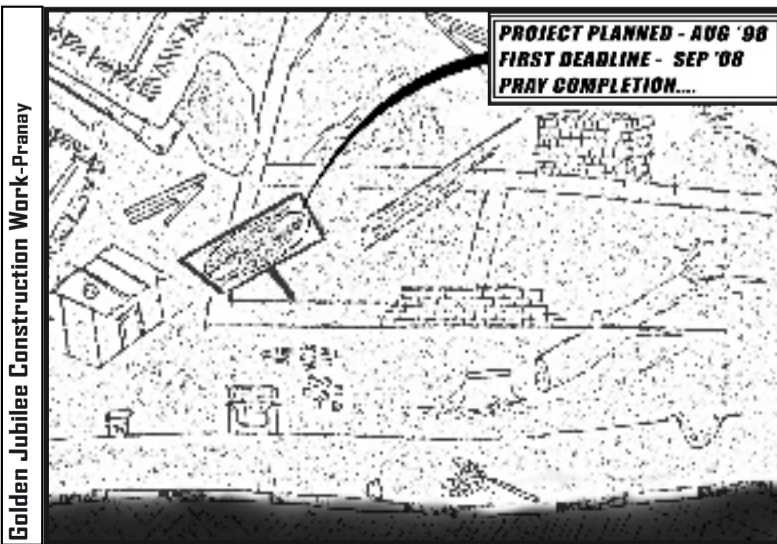**MTechs and DDs: still not clear**
In the same RTI application, the point about MTechs and DDs is somewhat contradictory.
On Page Four of the reply, a copy of which is uploaded on the InsIghT website, it is stated that, "The AICTE proposal for enhancing the stipend to 8000 per month ... was endorsed with a provision that the top 5 percentile of GATE merit list, could be given an inclusive scholarship of Rs. 10000." Note that the

term used is "proposal", and nothing has been said about how exactly to go about it in the absence of funding.

On the next page, it has a table which states: "Top 5 percentile will get Rs. 12000. Rest 95 percentile will get Rs. 10000. Non GATE MTechs will get Rs. 5000." These two points are clearly conflicting. Another urgent question is one about the DDs'

standing. As of now, the CPI is mapped to an equivalent GATE score. Now, with the MHRD proposing three different slabs, this is bound to change. Also, the stand on M.Phil students is unclear.
It is hoped that the institute will come out with a clarification on the hazy issues as soon as possible and clear the air, so that the current batch gets its dues on time.

Golden Jubilee Construction Work-Pranay

PROJECT PLANNED - AUG '98
FIRST DEADLINE - SEP '08
PRAY COMPLETION....

As opposed to the situation a few years back, nearly every department now has its own festival. This semester itself we saw Padarth, Azeotropy, Convergence and Radiance as well as the Physics and Chemistry Olympiads organized by various departments. Aagomani and Zephyr happened in the autumn semester. One can still clearly remember the Sunita Williams lecture (hailed as one of the most successful lectures in IITB history), a highlight of Zephyr '07.

Aims

A department fest primarily aims to bridge the gap between the industry and academia by encouraging exchange of ideas and providing opportunities for technical interactions. It's also a nice way for students in the department to expand their horizons and learn things beyond their engineering syllabus, since there's no substitute for hands-on practical experience and pointers from the experts in industry.

Department Fests

In just five years, the number of Department Festivals in IITB has increased by 400%. Chinmay and Rajat take a look at these relatively new phenomena, and try to find out what exactly they aim to achieve

Concerns about Department Fests

The ever-growing trend of raising the scale of every initiative on campus has now made its way into department festivals as well. Zephyr did pull off a budget of over 10 lakhs, and the other fests weren't too far behind. The organizational hierarchy of a department fest is perceived by some to be yet another effort to enhance résumés for those coveted jobs.

All this begs the basic question of the necessity of a department fest. Participation in these fests by IITians is depressingly low. Even with incentives like cash prizes, hardly anyone turns up. PG centric competitions too fail to attract participation. So much so, that most fests tend to measure outside-IIT participation as a yardstick for their success.

Exceptions

A notable exception to the generic department festival this year was Padarth, the Meta department festival. It was envisioned as an intra-IIT affair, with participation from other departments as well. No marketing was done, with the department association providing the funds, and the fest was only a series of competitions. There was no organizational hierarchy within the team.

The Physics and Chemistry Olympiads are also fundamentally different from other Department Festivals in that half their participation is from school students. The number of events is also less, with the work going into each event increasing.

Student Speak

Students are quite divided about their opinions on this front. On one hand, sophies feel department fests largely involve ghodagiri and at the outset lose zeal for the fest in general. On the other hand, some have the opinion that participation and organization of a department fest teaches students much more about their department than merely attending lectures and labs.

The conclusion: Department fests in IIT are definitely essential, they just need to recognize their target audience correctly. If industry interaction is paramount, then a lot more effort than just sponsors and lectures is needed. Just a single fest in the year isn't enough to maintain continuity of interest and more such initiatives could be scheduled regularly from time to time rather than a big fest at once.

(Chinmay Nivargi is a third year student of the MEMS Dept. Rajat Chakravarty is a sophomore of the Aero Dept. They can be contacted at chinmayn@iitb.ac in and rajatc@iitb.ac.in)

IITB in 2003

Five years can change the face of any institution completely. Swapnil recounts a few things that were very different in his freshie year...

Change, it is said, is the only constant. IITB, too, has changed drastically in the past few years. As I look back today at my 5 years of stay in IIT Bombay, some things come to mind that were part of the institute culture back then, but will probably never be seen by the current freshie batch.

Paper Elections

Before 2004, the Institute elections were a papery affair. Each candidate was allowed to paste a copy of his manifesto and banner in each hostel toilet. Freshies and sophie supporters would try to capture the "best" places in the bathroom.

Chinks

The only night canteen in the institute before the H13 canteen started functioning in 2003, Chinks was a saviour for many hungry IITians. It operated behind the H8 cycle shop and was a dingy place serving Chinese food. Though it operated only up to 2 am, the only option after it closed for the night was Maddu at 5 am, and so it was a place haunted by many sleepless IITians. It was closed down in 2004 due to falling business and lapse of contract.

24 hours Mood Indigo

Prior to 2002, Mood Indigo used to go on round the clock. After the Pronites, there were movie shows and even bonfires going on. It was said that the MI team then had three insomniac nights.

No LAN in Rooms

It was in 2002 that the Institute started putting LAN connections in every room. Before that, a person owning a PC had to buy a very big LAN wire and run a connection from the computer room to his room. Around that time, FTP servers were unheard of, and the average download speed from the Internet was a phenomenal 0.1 KBPS.

Pine

This small piece of software was once an integral part of the life of most of IITB, including faculty. It is a software used to check mail. Before 2004, many departments had no GUIs for their mails, and one of the first things freshies learnt was how to use pine to check mail and read newsgroups.

all these changes have been for the better is debatable. In the end, though, everyone has embraced them and moved on.

High Time

While the institute takes a strong stance on substance abuse, Aakash analyses the reasons behind why some IITians are addicted to drugs, and dispels some common misconceptions.

Today thanks to some flaky fiction pieces which talk of low scoring IITians indulging in acts of taking drugs and the fact that many amongst our peers do indulge in such activities, people outside our institute take it for a fact that most IITians are *dopchis* (people who dope). Something of greater concern besides this tagging is the fact that the use of such products is illegal and unlike alcohol or cigarettes can never be justified.

It could happen to anyone

The use of drugs to alter consciousness is not alien to any one in or outside IIT. The desire to alter consciousness periodically is an innate, normal drive analogous to hunger or sleep. Any of us who have loved the smell of petrol have shown this drive. This sort of answers why some of our mentally sound peers indulge in acts of doping. Some do it for the 'fun of it', others because they find it 'uplifting'. While most would not be able to describe the experience, a very generic term used to describe the effect is the feeling of a 'high'. This is better defined scientifically as psychosis. So while for most there can be no comprehensible reason why some of our friends would indulge in such things, it is simply for the ecstasy of it.

People experiencing psychosis after doping may report hallucination or delusion, and may exhibit personality changes and thought disorder. This may be accompanied by unusual or bizarre behaviour, as well as difficulty in social interaction and impairment in carrying out the activities of daily living. To put it in a very simple manner it can be said that psychosis is the 'fever' of mental illness.

How does one do it?

How most of our IITians go about the act of doping is through consumption of drugs which are classified as stimulants and hallucinogens. The most popular and commonplace method of carrying out this ritual is to smoke a joint made from marijuana. Easily procured from many peddlers [who like to use brilliant aliases like 'bhudiya', 'pandu' and what not] all over the city, marijuana is a hallucinogen similar to tobacco in appearance and is very cheap. To smuggle some into the institute premises is an easy job for a smart IITian, given the fact that it can be carried in a pocket since it is nothing but dried flowers. A joint is made by either filling empty cigarettes with MJ or by using rolling paper [rice paper] to make a new joint from scratch. Only a very few cases are ever heard of people consuming any stronger stimulants like LSD.

The Substance and its effects

Cannabis (as marijuana is known scientifically) contains more toxic substances than tobacco smoke. It contains 20 times more ammonia (a carcinogen) and five times more of hydrogen cyanide (which can cause heart disease) and of nitrogen oxides, (which can cause lung damage) than tobacco smoke. However in terms of addiction it is an established fact that MJ is less addictive than alcohol and according to studies has a lower score than almost any psychotic product on the mean score of harm scale (calculated keeping in mind dependence and harm).

Cannabis is still classified as a class C drug and is legally banned in India. This is truly justified on the basis that even when alcohol is consumed in inhuman amounts it can never lead to as severe effects as an overdose of MJ can!

There have been cases of people behind the red brick walls of our institute hallucinating, becoming delusional, losing self control and at times getting panic attacks and in very rare cases even suffering from short term amnesia.

Knowing these after effects of dope, it is very reasonable to believe that our institute authorities, who try to regulate activities that are potentially harmful to students, should try and a put a check on them since they are illegal by all codes of law. There exists a strong institute policy against consumption of such drugs, which allows for Disciplinary Action to be taken against students found indulging in this.

Please note that all the information provided in this article is purely based on facts and any methods or acts mentioned herein can be injurious to health.

(Kumar Aakash is a third year student of the MEMS Department. He can be contacted at kumar_aakash@iitb.ac.in)

The results of a survey of 50 people in a UG hostel		
Question	Yes	No
Do you consume Alcohol?	29	21
Do you smoke?	16	34
Do you know what doping is?	38	12
Have you at any point of time doped?	3	35
Is doping justifiable?	4	34

One in how many	1/30 or less	1/30 to 1/20	1/20 to 1/10
How many people around you do you know who indulge in doping?	6	23	9
How many people around you have you seen doping?	27	7	4

PT only in India ~ Srivathsan

With departments already running late by a month in releasing the list of minors, tension amongst freshmen is just increasing with time. Many of them have basic doubts regarding what exactly a minor is, how do you apply for a minor, what is the difference between a minor and honors and other such questions. We try to clarify a few of these concepts below.

A **minor** is a just a set of courses (total value: 30 credits). The courses in a particular minor are prescribed by the department. A minor can be done in a department other than your own. **Honors**, on the other hand, is a specialization in your own department comprising of a variable number of credits. The Biswas committee would be asking freshmen to fill in their preferences for the department in which they want to do a minor, and allocation of minors would be based on the CPI of students. A student can do a maximum of 2 minors and can do a second minor only if his/her CPI is greater than 8. We talked to some freshmen regarding these doubts and these were the doubts that most of them had.

Q: What is the cut-off CPI, if any?

A: There is no particular CPI cut off as such, but if the number students exceeds the

Minors: Major problems

Of late, there has been much confusion amongst the freshmen regarding minors and honors. Shantanu Gangal and Manas Rachh clear the air.

number of seats available, then a student with a higher CPI will be given preference.

Q: Is it necessary to check free slots before applying for a minor or will it be taken care of by the academic section?

A: In the third semester, all the departments will be required to have a common free slot where they would have to run their minor courses only. These courses of particular departments would mostly be a prerequisite for the other courses in the minor. So if a student is interested in doing a minor in a particular department, it would be absolutely essential for him to attend the course floated by the department as a minor course in the third semester.

Q: Which department is offering which courses and is there a choice in selection of courses?

A: There are many organizational issues that are still to be sorted out by the institute with regards to minors in terms of minors

offered by particular departments. As of now only the CSE department and to some extent the EP department have submitted what minors they will be offering. As mentioned earlier, the departments are running late by a month already, but the various minors offered by the department are to be out soon.

Q: Is it possible to abandon the minor in the middle?

A: As such there is no enrolment for any particular minor. A student receives a minor if he/she completes 30 credits in the department as specified by the department. If a student fails to do so the student doesn't receive the minor but the courses taken by the student do appear in the transcript.

Q: What if a person fails in the minor? Will it affect the CPI?

A: As mentioned earlier there is no specific enrolment for a minor so there is no concept of failing in a minor. But failing in

a particular course does affect the CPI as the courses completed or failed do show up on the transcript irrespective of whether the minor is completed.

Q: What if a DD student wants to do a minor?

A: A DD student can take the minor courses that are floated by various departments. However, according to the current scheme, the DD student will not receive a minor.

Other issues that need to be discussed are whether there is a quota for the reserved categories in the minors as well. The freshmen have many problems with the current scenario; firstly that the departments have still not put up the format of the minors they offer. Apart from that, DD students have a major complaint that they cannot do a minor. The institute needs to first sort out the organizational issues so that the freshmen have a clearer picture of what exactly they would be required to do for taking a minor in a particular department.

(Manas Rachh is a sophomore of the Aero Department. Shantanu Gangal is a fourth year student of the CSE Department. They can be contacted at manasrachh@iitb.ac.in and sgangal@iitb.ac.in respectively)

Concerned about several issues regarding the environment, Priyadarshan (PD), a 5th year student from H-13, issued an RTI enquiring about the cutting of trees within the institute. This revealed several interesting results. For one, it states that 245 trees have been cut as on 28.01.08 and that 109 more are going to be cut in the next one year. Following up on PD's initiative, InsIghT looks into the mechanism in place to ensure that environmental issues are addressed when construction plans are made.

The People in Charge

Initially a few faculty members were concerned about the felling of trees within the campus, and questioned the authorities regarding this. Following this, the Environmental Advisory Committee (EAC) was constituted, whose aim was to advise the Institute on environmental and other related issues connected with infrastructural development projects. Its scope, among other things, also includes matters of road widening, energy conservation and traffic related issues. However, this committee,

Facing the Inconvenient Truth

In the previous article on RTIs, InsIghT talked about environmental activism. Siddhartha Das and Gautam Salhotra narrate how the institute is doing its bit for the environment as well.

being advisory in nature, does not have the power to stall any construction if it is unhappy with the construction blueprint.

The committee is currently headed by Chairperson Prof. Ballal. Prof. Ballal is open to the idea of including a few genuinely interested student nominees in the EAC to ensure student representation. The EAC believes that no contribution is too small when it comes to the environment. Any campus resident who wants to have trees planted can approach the EAC which will provide saplings.

Creative ways to help the environment

Members of the EAC told us of several initiatives that could be taken up in the future. Firstly, ARTI, an NGO based in Pune has devised a method to use shed leaves

as a fuel source. Dry leaves are collected and burnt in a barrel in the absence of oxygen. A paste made of flour is added and a charcoal like substance is formed that can later be used as a fuel. This is already effectively used in several villages across Maharashtra and can definitely be implemented in our leaf laden campus in IIT.

Second on the initiatives list is a biodiversity survey that WWF India wants to conduct in the campus. In this, they plan to study every major environmental component such as plants, insects, birds, amphibians and reptiles, mammals and fishes. The committee members believe that this is a very important survey and will paint a true picture of our campus' flora and fauna and thus contribute towards its conservation.

Striking a balance

The construction of buildings on campus is inevitable, but the first question to be raised should be whether the institute is ensuring the successful transplantation of these trees. BMC rules require that for every tree which gets cut, 2 new saplings be planted. As mentioned before, the institute has taken care that trees that have been cut are compensated for by planting saplings beyond the pipeline (though not 2 per cut tree). The growth of these trees is monitored by the Institute Assistant Horticulturist and a report is submitted to the Tree authority of the BMC every 3 months. The Estate office plants around 2000 new saplings every *Vanamahotsava*. We hope that every tree cut in the future does in fact get the required attention of the authorities.

(In oder to join the Environmental Activism group, you can contact either of the writers)
(Gautam Salhotra is a third year student of the Mechanical Dept. and Siddhartha Das. is a sophomore of the Civil Dept. They can be contacted at gsalhotra@iitb.ac.in and das.siddhartha@iitb.ac.in)

It was again that time of the year when freshies had to finally come out of their shell and venture out into a much bigger world that comprises many more hostels and many more people. This year's hostel allotment procedure saw freshies being dispatched like parcels of mail with everyone being sent to seemingly unknown destinations.

Initial Rumours
The beginning of the semester saw a wide variety of rumours being spread by a certain sect of freshies. This sect soon expanded

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How the freshies were allotted

Two consecutive rooms were picked up and allotted a particular hostel. For instance, if rooms 164 and 165 were to go to hostel 2, rooms 166 and 167 would go to hostel 3 and so on. This resulted in no more than 4 wing mates being given the same hostel.
Another first this year was freshies in a freshie hostel being allotted another of the freshie hostels. For example, a sizable portion of the H3 freshie batch is going to H4.

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to encompass almost the whole hostel and suddenly everyone was speculating on the

A Fresh Start

The hostel allotment of freshies this year saw a few important changes. Ashwin and Mayur bring you a perspective by freshies, of freshies and for freshies on how they feel about their imminent transformation to sophomores. Warning: being freshies, they exaggerate a little.

possible permutations and combinations that could happen.

According to one *khabroo*, a way to stay in the same hostel was to be actively involved in all hostel activities or atleast show a lot of enthusiasm. Apparently, it was at the discretion of the Hostel GSec and some other influential seniors to fix the allotment.

Impact
Despite most of the rumours being baseless, they did have a profound impact on behaviour. We were soon at our mischievous best, resorting to all sorts of ways to be noticed by the more 'influential' members of our hostel. Battles with water and wars of words were fought frequently. When the hostel lists were put up on the notice board, freshies crowded near the board almost as if they were awaiting the results of a board examination.

Grievances

The most painful part of the entire scenario was that people would have to now eat in a different mess, as the quality of food served varies greatly in different hostels. Though all this is a good 3 months away, worries have started off right now as taste buds have got accustomed to a particular standard.

Yet another grievance which many might agree with it is that for many freshies, the very hostel which they have been taught to abuse and swear at (thanks to inter hostel rivalry) might be their future abode. Is this change of loyalty going to be that easy?

On the other side, some were happy that they were allotted H13 which means that they can enjoy the privacy of a single room. But a majority are lamenting the fact that they have

to make new friends all over again, which is indeed a difficult task. New friends, new groups and new rivalries – it is going to be a difficult transition as freshies turn into sophomores.

(Ashwin and Mayur are both first year students of the Mechanical Engineering Department. They can be contacted at ashwinkri.iitb.ac.in and srinivasan.mayur@iitb.ac.in respectively)

Inter-IIT zeal – by Archana

STRAWBERRY FLAVOURED BUILDINGS! YUM!!

IITB SWIMMING POOL

NOW SHOWING AT A POOL NEAR YOU – MONSTER'S PINK.

Carpe Diem

Vivek speaks about the things people do when they realise they're passing out of IIT soon and heading to the real world

I've always felt that time gets warped when you're inside the cool environs of IIT. It runs incredibly slow at some times, like during a project viva or a presentation. And it goes like greased lightning at others, like during weekends. But ever since I've entered the 4th year, I've had this sense of time rushing by, leaving me breathless all the time.

So when the final year beckoned, I approached it with a plan. I would not spend my last year in IIT in the usual haze of TV series, movies and treats. No, I would milk every moment for its complete worth. I would do all those things I had been putting off for 3 years. To any final year student, these words mean:
1. Swimming
2. Badminton
3. Squash
4. Gym
5. Study (??!!)
With these in mind, I went to the Swimming Pool and got the forms needed to make a new swimming pass. This pass was soon to be consigned to a dusty grave behind my bed, but I did not know that then. I began to read all notices on the hostel board with a renewed interest, to find out what activities were going on in the Institute. My hostel Cult Co was delighted with me, suddenly finding in me a willing participant for almost every event. I was spurred on by the fact that this would be my last chance to try my hand at these, and that gave me some Dutch courage. There was almost an air of bravado, a 'Now or Never' attitude that led me to go on a spending spree and acquire badminton and squash gear, these being two more frontiers I wanted to conquer. I even joined a foreign language course, in the vague hope that I might find it useful someday.

Wherever I went, the moment I told any of the IIT Staff involved with any of these activities that I was in my final year, I was greeted with the same wry smile – they had obviously seen legions of people like me in the years before. Still, once they had seen me for what I was, they went out of the way to make sure I got what I wanted. Squash and badminton proved to be invigorating experiences – when you could actually get to play them. I got a harsh introduction to the laws of supply and demand waiting for my turn, which is inevitable when a community of over 11000 people is served by 1 squash court and 1 badminton court. The hostel activities were completely another story – I crashed and burned miserably in most of them, salvaging my pride with a Consolation Prize here and a Special Mention there. My Cult Co's initial enthusiasm turned to wariness, and having realized that the IIT Cultural Field was not ready to appreciate my unique talents and that my hair could turn grey by the time I had played my fill of squash and badminton, I turned to that other unconquered territory – swimming. I briskly signed forms, purchased the necessary gear, and just as briskly succeeded in almost drowning myself on my first day at the pool. After receiving a stern dressing down from the lifeguard on duty there, I realized that this was yet another field which was not yet ready for me to leave my mark.

By this time, a semester and a half had flown by and I felt it was time to sit back and reassess. I realized that my efforts to slow down time had been only partially successful. I could claim that I had at least tried everything on my list (well maybe not the last), but I was overwhelmed by a sense of inevitability. I admitted to myself that which I was trying hard to ignore earlier, that life goes on, and that though one phase of life was coming to an end, another one was about to begin.

When I realised this, everything acquired a new sentimentality – that the PAFs would be the last I would see as a student, that the frappe from Shack would be a luxury I could no longer use as a pick-me-up on a sleepy morning. I even began to shun the Tumtums and walk to classes and back, trying to imprint the scenes around me in my mind. I can now count my time remaining in IIT in hours, not even days. But I am no longer frantically trying to pack my days in the hope of lengthening them. Instead, I am taking each moment as it comes. I know that what I have gained in these 4 years is something that is going to be with me for the rest of my life. Like they say, you can take the boy out of IIT, but you can't take the IIT out of the boy!

(Vivek Subramanian is a final year student of the Electrical Department. He can be contacted at viveks2004@iitb.ac.in)

Are we *really* the best?

The status of the IITs has been likened to that of Harvard, MIT and Princeton combined. Sudarshan, Rushil and Aishwarya explain the reality

The year 2006 saw the IITs reach a zenith of popularity after being ranked as the 3rd best technological institution in the world. However, this survey was based primarily on academic peer reviews by the Times Higher Education Supplement. Haven't you ever wondered what subsequent surveys said?

One of the major changes made in the survey methodology for the next edition was that people were not allowed to promote their own universities. Further, all the IITs were ranked separately. By 2007, IIT Bombay had slipped to 33rd in the same survey. Whether these figures reflect an actual loss of reputation in a year or a modified methodology is open to speculation.

Misconceptions and the real problem

"Funding for research is not a reason", says Prof. Krithi Ramamritham (Dean R&D). "For areas like Nanotechnology, we have 90 crores in the pipeline." But this is not translating into a better salary structure for incoming researchers. The salary cap at IITB hasn't changed since 1996. While a passion for the subject is a strong motivating factor while choosing research as a career, money and a progressive career path plays an important role in their decision. The lower enthusiasm and smaller number of the Postdoctoral researchers, who are the drivers of research, has its fallouts. The faculty is diverted to focus on day to day modalities and equipment handling which would rather have been done by their research staff. With researchers being stretched, productivity falls. Postdocs have little to look forward to, in terms of recognition for their performance and clear future

Problems with the setup here

A major issue is the **work culture**. Interdisciplinarity, with its focus on the connections between different fields to solve practical problems, is widely recognized as the future of research. Many great research triumphs, like the discovery of the structure of DNA, genome sequencing, etc. have been interdisciplinary ventures. "Collaboration across research areas is not the culture in IIT", says Ramamritham. As a long term initiative to promote this trend, IIT could mould its academic structure allowing students to explore problems at interfaces of departments, and later specialize in their fields of interest.

Another problem is the **lack of undergraduate involvement** in research. They feel that the current academic structure is mundane leading to them getting disillusioned with research. Since UG/ MTechs are usually less committed and motivated in their projects, faculty members "bank their buck" on the PhDs. If expenditure is any measure of focus, US universities like Princeton and Berkeley spend more on instruction than on research. What needs to be understood is that undergraduates are an investment, which if at all they bear fruit, will do so after a long time. But such investments improve attitudes toward research keeping with the purpose of "technological manpower development" as outlined by the IIT Act of 1961.

The Road Ahead

"We need a new model of research, research for India," says Prof. Supratim Biswas (Dean AP). Today, most people consider IIT as an end rather than a means to achieving success (see box). It is true that the rankings need to be interpreted carefully but they do reflect a lack of visibility and low opinion of Indian research. With a national level research vision, we need to work together on solutions for India's problems. As Prof. Manjul Bhargava of Princeton said in a recent talk, "Indians do not feel proud about their achievements and potential. People in the US are trying to glorify Indian research that academics here don't even know about!' All in all, we need a realization of our potential and a new confidence to usher in a golden age of Indian research with the Golden Jubilee.

(Sudarshan, Rushil and Aishwarya are sophomore students of the EP, CSE and Mech Departments. They can be contacted at sudarshanb@iitb.ac.in, rushilgoel@iitb.ac.in and bonny.sharma@iitb.ac.in respectively)

> ### The GIPS Panel Debate
>
> The idea that IIT is a 'Great Indian Pit Stop', where people come to relax between two hectic phases of their life while doing nothing very exceptional for the institute, is not new. In 2005, a thread was started on Varta to discuss this very point. The thread eventually swelled to a 300 message long debate. This spawned GIPS, a panel debate conducted by InsIghT, which saw huge attendance both from faculty and students. The video is up on the InsIghT site http://gymkhana.iitb.ac.in/~insight.

The Right To Information Act: a follow up

We've covered the RTI in minute detail throughout the year. At the end, Prachur and Aayesha present a 2-minute guide

The RTI is our fundamental right and it empowers us to question almost anything.

A Beginner's guide to filing an RTI
1. Drafting your application: There is no form, just apply on a plain sheet of paper.
2. How to apply: Submit the application by post or in person to the Public Information Officer (PIO) or APIO. 629 post offices have been designated as APIOs. This means that you can go to any of these post offices and submit your fee and application at the RTI counter. A list of PIOs/APIOs is available online at www.rti.gov.in
3. Money: Deposit your fee (Rs. 10 per application) either in cash or through a DD, cheque or postal order drawn in favor of the concerned public authority.
4. After this, you wait (for a maximum of 30 days)
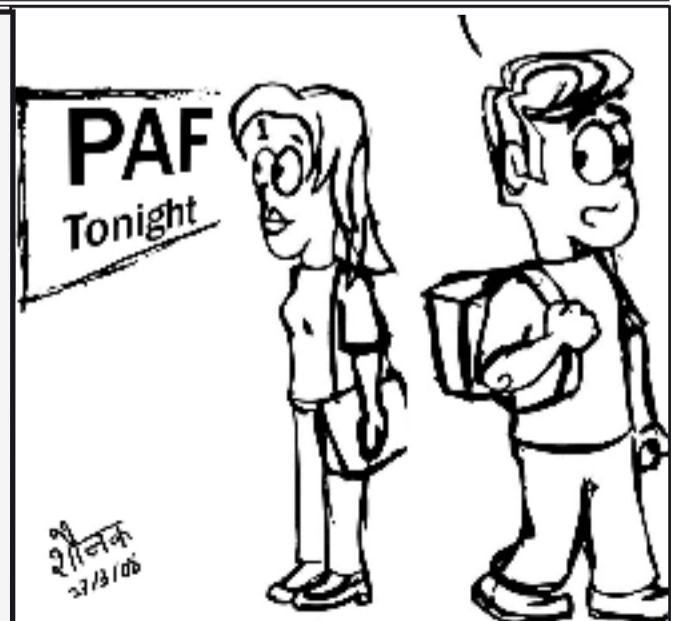
Precise wording
A few points should be kept in mind while framing questions in your application. To give you an instance, one student, Sagar Shah, asked, *'How much funds are allotted for the Golden Jubilee Celebrations?'* and the answer received was *'We don't get any funds for the Golden Jubilee Celebrations'*.
The reason: the money allotted is not called 'funds'. Therefore, it is suggested that you talk to a few people involved in the area pertaining to your question before applying, so that you are aware of the correct terminology used.

RTI in action: JEE cutoffs
An application of the RTI revealed shocking numbers: the cut-offs for Physics, Chemistry and Maths in 2007 were 4,3 and 1 respectively as opposed to 48,55 and 37 in 2006. This was due the cutoffs in 2007 being calculated by the average marks of the bottom 20% of people attempting the exam.

Poor crowds in PAF – Shaunak

PAF Tonight

I think I'll catch it later on the server.

MAVerick

IITB's first Mini Aerial Vehicle

Over the century since the Wrights first flew their pinewood and canvas aircraft, aviation technology has progressed, literally, in flying leaps, to sophisticated present-day models. There is now an increasing demand for Mini Aerial Vehicles, useful in military reconnaissance operations and disaster management. With accelerating progress in electronics, sensor technology and greater understanding of aerodynamics at the size scale, these flying eyes seem more and more possible. Realizing MAVs is a great technical challenge as conventional aerodynamics ceases to be efficient at that size scale. Low inertias make these very sensitive to perturbations requiring new flight control strategies.
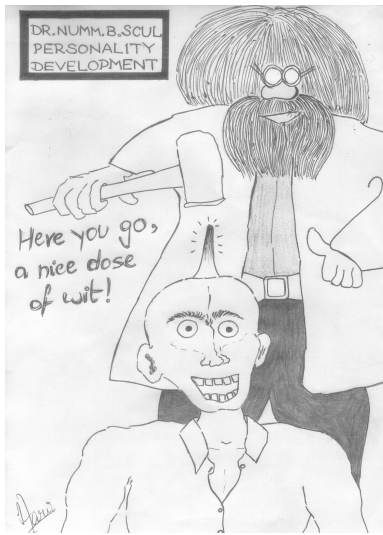
The US Army organises an annual MAV competition every year, with MAV'08 being held in Agra. The mission was to identify the room in which simulated hostages were held inside a bank building around a kilometer away from the base, with inputs only from an MAV small enough to fit in a 300mm sphere.

A team headed by **Prof. Hemendra Arya**, and including **Kiran Verma, Aditya Mandrekar, Ashish Bhat** and **Vishal Prabhu** has been working on this problem for around a year and developed a fixed wing and a rotary wing MAV. They developed a 'flying disc' where the fuselage and tail assembly are omitted, with elevons combining the conventional elevator and ailerons used for control, along with an autopilot. The aircraft includes sensors for position, attitude, altitude and airspeed measurements and an onboard computer for data analysis and command, with an onboard camera transmitting back a live video.

A continuous video of a small area or a building requires a hovering platform, for which a quadrotor aircraft powered by four counter-rotating rotors was made, which is manoeuvred by slightly altering the rotational speeds of each rotor and has autonomous take-off and landing capabilities. An internal stabilisation system continuously monitors the aircraft and makes appropriate corrections to the rotational speeds of the rotors. The autopilot designed by IITB alumnus Ashish Bhat is the smallest and lightest autopilot in the world, weighing a mere 9 grams. The two aircraft can both be remotely controlled from a ground station software, by just clicking the points on a map they are to visit.

The competition at Agra featured a great number of vehicles of various designs and capabilities from all over the world, thus making for not only a great experience, but also an extremely stimulating environment to inspire us to further challenge technological limits and compete successfully among the world's best.

Non~science

DR.NUMM.B.SCUL
PERSONALITY
DEVELOPMENT

Here you go, a nice dose of wit!

Did you know that if your head is flat, you're a cold unfeeling person, but a convex head shows warmth? Thus claims phrenology, which relates the contours of a person's skull to their personality. When phrenology was first propounded, it was instantly rejected on the insistence of Napoleon Bonaparte, who was offended by its claim that his sloping forehead showed him incapable of philosophical thought. Phrenology correctly advances that the seat of human emotion and thinking is the brain and different areas are responsible for different mental faculties. However it further relates each feature of the skull to a structure in the brain responsible for a certain personality trait. Phrenological charts map out areas responsible for not only traits like self-esteem, acquisitiveness and affability but even witticism and metaphysical spirit! An instrument called the psychograph supposedly gave a complete phrenological examination of the subject together with a printout of the results. It netted its inventors a handsome profit of $200,000 at the 1934 Century of Progress Exposition in Chicago. Author Terry Pratchett took a dig at phrenology by writing of a retro-phrenology clinic which claimed to give clients their preferred personality by hitting them on the head with a selection of mallets in a procedure said "not to hurt a bit....". Phrenology today is still considered a pseudoscience, but has led psychologists to study different centres of the brain in relation to emotion and perception, to its lasting credit.

Questech

Questech is the longest running column in InsIghT. A few changes from this issue onwards: There will be more problems on the website in the 'InsIghT Online' section. Also, solutions to the problems below will be put up on the website three days after distribution of the issue. What has not changed, though, are the prizes: treats at Shack are assured for all early bird correct entries.

1. There are **2n** points on a circle. Find the number of ways of drawing **n** non intersecting chords.
2. There are 6 points in a rectangle with side lengths 3 and 4. Prove that the distance between at least two of these points is smaller than the square root of 5.
3. A plane is divided into areas by straight infinite lines. Show that these areas can be colored using only two colors, so that any two states that share a border line have different colors.
   (Mail your answers to niranjanparab@gmail.com or raoanupb@gmail.com with 'Questech' as the subject.)

inΨght

Winning Entry at Exposition GC

The Katana Swords of the Samurai: Harshad Paranjape, H7

The Katana was the most common sword of ancient Japan. A typical sword is about 70 to 90cm long with a convex blade made of steel. It has three essential qualities, the sharpness of the blade, the fact that the blade stays sharp even after repeated use and a very high resistance to shocks.

How they are made

Several steps go into the making of a Katana. First, body and blade are folded and beaten several times. Then the body is coated with a thick layer of clay. Then the whole sword is quenched. Finally the blade is tempered and sharpened.

Superior strength

Blade and body are made up of different varieties of steel. The blade steel has more carbon than the body steel and hence is harder. The exceptional hardness of the blade is due to formation of martensite which is a metastable phase of steel. It is formed due to the rapid quenching of steel. Carbon atoms are trapped in the lattice of iron, which cause asymmetrical expansion of the lattice and hinder dislocations, thus preventing deformation.

Thus the difference in the carbon content in the blade steel and the body steel results in the formation of martensite which gives the blade exceptional hardness while the ductile body steel gives endurance.
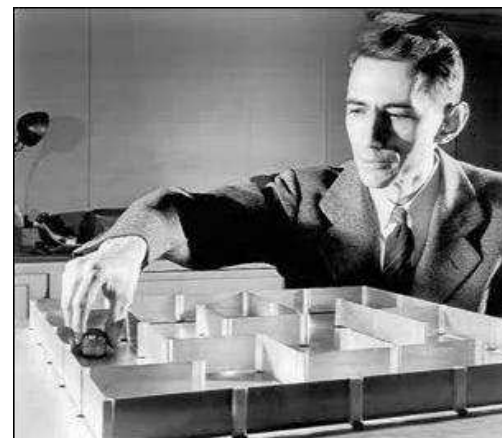
Of Mice and Mouseketeers

Micromouse at Techfest '08

Without question, the most popular event at Techfest 2008 was Micromouse, which involves building an autonomous robot that can explore a maze and find its way to the centre. The competition saw a huge turnout with over 1000 entries including freshmen and sophomores as well. Most machines consist of sensors to sense the maze walls, an onboard processor to work upon the incoming data, store the maze and compute the best path, and motors to carry the mouse forward. However, each machine has its own unique features that set it apart in terms of speed and robustness.

Two years ago, at Techfest, only one mouse reached the centre of the maze, and last year there were two finishers where the winner clocked around 3 minutes. In October 2007, at CoEP's technical fest, four mice completed the challenge with times between 3 minutes and 15 seconds, while this year at Techfest as many as eight mice were successful with the winner clocking 12.6 seconds. When asked about this exponential rise in the level of competition and whether there would ultimately be a limit on just how fast the mice could finish, the winning team at both CoEP and Techfest consisting of **Kartik, Siraj, Vishal, Sushant, Sangram & Simit** felt that the best time clocked would be limited to around 11 seconds. The biggest constraint was cited as having to work with the bulkier components commercially available at local stores, though the fastest lightest mice would be best made with small and light imported components. Thus, they preferred to make a highly code-intensive mouse with the simplest hardware. Mousers also rely on free samples for electronic parts. **Joydeep**, winner of the Best Design award at Techfest '08, says that his mouse only uses electronic components obtained as free samples. Beyond a certain point, the competition is all about software. Some of the best mousers in the world keep the electronics to a bare minimum, even doing away with analog sensor filtering, and spend years on developing better software, to fully utilize the potential of the hardware.

It is indeed surprising to note that the ceiling on the timing of a mouse is mainly friction available from the surface which limits the maximum acceleration possible. Recent work at MIT included putting a fan on the mouse to increase friction by creating a downward thrust - a kind of inverted hovercraft. Speed can be further increased by using DC motors as stepper motors stall after a limiting speed, though DC motors are far more difficult to control. Fabrication accuracy is crucial, as highlighted by the winning mouse, wherein a 0.5mm play between shaft and wheel caused significant turning inaccuracy that required bushing and thus reduced speed.

The world's first micromouse was "Theseus", made by the legendary **Claude Shannon** in the 1950s, that searched metal mazes for brass "cheese" using magnetic relays. The modern micromouse has come a long way from Shannon's Theseus, but what stands out in its 70-year history is the level of innovation it has produced, in terms of mechanisms, circuits and software codes, which we thought to see at fests every year, hoping to find better and faster mice, a hope that is usually rewarded..

Archana, Haripriya, Niranjan, with inputs from Vishal Prabhu and Joydeep Biswas. Send in your feedback regarding this page to - archana.raja@iitb.ac.in and haripriya@iitb.ac.in

insight
the third eye

Valfi profiles of the future

Tanny and Ghaza write the profiles of a couple of characters you just might see in the future...

Pandurang a.k.a. gheezu a.k.a. RG a.k.a. pappu

Pandu is the first person in the insti who is going to have his profile read in his fifth year. The entire hostel council and his batch deeply regret this grave injustice meted out to Pandu last year. The unfortunate incident occurred inspite of the fact that 7 stages had been arranged in parallel. Pandu had the last slot on stage 3 and he patiently waited all through the night, sunrise, morning, noon and lunch time for his profile to start. Sadly his turn came at 2:23 p.m., exactly two minutes after he had left to give his BTP presentation. Pandu, we all deeply apologise for that.
Now for some real facts. On the 26th of March 2007 at 1:39 p.m. Pandu was spotted alone at lakeside with Preity, after having made an excuse that he had a 1:30 lab. Pandu is the most irritating person this campus has ever seen, he is extremely RG in life... but we all love Pandu (because he has perfected the art of getting upto 23 people valfi food on only 2 coupons and has promised us free food in every valfi this year).

Bagheera a.k.a. the-ghost-of-the-darkness a.k.a. black-cat ko-man-do

Bagheera is the most ferocious panther to put a paw on the IITB campus. If `The Exorcist', `Saw-I/II/III', `Natural Born Killers', etc. couldn't frighten you, then only Bagheera can! He also holds the world-record of hunting and eating 147 dogs in a single day. On the 6th of December 2006 at 6:53 p.m. Bagheera was spotted at the boat house with Sheeba (the hottest feminine panther to put a paw on the IITB campus). We have no idea what they did because we all ran for ur lives. We may seem petrified, but we all love Bagheera to death.

IFL Standings

Monday, March 31st, saw the last IFL match being played. The trophy was decided in the very last match of this inaugural season with AC Milan winning.

Below is a table with the results and points tally of all the teams.

POSI-TION	TEAM	PLAYED	WINS	LOSSES	GOAL DIFFERENCE	POINTS
1	AC MILAN	7	4	0	4	15
2	LIVERPOOL	7	4	1	6	13
3	ARSENAL	7	3	1	6	12
4	CHELSEA	7	3	1	3	12
5	REAL MADRID	7	1	2	-2	7
6	BAYERN MUNICH	7	1	4	-4	5
7	MANCHESTER UNITED	7	0	2	-6	5
8	BARCELONA	7	1	5	-7	4

The Old Editors Bid Goodbye

With 2007-2008 coming to an end, it's time for us, the old Eds of your friendly neighborhood newsletter, to express our gratitude and bid goodbye to all our wonderful readers out there.

In the six issues that were released during our tenure, we tried our best to strike a balance between news reporting (placements review, Research@IITB series), narrative reporting (GJ series), investigative journalism (electricity wastage in hostels, budget and space crunch), opinionated articles (lack of academic integrity, the Reader's Write column) and creative writing (pop. sci and the leisure page). Be it the trilogy of articles that documented relatively unknown historical facts about IITB in order to commemorate its 50th anniversary, our articles on placements and career interests of IITians or the wacky leisure page that attempted to bring out the humor in our lives through wit and sarcasm, the efforts of our team were continually appreciated by our readers. The constructive feedback and criticism we received encouraged us to increase our efforts towards effectively serving the institute as an independent and responsible media body.

Apart from the paper issue, it gives us great pleasure to know that our website and the new bulletin board at shack are serving the IITB community as regular dispensers of news and opinions. The bulletin board at shack, which was set up during our tenure, has gone a long way in bridging the excruciating gap between two paper issues and serves as a very effective medium for posting quick updates on institute events and articles that don't make it into the issue. Our website is an appropriate place to post freelance articles and also to host the election and PAF videos. The election videos were aimed at facilitating the campaigning for the candidates and to help our readers make informed choices while voting. The PAF videos, on the other hand, were aimed at giving the viewer a succinct account of an event as grand as a PAF and glimpses of popular opinion from those who watched it. We remain grateful to you all for making these initiatives a great success.

We believe that the spirit of InsIghT as a media body can be captured by the following two quotes: 1) *"I may not agree with what you have to say, but I'll defend to the death your right to say it"* (Voltaire) and 2) *"In all affairs it's a healthy thing now and then to hang a question mark on the things you have long taken for granted"* (Russel). A media body like us, at the end of the day, is just an organization of thinking individuals. But superseding our own opinions is our mandate to ensure that every possible opinion ought to surface in public forum. At the same time, we sincerely believe that it is our duty to question beaten paths and call for new ideas; one doesn't get harmony when everyone sings the same note. It was this thinking that made us question the disturbing lack of academic integrity and spirit in an institute of international repute but we admit that we failed to create significant ripples with the issue, one of the many shortcomings of our tenure. But we are confident that this and many other issues of this nature will be taken up by the team in 08-09 under the leadership of the new Eds. Hopefully, these will continue the evolution of InsIghT from a news reporter to an institute mouthpiece and an agent of change and reform.

We also take this opportunity to sincerely apologize for any possible shortcomings that you feel were a part of our tenure. The credit of our successes goes to our team but our mistakes are ours alone. We conclude by thanking you all once again for your continued readership and support.

- Vivek and Karthik

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The InsIghT Team

Announcements
The results of our Blog writing and Logo design contests are finally in! The winners are:-
Blog Writing
1st Ankit Kothari
2nd Alok Kumar
3rd Niranjan Parab

Logo Design
1st Shantanu Jog
2nd Ankit Kothari

Congratulations to all the winners. You can collect your Crossword gift vouchers from Vivek (vivek_u@iitb.ac.in)