PAFs: Nights to Remember

Unforgettable moments and lasting memories from PAFs of the last decade
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Techfest 2007: A Lookback

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Your Mumbai City guide for the coming month.
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We, the Patients

InsIghT presents a comprehensive review of the Institute Hospital and voices student concerns regarding the same.

This article aims to review general opinion regarding the Institute Hospital primarily among students but we have also collected points of view from a couple of faculty members and a few doctors. Though there is a general feeling among students that the hospital finds maximum utility in providing the ubiquitous 'pink slip' (an incorrigible IITian's license to bunk exams/lectures and get away with it), a closer analysis revealed that most students are still dependent on the Institute Hospital for their health problems. It thus becomes worthwhile to evaluate the merits and shortcomings of the current medical facilities in our institute and lay the cards on the table for mutual introspection.

Primary Information

The Institute Hospital caters to the medical needs of most of the students, faculty, staff members and their families residing on campus. It is a 60-bed hospital with 8 full time doctors led by the **Senior Medical Officer** (SMO). As many as 25 visiting specialists are also available. Going by the standards of public health centres in our country, the Institute Hospital can be placed between a primary and secondary health care centre. It has its own pathological labs, X-ray and ECG facilities, a physiotherapy section and a dental care section. An ambulance is also available round the clock (1110 on the internal phones, in case you still didn't know). Basic information regarding the hospital facilities is available on http://www.iitb.ac.in/hospital_old/index.html.

The medical person in charge of most of the executive decisions of the Hospital is the SMO, Dr. Nisha Shah. The director has also constituted a Hospital and **Health Advisory Committee** (HHAC) consisting of a Chairman, members nominated by him from the Hospital, faculty and staff representatives and a student representative, the **Institute Hospital Secretary** (IHS). The Hospital conducts frequent vaccination drives and almost all the important vaccines (including Hepatitis A, B, Typhoid and Chicken Pox) are available.

Student Survey

InsIghT surveyed nearly **500 students** across all the hostels and disciplines in order to canvass general opinion regarding the Hospital. We got a mixed bag of responses - both positive and negative and it became important to discern the exact reasons behind both.

i) Survey Statistics

33% of the students surveyed rate their experience with the IIT Hospital as 'Good', mainly students who had received treatment for fever, cold or other minor illnesses. Respondents complimented the staff for their cheerful manner, the prompt ambulance service provided and the convenient location of the hospital. In comparison, 41% students stated a "Not so good" experience and some of them articulated their reasons. 17% respondents said their experience was "pathetic".

28% of respondents say that they would want to visit the hospital for a primary check-up in case of any illness. According to the SMO the 'free' tag to the treatment at the Hospital is a huge incentive. 11% students stated that they wouldn't visit the hospital for any consultancy or treatment whatsoever. However, it is disturbing to see that some of these respondents have taken such an extreme stand not having visited the hospital even once, indicating a preconceived bias. A good 61% of students said that they would visit the hospital for first-aid or for minor illnesses.

ii) Minor Concerns

Students have expressed discontent over the visiting schedules of the specialist doctors due to clashes with lecture hours. It is, they say, difficult to find a doctor on a Sunday; and that there are less than adequate number of on-duty doctors on weekdays. Another point raised was that of the filing system; of it being a nuisance routine before each visit. To this point, the SMO states that in case of any emergency, the file and every other formality is absolutely secondary. Also, a large number of students have complained of the medicines being ineffective and outdated, and a genuine need to expand the pharmacy.
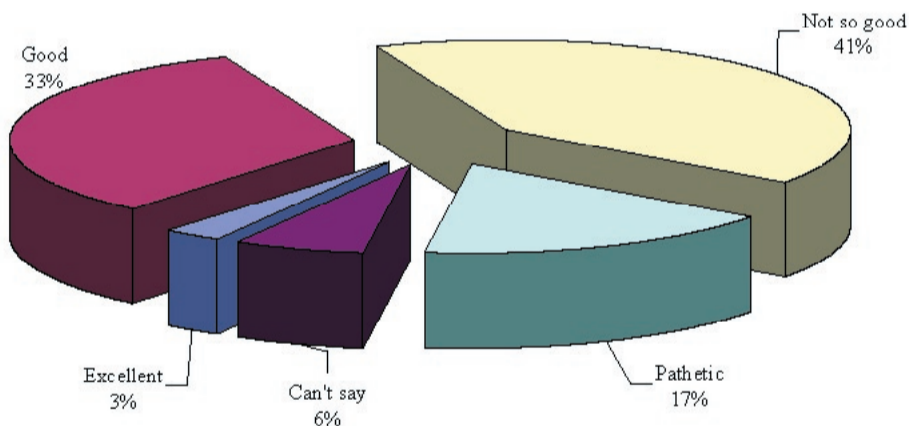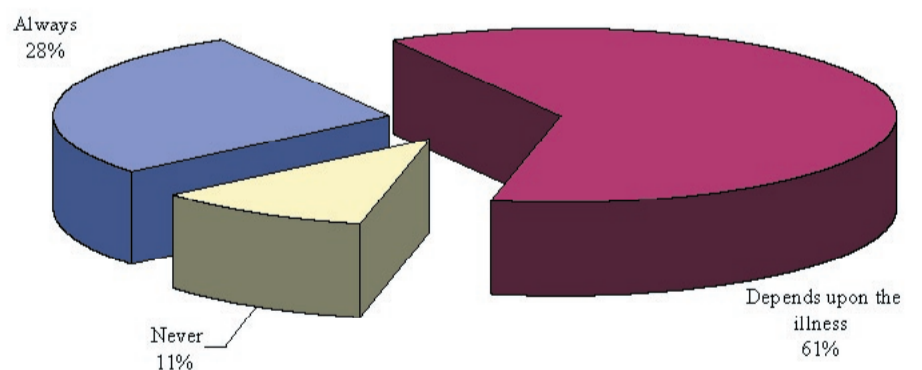
iii) Major Concerns

Among the more serious negative criticism, the most disturbing ones are **wrong diagnoses** and **delayed diagnoses**. Citing a particular case, a student was diagnosed to have malaria when it was actually meningitis. Another respondent having kidney stones had been incorrectly diagnosed with indigestion, the prescription for which continued for three excruciating days, till the student was referred to a urologist. A student's surgery was delayed by two days due to the unavailability of a specialist surgeon. There is a general opinion of the IIT Hospital doctors and staff being apathetic among such students, and sometimes rude behaviour by a few doctors was cited. The SMO seemed aware of these problems but maintained that since the IIT Hospital is a primary health centre sustained on governmental aid, it would be unfair to expect the standards of a private hospital and that they are trying their best to avoid such cases and provide maximum benefits.
(A list of all the responses and suggestions we received is on the InsIghT website.)

A Focus on Mental Health and Psychiatric Facilities

Student depression (academic and otherwise) has been a topic of much debate in the last few weeks, acting as a fuel for a lot of introspection and decision making from the authorities. The recent student-faculty panel discussion organised by InsIghT was an attempt to initiate open discussion and penetrate into the reasons behind student depression, something that seems to present itself as an endemic issue deserving attention. Currently, our hospital has 3 visiting psychiatrists who come at particular times during the week. Prof. Sharmila of the HSS Department, on the basis of her interactions with a number of students who approached her for counsel, argues the need for a permanent psychiatrist in the Hospital, available at all times during the day. She says, "A number of students have complained about the irregularity of the visiting psychiatrists in keeping appointments. Immediate attention to a student experiencing a fragile state of anxiety/depression cannot and must not be delayed." Prof. Kushal Deb (also of the HSS Department) insists that although a permanent psychiatrist is a good option, the institute must employ more student counsellors who should try resolving such cases by talking it out with the student and psychiatry, which involves medication, must be resorted to only when the issue cannot be resolved by talking to the student.

The Architecture to Make Changes

Behind the many cases of dissatisfaction expressed by the students, a common discernible feeling is that of the non-existence of a proper feedback system that the students can employ for corrective action. We spoke to Vikas Singh Bagri, Institute Hospital secretary (IHS, another title from the student pantheon that continues to grow indicating our insatiable need for elected and nominated representatives) who expressed his own share of discontent with the 'system'. *(Continued on Page 2...)*

How would you rate your experience with the hospital?

Good 33%
Not so good 41%
Excellent 3%
Can't say 6%
Pathetic 17%

In case of any illness would you visit the hospital for a primary check up or treatment?

Always 28%
Never 11%
Depends upon the illness 61%

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Once again, the perplexing problem of student depression has knocked on our doorsteps. And like in the past, we again find ourselves insufficiently armed to come to grips with this predicament. In the wake of the recent death of one of our fellow students, Mallepula Srikanth (fondly called Srilu), InsIghT conducted a student-faculty panel discussion in an attempt to throw some light on the nature of the problem and possible solutions. While it is true that there is no clear-cut solution, it is high time we stop playing the blame game and reflect on this alarming trend as a strongly bonded community. This article aims at addressing some of these issues and their feasibility.

The Student Mentor Programme and FacAds

The primary objective of the institute's Student Mentor Programme (SMP) is to help first year students make a smooth transition to life in IIT. Though poor academic performance is by no means the only criterion to judge depression among students, the SMP and Faculty Advisor system can make a big difference in helping students across batches, if they work hand in hand. Student mentors can prove to be extremely effective in bridging the gap between students and FacAds.

Initiatives such as mandatory counselling sessions for students with more than 3 backlogs may create some hostility; counselling only works when it is consensual. However, there are other ways in which students can be monitored. For instance, the Dean AP, Prof. A.K. Singh suggests that it can be mandatory for the FacAd to have a session with each individual student once a month, if not once in two weeks. At present, many FacAds hardly ever meet their wards because even course registration is done online. Obtuse as this might

The Great Depression

Siddhartha Bagaria and Rylan Henriques address various issues related to student depression and support systems in the institute.

sound, it is perhaps time to revert back to the manual registration process. That way, every student will at the very least meet his FacAd once a semester.

The Counsellor

The role of the counsellor has to be made more clear and her presence needs to be well publicised amongst the student community. Perhaps, the counsellor can be moved to a more 'friendly' place like the hospital or SAC instead of the 'intimidating' (to some) Dean's Office. A 24-hour anonymous helpline has been identified as a basic necessity. Some indications of this were given last year too but there has been no visible progress thus far.

Backlogs and Depression

A very common side effect of depression is the accumulation of backlogs and a lack of opportunities to clear them. The Dean AP maintains that for recognised cases of depression, the institute is ready to be as flex-

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What can you do?

Though the institute has a major role to play in providing support to students, there is only so much they can do. At the end of the day, it is us students who have to look out for and help our friends. A few simple things that you could do are as follows.

• The most important thing is to get rid of the stigma that is often attached to mental health and depression. Remember that depression is in no way different from any other medical condition.
• Be vigilant and supportive of your friends at all times. A simple idea could be to form inclusive homework groups.
• If you notice a sudden change in your friend's diurnal rhythm or a disconnection with reality, speak to him about it and make sure that everything is fine.
• When in doubt as to whether you bringing the case of your friend to the notice of the counsellor or a professor is a breach of trust, explain to him that you think it is in his best interests to try and get some professional help at that stage, and that you will be with him throughout.

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ible with the rules as possible. He maintains that the first priority of the institute is that students complete their programs. The strategy which the institute adopts is to go slow and let the student come to some level of normalcy through medication or therapy and then continue his studies at the usual pace. However, in practice, when backloggers are not "recognised" cases of depression, the situation is a little more complicated.

In the long run, a flexible academic system needs to be in place with sufficient electives and free time to pursue activities of one's own interest. Fortunately, the recommendations of the Biswas Committee (including a reduction in the workload and the introduction of a minor and an honours degree) have been approved in principle by the Senate and will come into effect the following academic year. Let's hope it goes a long way in bringing a healthy balance in our lives.

Student Faculty Relations

The past few years have seen a drastic decline in student-faculty interactions. Both sides need to come forward and bridge this gulf. The faculty on their part can show their enthusiasm by adopting innovative methods like rotatory seating arrangement in the front row, maintaining a record of late-comers and absentees along with their CPIs and so on. There could be departmental budget allocations for common lunch/dinner with the students. The Aerospace Engineering Department organised one such event recently and it was a huge success. A healthy relationship with one's project guide will also help in improving the situation.

Other Issues

Prof. Gadre, Faculty-in-charge of the SMP maintains a view that apart from structured help, we need to simultaneously have a broad level awareness. To this end, more workshops on stress and mood disorders in college students could be arranged. Sports and other physical activities release endorphins which are very useful in combatting depression. Some emphasis on the holistic development of one's personality is also required. Also, we need to be extra-vigilant during Placements season, as it is a major risk time frame for final year students. Professional career counselling and guidance must be considered as serious options in the future.

Epilogue:

There is no silver bullet for mental distress. There can be no telling what can happen as a result of a momentary lapse. Nevertheless if we see ourselves as a closely knit society of intellectuals, there is no road which cannot be travelled.

According to the SMO, the IHS should regularly present students' difficulties and suggest possible solutions for the same. When asked how he goes about his job, Bagri responded that he tries to gather collective opinion by talking to people because no students mail either him, the GSHA or on Varta of their complaints (student apathy again!). When asked what changes he did bring in his tenure, he thought a little and said he got the visiting hours of some specialist doctors (especially the physiotherapist) shifted to the afternoon (for student convenience) and he proposed the inclusion of a private affiliated hospital (the exact name of which he had some difficulty in remembering) in Mulund for student emergencies and got the same sanctioned from the SMO. However, in the SMO's opinion, "The current IHS met her only once or twice the whole semester and did not really execute his responsibilities with the diligence required for this post."

Doctors and Other Hospital Staff:

The Hospital, being a chip of the governmental architecture, has to constantly battle with the various administrative bottlenecks if any structural change needs to be introduced. We have only a handful of permanent doctors and most of the specialists are visiting doctors who come on an hour-to-hour basis per week.

...We, the Patients

When asked to comment on the current salary-system of the staff, permanent and visiting doctors, the SMO replied saying this is an area that needs reform. The salary of a permanent doctor is grossly insufficient by modern standards and there is really no financial incentive for a doctor, permanent or visiting to join the IITB Hospital. A permanent nurse currently gets a salary of Rs.4,500 per month, an amount that wouldn't even suffice to hold a student wing treat (considering our epicurean 'standards'). Two male nurses have been specially employed to attend to the ailing Prof. Tanmay Bhattacharya in the Hospital because the current staff was inadequate. They are currently being paid Rs.30,000 per month, an amount that is being borne by the hospital and the institute together. In comparison, IIT Delhi pays close to Rs.8,000 to its nursing staff. If things are to change, salaries have to increase and some more incentives (campus accommodation, benefits etc.) need to be given to doctors and hostel staff, said the SMO.

Our aim behind this article is not to incriminate any one of the administration, the doctors or lament on the shortcomings of the hospital. Student opinion does need to be taken with a pinch of salt (actually a handful sometimes) but our survey indicates that there are areas that need attention and deserve reform. If this could get the machinery of introspection working which in turn would spin the wheels of change, we'd have considered our effort worthwhile.

Tarun Mathur (2nd year, Mech Engg)
Tushar Kaul (2nd year, Aero Engg)
Kartikeya Shah (2nd year, Chem Engg)
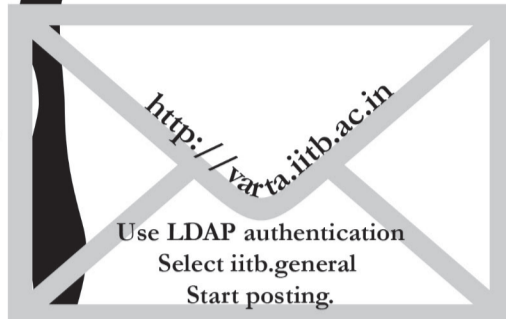Karthik Shekhar (4th year, Chem Engg)

-Srivathsan

Very specifically - iitb.general

Prof. R.K. Shevgaonkar, EE Dept.

A lack of awareness could be a reason for the newgroup's lack of activity. Even quite a few of the faculty are unaware of i.g's existence. A personal opinion is that there are too many postings, most of them having no direct relevance to issues of my interest. I have no time to read them all.

In order to revive i.g, more issues of general interest must be discussed. Very few people are vocal, most of them think there's nothing much to i.g. A wider range of topics must be covered in the newsgroup.

Sensitive issues must be discussed sensibly and inflammatory remarks and personal comments must be avoided. There must be healthy discussions. Also, more postings about the events occurring at IIT must be made such as the talk by the Nobel laureate. iitb.general must become a general news repository.

http://varta.iitb.ac.in

Use LDAP authentication
Select iitb.general
Start posting.

Prasenjit Saha (Nature@iitb.ac.in)

iitb.general is an online helpdesk to know about what's going on in the campus, be it dept. events, hostel events, insti festivals, gymkhana news, the administration's decisions, or even if there's something to buy or sell. The most important part of iitb.general is that we have faculty members who frequently come and share their thoughts. So it's a place of student and faculty conversations where policy discussions happen. Having teachers on the forum is always helpful and encouraging and they are always there to help us at every step.

Timeline

1998 - Introduction of idea of newsgroup(ng) in insti. CSE ng more active.
2000 - iitb.general and iitb.discuss started.
2003-04 - i.g at its peak. 50% students active (reading regularly). 100-200 students actually posting. 10% professors active (10 posting).
2005 - Technical glitches (server crashing, no backups) led to decrease in activity.
2005-06 - lowest activity recorded (no activity for 3 weeks).
2007 - revival because of stable system and increasing awareness. 50% of its peak values.

Kartik Vaddadi

Think abt it! - GB

Most of the time there's nothing of much use or interest on i.g, except in the aftermath of the LAN ban decision. It would have been good if something useful came out of the discussions. Having an open forum is all well and good, but it kind of defeats the purpose when the authorities ignore the discussions and impose their wishes autocratically.

Right now, i.g is more or less an uninfluential forum, where people say whatever they want, and life goes on as usual. It would be good if policy decisions are discussed and modified on the ng, but that requires flexibility from the side of the authorities, which is lacking.

Cycle for sale

03

Raghuvar Nadig

Ideally, the ng should be a forum for discussing anything and everything that relates to the insti. i.g is something that unites IIT as a community. What it suffers from right now is an attitude of indifference among most students. Unless a student finds something relevant to him/her on the ng, his/her frequency of accessing the ng is likely to die down. Also, most topics that float on the ng are such that they end up marked by allegations and criticisms. It would be great to see more casual topics, like reviews and opinions relating to cultural GC events and sports activities in the institute, to come up on the ng.

Lastly, active faculty participation in the ng can help provide insights to students regarding the several issues and concerns. Constructive faculty student exchanges like the "Great Indian Pit Stop" thread go a long way in facilitating thought-provoking discussions regarding several important issues, something which can't be achieved in the confines of a classroom.

Great Indian Pit Stop

Prof. G. Sivakumar, CSE Dept.

Many faculty members believe that this is the best way of interaction. But newsgroups tend to become "herds of elephants with diarrhoea". Misuse of freedom of expression by some and technical glitches together saw the ng losing activity but it is nice to see it picking up again. Incentives such as acknowledging top 10 quality postings, most humourous and most interesting postings would go a long way. I am not in favour of censorship within the limits of the law of the land. Non-punitive peer pressure and limit on number of postings would serve the purpose perfectly well. Breadth of topics should increase and postings of a lighter nature should also increase.

Shortest route to Bandstand

Siddarth Madhav
Vivek Upadhyay

Wallet Lost. Treat assured!

On your marks, get set... are we set?

Aaditya Ramdas, Abhinav Mohan and Asger Ali report on the planned upgradation of the institute's sports facilities for Inter IIT 2007.

The coming academic year will mark IIT Bombay's Golden Jubilee. Hopefully, the institute will have a new, improved look during this December's much awaited Inter-IIT Sports Meet to be held in Bombay. We spoke to Mr. S.S. Yadav (SAC-in-charge) and Mr. B.B. Appaji (member of the 'New SAC building committee') about the imminent changes in the sports infrastructure over the next few months. A brief summary of these follows.

Floodlights on the Gymkhana Grounds
With a 'brighter' future in mind, 8 huge towering lights will be coming up on the main field: 2 at the corners of the hockey field, 2 between the athletics and hockey fields (facing both ways), 2 between the football and athletics fields (again, facing both ways) and 2 at the corners of the football field. There is a possibility that 2 more may come up on opposite sides of the cricket ground (above the badminton court and directly opposite that). These will ensure that all teams can practice at night. Athletics events may be held at night as well; and maybe (if the proposal is accepted) even matches will be staged at night, after upgrading the power and focus of these lights.

Ground levelling
Bumps, ditches and uneven patches on the grounds shall soon be a thing of the past. 250 (yes, two hundred and fifty!) trucks of red mud have been ordered for the re-levelling of the grounds, which need to be lifted by 2 inches in some areas to almost a foot in others. This will cost about Rs.14 lakh. A few more lakh rupees will be pumped into the construction of 2 new bore wells for an improved ground watering system.

Renovation of Courts
The tennis facilities are set to undergo a massive facelift. The 3 existing tennis courts are being converted into synthetic courts. Additionally, 3 more synthetic tennis courts will be constructed at the present location of the clay courts, giving a grand total of 6 courts! Though this will please a few people, with it costing a whopping 45 lakh rupees, one wonders about the motivation behind such a move.

One move that will definitely please most people is the decision to destroy the concrete basketball courts and replace them with synthetic courts, something that only such a big event could inspire. Even the badminton court is being resurfaced at present. However, the fact that we will have only one badminton court for the entire tournament is extremely disappointing, especially considering the fact that even the 'minnows' had 3 this year. It is also highly likely that we will have turf pitches for cricket.

The TT room, volleyball court, weightlifting room and the smashing new squash courts are supposedly not going to change too much as they are already pretty satisfactory.

Apart from these, extensive seating arrangements (which are presently minimal) are being constructed for almost all sports. New stands are to come up near the basketball courts, hockey and football fields, on both sides of the volley courts, and near the baddy court for athletics and cricket.

A question of too much money?
Ignoring the message of Robert Frost's 'Mending Wall', a proposal has been passed to construct a permanent *wall* and *fencing* all around the SAC complex and the Gymkhana grounds. This will have just 1 or 2 main entrances and 1 or 2 side entrances which will be opened only during Inter-IIT match timings. The supposed reasons for this are "for security purposes and to ensure that the fields aren't used as a public park by visitors in the evenings". All this for a mind-boggling 39 lakh rupees!

At the same time, one still wonders about the need for certain other facilities like change rooms, lavatories, drinking water and first aid facilities. Things will hopefully start falling into place once the major work is done. All in all, the next one year seems to be a dream come true for sports enthusiasts. With the new facilities only months away, one also hopes that we will manage to shed the title of runner's up (one we've been carrying for 4 years!) next year.

The 15 crore new SAC complex

A lot of you must have heard rumours that a new SAC complex with several smashing facilities is going to come up near the present SAC for Inter-IIT. This complex which costs an estimated 15.78 crore rupees will definitely bowl you over, but unfortunately not before next summer (2008).

The new complex will include 2 swimming pools - an Olympic-size one (50m*20m) and a baby pool (20m*10m). The present swimming pool shall then be discarded. The indoor complex will be next to these pools, and have 4 main entrances. The highlight of the plan is the construction of 4 new badminton courts. These courts will have wooden flooring that can be covered by three different surfaces (which can be rolled onto the floor) - one for badminton, and two more for indoor basketball and volleyball courts. These can be used as and when required, though the primary use of the complex will be for badminton. Decent lighting and seating arrangements obviously come with the package.

Weapons of Mass Discouragement

Eeshan Malhotra and Siddhartha Das passionately argue the case for a Freshie GC.

All work and no play makes Jack a dull boy. And this year, one could spot quite an abundance of dull Jacks amongst the freshies. Why? Because freshies were denied a GC of their own, and also managed to be excluded from the main GC (apart from being cheerleaders of course).
Tabloids report, "The GC is not its usual self".

Until 2003-04, freshies had a GC of their own. Events ranging from dramatics to sports raged on for weeks, and the winners were rewarded with shining trophies. Freshies could also take part in the Main GC. The Freshie GC in 2004-05 started with a few sporting events, but got scrapped before the cult events could even take off. Nevertheless, the Main GC was open for freshies. Moreover, they were compensated with a Sophie GC (in their sophomore year, of course). The freshies of 2005-06 saw only a glimpse of the action - a 'Freshie Weekend'. Comparatively fewer events were held, and events that would have spanned several days had to be snipped. The then freshies were mildly disappointed with the change. This year's complete extermination of the Freshie GC has met with unvoiced disapproval.

So, why are the enthusiastic Jacks (not to forget the equally eager Jills) being discouraged? When contacted, the GS Cult Sai Krishna had this to say, "The Dean does not want freshies to have any interaction with seniors, where there exists even the slightest chance of a freshie being ragged. Hence they are allowed only in Open/Club events. Ragging needs to be prevented at all costs. Even a single untoward incident is enough to ruin the current scenario." But is this cost justified?

Almost every freshie aspires to represent his hostel, and discouragement right in the first year is sure to dampen his zeal. Apart from this, it also cuts out an avenue for freshies to display their talent. Consequentially, they end up being rather dormant in their sophomore year also.
Tabloids go, "Tut-tut".

To help talented and enthusiastic freshies showcase their talents in the Main GC, they are at present only allowed to participate as non-competitive entries. However, this is just like running beside the race-track. Freshies are not rewarded for their proficiency even if they are amongst the 'winners'.

But then, the year hasn't been totally forlorn for freshies either. There was Unmaad, the fest at IIM Bangalore, the contingent for which included a considerable number of freshies. And of course, freshie teams did get a chance to participate in a couple of sports like basketball and cricket, though not representing their respective hostels but the entire freshie batch. And did they make the most of it; both the freshie basketball and cricket teams surprisingly (for the seniors only, of course) managed to make it to as far as the semi-finals of the tournament. Not bad for a group of ragging-liable newbies.
Tabloids rage, "Freshies Create Stir. Seniors Shaken".

So the freshies possess a good deal of talent, and an enormous amount of enthusiasm. Shouldn't they be given an opportunity to display their prowess?
Tabloids suggest a Freshie GC. The freshies strongly agree.

(Eeshan and Siddhartha are first year students of the Civil Engg Department.)

Alumni Funding

The Pan-IIT conference held in Mumbai in December, was panned by critics as being high on promises but without any concrete plan of action. Following this, we at InsIghT decided to focus our attention on the IIT Bombay Alumni Association (IITBAA) and see how the alumni of the institute are now giving back to their alma mater.

The IITBAA is a non-profitable organisation which was set up so that the passed out students could continue their pleasant association with the institute. The Alumni Office and the Dean AIR (Alumni and International Relations) coordinate the activities of the AA. The association looks after certain basic aims of gathering funds for the institute and serves as a link between the widely scattered alumni. To give you an idea of the nature and quantum of contributions from alumni, here are a few.

• Most of the new buildings that have come up in the institute in the last few years have been results of alumni largesse – the School of Management (SJMSOM), the School of IT (KReSIT), the Gulmohar building complex, Hostel 13, etc. to name a few! A few years ago, Rs.20 crore was allocated for the modernisation of the Students' Gymkhana.

• The class of 1981 had their Silver Jubilee in Dec 2006. They have decided to grant scholarships to both first-year and final-year students. Two kinds of scholarships will be granted: Merit-cum-Means scholarship to first-year undergraduate students to help fund their education through IIT, and Entrepreneurial Seed Scholarships to final-year undergraduate students embarking on projects that have the potential of becoming start-up opportunities for a new technology venture. They also plan to establish a loan worth Rs.90 lakh. Aimed at making students independent, the loan has low interest rate and a relaxed time-frame of repayment.

• The previous year, the class of 1980 decided to take up the revitalisation of Powai Lake. More than 150,000 $ has been collected for this purpose. The plan is to restore the lake to its pristine glory and the state it was in 25 years back. The suggested guideline for contribution is that one month's salary be contributed, the rationale behind it being: by their Silver Jubilee, most alumni would have had at least a 20-year working career. Theoretically, if they were to set aside one working day's salary for each of their 20 working years to recognise the contribution an IIT education made to their career, they would have effectively set aside one month's salary.

It is heartening to know that the alumni of the institute are taking an active part in its development into a world class institute. When their plans bear fruition, it will be of great help to the present students, and will go a long way in improving the infrastructure in IIT Bombay.

- Abhinav Dhall and Vikranth Audi

Baloney - by Srivathsan

Bulletin Board

The Biswas Committee Report
A committee comprising 11 faculty members headed by Prof. S. Biswas recently submitted a 23-page report that reviews the current undergraduate curriculum and suggests significant revisions. The review proposes a new undergraduate curriculum that promises to grant more academic flexibility to students and attempts to strike a balance between formalism and industrial orientation in the courses. It also proposes to reduce the total number of credits of the B. Tech program down to 250 amounting to a recommended load of four theory courses and two laboratories a semester. Students will also have an option of obtaining a 'minor' by undertaking 30 credits of course work in a department other than one's own. Further, one may choose to graduate with Honours in one's major area, by earning another 30 credits. The full report is available for reading at http://www.cse.iitb.ac.in/~sb/committee/index.html.

Watch Out!
Of late, roof-repair work has been going on in some of the older hostels (H9, H5 for e.g.). Inmates get up in the mornings to the loud bang of hammers resounding through their rooms, wondering if the roof will hold up. And their fears are not misfounded - on the top floor of the East Wing in H9, large chunks of cement and plaster came down in atleast 3 of the rooms, luckily when there were no occupants. Minor damage was done in many other rooms. Worse, such dangerous work started with no warning - the hostel notice was put up only 3 days later, asking inmates to 'shift their computers to avoid damage'. Repair work (which involves the continuous use of heavy hammers before relaying the whole roof, to prevent seepage of water in the next monsoons) is not supposed to start until the inmate has vacated his room temporarily. However this was just supposed to be implicitly understood through the above notice, with no explicit communication from the concerned institute authorities or hostel council.

PG Sports
The current academic year has been witness to an extremely eventful and well-planned sporting calendar for the Post Graduate students in the institute. 'PG Sports', in a matter of two years has seen a pleasant proliferation in participation and enthusiasm. Inter-department tournaments are being organised for Cricket, Athletics, Swimming, Basketball, Volleyball, Football, Table Tennis, Carrom and Chess. The Aerospace Dept is currently in the lead, and is closely followed by the Electrical Engg Dept. The events have been carried out with clockwork schedule - a direct outcome of good coordination among the PG Sports representatives from each department. They even have an extremely well-maintained website that can be accessed through a direct link on the sports webpage http://gymkhana.iitb.ac.in/~sports/. The website maintains a schedule of the events and also constantly updates the results and points tally.

Greatest Concepts

1. Deja Vu (H1-H4-H9-H11 2006 Position [P]-1): Who would have thought that your life and my life are worth making a PAF about, and a great one at that? An extremely sincere effort that artfully captured life in IIT Bombay.

2. Dastak (H3-H6 2005 P-1): Who would believe that an entire PAF can be built on street plays? Hostels 3 & 6 did and gave us a tremendous PAF with a forceful climax.

3. Sarhad (H3-H4 2000 P-2): Do you believe in divide-and-rule? In this one of a kind PAF, Hostels 3 and 4 put a curtain right through the OAT stage, quadrangle and the entire audience. One side was India, the other Pakistan; the sounds, music and voices were the same while the actions were different. It was a brave attempt at a challenging concept. The script was good but fell a little short on intent. However, the co-ordination between the lights, music and actors across the curtain proved to be a much greater challenge, turning one side into a random circus.

4. Locomotivation (H8-H9 1993 P-1): Who would dare to perform an entire PAF on roller skates?! Well, someone did, to tell the tale of locomotives with feelings, and they did it with panache.

Greatest Moments

1. Deja Vu (H4-H9-H11 2006 P-1): "Crackoo yahaan kya kar raha hai." "An interesting case, Narcissist Personality Disorder. Are you fine?" "No I am not fine, but now I know that I am normal." This unexpected chain of events rescues yet another deeply depressed IIT-B soul and enables him to shelve his suicide plans. This was just one of the numerous scenes in this beautiful PAF that struck a chord deep down in our IIT-B hearts.

2. Dastak (H3-H6 2005 P-1): A chaotic procession, gentle rain, sombre red lighting - the perfect setting for a devious murder. This captivating scene portrayed the tragic end of Safdar Hashmi, champion of the working class and compelled the audi-

PAFs: Nights to Remember

Gautam Hazari, Tannishtha Sanyal and Aashish Vishnoi relive some of the greatest PAFs that IIT Bombay has witnessed in the last few years.

ence to give a thought to the principles and causes this brave man gave his life for.

3. Lakshya Graha (H4-H13 2004 P-1): The scene, a railway station. The audience has just witnessed the intriguing events in the recent past of four unrelated persons who find themselves on the platform, eagerly awaiting the arrival of the train. The train arrives. And…BOOOOM!

4. Thespian (H2-H7 2001 P-1): "I... take…your.. SOUL" announced the Phantom of the Opera as he disrupted the lacklustre performance of "The Tragical History of Dr. Faust" by letting fall the huge glass chandelier right in the centre of the stage; then forbade the lead actor from ever again performing the Phantom's favourite roles so insincerely, and left the audience spellbound.

5. Al Qasas (H5-H8 2000 P-1): Screaming "Taara taara ek taara ko maara", a few deadly Kashmiri militants storm into a peaceful household while they are watching the news detailing the terrifying exploits of the same militants (filmed in advance and projected onto a screen in the OAT), and ruthlessly wielding their guns, leave the entire family dead and the audience stunned.

Greatest Bloopers

1.Kasturi (H4-H8-H12 2005): What happens when the music stops in the middle of a choreo and the dancers do not realise? The "children" just continue to play "stardelta" hop-skotch for eternity. What happens when the lead voice-over turns a page too many during the actual PAF? You might just leave an entire choreo troupe waiting in the wings high and dry. What happens when a dhobi realises (at the last moment) that he should carry a bundle of clothes while going on to the stage? He runs in with the clothes to be adorned by dancers in the next scene. (And, we still say choreowaale hamesha hagthe hain!)

2. Aahvaan (H2-H5 2004): What happens when the light-boys forget to turn off the lights after the murder of a cruel British General? You get a dead man walking...off the stage.

3. La Painter De Mort (H2-H3 2003): What happens when you place a halogen spot light too close to a papier-mache sofa? The sofa catches fire. Then you first send a backstage freshie with a jug of water, but to no avail. Next the butler (standing idle throughout the ongoing scene) tries his hand. Then in desperation, you have to

send a convoy of freshies with a bucket, thankfully that does the trick. However, full marks to the performers for having continued through this mishap epitomising the philosophy "The show must go on".

4. Moonstone (H6-H9 1991): What happens when you send a freshie on an errand to collect coins to be dropped during a bare-footed choreo? He gets bottle-caps. And then you have to pause the dance to sweep the Convo stage.

Close Shaves of An Arbit Kind

1. Al Qasas (H5-H8 2000): Hostel 3 has a dog named Big Ears (brown furred, ageing, V-shaped mark on the upper hind leg and of course big ears). Big Ears likes PAFs and played a cameo role in this winning PAF. When the aunty of the household called the children for dinner, Big Ears also charged onto the stage demanding his rightful share.

2. Hairdo is something PAFs rarely concentrate on. **Chanakya** (H2-H9 2000) and **Far From Vietnam** (H3-H9-H12 2004) were revolutionaries in this respect. Chanakya had a complete troupe of gurukul chhaatras with shaved heads and chotis. Far From Vietnam had an entire army with military crew cuts. All of these actors could be singled out on campus for the next two weeks.

Great Prods

1. Kharashein (H6-H10-H13 2006 P-2): A true to life set that transported us to a crowded three-storeyed chawl in central Bombay.
2. Kasturi (H4-H8 2005): An aesthetically appealing set depicting a Himalayan cave temple.
3. Shanti Mrigyam (H5-H6 2003 P-1): A giant skull on the main stage that mimed, felt and even bled along with its owner, the devious minister.
4. La Isla dela Musica, La Isla del Amor (H2-H10 2002 P-2): Numerous innovations like a damsel emerging from a mirror, a huge pirate ship and a magical war between wizards.
5. Avshesh (H8-H9 2002 P-1): A panoramic portrayal of an ancient civilization replete with a beautiful waterfall.

Visual Computing

Who: Led by Prof. Sharat Chandran of the CSE Dept.

Technically speaking: Visual computing is the most natural form of data recognition. About 20-33% of our brain is used in image analysis! Hence there is at present a frantic race to enable a computer to recognise human faces. Identifying faces and voices is what the project currently aims to achieve. This project marks the beginning of a quantum leap - image analysis from 2D to 3D, which in turn implies a better understanding of motion. Visual computing could have some serious implications in the future. It would make the work of a sports analyst much easier. Not to mention, the life of a sportsman - no more would the need arise for irritating electrodes to be sunk into one's system. Another exciting application is the self-rectification of a 'projector camera' which can rectify the geometrical defect or disorientation of the projected image due to a discontinuous surface like a corner of a room (this makes a rectangular image into a pentagon!). This in turn maximises the audience's field of vision.

Research@IITB: Alive & Kicking

Arunabh Sinha, Devasheesh Mathur and Rutika Mucchala give you three reasons to be excited about the research activities of the institute.

Translates into: Hrithik Roshan can perform bharatnatyam without having to actually master the dance form. Visual imaging is all he will need. Imagine a classroom with smart computers having visual imaging software. Proxies would become a distant memory.

Mini Aerial Vehicle (MAV)

Who: An interdisciplinary project involving faculty members from the Aerospace and Mechanical Engg Depts.

Technically speaking: MAVs come in different shapes and sizes, weigh between 0.8-5 kgs and have rectangular or circular wings with a wingspan of 0.6-1.5 m. The distinguishing feature of an MAV is its ability to manoeuvre on its own once programmed to do so. An MAV assisted aerial survey is good enough to study the various characteristics of a given terrain and predict solutions to the problems plaguing that terrain. Almost no infrastructure is re-

quired to operate it, except a trained operator or two. Also, the cost of establishment and monitoring is quite low. If all goes well, the Aerospace Dept plans to unveil the MAV at the 1st US-Asian Demonstration and Assessment of Micro Aerial and Unmanned Ground Vehicle Technology to be held at Agra in March, 2008.

Translates into: A quick MAV assisted aerial survey will be good enough to assess the damage wreaked by a tsunami and locate possible survivors. Not only that, it will also be a boon for hapless travellers stranded on Mumbai's congested roads. An MAV could continuously monitor and communicate details of busy roads and traffic jams.

Centrifuge Machine

Who: Led by Prof. B.V.S. Viswanadham of the Civil Engg Dept.

Technically speaking: Centrifuge machines such as those used by this group are

often in the shape of beam balances and can be of various sizes, with the diameter of the beam varying from 4 m to 9.1 m. They offer immense help in the parametric study of numerical models. This eliminates the need to construct every model at full scale for testing purposes. Models of railway tracks can easily be built on a small scale and tested to ensure safety measures. In fact, projects such as stabilisation of slopes are already underway. A new field of study called Centrifuge Aided Learning (CAL) is being developed at a few places in the world, IIT-B being one of them. The machine itself, christened "Sudarshan", was fully developed in IIT-B and became operational in 2002.

Translates into: Every day, we hear about hundreds of lives being lost in landslides or railway accidents due to tracks collapsing during the monsoons. Now imagine that we had the power to prevent these accidents, which till late seemed to be controlled only by nature. This is where the centrifuge machine comes in. With the capacity to simulate exactly the same behaviour in a much smaller model, we can accurately test what will happen in field conditions.

TECHFEST 2007, A LOOKBACK.

Raging rumbling robos
Chasing crashing cars
Miniscule mechanical mice
Plates with prolific price
Singapore slap, Nash nap
Tempting, turgid

Asia's largest campus technology festival appeared in its tenth edition this year. With rumours of a mind-boggling budget, a good publicity campaign and the association of some big names, Techfest 2007 was expected to break all previous records in terms of participation, attendance and a general sense of success. Rahul Dash and Ashish Goel find out what transpired next.

Technoholix

"Gets you high, then a push.."

With so much hype surrounding the massive budget of Techfest this year, Technoholix was an utter disappointment, with the second night of "Feeding the fish" being the only saving grace. Apart from that, the main attractions at Technoholix were very disappointing with a loud and unimaginative 'Robowars' on the first night, and a promising 'Sand Animation' that ended prematurely without delivering much. One simply can't comprehend why the organising team decided to get rid of Scitech - the inter-collegiate quiz, an integral part of Techfest for so many years and considered to be a hallmark event in any technology fest, anywhere in the world. Worth a mention here though is the impressive 'Virtual Reality (VR) Park', that was a nice side-attraction after the Technoholix shows in SAC.

Rating: 2/5

Ozone

"Adding an extra 'element' to an otherwise mundane molecule..err..module"

Building up on the notion of a 'hub', started in Techfest 2004, 'Ozone' was the place to be, for the non-participating visitors at Techfest this year. In response to criticism for not having enough informal, on-the-spot events, Ozone this year rolled out a plethora of events. The Animation workshop, Forensics talk, Rubik's cube solving workshop, Hacking/Reversing workshop, Ornithopter talk, were all very well received. The informal quizzes also tried to fill the void created by the absence of Scitech. And all this was capped by the immensely successful technical-version of The Amazing Race (based on the television series on AXN), where the participants had to perform interesting little tasks like assembling a bicycle wheel, making a ladder to climb over a wall, and so on.

Rating: 4.5/5

What was new?

1) The design of several department specific problem statements like Vapours, Airborne, Route 0, Power Oxide etc. certainly gave a fillip for many to participate, especially the post graduate students. (But did they?)

2) The Techfest team, this year, decided to hold Nexus as a build up cum qualification round for Void. This not only increased awareness about Techfest in the colleges of Nagpur and Bhopal but also ensured that the participants prepared well in advance, avoiding the last minute rush job that is characteristic of most IITians. (And this time they didn't? Ha.)

3) The Panel debate with a focus on the role of IITians in shaping the future of India was televised on CNBC. (Yes, we are famous.)

4) The astonishing display of cutting edge image processing in the form of 'Illusions', certainly had everyone bedazzled as they went about playing volleyball with their shadows. (The illusion was for real)

5) The concept of a drop test to ensure that participants make proper machines following proper engineering practices was well received. (Let's see if your machine breaks. Right.)

Lecture Series and Exhibitions

"Thus, be it understood, to watch a theorem being demonstrated, it is neither necessary nor even advantageous to know what it means."

The lecture series was a mixed bag this year. The video conference with Dr Netravali (or rather audio conference, as that was what it turned out to be because of repeated failure of the video connection) was a general talk on the "Future of Digital Communication" which most people found uninspiring. Even John Nash's lecture didn't seem to reach any sort of 'equilibrium' with the audience. People had mostly gathered to catch a glimpse of the man who has been made popular by 'A Beautiful Mind', and a lighter, more general lecture would have been better suited for an audience with obviously very little knowledge of the nuances of Game Theory.

The panel debate (on 'The Responsibility of Being an IITian'), however, was well received and it certainly was a novel idea, with CNBC covering it and ex-IITian luminaries from varied professional backgrounds being on the panel. Prof. Kevin Warwick's enthralling lecture on the last day was the highlight of Techfest 2007 (covered in an article on Pg 8).

The Royal Society-IITB Research joint exhibitions also received favourable reviews, with the sprawling 'Pterodactyl' model overhead being the central attraction. It was especially heartening to see the IITB research exhibits holding their own alongside the Royal Society exhibits and in some cases, even outshining them. The quality of research in IIT-B is not known to many students in the institute and this exhibition was certainly an eye-opener.

Rating: 3.5/5

Competitions

"The number of people watching an event is directly proportional to the number of t-shirts being thrown at them."

This was certainly one of the biggest success stories of Techfest 2007. With novel problem statements catering to creative minds of all aptitudes, most of the competitions saw better participation levels, both in terms of numbers and quality of entries. For instance, at Techfest '06, the event 'Full Throttle', saw most participants struggling to even keep their machines (run by IC engines) from falling off a smooth, flat track. In its new avatar, 'Full Throttle Afterburn' had around 50 machines (out of 90+ in total and all again, run by IC engines) negotiate a curved dirt track in mind-blowing times. Machines were designed meticulously, with attention being paid to things like design and fabrication of the chassis, suspensions and shock absorbers and so on to improve performance.

Be it the sight of people running around the campus carrying an antenna ('Radiosport') or that of structures undergoing the litmus test of surviving earthquakes, it was a treat to witness the competitions at Techfest this year. With the kind of entries that events like SNAP and VOID (bearing similarities to the well known international events MIROSOT and ROBOCON) drew, one is forced to believe that slowly but surely, we are climbing up the ladder of technical excellence.

Rating: 4.5/5

IITB at Techfest

Once again, IIT Bombay succeeded in lifting the overall trophy, winning events like 'Ripples', 'Route Zero' and 'Code Maestros' (events that involved lesser preparation and effort). However, people in the technical circles of the institute were, in general, disappointed with the performance of the teams from the institute, something consistent with the rapidly dwindling participation. An important consideration here is the fact that people from most other institutes are funded and/or given academic incentives for their participation in events at Techfest. On the other hand, students from IIT-B don't get any such incentives for Techfest participation and often this factor becomes a hindrance for them.

Have recent Techfest teams been doing enough to attract participation from the institute? Should the institute give (at least) financial help, given the recent trend of progressively tougher and money-incentive competitions at Techfest? Alternately, is Techfest targeting the wrong group of students by coming up with such competitions? Or has the IITian mindset changed permanently with the advent of LAN, gaming, etc. such that we now only want to be associated with things that give us instant results or satisfaction? One wonders.

MUSIC/DANCE

1. Cabaret et francophone

A musical show by Francophone artists that is sure to enthrall and excite even the most listless and uninitiated observer.
Where: Alliance Française Auditorium
When: Friday, March 16, 18:00 onwards
Contact: Alliance Française, 2203-5993

2. Rock Show

Students Working Against Tobacco (SWAT), a registered NGO run by the students of EMDI, Mumbai are organising a Smoke Free Rock Concert. Bands like Vayu, Medusa, Split, Human Abstract and Tripwire will be performing to aid this social cause.
Where: Andheri Sports Complex
When: Saturday, March 24, 17:00 onwards
Contact: www.emdiworld.com

3. Razzmatazz: the magic of music

A contemporary, identifiable and visually breathtaking evening of exciting songs and dances that promises to be a treat for all music lovers. Performed by Sharon Prabhakar, backed by 8 electrifying dancers, this musical promises to get everyone onto their feet, dancing down the aisles.
Where: Tata Theatre, NCPA, Nariman Point
When: Sunday, March 25, 18:30 onwards

4. Sepultura Concert

The world-famous Brazilian thrash metal band, Sepultura is visiting Mumbai as part of a world tour early next month. Being one of the first international metal acts to perform in India, interest is high. If this has piqued your curiosity and you are planning to attend, here's a piece of advice you might want to consider. Stay as far away as possible from the metal fanatics in the mosh pit!
When: Sunday, April 1

THEATRE

1. One Small Day

A play about two very different people who find themselves together in a room for all the wrong reasons. Sheila, who has led a life sheltered, finds herself thrown into Hari's Bombay of B-grade Bollywood, wannabe starlets and the sleaze that it attracts. Soon, they're both on a journey of twists, turns and surprises. Some more pleasant than the others.
Where: Experimental Theatre, NCPA, Nariman Point
When: Wednesday, March 14 to Sunday, March 18, 19:00 to 20:30
Contact: 2283-3838

2. Annoyance

A very annoying man goes to see two therapists in the hope of becoming less annoying. They underestimate how annoying this new patient can be. In the hope of curing

the city, as it happens

Wondering where to catch your share of entertainment this month? InsIghT presents a collection of the best of Mumbai.

him 'ethically' and in his own pursuit of mental stability, he drives them both over the edge.
Where: Godrej Dance Academy Theatre
When: Saturday, March 17 at 19:00 and Sunday, March 18 at 18:30
Contact: Bombay Theatre Company Production

3. Bali aur Shambhu

Renowned playwright Manav Kaul's third Hindi play is about two characters and their unique spirit towards life. Bali believes in taking life as it comes whereas Shambhu likes to relive the glory of past times. Their respective ideologies therefore clash but after a series of intricate collisions, the two characters become one.
Where: Prithvi Theatre, Juhu
When: Saturday, March 17 at 18:00 and 21:00
Contact: www.MumbaiTheatreGuide.com

MISCELLANEOUS

1. Sports: Horse-racing

Punt, cheer your horse on or just watch the elite social-ite crowd in the stands at the derbies. Great experience, a must see in Mumbai. The best part is that it's dirt cheap!
Where: Mahalakshmi race course, a stone's throw away from the Mahalakshmi station
When: Races happen almost every weekend this month, and occasionally on weekdays.
Contact: Exact dates can be found on the horse racing association website, or just google.

2. College fest: Euphoria

One of the few cultural fests around this time of the year, spanning everything from lit, debating, FA, dram, music and dance.
Where: NMIMS, Vile Parle
When: March 10-16 (yes, a 7-day fest!)

3. Food: Break The Ice

If you thought Mumbai had tried and tasted every foodie concept under the roof, check out Ice Stone Factory, where you can make your own frozen dessert, and watch it being stoned to perfection. This ice cream jugalbandi promises to be the latest rage in a town with a revolutionary approach to frozen desserts.
Where: Ice Stone Factory, B, Jariwala Mansion, 58/60, PS Patkar Marg, Hughes Road
When: Saturday, March 3 to Thursday, March 15
Contact: 2363-3421

4. Film fest: MAMI

Organised by the Mumbai Academy of Moving Images (MAMI), the 8th Mammi International Film Festival Mumbai (IFFM) will pay tribute to Roberto Rossellini, Prithviraj Kapoor and Ismail Merchant.
Where: IMAX, Wadala; YB Chavan Centre, Andheri
When: Friday, March 23 to Friday, March 30

5. Indian Shopping Festival

This one's happening a little later on in the semester, but mark it on your calendars right away; it promises to be a whole lot of fun! The main attraction of the Indian Shopping Festival trade fair would be the participation of hundreds of folk artists and street performers from all over the world. This gathering of performing artists, sculptors, craftsmen, painters and musicians will organise parades and events.
Where: Bandra Kurla Complex
When: Saturday, April 21 to Monday, April 30
Contact: 2673-3125/6

Is there enough room to study?

Nithya Subramanian and Archana Raja probe into certain issues regarding the utility of the institute Library and Study Room to students.

Last month, with the midsems looming large, everyone was burning the midnight oil at a furious pace. We though this the perfect time to find out more about the places of common study the insti has to offer. The innovative IITian finds a plethora of places where he can sweat over his books all night, right from lakeside to the friendly neighbourhood CCD. The Library and Study Room however offer themselves as the most obvious places to go to, the night before the midsems, for that desperately needed swot.

Exam times are when the library is most highly populated. The extension of library closure timings on exam days to 1 AM has been of tremendous utility to many students. The result of a creditable effort on the part of our library staff, this facility is however not being exploited to the fullest. A reason for this is perhaps the library's policy of not allowing non-library books inside. When we informed Mr. Jotwani, the Librarian of this crib, he chose to reply with an analogy. He compared the library to a restaurant, where we aren't allowed to take in food of our own. He wants us to read books that the library houses. Our library holds a staggering amount of material on diverse fields and Mr. Jot-

wani hopes that this policy will encourage students to explore the library's resources better. Such rules are matters of policy decided by the Library board and cannot easily be changed.

Did you know?

There is a general lack of awareness regarding the library among students. Here are a few things you should know:
• We have a UG and PG representative on the Library committee.
• Any professor can recommend books to be bought for the library. If any student feels the necessity for a particular book to be stocked by the liby (for a course or otherwise), he simply has to approach a prof and suggest it.
• There is a book bank for students who are economically or socially backward.
• The library has a world class security system which was installed 5-6 years ago. Magnetic strips are inserted along the ribs of all library books. These strips are demagnetised when the book is issued, against a valid I-Card. The only exit from the library is through an electronic gate. Any attempt to sneak an un-issued book outside immediately sounds a buzzer and alerts the staff.

The fact that the library does not issue books on Sundays and holidays will just remain, well, an issue for some time to come. But at least the library does open every day of the year excepting the 3 national holidays, which is a rare policy elsewhere. It functions with just the bare minimum number of staff required on these days.

Right next to the library is the Study Room. This is where you can bring any book, library's or otherwise, and read it in a reasonably civil and silent manner. Its location is pretty much perfect, what with the Staff Canteen being a stone's throw away. The first thing that hits you though is its size, or rather the lack of it. The next thing that bites you is the mosquito. It can, after pushing the comfort levels to the limit, fit 50 people. A plan for expansion has been in the pipe line, clogged with bureaucratic tangles, for some time now. Once implemented, it will result in the expansion of the Study Room to seat at least 80 to 100 people and the purchase of new furniture.

Inter Hostel GC Tallies

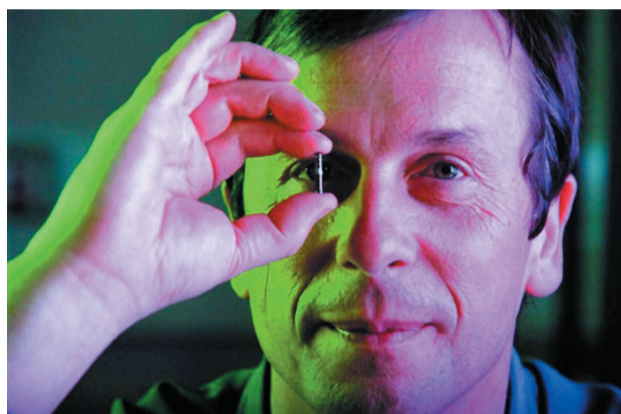| CULT GC							SPORTS GC		
Rank	PFA	Lit	Dram	MaD	Debating		Rank	Hostel	Points
1st	H7 (29)	H4 (49)	H4 (32.5)	H6 (29)	H13 (34.5)		1st	H4	56
2nd	H4 (28)	H13 (37)	H3 (28.5)	H10 (24.66)	H6 (28.5)		2nd	H8	36
3rd	H8 (17)	H8 (27)	H8 (21.5)	H3 (24)	H10 (28.5)		3rd	H2	22
4th	H11 (16)	H7 (25)	H2 (21)	H5 (23)	H7 (27)		4th	H13	20
5th	H6 (15)	H2 (16)	H13 (13.5)	H4 (18.33)	H5 (19.5)		5th	H9	18

Pop Sci

The reason you are able to read this article right now is the small electromagnetic fields measuring around 55 millivolts and currents measuring 5 nanoamperes generated in the immensely complex neural networks of the human brain. With 100 trillion connections in our brain, even the latest Pentium processor with over 50 million transistors stands nowhere in comparison. In fact so complex and yet so efficient is our nervous system, that a branch of modern science is completely dedicated to the use of neural networks as models to either simulate or analyse certain complex phenomena in the universe. Scientists all around the world are still trying to figure out the codes used by neurons to memorise and exchange data.

What is Cybernetics?

Since information in our nervous system is transmitted in the form of electrical impulses, there is a natural connection between the fields of Neuroscience and the Electrical sciences. It leads us to the possibility of being able to modify our consciousness with the manipulation of these electrical signals. Moreover, our thoughts and emotions can be translated into corresponding electrical signals and one can then play around with these electrical signals. Essentially, this is what lies at the heart of the fascinating field of cybernetics.

CYBERNETICS

Norbert Wiener first used the term 'cybernetics' in 1948 to name an inter-disciplinary field, which had influences from electrical engineering, neuroscience and psychology. Initially defined as "the science of control and communication in the animal and the machine", the field now has a wide range of applications from intelligent systems to neural networks and from image processing to even economics. In the modern context, artificial intelligence, human-computer interaction and neural engineering are also considered a part of it. Prof. Kewin Warwick's lecture at Techfest 2007 provided insights into some of the latest research in this field.

When Alessandro Volta experienced a hearing sensation by injecting electric current into his water-filled ear, he would hardly have imagined that 170 years later men would be bold enough to stick ball electrodes in a human brainstem in order to restore hearing in a deaf patient. Prof. Kevin Warwick however, took all this a step further by implanting RF-ID and neural prostheses in his own body. With the help of the neural prostheses, he is able to maintain a two-way connection with his nerves, which not only helps him to control robotic arms from far away but also allows him to send electrical signals into his nerve.

Diverse applications

The most straightforward application of Prof. Warwick's research lies in the field of prosthetics for helping handicapped people and also for treating patients with damages to their nervous system. Significant progress has been made in this direction, not only by Prof. Warwick, but also by many other pioneers in the field.

Another fascinating possibility this research leads us to is the notion of telepathy, the paranormal and extrasensory acquisition of thoughts and feelings of another person. The existence and possibility of telepathy in the quantum domain has been experimentally proven by a number of research groups across the world. For physicists, telepathy is just a question of quantum entanglement in the absence of any classical mechanisms such as electromagnetic radiation. The advances of Prof. Warwick in this direction are however of a more tangible nature and come under the category of 'techlepathy' or technology assisted telepathy. By implanting a simpler electrode array in his wife's body, he was partially successful in creating some form of telepathy as he managed to transfer signals to his wife from afar with the help of the internet. One really can't help imagining the weird and counterintuitive possibilities this technology could empower us with in the future.

A philosophical angle

If we relegate our thoughts, drives and emotions to the status of mere electrical signals, then how do we distinguish man from a machine that is controlled internally or externally by means of such signals? Does this mean that machines can have their own conscience? In today's context, all this is no longer mere science fiction. Be it in the form of Robocop or the Terminator, all these depictions of a 'cyborg' force us to ponder over the extent to which you can replace a human being with a machine and still preserve his/her 'humanity'. Perhaps, the question of whether a computer can think is no more sensible than the question of whether a submarine can swim.

- Ashish Goel and Parasvil Patel

The Future of Cybernetics

Take a minute and let your imagination run wild on the possible implications of this technology. In a world of cybernetics, you could:

• Keep a continuous track of the whereabouts and activities of your boy/girl-friend by using GPS-trackable implants. In fact, Prof. Warwick was planning to implant a tracking device in an 11-year old girl as an anti-abduction measure following the Soham murders.

• Download any new information directly to the brain in a matter of few seconds, Matrix style. This would also eliminate the need to attend lectures (Prof. Warwick's suggestion).

• Communicate with people in your surroundings without actually talking to them (exams, remember?!).

• Switch on fans and tube lights by just thinking about switching them on. Good ol' switchboards might well become obsolete in the not too distant future.

• Live in virtual worlds, and transgress all physical boundaries to live in the world of your liking.

• See in the UV and IR regions of the electromagnetic spectrum (through retinal implants) and hear in the ultrasonic domain (through cochlear implants).

8

InsIghT team

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Naughts and Crosses

There are 'n' crosses and 'm' naughts on a game board. Your opponent and you take turns removing two shapes of your choice, and replacing them with a new shape according to the rule: if the shapes are identical, add a naught; otherwise, add a cross. When only one shape remains, you win if it's a naught, and lose if it's a cross.
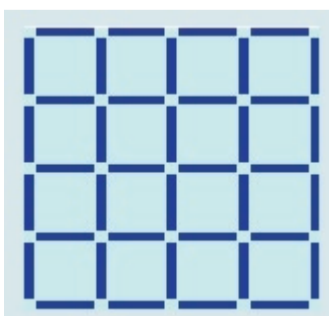
Is there a winning strategy in this game? If yes, what is it?

Two obtuse angles

Let AB and BC represent two adjacent sides of square ABCD. If P is a randomly selected point inside the square, and segments PA, PB, and PC are drawn, what is the probability that angle APB and angle BPC are both obtuse?

Questech

Squareless

In the grid given above, delete 9 line segments so that no squares of any size (1x1, 2x2, 3x3 or 4x4) remain.

Six hundred coins

I have created six hundred coins. I tell you that each is red on one side, but may be red or blue on the other side. I flip each coin, and show you the resulting colors. You count 400 red and 200 blue. What is your best estimate of the number of coins that are red on both sides?

I flip all the same coins again, and you count 350 red and 250 blue. How should you modify your estimate?

Please mail your suggestions, cribs and/or solutions to onkardalal@iitb.ac.in and/or shweta@iitb.ac.in (Please mail with topic as Questech). You may also drop your solutions with theTech Secy of your hostel. Please mention your e-mail ID and the time and date of completing the solution on the handwritten solutions. The early bird gets a treat at Coffee Shack :)