



Illustration by Roma Singh, IDC



Illustration by Piyush Udai

Areca catechu

You'll be hard put to find a tree more slender, or one with sparser foliage, than this one. Growing to a height of 30 metres without a single branch put out along the way, on top it sports just a small canopy of fronds, giving it the appearance of a comically tall and quite ineffective sun umbrella. The nut of the tree is amongst the most widely chewed in the country, either as a prime ingredient of an after-dinner paan or on its own as a mild stimulant ... we're talking, of course, of the supari, or the betel-nut tree. Since it belongs to the palm family, its distribution is mainly coastal and peri-coastal, and when cultivated in orchards its slim, tall, bare trunks make an arresting sight, like an array of columns propping up the roof of some gigantic hall. Like other palms, it is put to diverse uses: the wood, harder than it appears to be, is good for small artifacts and the fronds are good for thatching. On campus there are several to be seen, including a small row of them in various stages of growth just by the Main Building, in the corner of the lawn fronting the PC Saxena Auditorium (our erstwhile "LT").

PERSPECTIVES

Knifing the Silence

■ Introduction by BHAVINI PANT, Campus Resident

In our current educational scenario, the lines delineating students and teachers are blurring. They wear a variety of hats as they go about living life, donning roles which aren't always defined. Students

Emotional direction has radically changed ways. What students and teacher offer each other here has been affected by the fact that we are mentally, culturally and even genetically world apart from our ancestors

who come to IIT have had multiple exposures, inspiring protean expectations from the institute and its faculty. Meanwhile, the faculty, too has undergone several evolutions. They have witnessed and often participated in different learning cultures and practises around the world, and have distilled them for the atmosphere here. They have seen the extent to which teaching and learning can interchange and pervade spaces beyond the classroom.

A case in point is Teaching Assistants. The roles are reversed for students, who "go over to the other side", but also for professors – the equation they have with students in this scenario undergoes a slight shift.

In the same breath, hierarchies positioning students and teachers remain as inflexible and static as ever. There may not be a blackboard and chalk anymore, but the teacher stands and speaks and the student sits and receives. The divisions, with time, seem to be growing stronger and deeper as both groups enter into a relationship with each other. Yet they remain enclosed within their predefined worlds.

Traditional education in our country was based on the gurukul system, in which students and teachers lived in close proximity and learned the lessons of life from

(contd. overleaf)

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PERSPECTIVES

Knifing the Silence (continued from page 1)

a scientific, physical, spiritual and emotional perspective. IIT is also a residential insitute of learning – does it resonate with the same spirit?

Looking at the process of imparting and receiving knowledge critically, this aspect is often fulfilled in the institute, often not. Not all classes vibrate with the exchange of high-quality education, something which both students and faculty acknowledge. Comparing this to the gurukul scenario, students and teachers often spent years in the same physical space together learning concepts, which were then internalised with practical exposures in daily life. IIT has similar means and opportunities of gurukuls. We live on this campus; we have, literally, the space to explore different frontiers of knowledge and directions that it can flow in, from teacher to student to teacher, and so forth. Despite the similarities, has the rich physical experience of learning prevalent in gurukuls translated itself to our current context of IIT?

Emotionally, the shishya in a gurukul surrendered himself completely to his guru. He wanted to learn everything he could possibly extract from his guru – an almost godlike figure. Thousands of years later, this emotional direction has radically changed ways. What students and teachers offer each other here has been affected by the fact that we are mentally, socially, economically, culturally and even genetically, worlds apart from our ancestors. The larger picture for both sides is different and seems to be independent, yet dependent on the relationship that both share.

Students and professors both seem to have pre-articulated their goals in their minds, which creates boundaries not just in the extent to which they would want to develop a relation with each other, but also how they choose to give and receive knowledge. In a gurukul, the concept of becoming a ‘graduate’ had an almost spiritual significance: one awoke to the truth. In our time, most students and professors seem to have clear answers to why they are here, what they are

doing and what they need to do in the future. With most of their fundamental questions answered, has this changed the fabric of the philosophy guiding the learning and teaching experience at IIT?

We spoke to professors and students about their interactions with each other. Although we began these discussions with pre-existing notions in mind, their perspectives made us reflect on them again. IITB is a class apart not just because it is considered to be one of the best engineering institutes in the country, but also because there is something strikingly unconventional about the air here. In a place where most endeavours, academic or otherwise are motivated by a fusion of passion and intellect, there had to be something bohemian and unique in the interactions within the academic community here. However, both sides agreed that interactions between faculty and students were not as plentiful or satisfactory as they hoped. Intriguingly, each presented different rationales for this. How were their stories different? ■

STUDENT SPEAK

Grim-looking Gurus

■ HARISHCHANDRA RAMADAS, Fourth Year Undergraduate, Engineering Physics Department



Illustration by Rajarshi Ray, IDC

Traditional Hindu education was based on the concept that the guru is high up on a pedestal, to be equated with god. (‘Guru sakshat parabrahma’) This hierarchy meant that a student was on a much lower level than the teacher. Unfortunately, this culture has pervaded our entire education system, hindering the process of interaction between students and professors. It works beautifully if the flow of information is in one direction: from guru to shishya. But we have now awakened to the fact that we can’t be passive learners; we need to be skeptical, ask questions, search for alternatives, etc. This is why the education system of our ancestors does not suit us any longer, and needs to be changed. Any flow of ideas cannot be possible unless both parties acknowledge each other as equals.

It is hard for students to approach faculty if they give an impression being stiff and harsh. When I say impressions, I am drawing upon the initial interactions which have happened in class. Many times, a professor will appear to be strict, he or she will not smile at all even if there is no palpable reason behind his grim expression. This does not go very far in endearing that professor to his or her students.

There is a belief that Student Feedback also reflects the levels of student-professor interaction. The perception is that if a professor teaches well, he or she is sure to get good grades in the feedback form. But this is flawed. Too many times if students in a course encounter a professor who teaches well but is a harsh grader, they will give him or her low grades. I am not sure how many professors (or students) take Student Feedback seriously, but it is possible that this bias may be reflected in their decision to interact with such a professor too. ■

Insulated Islands

■ JAYA JOSHI



Just like there are Dilliwallahs and Bombaywallahs, we are Campuswallahs. We have our typical ways that unite us and make us stand apart from the rest of the world. While we see the same patterns reproduced in all levels of this cosmos, we also have a diverse range of microcosms. Within these unifying repetitions that create a larger social body of the campus there are also complex demographics, languages, food habits and sub-cultures of different campus communities that co-exist, functioning in their own little insulated islands.

In this issue of Raintree, we have tried to get nosy. We have tried to take communications between unlike minds to a different level. In a bid to engage islands of students, staff, professors and their families, we wanted to chart dialogues that generate cross-connections between them. How successful

were we? Well, I'll let the numbers speak. Never before have we had an issue that is dominated by 10 Opinion pieces, some mild and some rather strong. So dear Readers, be warned, this issue of Raintree is opinionated! Of course do remember that Raintree has provided a platform and the views expressed are those of the authors'.

On the one hand, there's a well-worded opinion from Bhakti Joshi, a Research Scholar on the divide between a PG and a UG and on the other hand there's a wordless, yet equally expressive opinion on the same topic illustrated through cartoons by Akvil Sakhare, an undergraduate student. The gender divide is close to many. Isn't it? We have two opinion pieces on this subject – one from a fresher and the other from a campus resident. We also have some more takes on regional divides and student and TA (Teaching Assistant) crossover in a light-hearted manner.

While I'm happy to present so many different voices, especially from the student community, I would've been happier if we could've also included some self-expressed opinions from faculty and staff. The Lead Perspective deals with the interactions or lack of them between faculty and students through a montage of their voices. While working on this, we tried (and tried very hard) to revive the vanishing art of conversations, but that just did not materialise. Eventually we got these two groups to talk on the same topic, just not to each other. I wish they had. Anyway, I'm hoping, after reading this, it will lead to one or two or three...

One thing about a publicist's job is that you can't be excluded. Everybody else's business can be your business. I've been doing this for 13 years now so that should make me offensively inquisitive and curious. So far, I've been okay with that role, because it gave

me a silent right to start conversations (sometimes difficult) or break barriers with great ease. But strangely in my 2.5 years in this place, I still feel I haven't been as nosy as I am capable of getting. I think it's time to re-look at my own interactions.

This issue is also special, because it features some extremely opinionated letters. This is what we at Raintree have always wanted. 8 issues ago, the magazine started out as an alternative space to reflect varied viewpoints. While its multiple usages still remains most favoured by its subscribers (don't miss the backpage comic strip by Rajarshi Ray of IDC), it has grown in its popularity for its edgy themes. We have always wanted to create an environment that encourages and nurtures ideas and opinions and we are happy to see that happening through some penetrating mails I get on pro@iitb.ac.in or letters by post. Please keep them streaming in.

I know we're late in coming out with this issue, but weren't the last two months just overwhelming with activities and submissions? Most of our team of editors and illustrators were unavailable, hence the delay. But here we are and on behalf of the team, I'm proud to present this 9th issue, which I personally think is one of our best. The illustrations are top-class and are only getting better. Let me know what you think. We will, however, miss our regular graphic page (not sure what it was) 'The Upside of Down' by Sweetie Ahluwalia, who has taken a break from us (temporary hopefully) 'to get a life'. We really hope Sweetie gets one and returns to us soon. In the mean time, Prof. Happy Ahluwalia has gently stepped in to fill-in the void. In this issue we present his pointed remarks on walking.

That's it...Happy New Year! ■

NEWS

To the Croc who Couldn't Make it to the Campus...

Raintree has won the Association of Commonwealth Universities' (ACU) PR, Marketing and Communications Awards, 2010 in the Corporate Publications category. The award was announced at a special gala dinner of the ACU conference held in November 2010 at Melbourne. We're not boasting but just to let you know, Raintree competed with 81 entries received from 43 universities in 15 countries.

Judge's Comment: *This is an extremely well thought out publication, from the research undertaken before the launch, to its lifestyle format – I like the idea of the window for 'looking in' and 'looking out' and the alternative space concept. It is indicative of a confident and purposeful institution and one willing to take risks and, potentially, receive criticism. It is well written, even if some articles are rather long, but has a variety of visual approaches, including good graphics, some good photographs and good captioning. Not many universities are willing to go down this route – it is a great strength of this entry.*

I am also impressed Raintree fits into a 'bouquet' of communication material and the way the magazine fits into an overall revamp of all marketing material. ■



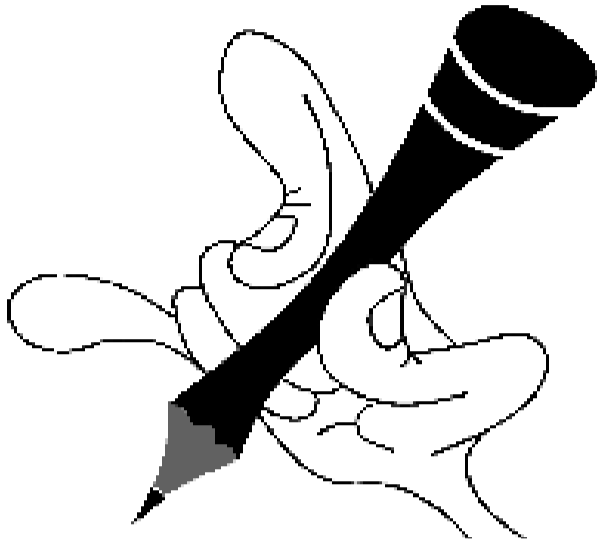
▲ This is the actual trophy but we couldn't bring it to the campus as the Australian Airport Authority has strange rules that don't allow wild animals to travel by economy



◀ So ACU replaced it with this... oh well...

INBOX

Letters to the Editor



Your articles in the latest issue of Raintree make a very interesting read. May I compliment you on having turned the spotlight on the unorganised sector in our campus.

M.V. Hariharan, Retd. Professor

Thanks for putting me on your mailing list. I'm a bit old fashioned and prefer the paper copy to the email version. Not only do I read it, I pass it on to a colleague's wife who reads a lot (on asking her if she would like me to pass on Raintree to her after I am done, she gave an emphatic yes).

It was a delightful issue... as have been all the earlier issues. Please do keep it up. You can also think of doing an investigative story on corporates involving their employees in CSR activities. For example an unbiased article on VIDYA Mumbai (earlier inside the IITB campus, but now working outside the campus). I believe that this organisation, with funding from Capita/Prudential, HSBC, etc., and volunteers as well as IITB students, has done some good for the less privileged.

Prof. Santosh K. Gupta, Department of Chemical Engineering, IIT Kanpur

This has been the most interesting edition of Raintree. I look forward to seeing a sequel.

Dr. Soumyajit Mukherjee, Department of Earth Sciences

Thanks for putting an issue like this together. The stories were inspiring and touching. All the best!
Prof. Krithi Ramamritham, CSE

Apropos the article of Ms. Joshi 'Impermanence Inspires' covering the noble service rendered by impermanent myriads within the campus. The effort is stupendous and praiseworthy. This article made me think after having worked for more than four decades as a permanent zest, I still remain an "Otherlander" with huge invisibility and transience among the institute's other workers.

The editor believes in impermanence. Her philosophy of travelling and not staying put at one place may be right. However, I have the satisfaction of assisting more than 550 PhD, M.Tech and B.Tech scholars in the field of Fluid Mechanics during the last four decades - satisfaction of imputing something good while permanent - satisfaction of ruminating many memorable days.

S. Prakash, Mechanical Engineering Department

I enjoy reading stories about campus life in Raintree. The magazine is more down to earth and humane than the old campus diary. This month's edition is somewhat different and interesting but paints the picture of a small circle: the milkman that Bhavini Pant knows, a maid who works at Damayanti Bhattacharya's house etc. Yes, there are stories about the Guesthouse workers and others, but they are paid for the work they do, and they do not have to work as in the private hospitality business.

I, however, have this real life story to share with you. I am doing M. Tech from Computer Science and Engineering, my father works at IIT Bombay, as an Attendant. Regardless of the hardships my father faced in his initial years at the institute, he did not give up.

I did my engineering from a Mumbai University college. In my third year of engineering I cracked GATE. It was my dream to study at IIT Bombay, where I was born and brought up. It was my parents who motivated us to educate ourselves, my mom did baby-sitting, tailoring to support the expenses of education. He educated my sister (who is doing M.Sc in a college here) and me. We both studied in K.V. IIT, Powai. Living a

life in Mumbai can be really expensive, right from food to the clothing.

My parents motivated me to study further, even after I got a job offer from Infosys in my third year. My family comes from a very humble background. To educate my sister and me, they had to make tremendous sacrifices. Other people, when they talk to me, tell me that I have done a good job. But my journey is not over yet. I have miles to go before I sleep.

Swapnil Jadhav, Graduate student, Computer Science and Engineering

I really liked the interview of Prof. Dipan Ghosh from the Department of Physics that appeared in the May-June-July 2010 issue of Raintree. It was a pleasure to read some of his comments particularly those on the contributions made by the campus residents to its ecology. The question, however, is if the institute has been able to adequately recognise and reciprocate these efforts made.

His honesty and modesty at admitting his regret for not being able to persuade the Board to extend the post-retirement medical facilities to those who retired prior to 2003 was deeply heartening. The imposition of a cut off date of 30.6.2003 for PRMS was a major shock for the majority of the retired community of 1980 employees which must have dwindled by now, who were rendered ineligible by this cut-off date excepting a few. A report on the Medical Benefit Scheme for retired employees of IIT Bombay was submitted to the Association of the Retired Employees IIT Bombay in 1996.

Recent media reports on 'IITB Alumni launching the Health Care Plan for the retired faculty' and 'graduating batch giving 1% of their salary back to IITB' have been positive and encouraging. But what about the remaining retired employees in the administrative, technical and non-technical staff who equally contributed enormously during the last 50 years?

The Association has not lost hope and believes there is a silver lining to every dark cloud.

Shri A. K. Dharap, Association of Retired Employees of IIT Bombay

STUDENT SPEAK

When Giving Means Receiving

■ **MAYUR SRINIVASAN** Fourth Year Undergraduate, Mechanical Engineering Department



In the scenario that Harish has mentioned, of a teacher being on a pedestal, I believe the onus to begin any interaction lies on the professor. As a figure of authority it is easier for him or her to break the ice with students. At the end of the day, human interaction is a choice; there are

various factors which could make or break a student's decision to approach or not approach a professor. One of the major factors is a professor's non-verbal communication. If a professor exudes an aura of rigidity or distances himself from students then students will naturally look the other way. In fact, students will discuss this among themselves and try to find other avenues to resolve their doubts or ask questions, since they can't approach that professor.

Another factor that, in my opinion, plays a large role in

determining faculty-student interactions is the age of the professor. I have often noticed that professors of a higher age are less approachable than those younger and therefore, closer to our own ages. (However, this is by no means applicable to every professor. The opposite is also true.) Certain professors of an advanced age often stick to conventional methods of teaching, are slightly less open as compared to younger professors and therefore, a sense of disconnect sets in early into the duration of our time spent with them. Young professors, and more importantly young-at-heart professors are usually more open, keen to form connections with students.

There are times when professors do not know all the answers, or are slightly uncomfortable with the concepts they are teaching. When students want to interact with professors, and professors are equally keen about reaching out to them, neither will students judge this 'lack' poorly, nor will professors feel insecure about themselves, if this happens. Instances like this have happened, and whenever the professor has been

honest with his or her students, regard and respect for him or her has only increased in the hearts of students. There are rare incidents when professors put up even negative student feedback they have received on their personal websites! Many times, my decision to do a project under a particular professor has depended simply upon the fact that he or she has been very open and honest with me, no matter what the situation. An instant bond of trust is formed; there is no way I would overlook an emotional initiative like that.

Ultimately, the decision to interact with a professor follows a circular path. If he or she has been not just a good teacher, but also a good person who has inspired me, I would definitely want to take our interactions beyond the classroom and learn more. Following this, I am sure that once a professor encounters such a student, he or she will strive to enhance their interactions even more. Course structures can be designed in a manner that increases interactions between professors and students - this is already prevalent in a few departments. ■

Teaching versus Preaching: Recognising the Bottomline

■ **NIKUNJ JHA** Fourth Year Undergraduate, Mechanical Engineering Department



I would like to go back to Harish's point about teachers giving an impression of being quite austere. There are professors who may teach very well, but if I had the choice, would I want to initiate an association beyond what my academics demand? If I approach them with a question I don't think I would ever be refused or turned away. But I do feel that the manner in which even this basic communication takes place sets the tone for any further interaction. Very often one can clearly detect contempt towards the undergraduates from the professor's side, which may be the result of bad experiences over last few years of teaching, but it instantly creates a barrier between the student and the teacher. Quite often, when teachers stereotype all undergraduate students with similar characteristics of being disinterested and inclined towards academic dishonesty, it immediately

pushes the students to dislike the teacher concerned. In my opinion, the more respect a teacher commands, the less likely students are to cheat or copy in his course.

Another issue that irks me is the inherent assumption of our purpose in life from the professor's side and the implicit imposition of their value system on ours. For example, my motive for coming to IIT may be to get the best undergraduate education in the country and use it as a stepping stone to go for an MBA and hence move into finance. The quantitative and analytical skills developed as an engineering graduate give me a huge advantage in such jobs. Why then, the judgment on professors' part that we came to IIT to become engineers and we are cheating the system by choosing an alternate career path. And further, why the imposition of a career on research on us, usually implicitly and sometimes explicitly? I am only highlighting these issues because these unsaid and unvoiced differences in the mindset between professors and students have come to define our relationship and wide cracks have developed in professor-student relationships

over the years due to them. Unless, both the sides try to understand each others' views and perspectives there is no progress possible, but as of now, only one-sided exchange of views takes place.

And lastly, but not the least, in order to have healthy interaction with the professors we need to respect them. However, in many cases, when professors reveal themselves to be extremely egoistic about small or even big things, it becomes really hard to put them on a pedestal. I would not want to interact with an egoistic guy my age, much less with an egoistic authoritative figure like a professor who is unyielding to reason. Examples would be cases when I have had teachers berate me for wasting their time with requests which may be trivial to them but are extremely important to me. Even the greatest of men show more compassion than that to someone who needs their help. Unless, we are collectively able to handle these issues pervading amidst the society in IIT Bombay, the old days of professor-student kinship may never be back. ■

"Does he have good fundae in life?"

■ **ASHWIN KRISHNAN**, Fouth Year Undergraduate, Mechanical Engineering Department



I would like to go back to the 'putting professor on a pedestal' point. What I essentially believe is that it's not that the professor is really on a pedestal, we think of him or her as being on a pedestal in our minds. This happens not simply because professors have more to offer in terms of knowledge, but also because our fear mentally distances the professor from us. We may have contemplated interacting with a teacher but our apprehensions, like – what if the professor gets offended, what if he or she misunderstands what I meant to say (and what if there are unpleasant consequences for this) – stop us from actually forging a connection.

Also, I feel that many times we let appearances deceive

us too much. Simply because we feel that a professor seems to behave in a particular way, we tend to distance ourselves from him or her, and not even try to make an effort to connect. Have we actually tried approaching that professor, or are we simply acting upon hearsay and shutting him or her out? There are professors who are known to be 'terrors' because they are often ruthless with their students if approached. But keeping these perceptions aside, I have often approached such professors (and often with inconsequential doubts). Although I have been rebuffed initially, the professors have acknowledged the fact that there is someone who is keen to approach them with the genuine intent of knowing more. And in my later interactions with them, there have been tangible differences in their manner.

I feel humour works wonders with endearing students towards a professor. Even if a professor doesn't possess the knack of being funny, just being a bit friendly can

go very far. We have often experienced this during vivas with certain professors. It is no mystery that students frequently give fluke answers during vivas. But certain professors, confronted with those ridiculous answers have made fun of it, turning the joke onto us. This, of course, makes a huge difference in our attitudes towards accepting our mistakes but has also made us fond of them as people too. (I am not saying it's okay to under-prepare for exams or vivas.)

Very often I feel students honestly want to interact with professors in a more qualitative manner as well. It depends on the personality of the professor, and whether he has good 'fundae' in life. If I feel a particular professor is experienced, and has a lot to offer me in terms of the lessons he or she has learnt in life, I would definitely want to ask him or her general tips and guidance on living life, too. ■

Where do I begin?: Taking the First Initiative

■ **NAMAN LAHOTY**, Third Year Undergraduate, Chemical Engineering Department



Interactions between students and professors are definitely not enough. But I do not believe that the complete responsibility lies on the professor. Many times students do not ask doubts or questions during a class discussion. In such cases, where will an interaction begin? The first space

for any expression of feelings, particularly in a classroom, is in asking a question, often subject-related. But most students hardly do that, so it is no surprise that there is no dialogue happening in class at all, whether academic or otherwise.

One thing that can be done to improve student-faculty interactions is to increase the amount of academic activity which requires the student to be in close contact with his or her professor. Projects, presentations, etc. are opportunities which are not exploited enough (in terms of both sides interacting with each other) simply because they are not given enough space or importance in the curricula. During the course of doing academic work, perhaps the continued collaboration between a professor and a student will develop into a bond which is beyond academics.

Coming to Ashwin's point about professors appearing to have a personal agenda, maybe they advise us against taking certain courses simply because they want us to excel in our core courses first. Academics are definitely important, and it is easier for professors to see the larger picture. Also, I feel that interactions between students and professors are a result of how much effort both sides want to put into it. I know professors who do not believe in imposing an attendance criterion on their classes. And yet, they get some of the highest levels of

attendance. This means that students do desire a rich interaction with professors, and vice versa. When this happens, strong relations are built. ■

Student Speak compiled by: BHAVINI PANT (Campus Resident), ANTARIKSH BOTHALE (4th year, Dept. of Mechanical Engineering)

Disclaimer: The views expressed in these articles are those of the authors' and do not necessarily represent those of IIT Bombay or of Raintree

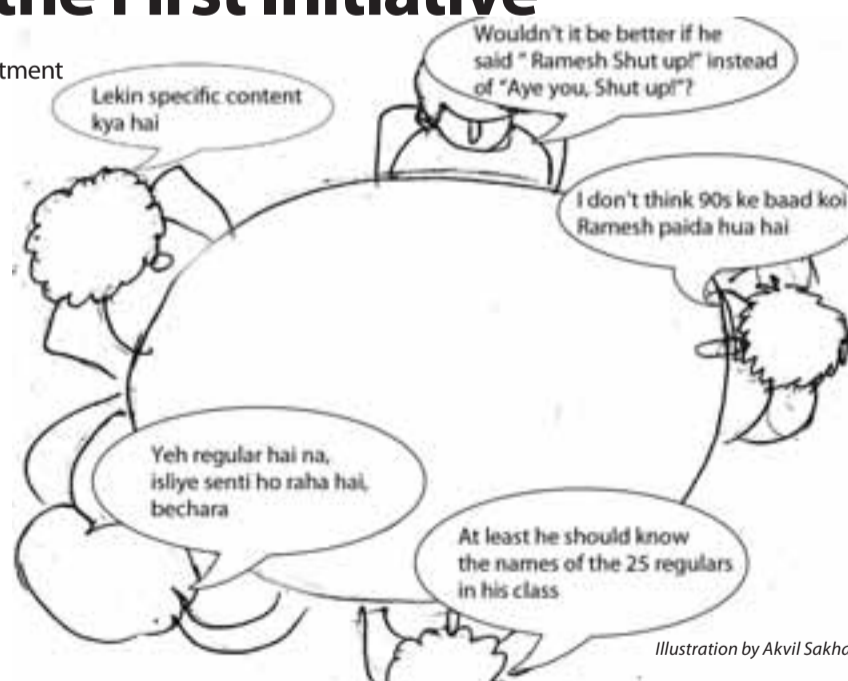


Illustration by Akvil Sakhare, Mechanical Engineering

FACULTY SPEAK

The Large Classroom as a Hindrance

■ **PROF. RAVI RAGHUNATHAN**, Department of Mathematics



Prof. Ravi Raghunathan was an undergraduate at St. Xavier's, Mumbai and he went on to do his PhD from Yale University. He has been an instructor for both undergraduate as well as

post-graduate courses.

I think students and teachers have always had somewhat different priorities at IIT (and elsewhere too, of course). It is unreasonable to expect otherwise. My job is to teach mathematics, but I realise that classroom learning is only one of the things that may interest a student.

I am not sure whether things have got that much worse in the last few years. One thing that has happened is that class sizes have got much bigger and that definitely means that faculty members and students get much less time to know each other. An increase in class size also means that there are more students in a given batch who are pursuing a major which was not their first choice which probably decreases their motivation. I expect that this is especially true of the B.Tech students who may feel neglected over the course of several years. In the Department of Mathematics, our M.Sc. classes are small, so we don't have the same kind of problems. I do get to know a few of the B.Tech students a little better – typically those pursuing a minor in Mathematics or B.Tech projects and seminars in our department.

There are also very few common areas on campus where students and faculty members might meet in a more informal setting. Only a very small percentage of both communities use the gymkhana grounds, for instance. Even otherwise, I am not sure if students really want to socialise with faculty members and vice-versa. And perhaps that's not such a bad thing. ■

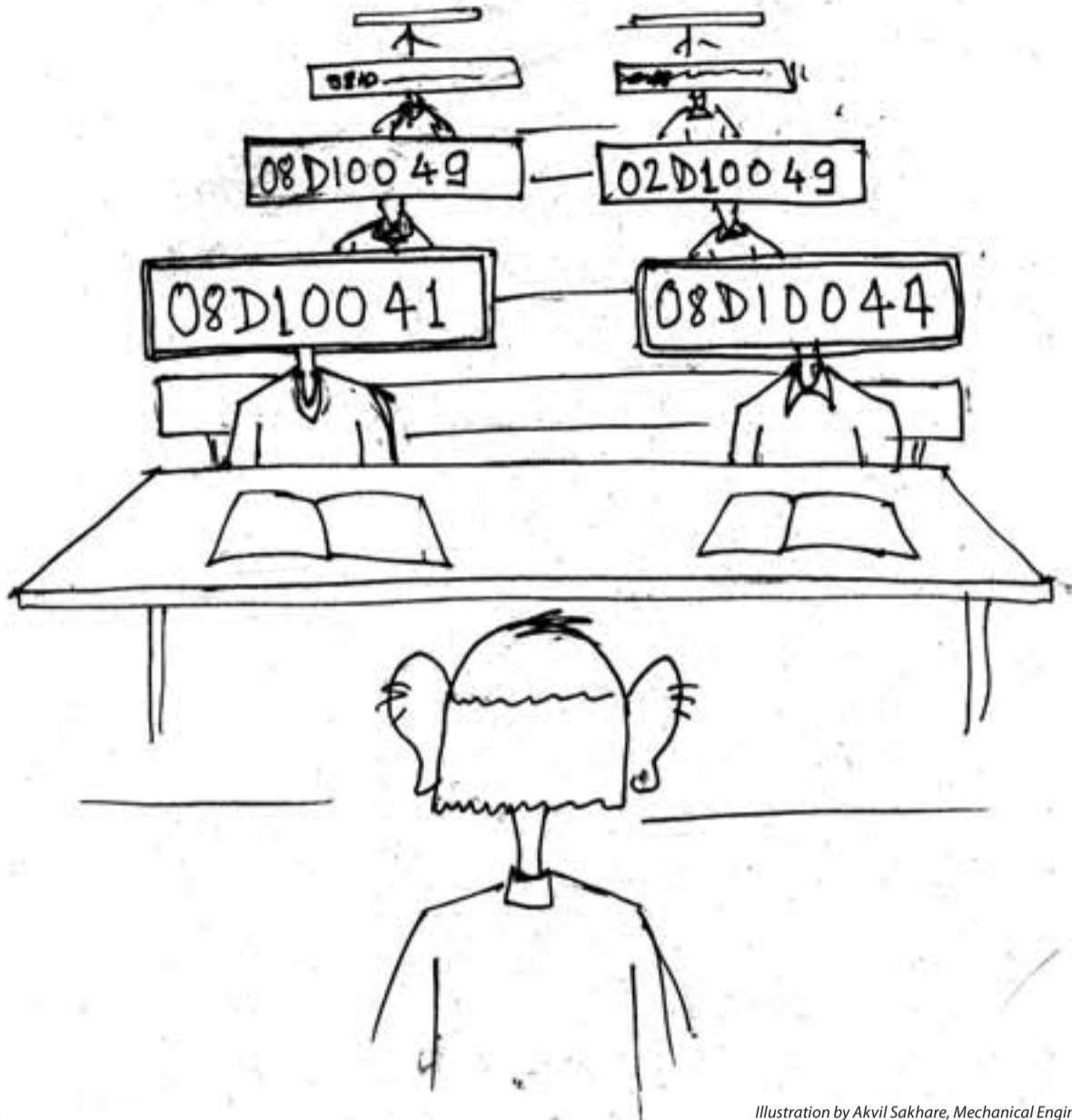


Illustration by Akvil Sakhare, Mechanical Engineering

Realistic Expectations

■ **PROF. P. I. PRADEEPKUMAR**, Department of Chemistry



Prof. P. I. Pradeepkumar completed his PhD from Uppsala University and went to the US for his post-doctoral training. He teaches classes of post-graduate students as well as first year students.

Different views exist across different tiers of faculty members on the nature of the student-faculty relationship. Younger professors are definitely better placed to have a more informal and open relationship with students. However, a balanced approach should be taken and the student should not look to take any advantage of this relationship. Healthier professional relationships need to be nurtured. Our students tend to be demanding and judgmental on certain

occasions. For instance, a faculty member's inability to answer a question on-the-spot is often taken as an indicator of incompetence. So there needs to be a balance on both sides in terms of expectations from each other.

Most students who enter IIT these days have undergone extensive training for JEE which bestows them with an attitude which lays great focus on problem solving and result orientation. The flip side is that this leads to the students relying on shortcuts and getting to the answer rather than focusing on using the correct approach. This JEE syndrome is something they suffer from until the later stages of their programme. Students need to unlearn what they've learnt and start anew, if they are to make the best use of an IIT education.

Also, undergraduate students tend to get distracted far more easily. Many of them might be multi-talented and would want to dabble with different pursuits, which might result in them not being able to balance out their priorities, what with junior students being told by their seniors that an emphasis on extra-curricular activities is a must. Of course, it does help in overall development – our students seem to be potent at managing large events such as MI and Techfest – but some kind of a priority has to be accorded to one's academic plans. Counselling mechanisms or self-help lectures might be of help in such a situation.

At leading American universities, people take their academics very seriously. Even large classes (>700) have packed classrooms. Our students here take attendance only as seriously as they are made to. One look at 8.30 am classes would bear testimony to that. ■

Today's Student – A Mystery

■ **PROF. MILIND SOHONI**, Department of Computer Science



Prof. Milind Sohoni was first an undergraduate student and then a post graduate student at the institute. Apart from taking department courses, he also teaches at the Center for Technology Alternatives in Rural Areas (CTARA)

There is definitely a disconnect between the faculty and the students. Today's student is a bit of a mystery to me, to be honest. I don't really know what drives them and I only have my speculations.

Our students are certainly far more competent than we were in our student days – they know what button to press and how to install which software and so on. But they've become a lot more apolitical and formulaic. I suspect that is because they've spent years in coaching classes and continue doing that once they get here, with CAT coaching classes and all. The student tends to look for a prescription in everything, and lacks the skills to look at problems from different angles. There is a great desperation and insecurity about today's students – the pay package that they get and the company that they get into tends to define who they are, and if they flop on this count, they take it to heart. There is no sense of true self-worth. Would they be confident of

commanding the same price if made to stand out there in the market, all on their own?

It is not as if we were perfect students in the "good old days". IIT was a far different place back then. We did not aspire to be MIT. Quite a few faculty members used to take pride in teaching well and even the students appreciated people who were sharp and quick with their 'fundae'. We didn't have any internet so we had to pass time by talking to each other or reading. If there's one thing that would characterise students in our time though, it'd be the fact that we were confident of ourselves and knew our worth.

The tracks students have set up today – getting into the institute, going the MI/Techfest way or sitting for CAT and the like, I don't know what to make of them. Of course, the faculty's not free of blame either. We do not really inspire, we don't go out a lot. We focus on our research, which in itself is a rather shallow term. While we live in a third world country, we solve problems which belong to first world nations. Our students want to get into a third society which

is far from the real problems of the country and far from the academic world we faculty lock ourselves up in. While a fundamental difference has always existed between faculty members who have their job and family to tend to, and students who are at the beginning of their lives, this absence of a priority match in previously shared spaces is reducing whatever little interaction we used to have.

If it is anyone who can remedy the situation, I think students can. They can demand a better experience out here, and they will get it – that is what separates us from most other engineering colleges around. The situation needs the energy and verve of a 17-year old. You've got to find the creative streak in you. An MIT or a McKinsey requires an understanding of your own issues, first and foremost. ■

Changed Priorities of Students

■ **PROF. HEMENDRA ARYA**, Department of Aerospace Engineering



Prof. Hemendra Arya was a PhD student here during the 90's. He takes classes for under-graduate as well as post-graduate students.

A gap between students and faculty members does exist. The interaction could have been much better and far more fruitful. Students today have a different set of priorities. Academics are certainly not top priority for most of them, who are more susceptible to market reactions these days.

The large number of students in today's classrooms has certainly contributed to increasing this gap between faculty and students. Beyond a certain critical

number, the number of students who interact with the instructor remains fixed and the number who do not, increases, which contributes to the alienation on both sides. Of course, there are students who just do not want to interact with the professor, and they are not even our target group. Even if half the class gets what we're talking about, our job can be said to be done.

A forced interaction would not be the answer to this; the interaction has to be natural. The interaction component can definitely be increased be enhanced by increasing the number of project-based assignments where the students would have to get back to their professors and discuss things out with them. However, with the increased classroom size, I do not really know how such an activity would work out.

From our side, we certainly want our students to do well and we do what we can to ensure that. But the students cannot be handed everything on a platter. They have to come forward and take it and if they don't, it is their loss. The students must understand that academics are the forte of an IIT education and that all-round development should not come at its cost.

As for the gap between post-grads and undergrads on campus, interaction definitely helps, but one must understand that both these groups have different priorities and that must be respected. I can safely say that there is far greater interaction between them now than there was in the 90s, when I was a PhD student here. TA-ship has been a major contributing factor to this. However, the institute's decision to shift all post-grads to hostels 12, 13 and 14 might have inadvertently set things back on this front. ■

Making the Best of It

■ **PROF. V. M. GADRE**, Department of Electrical Engineering



Prof. V. M. Gadre was a student at IIT Delhi. He has had extensive interaction with undergraduate as well as post-graduate students in his role as overseer of the mentorship

programmes for both these categories as well as in his capacity as Associate Dean (Academic Programme)

I believe that the aim of a residential institute is to have students grow in the presence of the faculty, much like the ancient Indian Gurukul tradition. In our campus, we have undergraduate students, who are from a certain (relatively homogeneous) age group, and postgraduate students from a different, more diverse set of age groups and likewise for faculty. So the existence of a gap is, to an extent, natural and perhaps even healthy. Undergraduate students bring to the table a fresh set of perspectives 'untainted by reality'. Postgraduate students, having been through the rigours of one degree programme, have a good balance of perspective and experience. Faculty members bring in a large body of wisdom, experience and a well-rounded perspective.

However, we have not been able to make the best use of the situation at our disposal. On both sides, there is a tendency to stereotype the other, which we must guard against.

Students, by nature, are full of enthusiasm and positive energy. Faculty members also, by and large, are very compassionate beings. Even so, due to stress, lack of time or some other factors, both are occasionally prone to look upon each other as stereotyped clusters. This, in my opinion, is undesirable. One must try and inculcate in students a sense of wonder and a spirit of learning from their professors while we faculty members also need to make the effort of looking upon our students as multi-dimensional beings, recognising their varied talents rather than looking at everyone through the same prism.

Another aspect of the relationship pertains to

classroom interaction. A classroom experience is a complex one, with different levels of engagement. Intellectual engagement is only one component of a lecture. We probably do not adequately recognise the other, more subtle components of a classroom situation – which are as important. A teacher and a student should, ideally, also interact on a personal level and on an emotional level. The student must also realise that the classroom is more than a venue of mere information disbursement. Even apart from the subject matter and its treatment, there are human values that are learnt – engagement with a wiser mind and conversations/positive exchanges with one's peers, which enhance our knowledge and perspectives. A classroom experience is invaluable; many in the country yearn for it and do not have it!

To make the best of the situation at our disposal, we need to activate the various platforms that exist at different levels in the institute – for dialogue and common endeavours between the students and faculty. Quite a few people across the 'gap' share certain hobbies and interests which can bring them together. I believe that these can help activate the flow of ideas from one side to the other. The authorities, on their part, need to show consideration for and encouragement of such platforms.

Needless to say, constructive interaction needs to grow organically. It cannot be legislated to the end. Legislation, arranging platforms is only a facilitating mechanism. Positive, common endeavours need

to grow in a natural way from here.

I believe that student-faculty interaction can thrive. It is just that we have never really turned our attention adequately towards it.

Faculty Speak compiled by: ASHWATH KIRTHYVASAN (5th year, Dept. of Aerospace Engineering), SIDDHARTH SHUKLA (5th year, Dept. of Chemistry) and MOHIT SHARMA (5th year, Dept. of Civil Engineering)

Disclaimer: The views expressed in these articles are those of the authors' and do not necessarily represent those of IIT Bombay or of Raintree ■

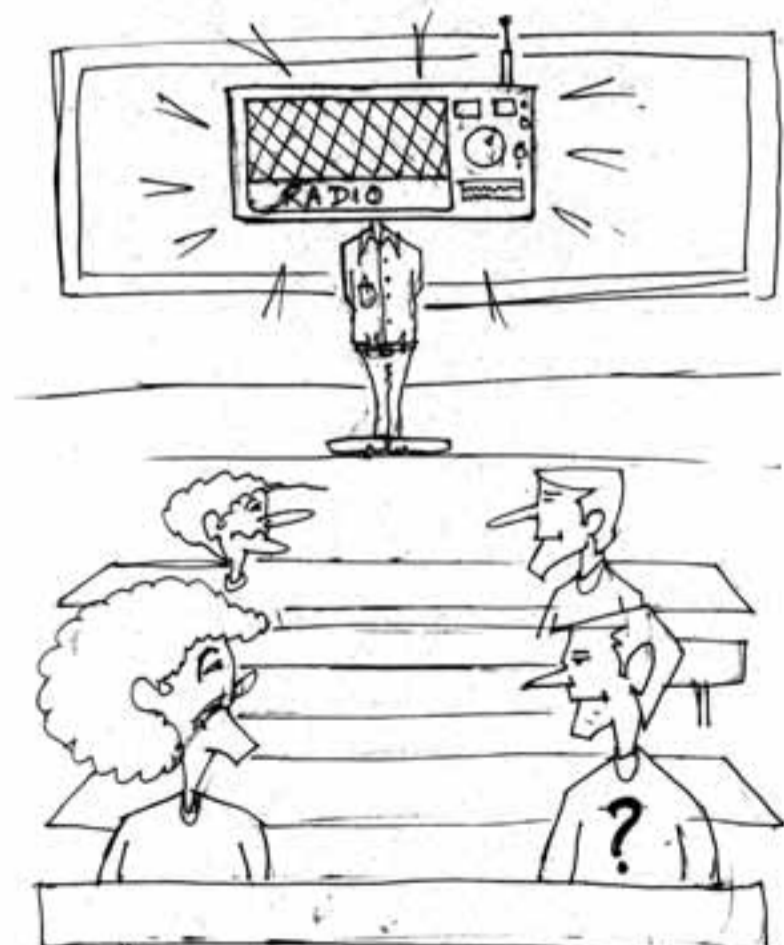


Illustration by Akvil Sakhare, Mechanical Engineering

Our Chinese Wall

■ **ANTARIKSH BOTHALE** Fourth Year Undergraduate, Mechanical Engineering Department

When I come across IITB professors outside traditional classroom/department settings — jogging around SAC grounds, or shopping at DMart — I feel a weird sort of disconnect, as if there is a giant rift that separates their lives from ours, despite the two being in close proximity.

This feels stranger because of the way I grew up. Back in school, I was very lucky to have excellent relations with most of my teachers, both in terms of in-class interaction and outside-class contact. It was all pretty laid-back, while I still gave them the respect they deserved. On Diwali, I would call and wish them because I wanted to, and not merely out of courtesy, hierarchy or protocol. And I never needed to stoop to sycophancy to gain their love or approval. Quite the contrary, I was exceedingly frank and normal with and around them and I like to flatter myself that this was probably the reason they liked me.

Now, this may be a one-off case, but when I came to IITB, I expected at least a small fraction of that interaction to happen here. In my naivete, I imagined professors who would come to classes enthusiastically, their passion gushing forth, and would try to connect with all the students — that unique sort of teacher-student bond that defies explanation. This was supposed to be Eye-Eye-Tee. Prof. Sunoj's CH103 lectures stood out like beacons of hope. He considered it his duty, and a matter of pride, to know most of his students by name (at least all the ones who attended regularly). When he taught in class, he exuded joy and enthusiasm, and had the proverbial spring in his step. He wanted to connect with his students — looking at them as people.

If I had thought that things would be the same for all other courses, I was wrong. Class sizes were low, and most professors taught pretty well and were nice, but it was seldom that I saw the sort of interaction and connection that used to bring the most inveterate absentees to Prof. Sunoj's lectures (the record attendance was 90%, I think). It isn't that people like him are rare, but they are certainly fewer than what I would expect or like.

I'm not sure how many professors even know (or wish to know) their regular students by name. I feel this is the first step towards knowing your students, towards looking at them as individuals who have come to learn, and connecting with them at some level. I am a TA and have the typical 3-hours-a-week interaction with my class. I feel proud that I can refer to all of my students by name.

Quite a few professors consider research their primary responsibility and teaching as something that they are stuck with. However, they aren't completely to blame — many of my friends couldn't care less about professor-student interaction than they do about attending lectures, and even most of the regular ones would prefer having their professors at least two arm-lengths away from them. Professors in general and academics in particular, are seen for the most part, as necessary evils. Moreover, professors who teach well but aren't generous with grading might be unpopular despite all their efforts. Given this, it would only be fair to expect that our teachers might not feel all that motivated about teaching — the apathy would be bilateral.

But this is not about professors who don't teach well... The problem is that many of those who do teach well

“When I came to IITB, I imagined professors who would come to classes enthusiastically, their passion gushing forth, and would try to connect with all the students — that unique sort of teacher-student bond that defies explanation.”

do not exhibit that human component I yearn for. It is very automaton-ish — a robot coming to teach robots. The robot puts in a lot of effort into teaching, but it's still a robot. But again, why blame it, considering it is stuck with a bunch of robots to be taught — most students join IITB without even wanting to be engineers, and demonstrate clear indifference towards academics.

There are other causes too. We might live in the same campus, but we hardly live together. It's like being on two different islands. This insular cohabitation, where our lives and their lives are disconnected once we leave the Academic Area (for most students, IITB life is outside Academic Area), might be responsible for isolating us completely. Unlike boarding schools, where the lives of teachers and students are intertwined, students and professors go their own separate ways out here. Therefore the status quo is hardly surprising.

Of course, the situation varies across departments. Engineering Physics scores relatively high, for example — quite a few professors there are pretty friendly. From whatever I have heard, the Aerospace Department also rules in this respect (their cultural night, in which both students and professors participate enthusiastically, is quite looked forward to). Mechanical and CSE also has a few very inspiring professors. And of course, most professors know their PG/PhD students quite well — a direct result of the increased interaction they have.

“Quite a few professors consider research their primary responsibility and teaching as something that they are stuck with. However, they aren't completely to blame — many of my friends couldn't care less about professor-student interaction than they do about attending lectures.”

Now, this might all seem romanticised, but I love teaching myself, and I hold student-teacher relationships in high regard. Perhaps I am asking for too much. Old school though it may sound, I am still a sucker for simple things like good classroom experience and interaction. I began writing this article with the intent of blaming it all on professors for what I perceived as their indifference, but as I near the end, I realise that the situation would be much better off if both sides tried to change themselves just a little bit. Let's see how long that takes — I am quite full of hope. Until then, Sir, I hope to wave at you the next time I see you in a DMart aisle... and who knows, we might compare shopping lists too! ■

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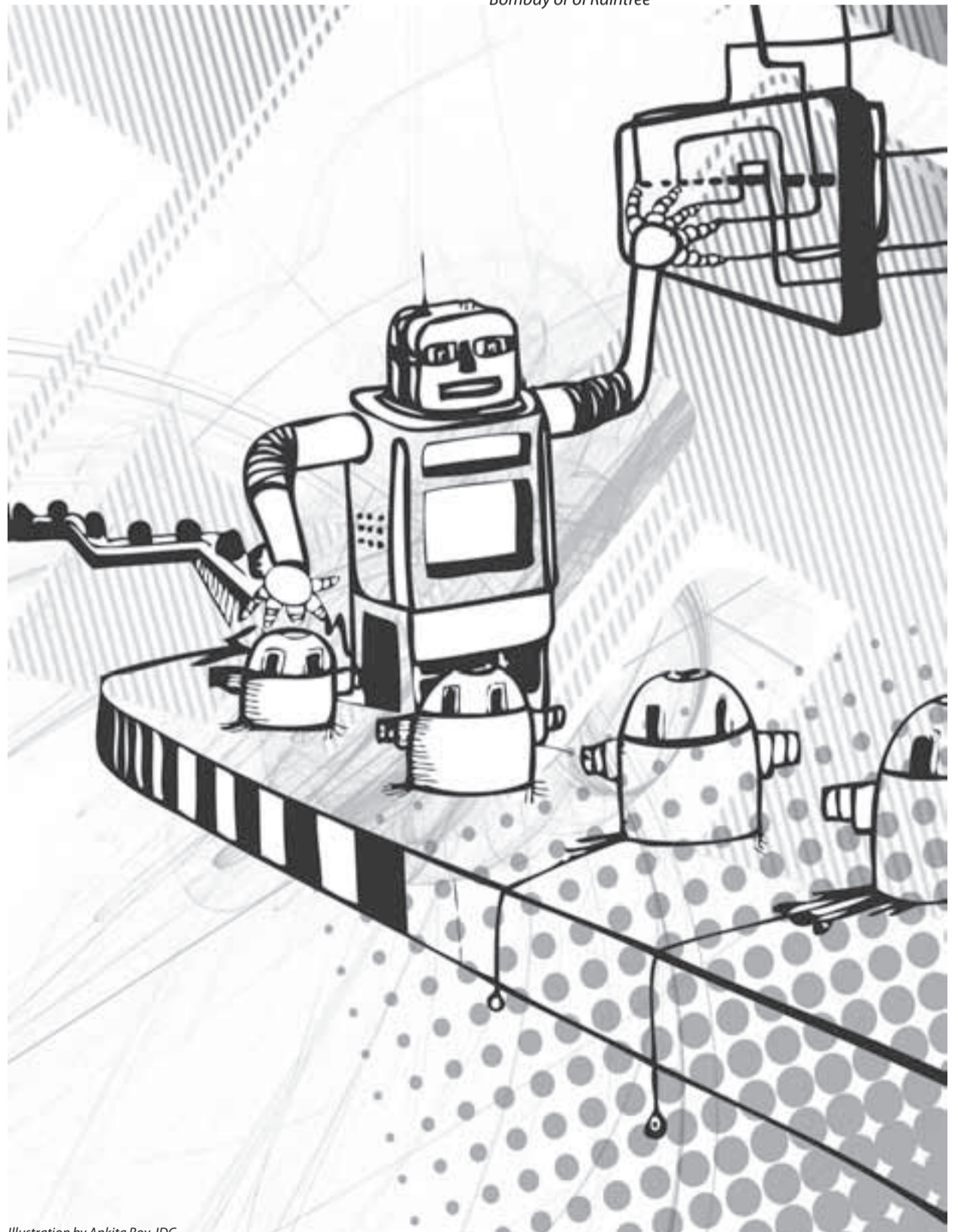


Illustration by Ankita Roy, IDC

Oestrogen and Engineers

■ **BODHI VANI** First Year Undergraduate, Chemistry Department

Girls in IIT are an endangered species: An old adage, passed down from class to class and year to year, looming above us scarily in pre-JEE days. Many will tell you there are no girls — only 'non-males', and others will raise their eyebrows in, what is it, admiration or astonishment? But surprise, surprise, there are girls, we do exist! And honestly, for the most part we don't feel the sex ratio with the harshness that is purported, especially not in the relatively forward IIT Bombay (the horror stories we hear of the other IITs will make you balk), except in ways that are part amusing, if part frustrating.

Hostel 10, synonymous to everything feminine on campus: the harbour for oestrogen in a world seeping with the overwhelming stench of testosterone. Walking into its muddy floors, the first time I entered its unassuming gate with small metal rods that spell out 'H 10' (like everything else about H10, it's less flamboyant than any of the other hostels — 'Queen of the Campus', 'The Wild Ones', 'The Vikings', 'Woodlands', not to speak of the shuddh (chaste) Hindi chhātravās teen (hostel three), I was... to say the least, apprehensive. The rooms are stuffy, small and cramped, and the basketball court is unused, swamped, and overgrown with weeds — as opposed to, for example, H2's spacious rooms with balconies that open out to sprawling, well-kept lawns. If this wasn't enough, the hostel has, as I learnt later, almost no facilities — our camera is old and broken, as is our TT and foosball table, ramshackle music room, and no real canteen to speak of — as compared to a rumoured Jackson guitar in H4, and swanky sports facilities in H3, and a finger-licking tasty canteen in H2. Sure, we do feel the beginnings of indignation at the lot we've been served.

Many will tell you there are no girls — only 'non-males', and others will raise their eyebrows in, what is it, admiration or astonishment? But surprise, surprise, there are girls, we do exist!"

If our astonishing and in-your-face lack of facilities weren't enough to deal with, we have a major bone to pick with the location. While our hostel is definitely a safe haven, with the stringent security and grandmotherly rules, to top it off we've been located with special care, tucked away in a corner of the residential areas, and very conspicuously separated from the rest

of the student hostels and the Student Activity Centre. Thus, everything that happens on campus is separated by the expansive Academic Section and a 20 minute walk. Oh, the frustration we face when we miss something on the sole basis of that extra time we spend on getting to our destinations, or worse, when we go for it and rant to each other on the way back.

As passionate freshmen (fresh-women?) for the debating club at IIT Bombay, my friends and I lament wholeheartedly the long walk to H7 or H2 — which are invariably the locations for all late-night debate activities. Of course, we are dropped back by our male seniors who are well-meaning, if a little patronising — to quote a sophomore: "I know you freshie girls are wild, but we've got to drop you back anyway". To add to that, due to the extreme number of professors living around us, our night-time noisy activities are severely restricted. And apart from the practical issues we face, doesn't the blatant metaphor of placing us so evidently away from everyone else mean anything?

One of the few things though, about being a girl in IIT that makes one grateful is the exclusion from the institute's wild, wild student traditions — our bottoms are never exposed to anyone's Hawaii chappals at the speed of light (or, god forbid, studs — it happens!) — fuelled, I am sure, by the boys' excessive frustration. Yes, the boys of IIT are a savage, barbaric bunch of people and the girls are quite forcibly not. On the other hand, a lot of the enthusiasm of hostel v/s hostel competitions (and in general, other things requiring shouting and displaying of marginal barbarism) is lost with the sieving away of a lot of loud, exuberant words that the editor would delete with vengeance.

But while we're on the topic of enthusiasm, many of us freshmen feel downtrodden by the other hostels. The aforementioned problem for facilities can be traced back to the relative lack of enthusiasm in our hostel, which can, in turn be traced back to the sheer lack of numbers. Our shouts of "H-Te-e-en, H-ten!" are buried under the cacophonous screaming, and there just aren't

Life at IIT ends up being very different socially for girls, but at the end of the day, we're fighting the same battles with the same vengeance, and making the most of the same culture.

While our hostel is definitely a safe haven, with the stringent security and grandmotherly rules, to top it off we're very conspicuously separated from the rest of the student hostels and the Student Activity Centre.

enough of us to compete, though that does not mean the glass ceiling at IIT is intact. Given the number of GCs and OCs and other fancy student positions occupied by oestrogen-carriers, I'd say the glass ceiling has been downright blown into smithereens.

Stepping out of the hostel for a moment, one is reminded of a famous webcomic writer from Stanford who said: "For female engineering students: The odds are good, but the goods are odd". In the large auditoriums that our classes are conducted, a single girl is likely to be flanked, not by drooling boys, but instead by at least two empty chairs (I may be prone to some mild exaggeration, but the sight is much too amusing to gloss over). Funnily enough, and quite contrary to expectations, the more skewed the sex ratio in a class, the less likely a girl is to make male friends. Our well-oiled, bespectacled geeks seem to live up to the cliché for the most part, unless of course you walk past the hostel deep into the ungodly hours of the night to find the footpaths peppered with puppy-love conversations in low tones.

If that is one extreme, then the other is the frightening flock of social networking friendship requests every resident of H10 is beleaguered with, in letters worded in the most butchered form of English, with desperate pleas and flattery in its strangest and to say the least, most intriguing forms. One of my friends once got a letter that ran, "Aap aaj itni khoobsurat dikh rahi thhi, mere MA 105 ke paper me FR lag jayega" (You were looking so beautiful today, that I'm going to get an FR in my MA 105 paper).

Life at IIT for girls, ends up being very different socially for them, but at the end of the day, we're fighting the same battles with the same vengeance, and making the most of the same culture that is thankfully, for most part, undiscriminating.

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Illustration by Akshata Prabhu, IDC

Joining the Dots – And Ain't They Dotty Here!

■ BHAKTI JOSHI Research Scholar

Introduction

UGs: They are the ones who enter the scene at a very young age, many of them a long way from home. Friends become second family, the exhilarating orientations in the first semester are mind-blowing and enough to change the course of one's life at IITB. 'Infinite' are the ways to express oneself or to prove one's 'godness'; it does not take long to learn to differentiate between 'daya' and 'dayamax'.

They have ways to analyse almost everything in life. You can identify them even outside the campus, since at least one among the group will be wearing a "My Hostel Greatest!!" t-shirt. Riding over the initial transients of settling in a new place, some of them become great grade-holders and techies, some great organisers and event managers, some great performers, and some just try to fit in with the crowd by doing what everybody else is doing, listening to what everybody else is listening to (which is mostly rock), and while doing all this, using IITB lingo whenever possible.

PGs: Very different from the ones described above and yet, they have something common with UGs. Most of them have experimented with extra-curricular activities before coming to IIT, so suddenly they get serious about their studies. After the initial full-of-novelty days, the life of a typical PG starts revolving around his/her laboratory and lab-mates. Well, there are some PG-special activities (PG Sports and PG Fest) where they are seen participating in a large number, which is sufficient to prove that there is no lack of talent and enthusiasm in them!

"...it's a definite indication that the PGs have started becoming conscious of the opportunities that are provided by the institute, and are at a stage where they need to be taking full advantage of the current system and exploit the resources provided."
(Source: <http://gymkhana.iitb.ac.in/~cultural/pgcult2010/motivation.html>)

However, in their day-to-day lives, very few among

Riding over the initial transients of settling in a new place, some of them become great grade-holders or organisers, some just try to fit in with the crowd by doing what everybody else is doing, listening to what everybody else is listening to."

them are seen to join the UGs in other activities. The possible reasons for this shall be discussed in a later section (Beware! I am not done flaunting my technical writing skills yet!). I have seen them using IITB lingo as well, but the percentage is lesser than the UGs. The research output of the institute is mostly due to the PGs. There are again two sub-groups in them – M.Tech students and PhDs. (To the author's modest knowledge, in local slang, B.Tech students are called 'batkas' and M.Tech students are called 'matkas'! However, (fortunately) the author is unaware of the slang for PhDs.)

The Interplay

"The single biggest problem in communication is the illusion that it has taken place." – George Bernard Shaw

The Attitude: From a typical UG perspective, PG students are hard-working, sincere, a bit narrow-minded and boring. This sounds a bit unfair, but "life isn't fair, kiddo, get used to it!" (Believe me, this is from South Park). They attend all their lectures sincerely. However, some of the UGs do have a respect for PGs and this shows in the way they behave with them. The source of negative feelings may very well be the fact that PGs are also painful TAs. But what is hated by a typical, bright-minded UG student is any PG's narrow and boring attitude, rather than the actual person. An

active and interesting PG student is most welcomed in the UG community. Except for the PhD students, both B.Tech and M.Tech students have a group culture. Since M.Tech students get only two (or three if they're RAs) years in this institute, their social life is limited to their own group (which, in some cases, is based on a regional divide).

Attitude difference is one of the main reasons for the communication gap, and efforts are seldom made to even really see whether what they feel for each other is true or not. I believe the proportion of enthusiastic people in both the groups is probably more or less equal. I have met people having equal amounts of fascination about life and the will to go and explore, among both UGs and PGs.

Each individual is a world in itself. These worlds sometimes intersect superficially and deeply. Every dot has a different colour, and joining the dots can result in a colourful rangolee which will only add to the beauty of life.

The Lifestyle

After the allotment in a particular hostel, the first people the UGs get to know are their seniors. The seniors have a tremendous influence on the UGs in their initial days (till they themselves become seniors). This may be more so because of their young age. In M.Tech students, such an influence is mostly not there. Also, a larger proportion of UGs spend time in their respective hostels than PGs because of the laboratory culture in PGs. This can be one of the reasons for the lack of communication between them.

There is a difference between the places where these students hang out. After spending some time in IITB,

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I have made an interesting observation – two of the main tea-coffee-snack joints in IITB are KReSIT canteen and Coffee Shack, and I have seen the KReSIT canteen crowded mostly with PGs, and Coffee Shack's chairs mostly occupied by UGs. Coffee Shack has always sounded like a lively and open-minded place to me. Their always-ready-to-change look must be because of the easily movable chairs and tables, as opposed to the KReSIT canteen, where the places one sits on are concretely bound. For the UGs, the reason for hanging out at the Shack may be its closeness to the Main Building classrooms, but there seems to be something more to it. I would really like to study this aspect in more detail, but I shall leave it for the future.

Of course, there are smaller worlds within these worlds. But haven't things always been like that? Each individual is a world in itself. These worlds sometimes intersect superficially and deeply. Every dot has a different colour, and joining the dots can result in a colourful rangolee which will only add to the beauty of life. ■

Disclaimer: The opinions expressed in this article are of the author alone and based on the author's own experience (however little that may be). Some facts have been obtained from conversations with friends, who either happen to be PGs or have been both at IITB. The author takes complete responsibility of this article and wishes to thank these aforementioned friends for their valuable time. Last but not the least, the author would like to express her deeply-felt love and gratitude for this institute due to many reasons, inside and around it.



Illustration by Susmita Chakrabarty, IDC

The Grass on the Other Side

■ **MOHIT SHARMA** Fifth Year Dual Degree, Civil Engineering Department

Saala, TA kahin ka

TAs are stupid. They check your assignments and rarely give you credit where it is due. Your neighbour always gets more marks than you. They mark you absent if you reach your 2 PM lab fifteen seconds late. When you pose genuine doubts to them, all they can do is mumble and stumble. If a female raises a doubt during a class assignment, then the rest of the class is damned for the fifteen minutes that all the TAs take to solve every doubt of hers and desperately try to go beyond. And if you want marks in exams, you better brush up on your bargaining skills at one of them apni mandis or Fashion Street.

Know thy enemy

For the uninitiated, a TA is a teaching assistant to a professor. TAs teach tutorial classes, grade assignments, correct exam papers, man laboratories and sometimes even make tea and coffee for their gurus. To put it mildly, a TA is a professor's Man Friday of sorts. To put it severely, a TA is a professor's bitch, or that is how it comes across. You see those losers tailing their professors more faithfully than their own tails would. You, of course, have your doubts as to why an IIT professor would trust someone as useless as this person to check papers or teach students. The person just doesn't seem to hold any of the common sense that is surprisingly common to all of us here in the institute! I mean, look at the facts – you ask them doubts and they're generally unable to answer you, you use another method in your exam paper and he rarely understands what it is all about, you reach class twenty seconds late and he refuses to mark your attendance. The TA, soon enough, becomes an embodiment of everything that is purportedly wrong with the system – he is dogmatic, sycophantic, low on intelligence, lower on flexibility and has most of his skull filled with his ego instead of his brain.

So, you start hating him with all the hate you can muster. You butter him up so that he would be considerate when you go to him crying for marks later on. But deep inside, you consider him as one of the lowest beings on the planet. You're embarrassed to acknowledge him in public, your sadistic self loves it when you see him in a spot of bother, you feel elated when the professor overrules him. You want to see him suffer for all the unfairness and mediocrity he represents.

To me, TA-hatred became second nature somewhere along the way. And then, I went over to the other side.

The Dark Side of the...oh chuck it, I've grown up Sometime in my fifth year, without realising its full scope, I started assisting one of the professors in our department with bits and parts of a couple of courses. The first time a kid asked me a doubt, I fumbled. It wasn't a pleasant feeling, to be honest. He had asked me a pretty straightforward question and my mind had gone blank for an instant. Thankfully, another TA had come to my rescue. But the first blow had been inflicted. I realised that I expected the students to expect me to be the model teacher/helper. I was supposed to know the entire course like the back of my hand. I had to answer their probing questions in a jiffy, lest I be thought of as inadequate, like the legions of other TAs who had been there before me. There just wasn't any room for error. And with the standards

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Illustration by Regan Raj, IDC

I imagined these kids to have, it was a tricky game. If I acted too friendly with them, they would want to take advantage of the equation and would feel alienated when I won't give them any in terms of scores and grades. If I acted too distant then I would be a stooge of this unfair, dogmatic system of ours.

The first class was nothing short of an ordeal, more so because I had been told only a few minutes before class that I was a TA for the course. Things got a bit relaxed as the classes wore on. I learned how to deal with the kids' doubts, even and especially when I could not clear them. I learned somewhere along the way that it was okay to admit that I was wrong or that I didn't know how to solve a certain problem. Thankfully the negligible bit of significance the kids started attaching to me did not involve any bit of malice.

In essence, I started seeing undergraduate students as indifferent, non-serious and in some cases, even shameless punks with no honour code. It was then that I realised that I had been on the other side just a few months back.

Checking exams and assignments was a different deal altogether. I was somewhat unsettled by the idea of going through forty different papers. What if someone used a non-standard approach? What if there were steps they thought obvious and skipped? How would I tackle questions with correct answers but wrong approaches or vice versa? So the first time I checked exam papers I spent fifteen to twenty minutes on each question, trying to understand everything the student had done. After the exercise was repeated a few times over, I realised that it was not really worth the effort. There were very clear directives given on what would be given marks and what would not be given marks. Even with a non-routine approach, there were things you just could not miss.

The worst parts were the ones wherein the kids would try to fool you. While cogging from here and there, they would invariably lose a couple of important steps but still have the right answer. Another trick they would try to pull on you would involve following

I was supposed to know the entire course like the back of my hand. I had to answer their probing questions in a jiffy, lest I be thought of as inadequate, like the legions of other TAs who had been there before me. There just wasn't any room for error. And with the standards I imagined these kids to have, it was a tricky game.

a certain approach up until the second-to-last step, cause a huge explosion on the penultimate step (crossing out things twice or thrice) and voila! They would have the correct answer in the end.

There was this one instance where I was supposed to check assignments submitted online and grade them. It is a foregone conclusion with most online assignments that there would be en masse copying, but it really hits you when the students don't even bother to change the name of the file. That is especially an issue when file names are in the form of roll numbers. The kids didn't even bother to change the roll number of someone else's assignment to their own before submitting!

In essence, I started seeing undergraduate students as indifferent, non-serious and in some cases, even shameless punks with no honour code. It was then that I realised that I had been on the other side just a few months back. It was as if I'd spat out of a bus window at some unknown loser and, by some time-travel magic, ended up on the receiving end of that punk's act. At different points in time, we've all copped assignments and lab journal reports and bugged our TAs for marks without any good reason (and gotten away with it!) Now, on the other side of the divide, we judge those who copy mindlessly. I guess it is a part of a never-ending cycle. My mother sums it up much more cheerfully though – *Kyonki Saas Bhi Kabhi Bahu Thi!* ■

Disclaimer: The views expressed in this article are those of the author's and do not necessarily represent those of IIT Bombay or of Raintree

This Diwali, I stepped out for a long walk and cast my mind back in time to almost two decades ago, when I became a part of the IITB community by tying the knot with an alumnus who had come back to serve his alma mater as a faculty member.

In the early years, I had to travel to Nair hospital where I worked as physiotherapist and later moved to KEMH as a lecturer-cum-practitioner. I seemed to have no time for anything else and life went by in a buzz of commuting to work and back, for five and a half days of the week. Given the physically demanding nature of my profession, the travel was a killer. It barely left me a day and a half to recover and brace myself for another round of tug-of-war in the Mumbai locals. Coming from a small town Baroda, where I would zip around on a moped and cover the entire city from end to end within an hour, it was an ordeal to commute by buses, trains and autos on a daily basis.

The only good things I remember, other than the professional satisfaction, were the freshest fruits and vegetables that I could pick up from the vendors near stations and the occasional snacks and fast food joints, with their heavenly smells, that I succumbed to on a regular basis. Most of the time I was dead to the activities on campus and even MoodI and Techfest could not tempt me to give up my beauty sleep!

I started discovering the joys of going for long walks, socialising with the campus residents, climbing the hillock behind Ananta building and other forms of leisure, not to mention MI and Techfest, BONDA productions, PAFs and all the other activities on display by students all through the year.

I even tried driving to work at which point it seemed that my only goal in life was to hit the expressway, before the traffic started jamming the roads. A cousin who visited from USA wryly remarked, "Wow, looks like you are living the American dream here!"

Eventually, unable to bear the daily toll of commuting, I gave up my teaching-clinical position after much brain-wracking and emotional yo-yoing, and was content to spend time at home and explore the IITB campus. We also made new additions to our family. And I started discovering the joys of going for long walks, socialising with the campus residents, climbing the hillock behind (then non-existent, now debatably iconic) Ananta building and other forms of leisure, not to mention the chance to attend MI and Techfest, the BONDA productions, the PAFs and all the other activities on display by students all through the year. Somewhere along the way, we ditched the car and switched to healthier lifestyle options.

Gradually the kids got into school and I was getting ready to go back to work, but there was no childcare support on campus. So when Mrs. Rashmi Misra (Previous Director, Prof. Ashok Misra's wife) floated the idea of launching a play school on campus, I thought I'd pitch in. I put in my application and went on to be the first supervisor of the Sishu-Vihar creche. Things took off very well and I had a great time. The members of the Ladies Club lent their unstinting support by decorating the creche, making the place child-friendly and training the caretakers. Our erstwhile PRO, Mrs. Aruna Dixit, would joke during her visits, "So? How is the shee-soo vihar coming along?"

Then my husband took off on a sabbatical and we followed (one of the better advantages of being married to an academic!). When we returned, I joined as a project staff member when an opportunity presented itself. Along the way I had picked up a degree in



Illustration by Roma Singh, IDC

Management and since then, there has been no looking back. By the time the project was nearing completion, a position for Executive Officer in the Office of the Dean for International Relations was advertised. I moved to that new job and have been here ever since. Now I truly don't need to go anywhere as I get to welcome the world at our doorstep.

Foreign delegations want to know all kinds of things about India, the IITs and specifically about IITB: what is the role of IITs in India, how much of the population do we serve, what is the gender split of our students and faculty, why are there cows on campus?

Our office is usually the first point of contact for foreign students. We are also one of the external faces of the institute and need to keep track of everything that happens on campus, which includes knowing all kinds of statistics. I learned a lot about the institute and spent almost the whole first year on the job in fact-finding, and I still keep discovering some nuggets about IITB. It's got to do with visiting foreign delegations wanting to know all kinds of things about India, Mumbai, the IITs and then specifically about IITB: what is the role of IITs in India, how much of the population do we serve, how much land we have, what is the gender split of our students and faculty, what is the source of water for Powai lake, why are there cows on campus? Once a group asked us why we are so picky about our students and isn't it our moral responsibility to educate everyone and not just a select few. Another time we were asked whether we have Religious Teachings for first year students. That was tricky. We replied that we expected the students' families to have imparted those lessons at home; we focused mostly on their technical training. The delegation leader, a government official, sportingly retorted, "No wonder India is doing well. You teach CS 101; in my country they teach Religion 101."

Sometimes I wonder what I am doing here, until presidents of world-renowned universities shake my hand

and say, "Thanks for everything, your inputs have been most valuable." Or when students, foreign and our own that go on exchange visits send a greeting or drop by to say thanks. Needless to say, it would not be possible without the vision provided by the Dean and the extremely efficient support from my office colleagues, Sandhya and Rajesh. We all work closely as a team.

As the name suggests, a major chunk of our work is to facilitate relationship-building between faculty and students from foreign universities and the academic community at IITB. The latter is the most important stakeholder of the institute, without which the institute would not have its premium status. In addition, we foster relations with governmental agencies, embassies (externally) and also with the respective IITB units for academic, administrative and hospitality matters. I especially enjoy the Personnel Training courses, partly because I get to know the roles different people play at the institute, and understand how our work is interwoven in the larger scheme of things. When I started working for the institute, I began to appreciate just how special this place is. You feel like a part of a big, huge family. Many a times, home and office activities merge in an almost seamless way. We discuss institute-related stuff in lifts, on walks, during dinner time and we chat about our families and personal concerns in the office or during meetings. Often a person will get news about a colleague from their spouse or children. It is not unusual to hear, "Hey! My kid tells me that your kid told her that you guys are going away next week. I really wanted you on so-and-so committee!"

I keep getting struck by the epiphany of what a close-knit community IITB is, in the most unimaginable contexts.

Once, I was taking our two kids for a movie and I met one of my husband's PhD students at the gate. When he heard where we were heading, he asked, "But, what about sir? Isn't he going?" With a sly grin, I said, "Oh! He is busy with HIS kids!" The student gave me a surprised look and then as his bulb lit up, he exclaimed "Oh! You mean us?!" I said, "Yes!" and he took off in a rush to his laboratory. We call students over to our home and have impromptu icecream sessions. The fervour at dandiya

nights and Diwali dinners is interlaced with gentle reminders of the 10 pm noise limit and decibel levels. We go for get-togethers, treks, department picnics and discuss institute policies there. I keep getting struck by the epiphany of what a close-knit community IITB is, in the most unimaginable contexts.

As our kids have stabilised in one of the schools on campus (another big perk of being in IITB), we are more involved in their scholastic and co-curricular

pursuits. So we have PTA sessions. Our home was the venue for a music class for an extended period of time, where even IIT students came to learn vocals. We coordinate a taekwondo class, a dance class and kids come in and out of our house at all times of the day, especially on weekends and holidays. Moreover, as my commute is now only three minutes, it leaves me with plenty of time to spend with the family, exercise, watch movies, read books, plant saplings, learn a new language and sample some of the stuff students have

on offer all year round. Also, not to mention the relatively cleaner air and lack of noise, though these are becoming premium even on campus as time goes by.

Over the years I have made several friends here. When I leave home I seldom stop smiling or chatting, and sometimes a 20-minute outing stretches into an hour. As I lit the diyas in the evening, I sent up a silent, thankful prayer, and a wish for many more Diwalis, perhaps a little quieter and greener ones, to be spent in the lush lap of the institute. ■

READER'S CONTRIBUTION

Lambs or Lions?

■ **PROF. M. V. HARIHARAN** Retired Professor, Mechanical Engineering Department

Connecting the various clusters of 'dots' – students, scholars, faculty, family members, etc. is novel and laudable. I would like to make highlight another important pair of clusters which have escaped coverage for some time in Raintree – successive Directors and the institute. I had the good fortune of having had a ring-side seat for many years during the eras of early-time Directors and how each one connected to the institute at large.

Prof. P. K. Kelkar was the founder of the institute, not the Founder-Director in the formal sense. He first served as the Planning Officer and then became Deputy Director. It was expected that he would become Director. But mandarins in the all-powerful ministry sent him to Kanpur to plan another IIT there. He handed over charge to Brigadier S. K. Bose, who took over as Director sometime in March 1959.

In one of his early addresses to the faculty, Prof. S. K. Bose made it clear that he would prefer the tag 'professor' to that of 'brigadier', since in his words, he had "migrated to the academic field from the battle field". Having been a civil engineer with a lot of experience, Prof. Bose had put all his energy and expertise in speeding up the construction of various buildings of academic departments, the (then) Computer Centre, the hostels, the Gymkhana and so on. The long corridor connecting departments was said to be his brain-child, as he felt that the Mumbai monsoons should not hinder students going from one lecture room to another in a different department. His army training helped him hold contractors in a tight leash and get them to meet deadlines.

He was also an able administrator, who knew how to handle problems of students, faculty and other staff. He could be very strict when the occasion warranted it; at other times, he would be jovial and friendly. On Holi in 1962, he sent word to the students' hostels to assemble in the Staff Hostel lawn, came there himself and celebrated the festival with boyish fervour, getting completely drenched in coloured water. The (then) First Lady of the campus, Mrs Bose, distributed sweets to those who visited the Director's bungalow.

Prof. Bose also took a lot of interest in campus activities. He helped set-up a variety of cultural societies. He also gave a helping hand to build a small temple in the campus. It was his first thought that the presiding deity should be called Devi Shraddha Mata. (That is how the very first Housing Society opposite Main Gate bears this name.) Some years later, during some digging near the lake, a stone was unearthed which

The long corridor connecting our departments was said to be Prof. S. K. Bose's brain-child, as he felt that the Mumbai monsoons should not hinder students going from one lecture room to another in a different department.

had an inscription: Devi Padmavathi.

If I am to compare Prof. S. K. Bose to someone in the All-India scene, I would say he was our General Thimmaya, who was famous for his efficiency and discipline and at the same time, would casually walk into the humble soldiers' tents to share a cup of tea.

In the meetings with faculty, Prof. Kelkar's speeches were inspirational. He would "show us the moon" and would want us to "aim at the stars". He got things done by mesmerising the young faculty with his vision and his passion to achieve goals.

In May 1969, Prof. S. K. Bose passed on the baton of directorship to Prof. P. K. Kelkar, who had planned our institute and then founded and nurtured, for two terms, our sister-institute, IIT Kanpur. The contrast between these two great men could not be more stark; one was a towering army man instilling fear and exuding authority; the other, a mild person with a gentle (but persuasive) voice and exuding an aura of wisdom. He was also a scholarly academic himself, with much teaching and academic experience. I interacted closely with Prof. Kelkar during his earlier stint in our IIT. He was always gentle. He would never ask you to do something. He would say, "Don't you think it would be nice if we could get it done?" In the meetings with faculty, his speeches were inspirational. He would "show us the moon" and would want us to "aim at the stars". He got things done by mesmerising the young faculty with his vision and his passion to achieve goals. He brought about a sea-change in the structure of our academic administration by instituting committees at various levels. Democratic to the core, he ensured that the voice of every faculty member was heard right up to the highest policy-making body, the Senate. He abhorred rules on compulsory attendance of students in classes. He made us realise that poor student attendance is less of a student-discipline problem than a poor teaching-technique problem.

I compare Prof. P. K. Kelkar to our former Philosopher-President, Sarvapalli Radhakrishnan.

Prof. A. K. De took over in May-June 1974. He was a "home-grown rose", a term that Prof. Narayanan of Electrical Engineering had used to describe alumni who had made a mark in the national scene by their brilliant work in our own country. Prof. De had already been in the IIT fraternity for some years. If we, the faculty, listened to Prof. Bose for his authority and to Prof. Kelkar for his wisdom, we listened to Prof. De for his transparent sincerity and his penchant for hard work. He would make it a point to visit the academic departments often, ask probing questions about progress and help us de-bottle-neck our difficulties. I recall an instance when he rolled up his sleeves, sat with us two evenings in a row and helped us get rid of old and obsolete equipment, without violating even one of the myriad rules of the ministry.

One of the path-breaking measures that Prof. De took was to make the faculty realise that industry-oriented research should form an important component of faculty activity, particularly in the environs of a city like Mumbai with so many industries around. He brought to bear his wide experience in industrial research laboratories (CSIR, Defence Research, etc.) on increasing the interaction between industry and the institute. Such interaction was formalised by many measures such as (i) industry-sponsored M.Tech projects, (ii) co-opting eminent industry leaders in the academic committees of various departments and (iii) encouraging faculty members to get involved in consultancy projects in cutting-edge technology areas.

Prof. De initiated six inter-disciplinary postgraduate programs in an important meeting of the Senate, chaired by the Chairman of the Board of Governors, the late Dr. Raja Ramanna. Such programmes have considerably encouraged the culture of interdisciplinary research in the institute.

If we, the faculty, listened to Prof. Bose for his authority and to Prof. Kelkar for his wisdom, we listened to Prof. De for his transparent sincerity and his penchant for hard work.

In the interregnum when Prof. De was called to head Defense Research, Prof. R. E. Bedford worked as Acting Director for a few months. Prof. Bedford, a respected senior professor in the Electrical Engineering department was not only a learned academic, but also popular among students. Many in Electrical Engineering were inspired by his teaching and research abilities. He was the quintessence of moderation, which is why the department leaned heavily on him whenever opposing points of view had to be reconciled. As a senior professor in the institute, he had chaired and guided what was at that time a radical re-organisation of the very structure of our academic

SALT 'N PEPPER

■ **PROF. ARUN INAMDAR**



administration. He also had a very good sense of humour and had excellent communication abilities.

If compare Prof. Bedford to our former Prime Minister Shri I. K. Gujral.

Prof. B. Nag, who took over from Prof. A. K. De in June-July 1984, was undoubtedly the Rajiv Gandhi of our campus. The late Prime Minister brought about a telecommunication revolution at the national level; the late Prof. Nag brought about a computer revolution at the campus level. He resolved the decades-old sore point of IITB not having a large, modern, high-speed computer. By virtue of his experience in Delhi as Secretary, DOE, Government of India, he knew exactly how files moved from table to table in the miles-long corridors of the ministry.

The fact is Prof. Nag played an important role in getting a large computer for the institute. Prof. Nag was also able to accelerate other computer-centred projects because of his experience in Delhi. The Computer-Aided Design Center (CAD) and the SAMEER infrastructure are some good examples. No doubt, a lot of preparatory work had already been accomplished during the years earlier to his arrival; but Prof. Nag was able to clinch these issues successfully.

Prof. S. P. Sukhatme took over from Prof. B. Nag in August 1994. A second home-grown rose, as fragrant as the first. If the institute activities were growing (in quantity and quality) at the pace of an SUV in Prof. A. K. De's time, they were growing at the pace of a commercial airliner during the time of Prof. B. Nag. During Prof. Sukhatme's time, they were vrooming at the pace of a supersonic fighter aircraft. Every measurable parameter increased by an order of magnitude; be it the faculty recruitment, the increased student and research scholar intake, the number of new specialisations, the buildings for the new sophisticated facilities, the new types of interdisciplinary activities, etc.

Many of the new activities were made possible because of the bountiful contributions of our alumni. Prof. Sukhatme had the Midas touch; whomever he

If the institute activities were growing (in quantity and quality) at the pace of an SUV in Prof. A. K. De's time, at Prof. Sukhatme's time, they were vrooming at the pace of a supersonic fighter aircraft.

contacted, that alumnus loosened his or her purse strings and dollars poured in into the institute's corpus fund. The generous alumni contribution was as much to the credit of alumni themselves, along with the leadership provided at that time by the Bhatnagar Prize awardee and Padma Shree Director, Prof. Sukhatme.

I retired a month before Prof. Sukhatme took charge as Director. But I did have the good fortune of interacting with him for many years in various academic and other activities. I had observed similarity between the two former Directors, Prof. De and Prof. Sukhatme. Both were highly rated academicians with impeccable academic records. Both had admirable administrative abilities. Both had endeared themselves to all sections of the campus community – students, faculty and other supporting staff. For both of them, recognition of a high order continued even after retirement as they were hand-picked for chairing the nationally important and sensitive Atomic Energy Regulatory Board.

Admittedly, both of them are like Napoleon Bonaparte in physical appearance. But, in achievements and accolades, they stand tall, like Charles De-Gaulle. They are the Abdul Kalams of IITB. ■

READER'S CONTRIBUTION

To All my Children

■ SHYAMA IYER Campus Resident

December 8th 2010

Dear Roshni, Lucky, Lawson and Mini,

It has been six months since you came to us, Mini. June 8th, my fifth child is here, a big day for us. The name Mini suits you. You are so small, pretty and so lively. Lawson is possessive and feeling a bit jealous of you since your Mamma and Papa are looking out for your needs more than those of his. Don't fight with him. You jump up on us and take your snuggles, hugs and baby talk. Lawson tries to copy you. Only, when he jumps up he promptly falls down. It is so hilarious to watch him.

About a year back, June 9th, 2009 in fact, Mobi, your sister, left us to go be with God. I feel she has become an angel and is most likely gracing God with the smiles that never failed to warm my heart. All of us miss her terribly. I remember her passing away with me holding her hand, stroking her head and your father weeping inconsolably. Having no prior experience in dealing with the departed, I followed Chandrabai's advice to prepare and serve her meals as usual and keep a lamp lit for 3 days. On the *chautha* we buried her ashes in

the garden. A money plant was planted on that spot and today you can see it growing happily, a reminder of Mobi's spirit as she coped with her illness and pain.

Do you recall, we felt her presence in the house for close to two months? And on August 5th, 2009 Lawson came to us, a brother for you, Roshu – your Raksha Bandhan gift. Lawson adjusted to the house and family very quickly and was playing with you soon. From day one, he decided to trouble Daddy the most. He still insists on cuddling up with Murali and bothering him at night. I secretly think Murali only pretends to get irritated and will not have it any other way.

Lucky dearest, you were so perturbed when Lawson came. After all, you were Roshu's first sibling. You fussed over your meals and were petulant for so long. We were deeply concerned and on the doctor's recommendation, gave you lots of extra attention. Of course, in a week you were back to your usual important self. I think only then Mobi's spirit left our house.

Mamma is working now. Lucky and Lawson, you miss your mid-morning timepass when we would go into

the garden and play, or walk over to see the cement *gaadis* mix the cement. Lucky, how you like to watch the construction activities happening on campus. I must make up for what you are missing. Today, we will all play your favourite 'bhaji market' or 'garage-garage' in the evening.

And finally Roshni, you will not be happy and go to sleep at night till I tell you all of your bedtime stories, from my childhood and yours. You are a young lady now, right? But for us you will always be remembered as our nanhi pari (little fairy). We feel we pamper all of you a bit too much but this is the only way we know how to raise you. After all, you are only guests in our house. You will all move on in your own ways and will have left us one by one. So, no matter what, today we will enjoy your presence tremendously and bask in the joy that your masti (fun) brings to us.

Thank you so much for coming into my life.

With all my love,
Mamma ■



Photograph by Rangoli Garg, IDC

From left to right: Mini Krishna, Lucky Krishna, Mobi Krishna, Lawson Krishna and Roshni Krishna

In the Thick of Things

■ **ASHWATH KIRTHYVASAN** Fifth Year Undergraduate, Department of Aerospace Engineering

If student-faculty interaction is touted to be minimal and unsatisfactory, staff-student interaction is abysmal and almost non-existent. In an effort to change this situation and draw our readers' attention to the immense, behind-the-scenes work that our staff members do, I spoke to Mrs. Shanta Sreeraman about her job, her experience of being on campus and her changing perceptions of the students who populate IIT Bombay.

Mrs. Shanta Sreeraman is Personal Assistant to Prof. Gopalan, Dean of Student Affairs, and has been in this position for every Dean of Student Affairs in the past 30 years. Extremely unassuming, soft-spoken yet well-informed about the happenings in the institute, she spoke on the transformation that IITB has been through in the years that she's been here.

She narrates a long, fascinating and intricate story about how things have changed in the past three decades. The first anecdote is about the establishment of the Dean of Student Affairs (DoSA) office. Before 1978-79, the position of a Dean to look after the affairs of students did not exist. In order to bring all student activities under one administration, this office was established. Many a student back in the 80s spent 10 years in IIT to complete his or her degree. Such a lifestyle eventually became a burden for the system. Rules had to be formed to govern the academic and the non-academic aspects of students' lives.

She narrates that the students back then were much more united for a cause. There wasn't as much of a UG-PG divide as it exists now, and all the students

coexisted in relative peace. Every hostel had one mature senior student or PhD student who would come forward to solve problems. Although the times seem rosier, she reminds me of the menace – ragging – that plagued IIT. Ragging was a rage and a few students also faced harsh punishments. It was around mid-1990 that freshmen started being allotted hostels 2, 3 and 4 in their first year and this rule has continued ever since (except in 2004, when the authorities gave into the requests of students and distributed freshies across hostels.)

She attributes that if there is a decline in student-faculty interaction, it could be due to students being exempted from meeting their professors to finalise their semester registrations. This used to be mandatory for all students, she says. Now, the entire process is online. Also, sizes of the batches were much smaller as compared to present times. This meant that the faculty knew their students personally and helped them whenever necessary. When a student was performing poorly, his parents would be called to the institute to meet with the faculty and discuss solutions to resolve the issues.

One of the biggest concerns she expressed was the reducing interaction between students themselves. Mrs. Shanta considers computers to be a big hindrance and feels that this technology has single-handedly reduced the amount of time students spend interacting with each other. Earlier, the Gymkhana would be filled with people and activity while now it presents a dull and quiet state. Students are too involved with their personal lives. This, coupled with the increasing immaturity of students coming into the institute has presented a plethora of

Sizes of the batches were much smaller as compared to present times. This meant that the faculty knew their students personally and helped them whenever necessary.

unseen problems for the administration, she says. Rising incidents of alcohol abuse, misuse of freedom and the utter lack of respect for faculty from the students has left the authorities puzzled.

She categorically states that there were problems in the past too, but the rising intake of students and their increased exposure to various influences have led to many problems.

Not too many professors are keen on becoming the DoSA, considering its job profile. It demands a lot of time and patience to attend to the problems relating to students. It's an ungrateful job; do it well and students blame you for over-regulation; don't do it well and you still face brickbats.

As a member of staff, Mrs. Shanta has been as much of an observer as she has been a player in workings of the campus. She has seen the nature of interactions change even as she played her part silently and with a great sense of pride. She loves the campus, she concludes, and will continue to work in IITB. ■

THE UPSIDE OF DOWN

Walking Makes me Happy

■ **PROF. H. AHLUWALIA**

In the 1980s, the British rock-n-roll band Police sang "Giant steps are what you take walking on the moon/ We could walk forever walking on the moon". They could well have been singing about walking on IITB campus, since walking is surely one of the great pleasures of our campus life. Progressively, the steps that one can take on campus are less than "giant", as it gets crowded, especially with vehicles and construction. Car parks and concrete structures sprout out of nowhere, as grown-ups play at being town planners and landscape designers for this campus with relative impunity. But still, walking on campus is a joy - the wooded Soneri Baug route, running into the occasional mongoose, climbing the hill behind Ananta, the lake-front walk and watching cormorants, kingfishers and other waterbirds, memories of the Pipeline road and the Vihar area when it was accessible from campus. The same walks appear different depending on the season, with monsoons surely bringing the most dramatic of all changes. The winter haze around the streetlights, framed by trees on the hostel route in late December nights can bring out the romance in some of the most hardened.

Sometime back, Raintree carried an opinion piece titled, "Why am I in IIT?", where the author opined that "helping consummate the dream of a lively public institution, with meaningful public scholarship" was what was important to him. This set me, Prof. Happy Ahluwalia, also thinking. But for me, and surely for some others, one of the important reasons behind being here could be slightly more prosaic: like maybe the good fortune to be able to walk to my workplace through relatively pleasant surroundings. In fact, one feels blessed that in the five places (spanning four countries) that one has worked in (or attended graduate school), one has had the good fortune to either walk, or at least cycle to the workplace. But I do not think this is an accident.

Henry David Thoreau, in his delightful book simply titled, *Walking* put it as "It comes only by grace of God. It requires a direct dispensation from Heaven to become a walker. You must be born into the family of walkers..." Thoreau, probably the greatest of men, in his eulogy to walking further goes on to say, "...but the walking of

which I speak has nothing in it akin to taking exercise, as it is called, as the sick take medicine at stated hours – as the swinging of dumbbells or chairs; but is itself the adventure and enterprise of the day". This gentle sage lived in 19th century America, and had little idea how lesser men after him would turn his country into a civilisation of obese people, driving gas-guzzling SUVs, and that wars would be fought to preserve this lifestyle. Obviously, suburban living, lack of well-planned public transport, ready and cheap ownership of private automobiles, the greed of the automobile industry along with the usual suspects like fast food, corporate greed, advertising, etc. also contributed to this decline.

A not very dissimilar story is being played out here in middle-class India. But coming back to IITB, there is something which puzzles me, Happy Ahluwalia, to no end. Given that, we on the campus, live in a verdant oasis in one of the world's most polluted cities; given that most faculty members are pushing middle age or whereabouts; given everything that medical science tells us

about the fickleness of the South Asian heart (and sundry other organs); given that we do not allow our students to own and operate private, motorised vehicles; given that the workplace is a maximum 15 minute walk through relatively pleasant surroundings.. Given all this, why do supposedly intelligent faculty members in IITB routinely drive to work?

Some years back, the famous German physicist Dr. Walter Mitty who had also spent time at the institute as a visiting professor, was asked what he would ask God given the opportunity. The great physicist replied: "When I meet God, I am going to ask him three questions: Why relativity? Why turbulence? And why do so many supposedly intelligent faculty members at IITB routinely drive to work? I really believe he will have an answer to the first two." ■

1. Adaptation of a story variously attributed to the German theoretical physicist Werner Heisenberg and English mathematician Horace Lamb (with quantum electrodynamics instead of relativity).



Illustration by Ankita Roy, IDC

From the Driver's Seat

JYOTI CHEDE Former Campus Resident

I was driving around in our campus on a lovely December morning. I wanted to do some shopping. We IIT ladies (sometimes gentlemen too) have a ritual — we park the car near the gate, shop around the market, dump the bags in the car's back-seat and drive back home. As per the routine, I finished my shopping spree and was about to start my car. Our Security Officer Mr. Koli stopped me, came by my car window and said, "Are you going back home? This person wants to go to Tulsi Building. Since it is on your way home, can you please drop him? He is visiting the campus for the first time. He is also new to Powai."

"Oh, sure," I replied.

He turned to the man and said, "Get in. She will drop you." I opened the door.

"He is a police inspector and has to do some minor enquiries related to someone's passport in Tulsi Building," said the officer.

"Oh." I couldn't say anything more as he was already inside the car.

"Thanks," said the police inspector.

I noticed a softness and humility in his voice.

"That's okay. I am going towards that side only."

He was an innocent-faced, young person. It was hard to believe that he was in the Police Department, given the kind of things we hear about the police and the kind of opinions we have of policemen. For a while, there was silence in the car.

"I was posted in this Police Station recently. I am new to this city."

I just listened.

"Your campus is very beautiful; it is surrounded by small hillocks, lots of greenery and... just so many shades of green. It is such a surprise," he said.

I didn't know what was making me uncomfortable: the fact that he was a policeman, or the fact that he was a young, mild-mannered policeman.

I didn't know what was making me uncomfortable: the fact that he was a policeman, or the fact that he was a young, mild-mannered policeman.

"I have to collect some photocopies from the shop. It will take me five minutes. Can you wait?" I asked him. I hoped he would want to go for his errand as soon as possible and my detour would make him leave. But to my disappointment, he replied, "No problem. I will wait."

I wanted a few photocopies of my students' drawings. I loitered away more time than required at the photocopy shop, hoping the policeman would get bored and leave. But no, when I came back I saw him sifting through some blank papers and a few remaining drawings.

"Sorry madam, what is this?" he asked as I sat in the car.

"Today we had a painting competition for some children. Those are my students' drawings."

He picked up the pile of papers and started looking through the paintings. I observed him from the corner of my eye. He picked up a pencil and some plain papers. He was lost in his thoughts. He was touching the pencil in a way that reminded me of artists who laid their hands on their instruments before starting to play.

"Can you please stop the car?" He asked. His voice had changed; it sounded as if it was coming from a deep valley. I did as he asked. What was he going to do?

He looked at me and started working on a piece of paper. I was baffled. Within a few minutes, I found a



Illustration by Regan Raj, IDC

sketch of myself, complete with minute details including the steering wheel, the trees in the background, on the paper he was working on.

"Wonderful." I managed to utter, in complete surprise.

"I am sorry, these drawings, pencils, papers and the beautiful nature... I just couldn't resist. I love painting. I have a passion for painting, drawing and all types of arts. I was very good in arts, I wanted to become an artist but my father died in a firing encounter with terrorists, and my world changed. The responsibility of my family came on my shoulders. I had to join the police force. I got a job in place of my father. It was very hard for me, but I buried my passions and tried to adjust to my new life. I succeeded to some extent but when I saw all this beauty," he signalled to the trees with his hands, "I couldn't stop myself from sketching. But I know I can't afford to be in my dream world." He stopped abruptly.

"*Kya kare, hamara sampark acche logon se kam hi hota hai. Hamesha hamara paala chor-gundo ke saath hi padta hai* (What can we do, we don't come into contact with good people too often. We're always with criminals). Even during my sister's marriage I had to be on-duty because of riots..." he stopped abruptly again. I was stunned.

Why do we hold prejudices against particular professions? Most of us cannot think of policemen without their uniforms, or in different roles. Just while ago, I was hoping to get rid of this gentleman. Now, I was feeling terribly ashamed of myself for thinking that way. Can we imagine a policeman weeping on his sister's bidai? Or cuddling a small baby? Or singing Raga Jaijivanti?

Why do we hold prejudices against particular professions? Most of us cannot think of policemen without their uniforms, or in different roles.

I was so engrossed in my own thoughts that the car slowed down without my intervention and I took a much longer route to Tulsi. We reached Tulsi and I

stopped the car. He handed me a pile of papers. He had filled the papers with beautiful strokes; the whole campus appeared on paper. A boy on a cycle with his school bag on his shoulders, teenage girls chatting merrily, a professor walking, lost in thought, a mother cow licking its infant, shades of greens, blue and brown, trees on both sides of the road.

"This is beautiful!" I exclaimed, surprise writ large on my face. "When did you draw all this?"

"You were busy driving. These marvellous hillocks, the beautiful nature inspired me. I could not stop myself from drawing it. I am sorry. Please forgive me."

"Forgive you?" I asked and thought to myself, first I have to forgive myself for harbouring wrong prejudices.

"Thanks for the lift," he said, as he got out of the car.

There was an eerie silence. Suddenly I raised my hand towards him. He hesitantly moved his hand forward. I could see the surprise in his eyes. I held his hand and said, "This hand is not meant for holding rifles. God has created this hand for handling pencils, brushes and the canvas."

I let go of his hand and started the car in a hurry. His eyes were moist as were mine. Later, I realised that I had forgotten to ask his name. ■



Photograph by C. P. Joglekar

A Lesser Known Landmark

■ **TARUN REDDY**, Third Year Undergraduate Department of Civil Engineering

My first affiliation with NCC was in my freshie year. Till then, I had never heard of something like it, not in an institute like IIT. When I came to know that the National Cadet Corps was under Indian military authority, my stomach churned a bit. I was apprehensive of the army's fabled asperity. But like most students on campus, I succumbed to the myth of NCC being irrelevant; just another compulsory course which I had to take up. As a campus resident who had finished the course, my old opinion about the NCC puzzles me. How wrong I have been.

Every day we walk past the NCC gate. Yet very few of us have ever bothered to walk through it. What is worse is that fewer of us know about the people living there. For some of us, it's a dilapidated house with rickety furniture, cob-webbed walls. Maybe for a wandering, retired military serviceman, it is a haven. Surprise! Reality is different.

Though sequestered from most campus residents, NCC is one of the few active groups on the campus. NCC has representatives from both IITB and the army. They work collaboratively to make it function as efficiently as possible. NCC thrives among people who know it; it does not advertise itself like other student groups. They have their own share of camps and trips for students of IITB and KV who annually register for them, apart from weekend sessions. Camps acquaint students with difficult situations and how to deal with them. They endure gruelling sessions of fitness, exercise regimes, etc. Trips like para-gliding and rifle shooting are more about adventure. Men here serve the army. So, they are actively involved in military camps held in the vicinity of Mumbai during week-days. As a freshie, what I liked best about the NCC experience is when they taught us how to shoot a gun. It is every child's dream at one point or another to try something like this. Here at NCC, the right guidance and space is provided to try it. It is liberating to shoot frustrations out through a revolver.

As its status is today, NCC is a mere landmark guideline for most of us. It's an incongruous part of IITB to residents. As students, we don't find the motivation in us to know the world on the other side of the gate. This kind of estrangement is formed by our hackneyed perception of people on the other side, their values and their social, day-to-day life.

In writing this article, I met a few of those people again. Luckily, Mr. Manmohan Singh (not the famous blue turban guy), who has been working as an

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Photograph by Rangoli Garg, IDC



Photograph by Rangoli Garg, IDC

administrator at NCC since last year (and prior to it as an employee at IITB) was available. Having been part of IITB and also of NCC, Mr. Singh was the ideal person for gathering a perspective on the lifestyles of people who work here.

Who says life in the army isn't lively? They too have their own share of escapades and they aren't constrained to classes. At the end of day, rules are there to be broken – be it in IITB or in the army.

Our discussion began with army life being widely perceived to be dull and way too disciplined. To which he indignantly replied, "One shouldn't be dismayed at the thought leading a disciplined life. Discipline is paramount for climbing the ladder to success." Later he added in a spicy tone, "Who says life in the army isn't lively? They too have their own share of escapades and they aren't constrained to classes. At the end of day, rules are there to be broken – be it in IITB or in the army."

We bantered about the situations of students at both institutions. "Sir, at IIT we believe that the campus lifestyle gives us the freedom to venture into different fields. Yet, at the same time it is hectic and stressful. A student also crafts his/her life on his/her own terms and conditions. Is it same in the army?"

He replied, "That definitely isn't the case with the army. But, the modus operandi of the army as an institution is to provide training for harsh situations, to craft a daily schedule of students based on the requirements of others. In the army, one respects and admires seniors and we know that everyone is a friend." He finished with pompous flare. "We' precedes 'I' here. We are not very ambitious for a lavish lifestyle. Is it the same with you?"

Through my conversation with him, a handful of my myths were broken. Ever since that happened, I have been pondering about them. IITB provides the

opportunity to explore different fields that we find a liking for. We indulge in manifold activities such as GRA, dramatics, sports, etc. Somehow, NCC is the only activity that never makes it to the preferred list of most students. It's been stained with arduousness. And this stain is easily caught on when a freshie joins IIT.

Most people think that the norms and values of NCC somehow don't suit their way of life here. Most students, after having prepared so assiduously for the JEE perceive leading a disciplined life to be dull and limited. We would rather not listen to authority figures. Hence, we jump on every opportunity to undermine the authority of faculty and their wisdom.

That apart, I have realised that although we restrain ourselves here in IIT, we aren't constrained. We have built imaginary boundaries all around us and we restrict our mobility within close quarters. We need to break out of these walls and interact with people who may not agree with our views. We rather brazenly carry forward our prejudices. It's time to rule out preconceptions which confine us. And certainly a walk on that side of the gate would help us in making this place a better one.

Here in IIT, we have built imaginary boundaries all around us and we restrict our mobility within close quarters. We need to break out of these walls and interact with people who may not agree with our views.

After a minute of silence, Mr. Singh cheerfully said, "In hindsight, both these government institutions have been built with an objective of serving the country and they have their own methodologies for doing the same. Adhering to the interests of the nation would be sufficient, rather than comparing the pros and cons of these two diverse institutions." This was the apogee to my fruitful and enlightening interaction with Mr. Manmohan Singh. ■

Swinging the Tightrope

■ BHAVINI PANT Campus Resident

When the first brainstorming sessions on Raintree's theme began, I fell prey to RHS and chose "gender divide on campus". What is RHS, you ask. A friend describes it as the Right Hand Syndrome – the tendency to impulsively raise your right hand and swear initiative for anything. And reconsider later. I thought to myself, "What was I thinking, choosing a topic like that?" It's something so obvious! Freshies and alumni could break ice over this. Everything that had to be said, written, sung has been said, written and sung.

But I have a different perspective because I grew up in IIT: I didn't study here. During school, my interaction with the institute students was quite scant. A few odd times they would come home, I would notice that every chair, table and horizontal surface which could accommodate this sudden population increase was dominated by guys. Even these 'homely' celebrations would encounter some absentees so I was never really exposed to the true numbers. During these soirees, the girl/s would almost always come and her presence would make the dis-balance be felt more keenly. My discomfort lasted only for a while till the students began opening up, and after they left it was all forgotten.

It was during high school when some friends of mine began preparing for JEE that IIT became much more than just an address. The results came in, and some of them got admission right here! Suddenly, IIT was a whole new ballgame. I was privy to first-hand accounts of terrible rooms, terrifying professors, 48 hour nightouts, the intense competition and the immense variety of entertainment loosely labelled as 'non-academic pursuits.'

(I must warn you, this is a gist of conversations my IIT friends and I had in their first year.) Everything was in the extreme – the bad food, the incredible prof, the slimy senior, and even – the huge swimming pool. Over the years, many perspectives changed, emotions were tempered but one obstinate crib remained: "there are just no women!" Although I was always

ready to rubbish their earlier grumbles with a reasonable counter-argument, I conceded empathetically to this one. The reason was simple. Over the months, I had crossed the shore from the school and residential area to the hostel, department and SAC area. The one experience that I shared with my IIT friends: there really were very few women.

What must a girl feel when she enters a class of 50 guys? How does she deal with the sudden attention, the initial alienation? How does she talk freely without being singled out? Women face these situations anyway, if they decide to go alone for a movie or a lunch.

It was interesting to see the subtle changes in behaviour that this inequality brought on in the guys. Here's a story. Once a friend (from the institute) and I, were out walking on the campus. We were talking animatedly about our school and teachers when suddenly from a distance, a horde of guys wearing small number-banners came running doggedly in our direction. They were running the crossee. My friend lowered his voice conspiratorially and said, "Okay, here's what we're going to do. I'm going to walk off and disappear till these guys pass by. You keep walking ahead normally. Keep in touch on the phone. Once they're gone, I'll join you. Go!" Just like that, I was in a Jason Bourne movie, except that instead of amnesia, I was truly clueless. It was lots of fun, and when the runners had passed me by my friend joined me as smoothly from nowhere. "I'm sorry for ditching you like that," he explained later. "Some of those guys were my seniors. Had they seen me with you, I would have been *beep* in my hostel." I was pretty amused (and in a tiny corner in my head, flattered) by the far-reaching consequences of my

presence. Did it really matter that much?

Looking at my friend's reaction, it did. I could have had a good time fanning those flames of vanity, but the truth is that it wasn't really as gratifying. It's not who I am that causes such a flutter, it's what I am. That really isn't an achievement I can be credited with. Having survived the initial pressure-cooker years, my friend is quite blasé about runners now, or other guys we may meet while walking. Is it also because being a senior means you finally have the freedom to be who you are? I wonder.

Fewness breeds fascination. Once, some campus friends and I were out on Holi to meet a school friend at his hostel. Crowd after Neanderthal crowd of men dressed in rags roamed recklessly, beating vessels, smeared with paint and mass-grunting periodically. A group of three approached us and requested to take a picture with us. I meekly asked them why. They replied, "We just want a picture with some girls." The situation was so ridiculous, we burst out laughing! Hilarity aside, sometimes the numbers scare me. What must a girl feel when she enters a class of 50 guys? How does she deal with the sudden attention, the initial alienation, the pressure of constantly being watched? How does she be herself, talk freely without worrying about being singled out? Women face these situations anyway, if they decide to go alone for a movie or a lunch. But IIT's microcosmic nature makes the gender divide much more acute than it is outside.

Companionship and curiosity are two among the biggest drives behind human behaviour. They stand like two ends of the social tight-rope that students walk on here.

I happened to experience the gender divide myself, when I joined a women's college. The three guys in college (we were co-ed at the M.Sc level) would never go anywhere unaccompanied by their entire gang. "The eyes have it", they say. Even if you are not talked about, the sheer quantity of people watching you can have a dizzying, often nervous effect. Of course, the mood was considerably brighter, and the hormones lighter when we had our college festival. That happens here too during Mood I, irrespective of gender.

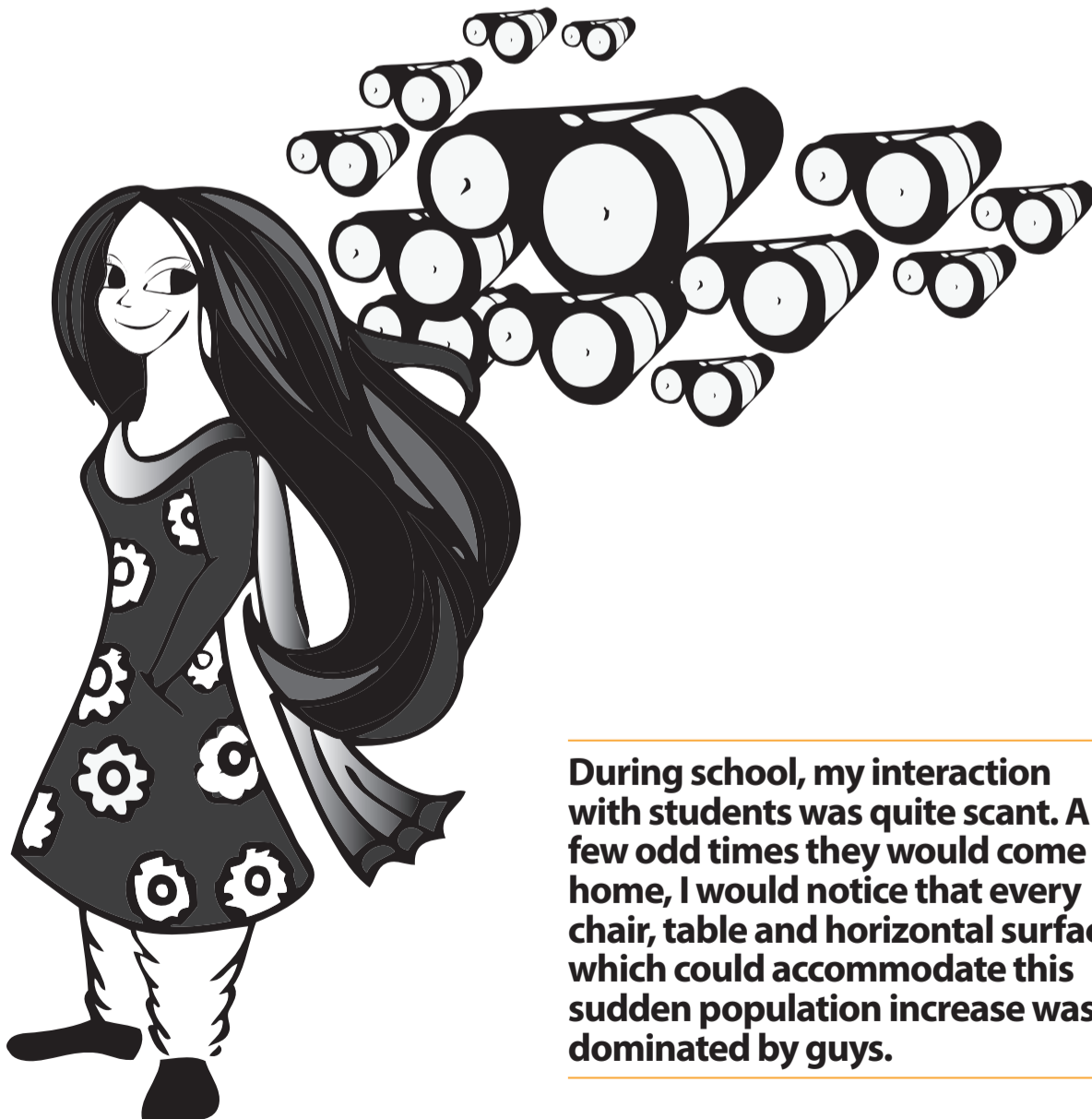
I asked students from both sides what they felt about it. Generalisations were swept either ways: "The girls love the attention, it flatters their ego. They become even harder to approach," said the guys. "We know we're constantly being watched, and when not being watched, being dissected or judged. It doesn't make for great first conversations," said the girls. (Though I suppose this watch-dissect-judge process works both ways.) Beware: I spoke to three guys and two women, practically strangling every logical rule of statistical representation. So, how do the women feel about the men feel about the women, and so on?

The only way to find answers is by an open dialogue. Knowing the bohemian nature of "non-academic pursuits" here, I'm sure something similar may have already happened. Companionship and curiosity are two among the biggest drives behind human behaviour. They stand like two ends of the social tight-rope that students walk on. How do we turn this into a happy, friendly jumping-castle? Will it change only when boys equal girls numerically?

Start that conversation today.

Disclaimer: The views expressed in this article are those of the author's and do not necessarily represent those of IIT Bombay or of Raintree

During school, my interaction with students was quite scant. A few odd times they would come home, I would notice that every chair, table and horizontal surface which could accommodate this sudden population increase was dominated by guys.



Invisible Lines

■ SUMAN RAO First Year Undergraduate, Department of Metallurgy and Material Sciences

For a place envied to be like a microcosm of our country, the unexplored contours that exist among its denizens make for interesting observations. Your senses gratefully inhale a change the moment you enter the palm-lined avenues of the campus. Soon, you see people of various accents and hues strolling around IITB's bejeweled setting.

As an 18-year old queuing outside the JEE office (a surprisingly nondescript one for all the hoopla, observes a freshie mind) for post- result counselling, I was awed by what I had signed up for and excited at the prospect of living, studying and playing among the best from across the nation – very literally. I and 881 more of my ilk arrived a fortnight later, hoping to stay in a plural campus. But we soon found out that this was not to be for a year.

Apologists find faults in certain traits of the students they use such slang for. They accuse them of having 'superior airs due to higher AIRs' and criticise them for not making any effort to bond with students from other cultures. Critics point towards the intolerance and isolation they suffer, which in turn is responsible for the lack of engagement in the first place.

The IITB hostel allocation for its youngest charges follows rules separate from those for later years. Allocation is done JEE centre-wise, so unintentionally (maybe unwittingly?), all birds of the same feather flock together, even among the first years. I found only Gujaratis and Marathis in my wing. Elsewhere one found South Indian wings, which were a cacophony of tongue twisters. I marvelled at their wings which were the best organised and most polite, a character brought out by the virtue of relativity; adjacent to them were the North Indian wings, which put on their sweetest Hindi to an outsider but cussed amongst themselves with abandon.

Each regional block has its own characteristic traits. For example, you cannot but notice how the Mumbaikars, affectionately known as ghaatis, have almost taken a policy decision: "Thou shalt bathe only in the comfort of thy home", making baths a weekly affair. Coupled with their hardening belief that the campus offers much more to engross them during weekends than their cozy homes, the lack of their weekly ablutions, well, wafts along! Blessed are the shops in hostels having ghaatis, for the bottles of deodorants disappear faster than the frankies in the canteen next door.

The boosted sales of deodorants and mints are not the only credit that ghaatis receive. They also enjoy the status of being fashion trendsetters – the campus undergraduate dress code of tees and three-fourths is credited to them. And yes, their twin duties ahead of all others: one, they are the de-facto concierges of the whole wing. Any person in the hostel, desirous of reaching anywhere in

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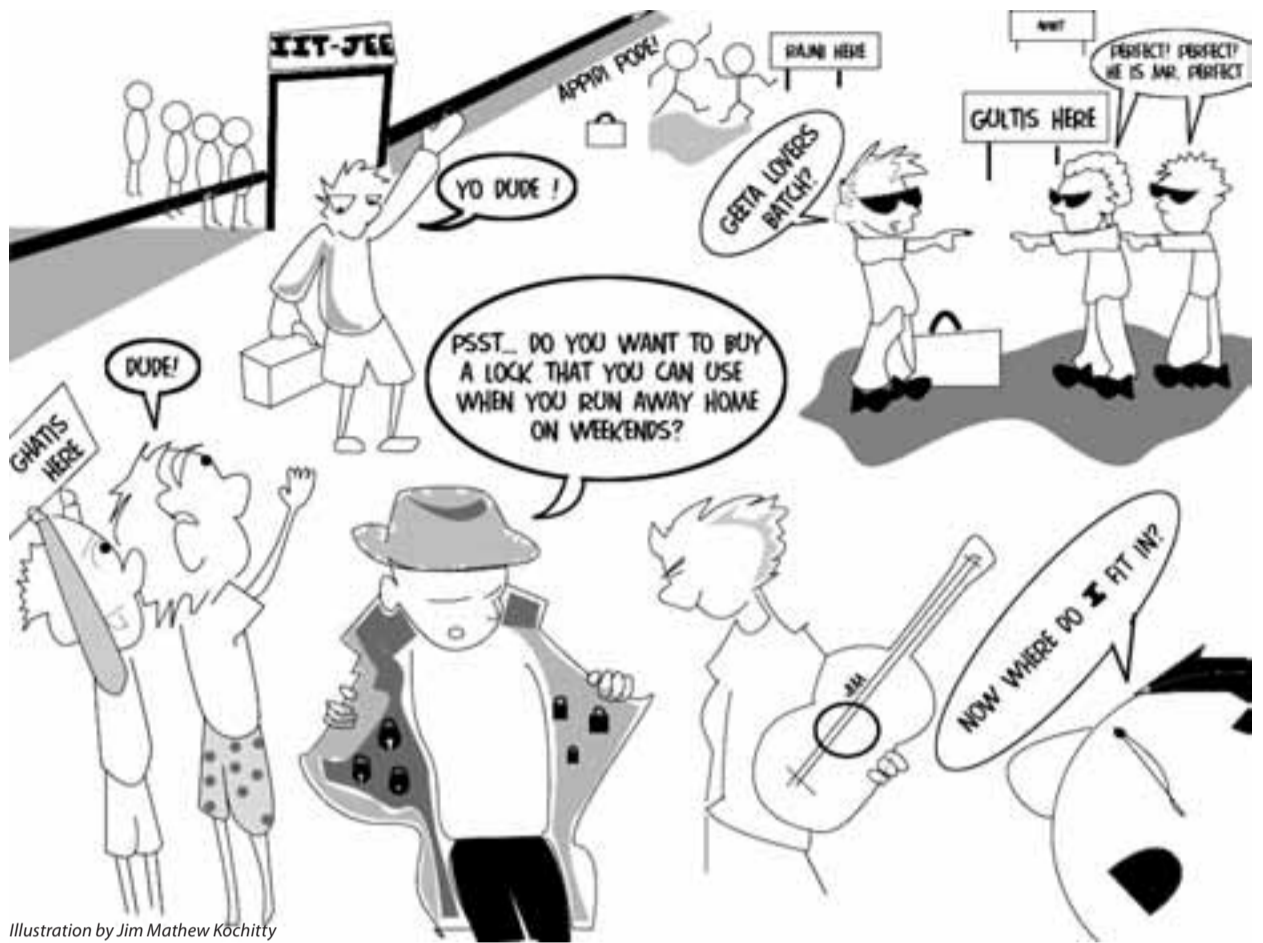


Illustration by Jim Mathew Kóchitty

As an 18-year old queuing outside the JEE office (a surprisingly nondescript one for all the hoopla, observes a freshie mind) for post- result counselling, I was awed by what I had signed up for and excited at the prospect of living, studying and playing among the best from across the nation – very literally.

this island city, must be efficiently directed by a ghaati. If ghaatis who are capable of suggesting the perfect BEST bus number are greatly admired, ghaatis who actually suggest the perfectly priced and fun places to hang out and kill time are the hostel darlings. Two, it is their oxymoronic 'voluntary duty' to bring back food from their homes every weekend.

Pro bono work you may call it, but dereliction of duty will get your ass kicked, in every literal sense. The gusto with which a wing descends on an unpopular wing member's unfortunate birthday (to lash at his helpless backside with Paragons, shoes and sometimes studs), on occasion manages to surpass even the enthusiasm shown on a rare female sighting. Not so accommodating or inclusive is the treatment meted out to South Indians, who travel miles to reach these hallowed precincts. Given the sweeping tag of gulti (most likely originating from an inversion of the syllables in te-lu-gu), their weak command over Hindi puts them in stark contrast and isolates them from the rest of the campus' populace, which converses mostly in the national tongue. Freshies use the term gulti in whispers amongst themselves while seniors call out the term aloud. The edge with which the term is belted out renders it more demeaning than other racial slangs, such as 'bong' or 'sardar', which find widespread acceptance.

Apologists find faults in certain traits of the students they use such slang for. They point towards a 'disenchantment to cutlery' among these students, which they find offensive, and refuse to dine on 'gulti tables'. They accuse them of having 'superior airs due to higher AIRs' and criticise them for not making any effort to bond with students from other cultures. Critics find this a circular argument, pointing towards the intolerance and isolation they suffer, which in turn is responsible for the lack of engagement in the first place.

At the end of the first year, rooms are re-allotted and this time, randomly. Chunks of rooms are taken together and allocated to a hostel. Rooms 1–6 in a freshmen hostel may be allocated to Hostel 8, Rooms 7–12 are allocated to Hostel 9, etc. lending a level of heterogeneity. The allocation is more flexible, making exchange of rooms easy. And thus in our second year, we will begin a vibrant stay in IITB... plural as hoped, with easy camaraderie to boot. ■

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OBITUARIES

Shri Babu D. Varak Senior Messenger, PPR Section



Shri Babu D. Varak passed away on 5th December, 2010. He was 52 years old. Shri Varak was working as a Senior Messenger in PPR Section, where he spent the entire tenure of his service at IIT Bombay. He joined in 1980.

Despite being physically challenged (he needed the support of crutches), Shri Varak carried out his duties admirably and was usually the first one to come to work. Being senior-most, he knew the Main Building and its inhabitants well and guided the younger team at the PPR section. He had a calming presence and a smiling personality. His present and previous colleagues remember him as a very amiable and cordial person. He will be missed by both his family and colleagues. May his soul rest in peace.

Prof. M.C. Srisailam (retd.) Department of Electrical Engineering

Prof. M.C. Srisailam, who was 72 years old passed away on 7th October, 2010. Prof. Srisailam, a retired professor of Electrical Engineering had coached and guided innumerable undergraduate, postgraduate and PhD students during his tenure at IITB, which spanned more than 35 years. From his colleagues, who spent time with him during his own PhD days in Russia, to his other students as warden of H8, to the Control Systems Labs he ran as System and Control Convenor, he won the admiration and respect of many. An intellectual to the very end, he spent his entire life in the pursuit of knowledge for the sake of knowledge alone.

OPINION

NFS: Need for Security?

■ **ANTARIKSH BOTHALE**, Fourth Year Undergraduate, Mechanical Engineering Department

People who have read excerpts from Madhouse: True Stories of the Inmates of Hostel 4, IIT-B (co-authored by our '82 alumnus, Bakul Desai) will recall how he and his friends spent a lot of their leisure time in the campus devising and executing all kinds of crazy things. Going to classes on a borrowed horse; procuring an elephant for PAF publicity (yes, most of us students can't imagine what it was like two decades ago) from a South Indian don — these students (who are all in highly respected positions now) have been there, done that. Of course, things have changed with the advent of the internet and we aren't likely to see that sort of stuff happening now, but the spirit remains more or less the same.

IITBians are valued for their all-round development and personality, which extends far beyond good grades. This is something that comes from a certain level of freedom of thought and action, and not from being mollycoddled and treated like seven-year olds. Imposing arbitrary restrictions stifle that spirit. We then assume that the freedom to organise events at whatever time and whichever place in the campus we want (as long as we don't disturb others) should be a part of this. And while we appreciate the steps taken to ensure that the campus is safe for women, a girl and a guy (or any motley group of students) should be able to roam in the campus at any time unhindered — they definitely don't deserve a telling-off! For example, the latest circular to students points out that, "Roaming/sitting in the dark or isolated places with opposite sex during unearthly hours is a serious offence". It would be reasonable to expect that we would not have to suffer arbitrary moral policing (based mostly on the caprices of the security personnel on duty), which is already the bane of our nation. Knee-jerk reactions to singular incidences might be usual in our country's setup, but it would be stupid on our part to equate that with the campus scenario — our day-to-day lives are regulated by people who are far more intelligent, and we want reason to be proud of that.

In this very issue of Raintree, you would find an interview in which an official from the Vigilance Team explains his work in detail. We salute these people, who make the campus a safe place to live in, and we will happily suffer mild inconveniences towards this cause. However, we consider that within the campus, the freedom to do anything we want (within the obvious limits of decency, etc.) is something that can be safely taken for granted. Trigger-happy college kids who find it easy (even cool) to throw unconstructive criticism at authority might be well suited for Rang De Basanti-esque movies, but we give ourselves far more credit. Give us rules — sensible ones — and we will follow them. There are faculty quarters near the Main Road, so we think it's OK to ask students

to not create a ruckus there late at night. But when we get stuff like "Students are not permitted to go out of campus for any adventure activity like trekking" — a rule which would elicit a hearty laugh, if it weren't for the sorry fact that I quoted it out of a 'Security Instructions for Students' email sent by the Chief Security Officer — we think we are being rational, logical and just plain obvious in complaining. Would the next rule be that "Students are not permitted to cross railway tracks"? Apart from being virtually impossible to implement, we shudder at the precedent they are setting. A few parents worrying about their kid going trekking translates into an institute-wide rule? If a student's parents prefer that he not go trekking, they can advise him and inform him of the perceived dangers, and that's about it. I am sure there are many other things parents are uncomfortable with, so should we expect a mail saying "Students are not allowed to watch late-night movie shows" or "Students can't go out in the rain without umbrellas"? I agree these are exaggerations, but I hope you see the spirit of the argument. This is a college, not a boarding school, and having to say this aloud feels rather silly.

Trigger-happy college kids who find it easy to throw unconstructive criticism at authority might be well suited for Rang De Basanti-esque movies, but we give ourselves far more credit. Give us rules — sensible ones — and we will follow them.

So, in summary:

Rules and policies should be formally laid out and justification for the same should be provided. It is easier to follow rules if we know the rationale behind them. If possible, students should be a part of the whole process. Knee-jerk reactions are pointless. Indirect remedies like making ID cards costly in an apparent attempt to make people serious about them don't solve any purposes. Our ID card is valuable enough for us to not want to lose it, even if it were ₹50 cheaper. In the event of actual misuse — let's say someone gives his card to an outsider, thus compromising institute security — the offender can be suitably punished and the details of the incident (without names) should be made public for all to know and be careful about. Security personnel should not invent and impose rules based on their whims. And Moral Policing? Seriously? ID cards shouldn't be confiscated for stuff that hasn't even been defined as wrong. I thought that the Security was there to ensure that I can roam around at whatever time in the campus fearlessly,



Illustration by Roma Singh, IDC

We are not as mature as we would want ourselves to be, but we are certainly capable of making informed choices, and we strive for a campus where we are allowed to make those choices.

rather than stopping me from doing so. When a baby cries, you investigate why, and give him food if he's hungry — you don't muffle him by stuffing a sock in his mouth and assume that silence means that the problem is solved.

Let's come to face it: students here are adults. As a residential, educational institution, it is IITB's responsibility to ensure their well-being. However, it does not mean that unnecessary restrictions be put on them. Parents might want but can't expect the authorities to keep a watchful eye on their kid every living moment, and frankly, the authorities can't and shouldn't give in to such demands. We would be glad to have some breathing space — we are old enough to be allowed to play with fire. IITB has flourished in a period where students were freer. When we chuckle over passages of the book by Bakul Desai, but now we also step back and think about how many of those things Bakul could have done in the present day campus. We are not as mature as we would want ourselves to be, but we are certainly capable of making informed choices, and we strive for a campus where we are allowed to make those choices. ■

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IN THE WILDERNESS



Red and Black bug at IIT Bombay campus

Photograph by C. P. Joglekar

OPINION

Big Fat Zeros in Red Ink

■ **DEEPU PANICKER** Fifth Year Dual Degree, Mechanical Engineering Department

Often you come across stories of people who had some amazing experiences in their school life that lead them to choose teaching as a career. This is not one of those stories. The IIT Bombay programme for postgraduates gives them the opportunity to become Teaching Assistants in their final year. The reason this is not like one of those stories I mentioned above is that we (at least most of us) are doing it simply because we are getting a stipend for it.

It is amazing how there is a dramatic shift in your demeanour when you go from being a student to a teacher. It does not matter that when you were studying the same course, you barely managed to pass; now that you are a TA you are looked upon as the all-knowing mentor (at least by the freshies). And you behave like one in the classes that you assist in. Clueless freshies often come to you for all sorts of advice; I can say this because this is what we did when we were freshies.

The attitude towards TAs changes quite a bit in the students during their later years though, when they realise that you do not know a lot more than they do. So the questions directed at TAs are inclined more towards getting the lab/assignment done, as opposed to freshies, who ask insightful and technical doubts hoping that they would lead to a 'Eureka' moment.

[Being a TA] inherently comes with the feeling of being a hypocrite, as you attempt to stop people from copying though you would not mind it and would probably try it yourself if you were writing the same exam.

This unusual perspective about you being the well-versed expert takes some time to sink in. The answer, "pata nahi, yaar" (I don't know, man) is not enough any more and only leads to embarrassing shaking of heads from the TAs and students alike. Obviously, bothering to learn a little bit more about what you are going to teach would spare you such moments. So for most of us in our fifth year, we, along with our students ended up learning the subjects as well (for the second time).

Becoming a TA really answers a lot of questions you wondered about when you were a student. For example, I would always wonder how people got through two to three hours of invigilation duties. Having done it myself, I can confirm that it is in fact more boring than the 5'8" high, 80 kilo sleeping pill that teaches us. Moreover, it inherently comes with the feeling of being a hypocrite, as you attempt to stop people from copying though you would not mind it and would probably try it yourself if you were writing the same exam.

Personally, I have always looked forward to correcting answer scripts. On countless occasions I have written nonsensical answers in exams because I did not know the correct ones. It made me wonder how the corrector would react while reading it. I am sure we have all done it and now, I can tell you from my own experiences how the corrector feels. It is annoying, at least initially. I hated those students who would write preposterous answers. Though, after a while I realised that it is important to not forget that you were once the same incompetent, under-prepared and sleep-deprived student. On some occasions, you even feel quite bad for them; you're unable to give marks for the amount of thinking they have employed into adroitly weaving an answer by just paraphrasing the question and playing with the given data.



Illustration by Regan Raj, IDC

It did reaffirm my faith in our creativity, though. Now in my own exams, I don't go around writing stuff hoping for some marks, as I feel pity for the poor guy who will have to read through all of it. And finally, speaking of things I learnt as a TA, the most important thing was that I loved drawing big fat zeros in red ink, especially on answer scripts. ■

Disclaimer: The views expressed in this article are those of the author's and do not necessarily represent those of IIT Bombay or of Raintree

PERSONALITY

Heading Vigilance

Interview with **MR. MARUTI DINKAR ROKDE**, Head of Vigilance Team, IITB

Almost often, it is instinctive to disregard rules and restrictions, particularly if the authority figure is a security officer and you are a student at IIT Bombay. It would have been the same for me, were it not for Mood Indigo 2009. In my capacity as CG (Assistance & Hospitality), I had to coordinate with participants and oversee pass distribution. That's when I met Mr. Maruti Dinkar Rokde, the Head for the Vigilance team at IITB. Pass distribution lines would invariably run into chaos and Mr. Rokde would fly to our rescue every time. This interview is special to me, and it's not only because it's the first ever I've taken. Usually, I'm the one who's doing all the talking but there's something about Mr. Rokde's commitment and dedication to his work that could make even the most inveterate talker listen with respect.

Introduction by **ASHU PARWAL**, Fifth Year Dual Degree, Mechanical Engineering Department

AP: I, of course know this but for the benefit of our readers, let's start from the beginning. How long have you been here? And what do you do?

MDR: Actually, I was born in IITB in 1973. So I have an abiding bond with the campus. I joined Security in

The biggest difference between the earlier days in IIT and now is during Mood Indigo. Earlier, Mood used to happen in Gymkhana grounds. There was a lot more happening as it was for 10 days straight but now it is more limited. For Mood, we're all on duty 24 hours a day during fests. It's the same thing for TechFest.

2002. When the Vigilance team was formed in 2003, we had only three members. Currently we have 10 members and are training three new recruits.

AP: What does the Vigilance team do?

MDR: The primary task of the team is to observe each and every corner of IITB. The campus is spread across 545 acres and our job is to keep a watch on everyone including staff, faculty, students, visitors, outsiders, etc. every day. Also, we keep a check on the fences and boundaries so that no leopard enters the campus. Our duties also include checking areas connected to the Powai Lake. We keep a track of who enters the Academic Area because it is a restricted entry zone.

We also keep a watch on the activities of outsiders, and their schedules.

AP: Do you have a lot of interaction with students?

MDR: Yes, yes. I have good interactions with students, faculty and staff but sometimes I have to be strict with students just so they do not go in the wrong direction. The Vigilance team generally gets cooperation from everyone.

We handle student complaints as a part of our jobs too. We prevent students from consuming alcohol and drugs. We catch students who smuggle in vehicles and we ensure the safety of girls, especially in the night, and also ensure that no girl enters the boys' hostel or vice versa after 10 pm.

AP: What are your other nightly duties?

MDR: We ensure that all department rooms are locked and that only students are present in the department area. We keep a check on street-lights and general lights so that there are no dark areas in the campus.



Photograph by Venkat Damara

Finally, we report all observations and cases the next day to our Head of Security.

The first thing in the morning is to check the night report and discuss it with the Chief. Then the complaints which are addressed to the control room are discussed and a case-by-case analysis is done.



Photograph by Rangoli Garg, IDC

AP: What are the differences between security guards in plain clothes and others in uniform?

MDR: The only main difference between uniformed security men and the Vigilance team is that the duties of the uniformed security people are limited whereas there are no boundaries on the duties of the Vigilance team. The Vigilance team is grateful to Vijay Sir (ex-head of Security team) and the Dean of Student Affairs for their constant support and motivation.

AP: What are your working hours like? Do you have a family here on campus?

MDR: The minimum working hours for a Vigilance officer are 8 but there is no fixed schedule. We're on call at any hour depending upon different situations. Yes, I have a family. I live with my parents, brother, sister, wife and daughter on campus.

AP: What about security during events and fests — how do things change for those few days in December?

MDR: The biggest difference between the earlier days in IIT and now is during Mood Indigo. Earlier, Moodl used to happen in Gymkhana grounds. There was a lot more happening as it was for 10 days straight but now it is more limited.

For Moodl, we keep a check on all the students attending the fest. Firstly, the Vigilance team is briefed by the Security Officer. We patrol the entire campus throughout day and night during the fest. We ensure security to all the participants. We sanitise all the event venues. Basically, we're all on duty 24 hours a day during fests. It's the same thing for TechFest.

AP: Any humorous incidents of alcoholism, student pranks and such that you'd like to recount to us? What kind of trouble do students get into?

MDR: A student used to steal mobiles and used to keep them in between books in the library as he couldn't find any other safe place. Another student stole two cell phones from a couple of students' rooms and when the Vigilance team caught on to him, came to confront him and knocked on his door, he threw the cell phones out from the back window in fear. Luckily the smart

Guidelines for students:

1. Please lock your rooms if you go anywhere.
2. Please inform any suspicious activity to Security.
3. Expensive items should be locked in cupboards.
4. Please don't hang outside the tum-tums.

Earlier students were more laid-back and were not so serious-looking. Everyone used to have fun and enjoy their lives but nowadays the fun and the 'happy culture' is missing from the campus. Students have become 'maggu' now...

Vigilance team had already stationed an officer behind the room and he caught the cell phones on the ground.

There was a student with his girlfriend who was spotted climbing the Sameer hill at 2 am in the night. He was carrying a blanket on his shoulder. A Vigilance officer saw this and followed them to the top of the hill. The Vigilance team found out that they were making out at the top of the hill, and they were brought down by the Vigilance guys. The girl was a doctor. She had some surgical equipment in her bag. The Vigilance guys, to this day joke that, "Bhagat Singh planned his operation at 2 am in the night on the top of a hill".

During the valedictory function of H9 we caught a lot of alcohol being brought inside campus. The team placed themselves at every entrance possible and one of the Vigilance guys was positioned behind the Kshitij Park. The delivery guy for the alcohol came in a rickshaw from behind the Kshitij Park and the Vigilance officer caught him. The Vigilance team decided to make the Vigilance officer act as the delivery boy and the students did not suspect anything. So they told the Vigilance officer to put the bottles in a room. The Vigilance officer called the Chief and all the students were fined. We're smart guys, you know. (He laughs)

Another incident I remember is that there were two students from VIT staying in H8 in the summer and one more person not related to them, but from VIT as well, was there too. One day this guy stole the laptops of the other two students. The team put a trap and caught him just a day before he was about the leave. He had chloroform with him, which he probably used on the students. He stole it from the laboratory where he was working. His plan was to sell the laptops in Hyderabad to get money to send his girlfriend gifts.

AP: I was present there as a student witness since the security guys didn't have much knowledge of the ordinary-looking chemical. I was about to smell it when the VIT student asked me not to smell it. (I am truly thankful to him for stopping me.)

MDR: (Laughs) An FIR had already been lodged against that student earlier for another offence. He was taken to the police. He even had visited Chor Bazaar in Mumbai, and had also stolen new test tubes and beakers from the laboratory. The professor in-charge of the laboratory was his father's friend.

AP: How was the Vigilance team formed and what are the criteria for getting into it?

MDR: The Vigilance team is formed by people from the uniformed Security team. The important criteria for selection to the Vigilance team are: sincerity, patience, honesty, having an observant nature and the willingness to work hard.

The team is then trained for handling all possible cases — mobile phone loss, bike loss, robbery, laptop theft, etc.

AP: What are the reasons for so many thefts?

MDR: Thefts have come down significantly after the formation of the Vigilance team. But the numbers of security guards per person, entering the campus are quite less. We are not provided with any arms. More importantly, our boundaries are not that strong. The fencing of IITB's boundaries should be stronger. There should be a 15 feet wall fencing, which would lower the need for patrolling the boundaries and decrease the burden on the Vigilance team.

The Vigilance team has recovered numerous lost items like over 80 bicycles, 200 kg of copper wires, around 60 mobile phones, 20 laptops and 4-5 motorbikes. All the alcohol, bikes and other stuff caught is sealed and packed with the Security office.

Thieves who do this consist not only of people within the campus but also outsiders. The Vigilance team has a network with the police to catch hold of people who have gone out of the campus.

All the areas (Academic, Market, Hill side, Lake side, Hostel, Central) are interconnected which makes the campus even more vulnerable. And there are a lot of construction workers in the institute. All this increases our burden and it gets difficult to keep a check on everyone. I think that the Academic Area should be sealed off from other areas and entry should be allowed only at designated check points.

AP: Are there any faculty members who give trouble? Faculty families who might be troublesome?

MDR: A faculty member complained about me once. A bicycle had been stolen that day and I was standing in front of the Electrical Engineering Department to find the bicycle. That day many LCD monitors had been stolen too. A professor was coming out of the building carrying two heavy bags. Just as confirmation, I asked the professor about his identity and what he was carrying in the bags. The professor got really annoyed by this and complained about me. But on the whole, most faculty members don't cause trouble.

AP: What are the changes you have seen in campus from the time you've been here — in students, in faculty?

MDR: Earlier students were more laid-back and were not so serious-looking. Everyone used to have fun and enjoy their lives but nowadays the fun and the 'happy culture' is missing from the campus. Students have become 'maggu' now... People were more interested in sports and fests earlier. The faculty is more or less the same as before.

Members of the Vigilance team:

1. Maruti D. Rokde
2. M. Verma
3. S. Khandagle
4. R. Shinde
5. R. Yadav
6. A. Munde
7. J. Kerwan
8. L. Langhe
9. K. Saroj
10. S. Korgaonkar

Rokde Sir believes that if rules are made, they should be the same for all students, staff and faculty. Neither faculty nor students ought to be exempted from these rules: everyone should cooperate with the Security. The Vigilance team relies heavily on teamwork. They cannot work efficiently without their network. Despite this, they are deeply dedicated to their work and perform their duties proficiently with the limited resources that they have. They are also given no rewards for their work — there is no salary hike. Considering all this and their stellar work — the Vigilance team rocks! ■



Photograph by C. P. Joglekar

NEWS

IITB Reveals the Science Behind Homeopathy

In their recent paper, a team of three professors and a PhD research fellow of the Chemical Engineering Department, IIT Bombay, have unearthed the scientific basis behind the dilution and potency of Homeopathic medicines: Nanotechnology. The paper entitled "Extreme Homeopathic Dilutions Retain Starting Materials: A Nanoparticulate Perspective," has been authored by Prashant Chikramane, Dr. A. K. Suresh, Dr. S. G. Kane and Dr. Jayesh Bellare.

For many years now, Homeopathy, as a branch of medicine, has not been recognised as a having a scientific basis, making many scientists greatly skeptical of its value, and wary of studying it. This recent paper could radically change this perspective, since the science behind potency - the main bone of contention between homeopaths and modern scientists - has finally been resolved. Potentiation is the practice of serially diluting the medicine to increase its potency. In Homeopathy, a basic principle is that the more diluted a medicine is, the more powerful its effects.

However, modern science postulates that the more an element is diluted, the weaker it becomes. For example, if we put a drop of red ink in a litre of water, then take a drop from this water to dilute it further in another litre of water (and repeat this process a few hundred times), eventually, all particles of the red ink will disappear from the solution. Extreme dilutions can remove every atom or molecule from a sample.

Mathematically, this means that a series of 1:99 dilutions done sequentially will produce a significant dilution of the starting material in very short order. Specifically, if the starting material is at one molar concentration (6.023 x 10e23 molecules per litre), then at about the 12th dilution (12C) there should be no (or very nearly no) molecules left of the starting material. At the 200th dilution (200 C), the likelihood of there being even one atom of the starting material approaches zero. This led to a feeling that in highly diluted homeopathic medicines, there is simply nothing left of the original drug, and therefore, it fell afoul of modern scientific principles. However, according to this paper, dilution does not work so simply.

Using electron microscopy (TEM), electron diffraction and atomic spectroscopy, the researchers found that contrary to the arithmetic above, there are nanogram quantities of the starting material still present in these 'high potency' remedies in the form of nanoparticles. This is fascinating because this means that certain high potency (highly diluted) Homeopathic remedies which are made from metals, still contain measurable amounts of the starting material, even at extreme dilutions of 1 part in 10 raised to 400 parts (200 C).

In lay language, this means that in a highly-diluted medicine, which homeopathy calls highly-potentiated medicine, the original medicinal particles exist at the nano-level in the medicines studied. After a certain threshold, dilution crosses the atomic level, but the



medicinal particles remain at the nano-level. However, because they are at the nano level, they have remained undetected so far. This also means that the effects of dilution stop or change after crossing the atomic level.

The group built on their expertise of understanding Ayurvedic Bhasmas and the role of nanoparticles there, which was previously published, also in international peer-reviewed scientific journals. The work was funded in part by IRCC, IITB and our alumni (Shridhar Shukla, B. Tech, Electrical Engineering, 1983 and Prof. Kane). The paper does not claim the efficiency of Homeopathic remedies or explain its medicinal effects. Rather, it proposes a solid scientific explanation for the way potentiation works in Homeopathy.

Placements Soar at IIT Bombay

Placements at IIT Bombay have seen a 50% increase in the number of companies that arrived on campus. IIT's placement season in general has seen salaries soar between 40% and 172%, and average salaries went up from 15% to 30% from last year. The number of recruiters and the offers has surpassed last year's figures. "The number of offers (at IITB) is twice that of last year, with around 350 offers in the first five days," said Prof. Ravi Sinha, the Professor-in-charge for placements at the institute.

For placements this time around, companies coming to campus were asked to not camouflage placement offers with perks. IITB had also decided that it will consider only gross taxable incomes to ensure transparency in recruitments. While well-established companies have not suffered because of this, start-ups and small innovation laboratories with massive differences between CTC and gross taxable income were affected.

"Stability and reputation of a company matter the most when we let it hire our graduates. We are not considering CTC this year, just the gross taxable income," said Prof. Ravi Sinha, the placement head at IITB. "While we didn't allow a handful of companies to participate, we welcomed a few new firms whose financial documents proved their businesses are indeed sustainable."

"Despite this different approach, we are confident that we will perform better than many other engineering colleges," Sinha said. "We have many more recruiters that offer large salaries."

Recruiters coming to the college are from across sectors and streams. This year, firms queued up at IITs to offer foreign positions are electronics equipment maker Sony, miner Rio Tinto, marine transporter Tanker Pacific and consumer goods firm Procter & Gamble. Besides regulars such as Shell, Morgan Stanley, McKinsey, ONGC, SAIL and ITC, new recruiters include Facebook, Amazon and Opera Solutions. "Students prefer companies related to their primary area of specialisation," Sinha said. Placements will continue till the end of December. After a few days' break, recruitment will re-start in January. The placement season normally continues until April or May.

Record placements on Day 1 at IIT-B
TRENDSETTER Salaries offered were at least 15%-20% higher than last year

COMPANIES THAT CAME	
Facebook, Goldman Sachs, Schlumberger, McKinsey, ANZ Bank, Morgan Stanley (India), Dhanush Bank and ITC	
IN NUMBERS	
Cos expected in 2010: 250	
Cos in 2009: 213	
Cos in 2008: 172	
Offers with more than ₹7.5 lakh pa in 2009: 336	
Number of offers with more than ₹7.5 lakh pa in 2009: 336	

IITians choose NGOs during job placements
GROWING TREND Graduates prefer to social work over fatter pay packet

30% तक बढ़ी
18 फीसदी बढ़ी, विदेशी ऑफर तीन गुना बढ़े

इकॉनॉमिक टाइम्स
IIT प्लेसमेंट में एवरेज सैलरी 30% तक बढ़ी
छह महीने पहले शुरू प्लेसमेंट में टॉप सैलरी 40-218 फीसदी बढ़ी, विदेशी ऑफर तीन गुना बढ़े

EVENTS

Book Launch: An Indian in Cowboy Country

On 8th December, 2010, IIT Bombay alumnus Pradeep Anand launched his book *An Indian in Cowboy Country, Stories from an Immigrant's Life at Crossword in Kemp's Corner*.

Pradeep Anand was born in Bombay. He is a graduate of IITB and has an MBA from the University of Houston. Pradeep migrated to Houston, Texas more than 25 years ago, and has experienced the city's evolution from a small town to a global metropolis that gradually embraced ethnic multiplicity. Moreover, he worked for most of his 25 years within the bulls-eye of cowboy culture in Texas: the oilfield service industry. He is president of Seeta Resources (www.seeta.com) and lives with his family and their dog, Cookie, in a Houston suburb.



▲ Book launch of *An Indian in Cowboy Country* in Crossword, Mumbai

The book explores the story of an Indian engineer who discovers his personal and professional potential in the heart of Texas. The book is more than a fictional tale of an engineer who overcomes cultural differences to succeed in America. It shares the challenges anyone might experience in life and in business and looks at important lessons learned along the way.

Ask-A-Question

'Ask a Question' is a series IIT Bombay launched on 11th November, 2010 as a part of the 'Talk to a Teacher' project. The work in this series involves allowing students of any engineering college to post their conceptual questions on Electrical Engineering, electronics engineering, telecommunication, control, power systems and microelectronics at a forum, available at http://co-learn.in/Ask_24x7. IITB faculty will answer the questions on the same forum, offline. Others can also answer those questions.

Faculty will answer select questions in a live session as well. Anyone, anywhere, can join in an interactive mode through A-VIEW (developed by Amrita University), which is also a part of the 'Talk to a Teacher' project.

There are instructions on the URL on how to download A-VIEW, through which one can interact live with the panelists. Faculty invites students to join in through A-VIEW. Students are urged to post their questions at this URL as early as possible. This will allow faculty to choose the questions that will be taken up for discussion in the live sessions in advance. The series has begun with Electrical Engineering. We hope to extend this service to other fields as well in the future. Experts from other institutions will also participate. The objective of this exercise is to improve the levels of education in the country.

The 'Ask a Question' series is presented by the 'Talk to a Teacher' project, funded by the National Mission on Education through ICT, www.sakshat.ac.in

35th Anniversary Celebration of the Batch of 1975

IIT Bombay's batch of 1975 met in campus to celebrate their 35th anniversary on 12th October, 2010. The batch is actively engaged in helping IITB realise its vision of joining the top 20 institutes of the world over the next couple of decades. 20 alumni members, that included industry leaders and entrepreneurs from India and USA met with faculty members to identify key areas of support required to catapult the institute to the next level.

The batch met students at the F. C. Kohli auditorium for a panel discussion, featuring four ex-students currently involved in running Syntel: Bharat Desai, Chairman of the Board, Prashant Ranade, CEO and board members Paritosh Choksi and Rajesh Mashruwala. This is a unique set of circumstances, unique to India as well, where four members of the same batch are involved in the running of a company that was founded in the US, with operations in Mumbai, Chennai and Pune.

Cumulatively, the batch of 1975 has been by far one of the most outstanding batches that IITB has ever produced, where students have excelled both at the national and global stage. This batch has the largest number of distinguished alumnus awardees in a single year (five): Avinash Manudhane (Partner, Goldman Sachs), Bharat Desai (Chairman, Syntel Inc.), Environment Minister Jairam Ramesh, Prashant Ranade (CEO Syntel Inc.) and Colin Gonsalves (Founder, Human Rights Law network). The honour roll of achievers from this batch include CEOs of multi-million dollar corporations, our current environment minister, serial entrepreneurs, venture capitalists, social activists, including a fellow at GE and a Supreme Court advocate, just to name a few.

Contributions from the class of 1975 exceeds \$35 million so far, making them the largest donor batch for IITB and the highest for any educational institute in India. They have been instrumental in gathering support from other alumni and the results are visible in campus.

Primarily due to the contributions of alumni from the batch of 1975, the alumni organisation has played a significant role in ensuring that it is recognised as a global phenomenon. They were the primary drivers behind setting up the IIT Bombay Heritage fund in the US, through which a number of alumni have contributed to the institute. They were also instrumental in helping to set up the alumni movement in India through the IIT Bombay Alumni Association. Their contributions helped in founding the PanIIT Alumni Association, leveraging other IIT alumni associations to expand their outreach.

Research Scholars' Confluence, 2010

IIT Bombay hosted the Research Scholars' Confluence, 2010 on November 13, 2010 on campus. The confluence was hosted as part of IITB's efforts to promote doctoral research activity, as a sequel to an earlier event organised in 2008. It recognised contributions and achievements of its former PhD students in the growth of the institute and our country.

The confluence showcased IITB's contribution towards creating and augmenting the human resource pool for carrying out R&D in academia, government-funded research laboratories and corporate research endeavours. Presentations were made to an invited audience of senior professionals from R&D organisations which utilise our PhDs.

The event was inaugurated by Dr. Anil Kakodkar and involved speeches on advanced scientific themes by former research scholars such as Dr. Kota Harinarayan on 'Integrated Vehicle Health Management', and by Dr. Sunil Sherlekar on 'High Performance Computing'. Current PhD students displayed their work through poster sessions in various departments.

LECTURE

An Institute Lecture on 'Nanotechnology Boosts Sensor Technology' by Dr. Hubert Brückl, AIT (Austrian Institute of Technology), Nano Systems, Vienna, Austria, was organised on December 6th, 2010.

COLLOQUIUM

IIT Bombay and TechniGraphicS Foundation organised a TechniGraphicS Lecture on 'From Ape to Angel: A Neurological Perspective on Human Nature' by Dr. V. S. Ramachandran, MD, PhD, Distinguished Professor and Director, Center for Brain and Cognition, University of California, San Diego and Salk Institute on December 7th, 2010.

ALUMNI NEWS

DR. CHETAN E. CHITNIS, Staff Research Scientist, Malaria Group, has been awarded the Infosys Prize, 2010 in Life Sciences for his work on the development of malaria vaccines. This is one of the highest science awards in India.

PROF. UDAYA KUMAR D. was awarded the 'Young Indian Leaders Award' by the Network18 Media group. The award was given at New Delhi on 25th October, 2010 by the event's Chief Guest Mr. Nandan Nilekani, Chairman, UIDAI.

AWARDS

PROF. SUDHIR GHORPADE, has been elected as Fellow of the National Academy of Sciences India (NASI).

PROF. RAMAGOPAL RAO, Department of Electrical Engineering, has been elected as a Fellow of the National Academy of Sciences, India (NASI).

PROF. S. K. MAITI, Department of Mechanical Engineering, has been elected as Fellow of the National Academy of Sciences, India (NASI).

PROF. JAYESH BELLARE, Department of Chemical Engineering, has been awarded the NASI-Reliance Platinum Jubilee Award for 2010 by The National Academy of Sciences, India (NASI) for his application oriented research innovations in the physical sciences.

PROF. D. CHANDRASEKHARAM, Department of Earth Sciences, has been appointed as an independent Director on the Board of Indian Rare Earth Ltd. (Department of Atomic Energy) for a period of three years.

PROF. D. BAHADUR, Department of Metallurgical Engg and Materials Science, has been selected by the Materials Research Society of India (MRSI) for the 'MRSI Distinguished Lecturership' for the period 2011-2012. The award will be presented at the Annual General Meeting of the MRSI scheduled to be held at Bhopal during February 14-16, 2011.

PROF. HETU SHETH, Department of Earth Sciences has been selected by the Indian Geophysical Union (IGU), Hyderabad, to receive the Krishnan Gold Medal for the year 2010. The Medal will be presented at the 47th Annual Convention of the IGU, on 8th December 2010, in Hyderabad.

PROF. S. L. DHINGRA, Institute Chair Professor & Emeritus Fellow Transportation Systems Engineering Civil Engineering Department, has been appointed member of new Executive Committee of IBEC-ITS (International Benefits Evaluation and Costs - of Intelligent Transport System groups) for 2010-2011, representing India.

PROF. D.N. SINGH, Department of Civil Engineering, has been elected as a fellow of the Indian National Academy of Engineering (INAE).

AWARDS

PROF. SOUVIK MAHAPATRA, Department of Electrical Engineering, has been elected as a fellow of the Indian National Academy of Engineering (INAE).

PROF. H. B. SINGH, Department of Chemistry, has been awarded Ramanna Fellowship (second time) by the Department of Science and Technology.

PROF. NAND KISHORE, Department of Chemistry, has been elected as the President of the Indian Chemical Society (Mumbai Branch) for a period of two years.

PROF. A. K. SURESH, Department of Chemical Engineering, has been elected as a Fellow of the Indian National Academy of Engineering (INAE).

PROF. V. A. JUVEKAR, Department of Chemical Engineering, has been elected as a Fellow of the Indian National Academy of Engineering (INAE).

PROF. MIRA MITRA, Department of Aerospace Engineering, has been selected for the Young Engineer Award 2010 by the Indian National Academy of Engineering (INAE).

PROF. ASHWIN GUMASTE, Department of Computer Science & Engineering, has been selected for the Young Engineer Award 2010 by the Indian National Academy of Engineering (INAE).

PROF. ROHIT SRIVASTAVA, Department of Biosciences & Bioengineering, has been selected for the Young Engineer Award 2010 by the Indian National Academy of Engineering (INAE).

A team lead by **PROF. ANURADDA GANESH** (Cummins Engine Research Facility, IIT Bombay and Cummins India Limited), Department of Energy Science & Engineering, were ranked the best and conferred the "Most Innovative Energy Savings Product Award" under the CII National Award for Excellence in Energy Management 2010.

PROF. D. BAHADUR, Department of MEMS, has been selected for the 'MRSI Distinguished Lectureship' for the period 2011-12 by Materials Research Society of India (MRSI).

PROF. HETU SHETH, Department of Earth Science, has been selected for the Krishnan Gold Medal by the Indian Geophysical Union (IGU), Hyderabad.

PROF. SUDHIR GHORPADE, Department of Mathematics, has been elected as a Fellow of the National Academy of Sciences India (NASI).

Prof. V. K. SINGH, Department of Chemistry, has been selected to receive the CRSI Silver Medal in recognition of his extensive and outstanding contributions to research in Chemistry.

Prof. H.B. SINGH, Department of Chemistry, has been awarded the Ramanna Fellowship by the DST for the second time in recognition of his excellent academic and research work.

PROF. T. K. BISWAL, Professor and Head of Earth Sciences Department, has been awarded the National Mineral Award for Basic Geosciences, 2008 by the Ministry of Mines, Government of India.

PROF. S. P. SUKHATME (Professor Emeritus, Mechanical Engineering Department) was given the prestigious 'Prof. S. N. Mitra Memorial Award' of the Indian National Academy of Engineering (INAE) at the annual convention of INAE held in Visakhapatnam on December 10 and 11, 2010. Only Fellows of INAE who are eminent engineers, scientists or technologists of high achievement and standing are eligible for this award. It is customary for the recipient to deliver a public lecture on a subject of his choice. Prof. Sukhatme spoke on the topic 'The Energy Scenario in India – The Present and the Future'.

APPOINTMENTS



MS. SHOBHA DILEEP KULKARNI has been appointed as Deputy Librarian in the Central Library on September 6th, 2010.



PROF. (MS.) VENKATACHALAM has been appointed as the Head of Centre of Studies in Resources Engineering (CSRE) on August 20th, 2010.

RETIREMENTS



MRS. ROHINI C. SAWANT retired after 36 years of service on October 31st, 2010. She worked in the institute as Jr. Superintendent, Accounts Section

Mrs. Sawant was a very prompt and sincere worker who worked with diligence and accuracy. She was very dependable. A job once entrusted to her would be completed successfully. Her qualities of calmness and composure distinguished her from others. It is worth mentioning that she completed her graduation after joining the institute, balancing her home, schooling of children and service at IITB. She was well-loved by the entire Mathematics Department, which also felicitated her at her retirement. She will be deeply missed by everyone.
- Ms Savita. V. Patki, Assistant Registrar (F&A)



PROF. (MS) USHA S. POWLE retired after 44 years of service on September 31st, 2010. She worked in the Institute as Associate Professor in the Department of Mechanical Engineering.

Prof. Usha Powle retired after 44 years of service on September 30th, 2010. She worked in the institute as an Associate Professor in the Department of Mechanical Engineering. She worked in the area of fluid mechanics, fluid machines and vacuum engineering. She has guided 4 doctoral students.

- Prof. S. V. Prabhu, Professor, Department of Mechanical Engineering



PROF. G. V. PRABHUGAONKAR retired after 27 years of service on September 30th, 2010. He worked in the institute as a Professor in the Department of Metallurgical Engineering & Material Science.

From the time I joined the MEMS department, I would see this bearded professor walking to his laboratory at all hours of the day and late evenings. A man with tremendous industrial experience in France and in India, Prof. Prabhugaonkar hails from Goa. An authority in Fracture Mechanics & Failure Analysis, he has contributed significantly to the Indian industry and the society.

- Prof. R.O. Dusane, HoD, MEMS



Prof. R. Raman retired after 40 years of service on September 30th, 2010. He worked in the institute as a Professor in the Department of Metallurgical Engineering & Material Science.

"Prof. R. Raman is a B.Tech, M.Tech and Ph.D. from IIT Bombay. He joined service as a technical staff and rose to become a Laboratory Superintendent, before joining as a faculty member in the Department of Metallurgical Engineering and Materials Science in 1997. He superannuates as Professor, after an association with the institute of more than 45 years. Prof. Raman's expertise is in the area of Metal Joining and Corrosion, and he has been responsible for developing this research area at IIT Bombay by making significant contributions to this body of knowledge. His contributions to the Hostel administration for many years has been appreciated by the students.

- Prof. R.O. Dusane, HoD, MEMS

SHORT TAKE

Hawt-Dawg!

■ **HIMANSHU DIXIT** Second Year M.Sc., Chemistry Department

Gentlemen, do you know how it feels when on a fresh morning, your hunger for breakfast makes you forget to latch the door to your room, only to discover the most diseased mutt resting comfortably on your dear mattress?! Such a vision after a satiated stomach is enough to cause a skin rash!

And we're not talking about a cute-sy doggie here, but a famously unclean and diseased mongrel who owns the hostel corridors at night. It certainly requires a great deal of patience and character, when you know that during your end-semester exams, you have to sleep on a bare cot and the reason for that is right in front you, prowling, regardless of the trouble he has caused. That mangy mutt seemed quite serene in response to my heavy outpourings to get it off my bed. Some days ago, the same dog gave my roommate the same jitters when it hunched on his cot too.



Illustration by Jim Mathew Kochitty

Now I don't know whether the dog had a particular liking or allegiance to Room no. 217. But on a serious note, it's a pity that there is no action from authorities to tackle the dog when it has serious potential of making somebody fatally ill. For us, we saw him sitting in our room but for those who don't see him languishing on their cots, ignorance would not be bliss.

I still wonder if anyone will react but till then, for everybody, beware! Latch the doors, lock them, do the best you can! Mattresses are the only comfort, man! The mutt is out there.

P.S: Though our mattresses are out in the wing corridor for weeks; the dog hasn't come to sit on them. Room no. 217, curse you. ■



FICTION

Braess's Paradox

■ **BODAS TEJAS PRAKASH** Final Year Postgraduate, Electrical Engineering Department



When Braess was introduced into the Tirst Fank, he was overwhelmed. He had never been in an atmosphere as lively as this. Most importantly, he was overjoyed that fishes here were like-minded. His out-of-the-box thinking made sense to everyone. His eccentricities were overlooked and he had a queue of reasons to keep himself motivated.

Braess soon made a few good friends. He had become a popular figure for his skills and simplicity. Being the youngest, he had many fishes to look up to, but the ones he admired most were Asuman and Pigou. In them, he found friends he had always wished to have. Braess would take immense pride in wandering along with Asuman. The ever-enthusiastic Asuman was a delight for him. Asuman too enjoyed being in Braess's company. In some challenging times, Braess had stepped in as a vital support.

With Pigou, however, it was different. Pigou showered Braess with words of wisdom and tales of glory. Pigou showed maturity beyond understanding which made Braess prouder of his mentor. But Braess found Pigou to be a black box and an introvert to the highest degree. Although he took joy in discovering Pigou, he wished he could look beyond the black box and wanted Pigou to open up to the world. He believed that hidden somewhere beneath was a great fish with a beautiful mind, who had a great story to tell. The story, he felt, could become a magnum opus, but was too shy to come out.

Time flew by as Braess settled at Tirst Fank. His two friends had become larger than life. In Braess, the two found a friend they were proud of. Apart from just flying, time has its own surprises too. Asuman and Pigou had become too big to be accommodated in Tirst Fank any longer. It was now apparent to them that their time would be up soon and at some point they would be forced to move to Tecond Sank. This was going to be tough on them. They had many memories here: memories of their triumph,

Life was circular. He found himself in the shoes of Asuman and Pigou and would sift between being their different personalities as needed by his friends.

their struggle, some good times and some bad ones. Memories which Braess had no complete picture of. For Braess, these two were the only prized possessions he had. But for them, they had many things to part from.

Braess was almost crestfallen in the parting moment. He would pinch himself harder each time with the hope that he would wake up from this bad dream. This was not to be, though. One day Asuman and Pigou were gone. Although Tecond Sank and Tirst Fank were two adjoining tanks, and all three could see each other at the border, they had to meet at the same time. Once a while they would indeed congregate and spend some time together at the borders, but it was a short-lived experience as they had to get back to their lives.

This situation was cruel on Braess. He would wander alone, trying hard to focus on his routine but was always drawn to the borders. He made it a point to regularly attempt to get a glimpse of his dear ones. On most occasions, he failed to even spot Asuman and Pigou in the crowd of Tecond Sank. But then, he would not give up. Braess would turn up at the empty borders like a routine. He was not ready to move on.

Braess was almost crestfallen in the parting moment. He would pinch himself harder each time with the hope that he would wake up from this bad dream. This was not to be, though. One day Asuman and Pigou were gone.

When the borders were empty, he began to question the foundations of their friendship. He felt forgotten and perhaps betrayed. He posed a lot of questions and the answers that came further confused him. But the moment he had a glimpse of Asuman and Pigou, his faith in them was always restored. He realised how wrong his recurrent doubts on friendship were and felt bad at the selfish questions he had posed. It became clearer to him how cruel Tecond Sank was and how hard his friends were fighting to settle down there. He realised that they too were drawn to the borders but then if they had to move on, they had to look the other direction; the positive one.

Braess too began to move on. His visits to the borders reduced as time passed by. He got back to his routine with no expectations. Occasionally he was morose in their memory but then moved on in good spirit. Every lesson that the two had taught him now began to reflect in his nature and his way of life. He grew stronger and wiser day by day. His two friends had indeed had a profound impact on him. With time he found himself to be the centre of attention. A lot of newer fishes were looking up to him. They admired him, hovered around him and did almost anything to make his day. Braess felt indebted for the trust they showed him. Life was circular. He found himself in the shoes of Asuman and Pigou and would sift between being their different personalities as needed by his friends.

Being the youngest, he had many fishes to look up to, but the ones he admired most were Asuman and Pigou. In them, he found friends he had always wished to have.

Now he himself transferred the vibrancy that Asuman showed and the story hidden in Pigou became clear. The black box became transparent. Through experience, he got answers to Questions he had never thought of. This was possible only due to the faith in their friendship that he had clung on to till the end. He was confident that his new friends might struggle a bit after he was gone, but surely life would throw some answers their way which would make them realise essentially what the real questions could have been. He taught his friends this final important lesson before leaving.

"Asking Questions with the intention of knowing more does not always help. It is worthwhile at times, to wait for the answers to come and unravel themselves for what the real questions could have been."

This is the famous Braess's Paradox. Alas, we humans could just apply it to Road Transportation Networks. (Adding a route to a congested road network does not always essentially ease traffic. It may add to the traffic congestion.) ■

COMIC STRIP

Here's to Raintree!

We had no clue what to expect when we began Raintree. Today, we are astonished and delighted

with the people it has touched and the acknowledgement it has received. This comic strip by RAJARSHI RAY from

IDC will let our readers in on our journey from the beginning to present. Have a bit of fun with us. Here's to Raintree!



It all started in the winter of 2008



One met the other to start something new



And found brilliant others



Who were brought in...



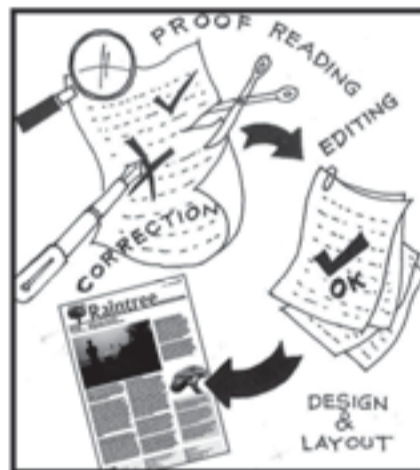
by force or by their own free will...well mostly by force



While they were fed



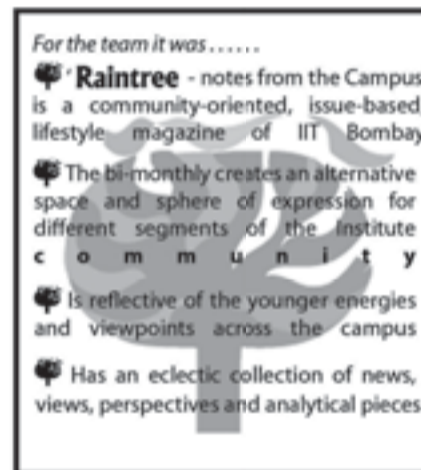
And fretted and fumed at



They worked very hard



To bring out the masterpiece in March 2009



For the team it was



However, the Readers had a different take



It also came in handy for...



And then one day...



Melbourne, Australia



THE RAIN TREE TEAM

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