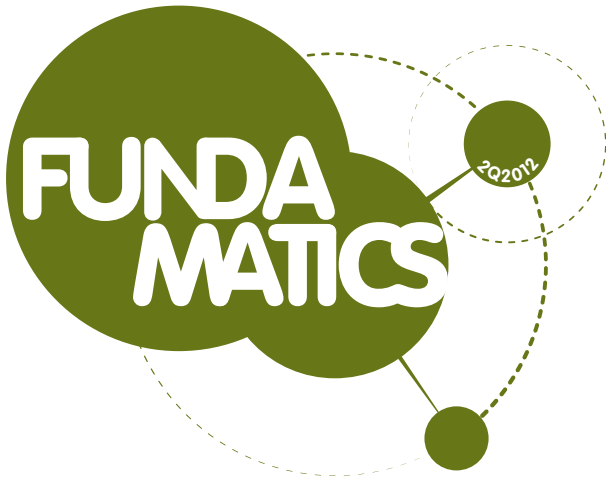


FUNDA MATICS

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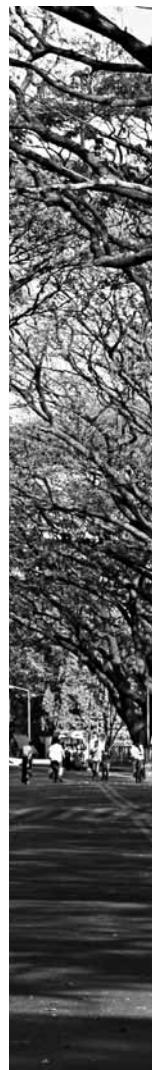


IIT BOMBAY ALUMNI
ASSOCIATION

Quarterly magazine of
IIT Bombay Alumni Association

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From the Beehive

A magazine is a curious beast. It begins initially as a beehive of ideas, to eventually become a steadily rising column of modern day manuscripts, proofs, photographs and illustrations in Google documents. It exists in days of feverish discussions, heated debates and in dreadful anxiety until finally, it is completely out of your hands. Held briefly in the hands of the designer, it passes on to the printer where it becomes a thing of shade cards, plates and reams of proof sheets, finally emerging, almost as if by magic—as a magazine. It is cast away through mails, towards desks, sofas, dens, bathrooms, car backseats, and in the case of Fundamatics in states across India and nations across the globe.

It has only been a few months since we inaugurated the first issue of Fundamatics, where we somewhat naively but boldly declared our ideas and intentions. Since then, the fundabees have been totally buzzed by the response they received. The hive has grown and proliferated and already, the magazine has started to take on a life of its own. So here it is our Foundation Day issue of Fundamatics: portable, opinionated, informative and occasionally humorous.

The institute remains at the heart of this issue where we asked you, the inner circle of people closest to IIT Bombay—staff, students and the alumni—to poll your opinions on

some key issues that will have a long-term impact on the future of IITB. Poll Khul Gayi, which reveals the results of this online survey (more than 1,900 votes were polled), is the lead piece of this issue.

Although slimmer, this April issue has tried to retain the breadth of scope of the first issue: the snappy satire of Zappa Man, the romance of M&B, the nostalgia of Hostales, evocative poetry, discussions on critical national issues like governance and the voices of non-IITB alumni, in the form of IITKGP alumnus and Ramon Magsaysay winner, Arvind Kejriwal.

New columnists have joined the hive: Ajit Ranade, and someone who likes to call himself Alibaba. Since a magazine without the occasional controversy can be so terribly jejune, we have introduced new sections like Offbeat Fundae and Ranticles so that you can take on contentious topics and rant and vent at will. We love the boldness of these two new sections represented in the innate confidence of the authors who inaugurate them: one who knowingly sent in his controversial stand on a controversial subject, and the other who did not blink twice when we informed him that we had decided to coin his article a ‘ranticle’. Be warned, the opinions expressed and stings delivered here are of the authors alone, and fundabees cannot be held responsible.

Fundamatics’ April issue is not just to flip through and enjoy, it’s an invitation to mull over things as well—long after the pages have been turned and the magazine has been laid aside to rest. Entertainment is momentary, valid and worthy for its engaging and diversionary nature, but this is a labour of love that we hope lingers around, grows on you, invites you back and makes you hungry for more. Start reading and we hope you see what we are talking about.

Readers Write in

ONE

Congratulations on this inaugural issue, your magnum opus! Absolutely stellar job which, of course, now sets the standard for future issues.

Mukta Ghate Farooq, C'83, New York

TWO

I am not sure of this fuss about 250 page BS and dozens of congratulatory messages. I am not going to congratulate you until you publish on time 6 issues.

We've received excellent training on meeting one time deadline. Quality rarely mattered, form and volume took priority. Stop wasting time and Get on with next issue.

Raj Mashruwala, C'75, California

THREE

Fundamatics ne mere funde gol kar diye. More love stories less sex education please.

Will the size be the same every month or decay like frequency of sex after marriage?

Vijay Desai, C'81, San Diego

FOUR

Fundamatics team
I am so amazed by the inaugural issue. Frankly, when I started hearing about it, I couldn't really imagine what it's going to be.

I imagined it to be a slim, may be 50 pages, volume. But when I got the copy in my hand I was completely stunned.

And seeing my article in it made me even more happy. That I should be published in such a volume just overwhelmed me. Thanks for the whole effort.

Makarand Karkare, C'82, Mumbai

FIVE

Dear bees in the beehive,
What a surprise this was to see the amazing first issue of Fundamatics!!! All bees in your office deserve biggest congratulations and hugz from all of us. Now, the trick is to get your contributors and others to send you articles for future issues every three months - but the magazine doesn't have to have 200 pages every time.

Once again, you all deserve congratulations and thanks from the IIT Bombay community!! Wishing you all a happy and healthy 2012.

Sudhir Sharma, C'62, New York

PS: All the congratulations aside, you guys did mess up a caption of one of the photos in my article. The group photograph of our Civil Engineering classmates has been captioned as "Parade of Athletes at the Annual Function".



SIX

214 pages! That's a massive feat!! Back in 2002, Vishal, Prateek and I had taken out an almag around ~40 pages and then Prateek worked on a mag around 100-120 pages for the golden jubilee in 2009. Even those were humongous tasks, I can only bow to your team's efforts in bringing this one out! :)

The layout is very well-done. I esp loved the beehive metaphor and the profiles of the IIT-BAA gang :) Haven't read all of it but loved reading Shaji and Mukta's story. It's amazing how they remember even the smallest details after 30 years. Please pass on my compliments to them too :)

Parul Gupta, C'02, Bangalore

SEVEN

Just went through/glanced at the first issue of Fundamatics.

Simply superb! Great writing despite my pseudo fundaes (When did we add an 's' to fundae?). It was also nice to see friends' pho-

tographs. I'll read the articles later. You have a great beehive. You have our best wishes to keep it buzzing for the next batch of honey.

Best Wishes for a Happy New Year!

Pradeep Anand, C'75, Texas

*Write to us at
fundamatics@iitbombay.org*



Poll Khul Gayi

The constant gardeners who weed and feed IIT Bombay's future are all junta from the IITB community, both in the past and present. Nobody cares more. It is only fitting then, that the Foundation Day issue of Fundamatics addresses fundamentals by conducting an online opinion poll amongst them, on some of the key issues that will impact the future of all IITs, including IITB.

The enthusiasm of respondents—1,824 responses from 20 countries—was encouraging. But the fundabees still feel that the voter turnout has been hopelessly low, compared to our less educated friends from UP, Uttarakhand, Punjab, Goa and Mizoram, who braved long queues in the hot sun to register up to 60% polling. In contrast, our community members did poorly, despite having had the luxury of expressing their opinion with a few mouse clicks, in less than three minutes.

The voter apathy could have been due to reasons mentioned in a letter by a professor. He wrote, "Does anybody care, after all, for this feedback? Among the many good, precious things that we certainly love at IITB, other things remain the same—or they change very, very, very slowly. The same old, junk bicycles. The same old trash in the campus. The same old, unpainted buildings. The same old, broken roads. The same old furniture in the hallway. And some new things. So, don't worry, be happy."

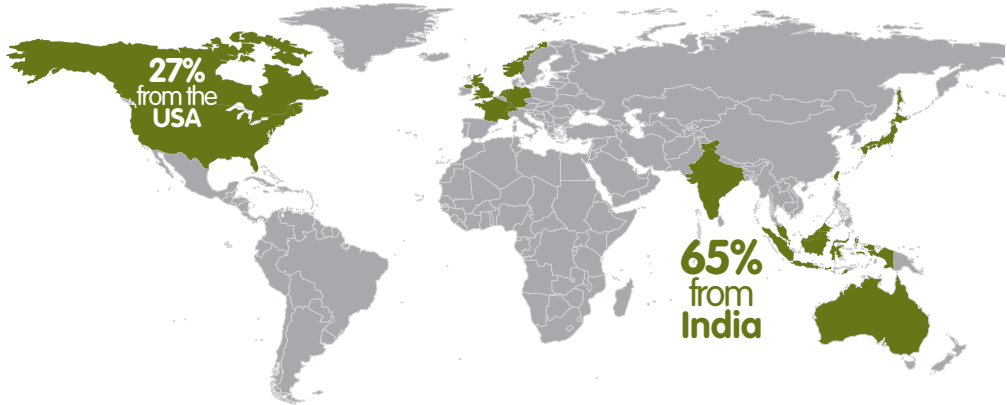
Our appeal to these people is simple: Do not restrain yourself from expressing your opinion, lest your cynicism be misconstrued as indifference. Having our voice heard and making our opinion count can follow only when we have gathered quantifiable and verifiable data.

The results of the survey are very interesting, to say the least. Lest our crystal ball cracks and we end up proving the 'Lies, damned lies and statistics' phrase right, we have tried to steer clear of predictions. The charts below tell their own story, louder and clearer than English can, and our analysis only attempts to highlight some of the not-so-obvious facts. Readers may draw their own conclusions, and decision-makers would be well advised to not ignore this survey.

Fundabees

Countries represented are India, USA, Singapore, Canada, UK, Australia, Germany, UAE, Switzerland, Netherlands, Thailand, Indonesia, Norway, Japan, Honk Kong, Brunei, Taiwan, Belgium, Malaysia and France

Poll Vault Survey snapshot



1,824

people participated in the survey

1,096

students

638

alumni

67

faculty

37

serving faculty

20

alumni faculty

10

retired faculty

23

others



Average age of respondents is

27.67
years

58,782

words from

1,235

comments

can fill up two slim issues of Fundamatics



Voters' comments for the Fee Hike question came in from

699

people & totals

18,125

words

General comments came in from

536

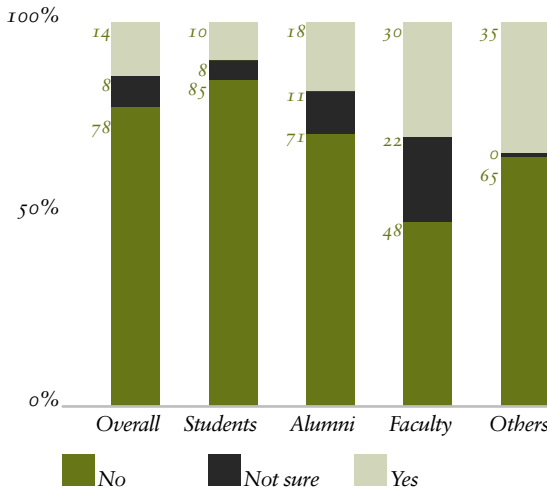
people & totals

40,657

words

Graph-It-I

1. Do you agree with the recent proposal to change the format of the JEE exam into a preliminary aptitude test, with a 50-50% weightage to the entrance test and Board exam results?

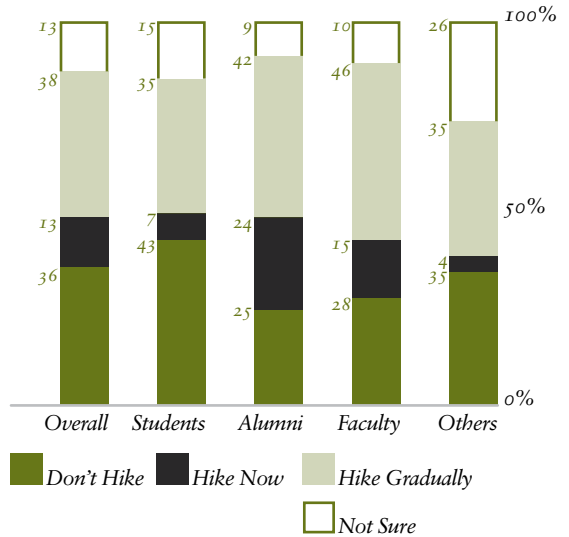


Point: Merging tests and 50-50% weightage to entrance and Board results would ensure that the quality of students getting into IITs is pathetic as against average now.

In the name of removing pressure on students we will be putting more pressure on them. Decreasing JEE's weightage won't reduce coaching. Instead, students will have to focus on both coaching and board exams equally. I don't know why Kapil Sibal can't understand such simple thing.

Counterpoint: One wrong question or one silly mistake changes the fate (rank) of students. So a two-phase exam followed by including a student's 12th standard Board marks would help a lot.

2. What is your view regarding the Ka-kodkar Committee recommendation to charge fees of ₹2-2.5 lakhs per annum, to cover the cost of education, which excludes 'capital costs' that will still be funded by the government, along with loan programmes to ensure that no student is deprived of education because of lack of means?



Point: Admission into IIT should serve as a guarantee for getting loans, which exist mostly on paper today. Otherwise the current situation could resemble the situation of a 'Champagne Education' being dispensed at 'Beer Prices'.

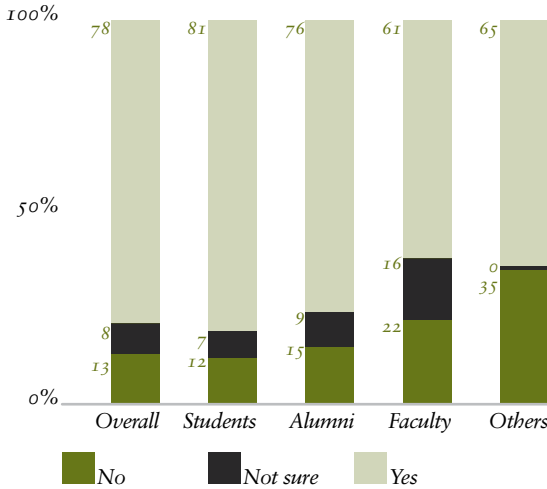
If IIMs are charging market-related fees, then why shouldn't IITs do the same?

Counterpoint: A hike in the fees is acceptable as long as the quality of education and facilities are proportionate to the cost. You can't expect students to live in the dumps that they call hostels when they are paying 2.5 lakhs

per annum. So, first hike the quality, and then the fees.

An alternative to increasing fees could be compulsory two years' service (with a sufficient stipend) for the nation, specially in rural areas. Give them excellent projects to help society and to increase their own knowledge level.

3. Many IITs have been set up at one go. Do you think it will set up an internal hierarchy and ultimately dilute Brand IIT?

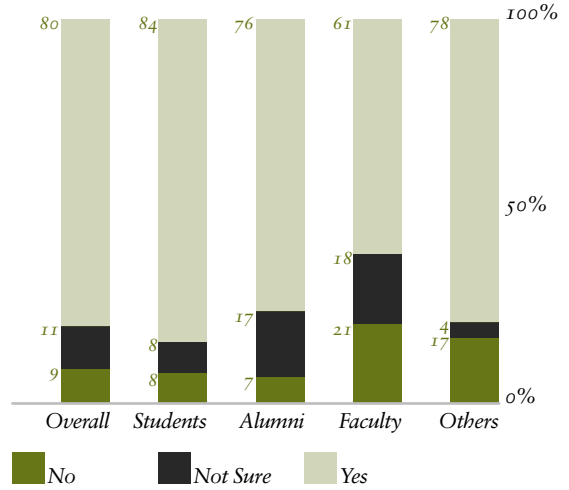


Point: There should have been a hundred IITs by now, to feed the growing technical needs of the country.

Counterpoint: New IITs are great too—but on the same model? It may be difficult to change the model of the existing IITs, but new IITs could very well be based on new metrics for measures of success.

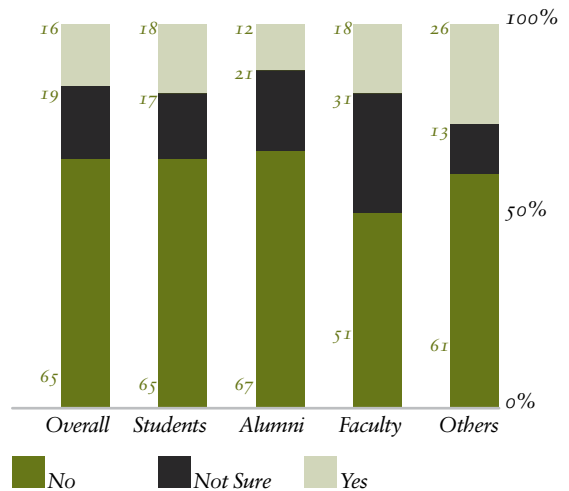
The demand for more IITs exists. However, the supply of high-quality faculty members and administrators is a huge issue. Also, the pedagogic processes in the IITs are not scaling up to meet the increased demand. Hence this will naturally lead to dilution and adversely affect student and faculty morale.

4. Do you think that the rapid increase in student intake and the resultant stress on infrastructure has affected student and faculty morale and ultimately, institute output?



Point: The intake of the students is being increased at a very high rate. This does not match with the rate at which infrastructure is being developed in the institute.

5. Do you think reservation of seats for SC/ST and OBCs has been a welcome move?

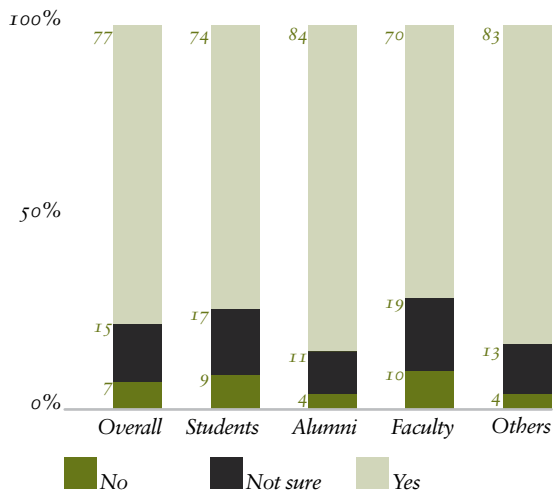


Point: Merit and only merit should decide entrance.



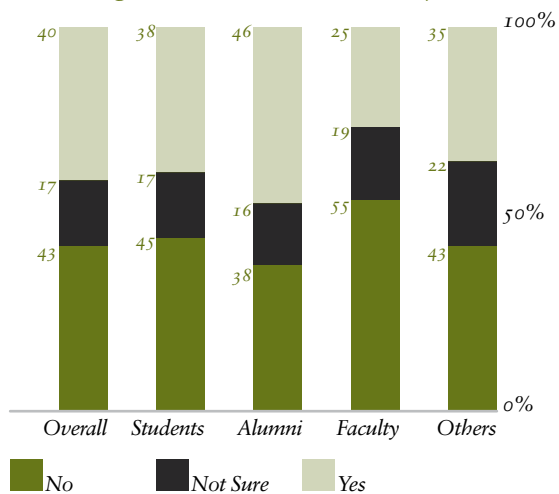
Counterpoint: Reservations should be for a limited time period and the creamy layer should be excluded. Similar facilities should be available for people from very low income groups (EBCs).

6. Should IITB and other IITs be given greater financial autonomy?



Point: At the macro level, I believe there should be greater autonomy given to these institutes, both financially and in governance, so as to preserve Brand IIT and ensure that IITs continue to be the torchbearers of higher education in India.

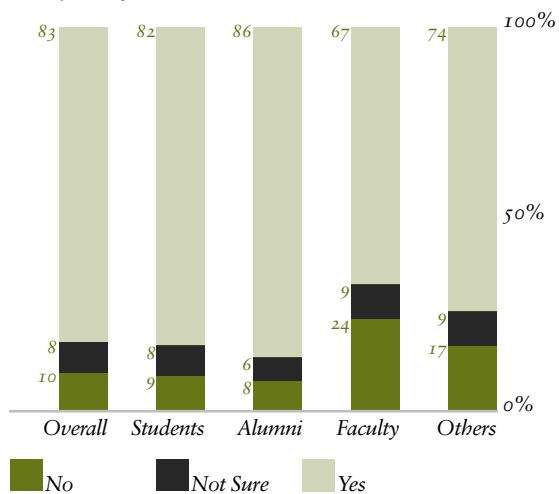
7. Should we allow private investment and management in the administration of IITs?



Point: Private investments should be allowed not in administration, but in research funding. This will make research more solution-oriented.

Counterpoint: Private investment and management in IITs will always work with a profit-making motive, and this would not be good.

8. Do you support the move to hire foreign faculty to teach at IITs?



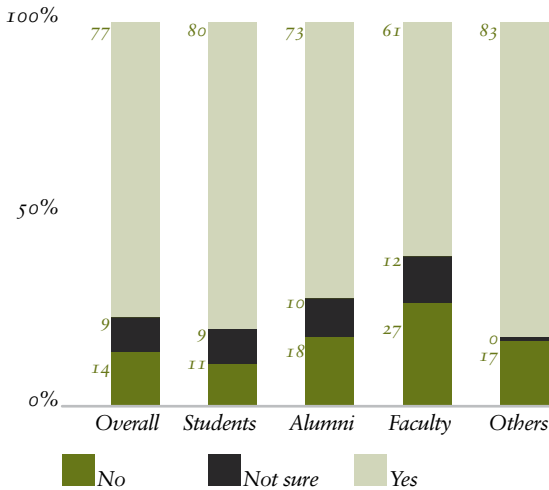
Point: Unless we are smug enough to believe that Indians are the best teachers, why not allow foreign faculty, if it is affordable? Brand IIT is still a boon, but it is not adapting to the times, which may kill it.

Every world-class institute should take in talented faculty, irrespective of their nationality. Also, foreign faculty can bring in their experience and perspectives which will enable the institute to grow as an entity.

Counter Point: Hiring foreign faculty is not an issue. But it should not change one's attitude towards Indian professors. We have the tendency to look up to foreign faculty, foreign PhDs. Anything from US or Europe is always considered to be better than anything from IIT.

Getting foreign professors is worthwhile only if the current shortage cannot be overcome by making the job lucrative for ex-IITians.

9. Should IIT Bombay move beyond its core engineering focus towards a broader Research University model (like Harvard, Stanford and MIT)?



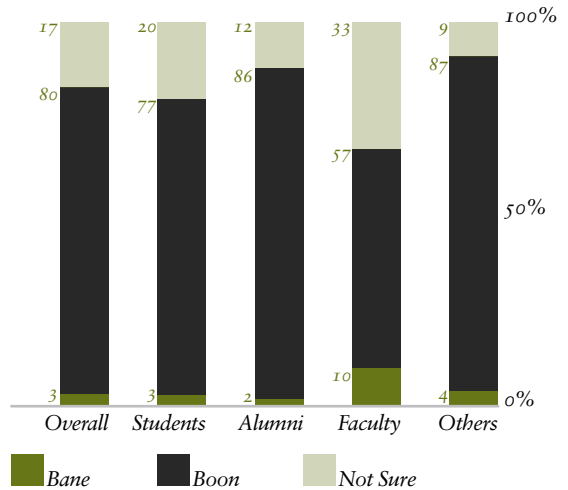
Point: IIT Bombay already has a nice mix of other sciences—social sciences and industrial design—which can be strengthened, but the

core engineering focus is worth retaining, since that is what has made it reputable. That said, India as a country does need Harvard/Stanford-style, broadly-focused research universities.

Without world-class institutions, we will be like Brazil or South Africa—a second rate, high GDP nation, with no international clout or respect.

Counterpoint: We need to become world-class quickly, but we need to pick areas where we can be successful and not waste our resources in pursuing pipe-dreams.

10. Is Brand IIT a boon or a bane?



Point: IIT is no longer a brand. IITB, IITD, all have become separate brands.

Brand IIT is just internal hype by IITians.

POLL STAR *Showing the way*

For navigators groping in the dark, the North Star a.k.a. the Pole star shows the way. It's the same mechanism with us at the Online Survey team of *Fundamatics*. The graphs told their own story, but we looked for our own poll star to show us the way out of this honeycomb of data. This also helped us traverse unknown paths to explore hidden meanings and nuances. This is what we uncovered.

For starters, we found to our amazement that the entire IITB community is a humongously homogeneous mass. Ever since the online survey went live, our team has been diligently monitoring the responses on a daily basis. The responses evaluated at the close of 353 votes are much the same as the numbers that played out finally. The maximum variation at any given point of time was 2%.

For questions 1, 3, 4, 5, 6, 8, 9 and 10, i.e., 8 out of 10 questions, the views are overwhelmingly in favour of the winning answer. Support ranges from 65% ('do not support reservations') to 83% ('hire foreign faculty'). For all these 8 questions, students, alumni and faculty have voted for the same answer with maximum approval.

But while the student and alumni percentages are almost the same, faculty support is substantially lower for each question. It ranges from 48% to 70%. Very surprisingly, faculty believes in greater financial autonomy less vehemently than alumni or students do. And

more surprisingly, faculty supports a research emphasis to the extent of 61%, as against the 73% and 80% vote of alumni and students respectively.

Most startling was the discovery that certain ex-HODs believed that IIT should not move away from a core engineering focus to a research-oriented institute.

For the remaining 2 questions, i.e., questions 2 and 7, opinions are very evenly divided between the top 2 winning answers. 38% and 36% for question 2 on 'proposed fee hike' and 43% and 40% for question 7 on 'private investments and management'. In a nutshell, opinions are very one-sided for 8 questions, and very evenly divided for 2 questions.

In these 2 questions, interestingly, the faculty scores the highest percentage approval (in favour of the winning answer) compared to alumni and students. Thus, the faculty is less approving of the one-sided opinions and more approving for the evenly balanced answers.

The lowest 'not sure' votes are 8% each, for questions 1, 3 and 8, while the highest 'not sure' votes are 19%, for the question on reservations. Compared to other polls, this shows a higher level of decisiveness amongst our community. And this not-sure-ness is backed by cogent arguments about what causes this indecision.

Is there a difference between how alumni under 35 (60%) and over 35 (40%) think? Yes and no. They are mostly in sync and disagree similarly on the JEE question. 77% of the older set—as against 61% of the young ones—believes that JEE should not be tampered with.

Is there a difference between how the alumni of India and USA think? The answer is much the same. Minor to moderate differences in all questions exist, but there's a 17% differ-



ence in the question of ‘private investments and management of IITB’. Do not privatise—that is what 44% Indian alumni say, as against 27% of their US counterparts.

Is there a difference between how the faculty, the alumni faculty and the retired faculty think? The answer is a bigger yes. In fact, this issue begs a more detailed mention, which needs to be deferred to the next issue.

But in a nutshell, the retired faculty members are usually in sync with the winning answers. The closest agreement varies by 11%, and the maximum variation is a whopping 61%. For hiring foreign faculty, current faculty supports the proposal with 81%, the alumni faculty with 65%, and retired faculty with a mere 20%.

We have some follow-up plans for these poll results, and we invite all our readers to send in their comments about the poll outcome before we resolve upon our plan of action.

The poll-emics of how we went about it

We framed 10 questions that we considered important for laying the foundation of IITB’s future. We sought advice from faculty, alumni and students. We hesitated a bit about asking the question on reservations. We were advised by a dean to bypass political correctness. “It’s high time we started talking about issues,” he advised.

For each question, we ensured that sufficient background was narrated. For instance, on the question of fee hike, we ensured that the proviso of loans, as well as education cost vs. capital cost was clearly explained. While we could fit in all answers under the ‘yes/no/not-sure’ mould, we altered the answers to the question on fee hike by asking for ‘no hike/gradual hike/outright hike’.

Our decision to incorporate a space for taking in comments turned out to be prudent, and we are happy to have received a spate of approvals. A note from one of the retired



faculty members says, “I congratulate the team that thought up this questionnaire. The questions are appropriate and very well thought-out. They throw the spotlight on the path that IITs should take for future development.”

Our webteam worked diligently to host the questionnaire on our website and carry out trials. Volunteers pitched in to send out the message through mailers, newsletters and all available social networking sites. We avoided a username login/password for seeking answers. Though this would have authenticated the polls, it would have severely impaired large participation.

We did end up with a few multiple entries from the same respondents and we had to scan every single entry to remove the additional ones. (In this process, we brought down the numbers from 1,912 to 1,824.) We searched for and removed dubious entries. There could be a few fake entries that have eluded us, but as the final results show, the

handful of fake entries will not alter the complexion of the results by more than a fraction of a percent.

Errors or typos in country or age and all other parameters were set right before generating scores of pivot charts and graphs. Crosschecking has been painstakingly carried out, wherever possible. Hundreds of comments running into thousands of words were scrutinised by a separate team and classified broadly.

We decided to let the graphs speak for themselves and allow the reader to draw his or her own inferences from the numbers that evolved from the poll. We have not overlaid our own personal views in the synopsis that follows. We welcome suggestions from all about how we can improve further for our future editions of *Poll Khul Gayi*.

*All the comments in ‘point’-
‘counter-point’ are comments left by
participants in the poll*

Some thoughts on national and global relevance of IITs

Urjit Yajnik

IITs are in the limelight because they exemplify a high standard in education and also because their education meets the global benchmarks. This opens up the global space for further studies and employment. But increasingly, IITs have acquired the image (along with IIMs) of being ivory tower institutions, focused entirely on global research imperatives and an MNC-like culture, while ignoring national needs.

The most notable ill is the lucrative coaching industry, which thrives, and in a sense helps to dilute the very exclusiveness of the IITs by confusing genuine merit with the coached simulation of meritorious performance.



Within the national context, an IIT education is perceived to be like the Dirac delta-function, with nothing else coming close in comparison. While many NITs and some private institutions have had a strong presence, somehow the image of being the most superior continues to stick to the IITs, almost to their own detriment. The most notable ill is the lucrative coaching industry that thrives, and in a sense helps to dilute the very exclusiveness of the IITs, by confusing

genuine merit with the coached simulation of meritorious performance.

The immediate view one takes, correctly, is that this has diluted IITs' education. But on a broader canvas, it has also shown that India has a huge pool of talent, trainable when perceived necessary, that can rise to the challenge of very high standards. The main lesson one learns is that high standards can be achieved within government constraints, provided academic autonomy prevails.

It makes a strong case to accord comparable autonomy to many other institutions of higher education within the government, including those at the state level. Indeed, IITs will cease to be a perpetual source of curiosity for the media. They will also get the rightful kind of competition required to bolster their performance, if other categories of institutions are permitted to flourish.

A related case in point is the exclusive fixation on technology and management. On the global scale, an institution of higher learning and excellence is almost always engaged in high-class scholarship in the sciences, humanities and social sciences. The role of these departments exists not only as think-tanks for the many agenda of government and industry, but also in preparing high-quality outputs of students, capable of thinking along the lines left out in technical or purely professional training.

Institutions of higher learning ought to provide a well-rounded education, in contrast to only training. For this reason again, strengthening of universities as autonomous bodies imparting high-class, broad-based education is very crucial.

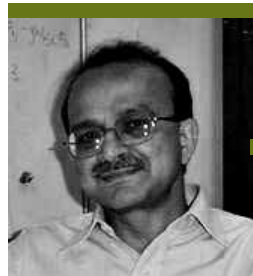
One further point to be recognised is that coaching classes are not necessarily diluters of the system. They also serve as levellers, removing accidental advantages or disadvantages that students may have due to geographical location, or limitation of exposure. On the flipside, this makes access to IIT seats akin to a lottery among a large pool of comparably talented students. But this distortion is only due to the great paucity of institutions and alternative programs of study. The intellectual calibre of students who enter in this way is not really in doubt.

The real problem is that many who enter IIT via coaching classes are not really interested in the art of engineering. When they were young, they were offered no choices to explore and choose what would stimulate their minds the most. It is common to see at least a few notable students with zero interest who pass on bravely, based simply on the strength of their general intelligence.

This category would have been much better served and would have proved much more beneficial to the society, had they been able to choose from among the wider variety of academic pursuits, freeing up seats for others with genuine interest. This brings us back to the same point of strengthening other sectors of education. World-class universities must stand shoulder-to-shoulder with IITs.

In summary, there are a number of key issues that IITs will have to contend with in the coming decade, but dilution is the least of its worries, due to a large pool of capable students in the country.

What is required of the intellectual community of IITians is to generate a discourse that will take global civilisation to its next stage. A nation focused on engineering and management will create efficient factories and markets. It may also generate wealth as a very desirable initial output. But the West gets our respect not due to its wealth and engineering alone. Beyond wealth and stability, a society will count itself among the greats only if it projects a fresh vision and a fresh ethos, which will enthuse the global village we inhabit. A great opportunity for this lies in the strengthening of academia holistically, as universities, rather than remaining obsessed with professional schools.



Urjit Yajnik

Urjit Yajnik did his M.Sc. (5-year integrated) in Physics from IIT Bombay in 1980. He later did his PhD from the University of Texas, Austin in 1986. He returned to IITB and his old department as a faculty member in 1989. Urjit has been a Visiting Fellow at Tata Institute of Fundamental Research (TIFR) and a Visiting Faculty at McGill University and LPS Université de Montreal. He is the current Dean (Student Affairs) at IITB and a member of the Alumni Association's Board of Directors. He contributed this article after he read Gautam Barua's article "Changes and Reforms in the IIT System" featured in the inaugural issue of Fundamentals.

Envisioning IIT Bombay

A call to action

Bharat Desai

IIT Bombay is arguably the best engineering institute in India. Our alumni accomplishments have made both the institute and nation proud and 70% of the top-100 JEE rankers in 2011 opted for IITB.

IITB's vision is: to be the fountainhead of new ideas and of innovations in technology and science. I believe the time has come to translate this vision into a specific goal: to make IITB one of the top-10 global institutions.

Every great accomplishment is preceded by a seemingly impossible goal. Few people could have imagined that a personal computing device company would become the world's most valuable company, or that Indian companies would one day buy global icons like British Steel and Jaguar. I am confident that if the institute's leadership, faculty, alumni and students work in harmony, they can make this goal a reality and take IITB to the next level.

The Starting Point

The journey to be one of the top-10 global institutions is long, but it is imperative that we take the initial steps now. The first step in any journey is setting the overall direction for the journey.

- Define a long term vision for the institute
- Adopt a global perspective and conceptu-

alise IITB as a truly international student body—IITB should be a magnet for the best students across the world

- Design a curriculum to groom future global leaders—adopt a 50 year outlook to build skills across the career lifecycle

Interdisciplinary Focus and Collaboration

Future opportunities will lie at the intersection of major disciplines. Build on the strong science and engineering foundation, actively forge partnerships with other world class institutions and focus on breakthrough interdisciplinary initiatives.

Harness the Power of the Network

By virtue of their accomplishments, IITB alumni have created tremendous goodwill in the global academic and corporate community. Harness the power of the IITB alumni network through greater participation in institutional initiatives. Establish forums and platforms to engage alumni leaders across diverse fields in meaningful interactions with the institute and its stakeholders. Robust governance along with communication, transparency and accountability are critical factors for success.

Redefine Role of Alumni

Redefine the charter of the IITB Alumni Association beyond fund-raising. Alumni can



adopt multiple routes to positively impact IITB and the student community.

1.Faculty: An Economic Times report in October, 2011 estimated a shortage of 2,500 faculty members across the IIT system. Quality faculty is one of the crucial growth-drivers for development of the institute. There is a huge opportunity to tap into the body of knowledge resident in the 37,000+ engineers and scientists who have graduated from IITB over the last five decades. An increasing number of corporate professionals are pursuing options in academia at various stages of their career lifecycle, for instance as part-time opportunities, sabbaticals and as early retirement and post-retirement activities. Establish creative engagement models and mechanisms to harness this knowledge store, to benefit future generations of IITB students.

2.Advisors: Participate in forums like the Institute Advisory Council to engage with the director and the institute leadership to shape the future of IITB.

3.Student Mentors: Students at IITB come from a range of socio-economic backgrounds. Intellectual ability, commitment and a strong will help them to succeed at IITB. But as students step out from the security of the campus into the corporate world, a number of softer factors will determine their continued success. Alumni can mentor students to help them succeed in their transition to professional life.

4.Recruiters: There is a global shortage of high quality talent but we often ignore the talent powerhouse which shaped our own professional careers. Let your organisations benefit from the tremendous talent and potential of IITB students.

5.Research Partners: Research partnerships between industry and academia are critical to developing sustainable funding models for the institute. The technological prowess of IITB faculty and students can provide cutting-edge research capabilities to organisations in a cost-effective manner.

6. Angel Investors: Some of most innovative ideas are born on college campuses. Facebook is a great example of a college dorm project becoming a \$100 billion company. At this moment, one of our current students may be planting the seeds of the next Google, Facebook or Apple in his or her hostel room. With their business experience and insight, alumni can help identify and nurture early-stage entrepreneurs to convert their ideas into viable business models—and also have an opportunity to participate in the upside potential. Get involved with SINE (Society for Innovation and Entrepreneurship) and eCell (Entrepreneurship Cell) at IITB.

7. Donors: The top-10 US universities have endowments in excess of \$100 billion; Harvard alone has more than \$32 billion. We have a long way to go, but an ocean is comprised of millions of drops of water. IITB has been the first milestone towards a better life for many of us. So when it's time to give back, the institute should be right on top in our minds and hearts.

Being an IITB alumnus is a lifelong privilege. That privilege should be accompanied by a sense of duty to the institute. IITB has provided us with the building blocks of the enabling infrastructure to realise these ideas. Now we have to initiate action. So my message to each one of you is simply this: Get Involved!



Bharat Desai

Bharat Desai, DA B.Tech EE, C'75 is Chairman and co-founder of Syntel

(NASDAQ: SYNT, www.syntelinc.com), a leading global provider of integrated Information Technology and Knowledge Process services, employing 19,000 people with a market capitalisation of over \$2 billion. Bharat is a member of the Dean's Council at the Harvard Kennedy School and on the Visiting Committee at the Stephen M. Ross School of Business, at the University of Michigan. He is currently the Chairman of the IIT Bombay Heritage Fund. Bharat also holds an MBA in finance from Stephen M. Ross School of Business, University of Michigan.

IIT Hyderabad

Creating a New and Innovative IIT

Uday Desai

Creating an institution from scratch is a big challenge and creating an IIT is an enormous challenge. Today, brand IIT is bigger than anyone could have ever imagined. Everyone, from colleagues, peers, students, alumni to the society at large has phenomenally high expectations—it is quite easy to get overwhelmed. The trick is to listen to everyone, but finally go with your vision.

As founding director, it is imperative to have a clear vision for IIT Hyderabad (IITH)—this vision is adaptable and by that, it does not mean that one is wavering in their intentions or principles. It means that I am listening—listening to myself, and to all my well-wishers and critics.

Where does one begin to describe the journey in the making of IIT Hyderabad? As the director of a new IIT, I had to wear several hats. Of course, the Director, then being the Dean Faculty, Dean R&D, Dean Planning, Dean of Academic Affairs, being the HoD of several departments and so on. It sounds daunting, but it is not as bad as it sounds. You have help from the mentor IIT which was immensely valuable—but then there is the inevitable clash of visions—the young one believes in leap-frogging ahead, and the established one believes in relying on time-tested approaches. But that is another story for another article.

Upon taking charge, the very first thing

For me, the top-most priority was recruiting the best faculty. I visualised the beginnings of IIT Kharagpur in 1951 and then IITB, IITM, IITK and IITD in quick succession in the late 50s and early 60s. Today, IITH has 85 world-class faculty members.



was to articulate my vision. Based on this vision I had to define my priorities. For me, the topmost priority was recruiting the best faculty. This was a challenge since everybody everywhere is crying hoarse about the acute shortage of faculty at IITs. To not get confounded with this challenge, I visualised the beginnings of IIT Kharagpur in 1951 and then IITB, IITM, IITK and IITD in quick succession in the late 50s and early 60s. They overcame this challenge with aplomb, and that too in days of scarce resources.

This gave me strength, and today IITH has 85 world-class faculty members, who are not just doing research and teaching (with 50 sponsored projects), but aggressively working towards making IITH a world-class institute. This was not easy; IITH made it a point to have two to three selection committee meetings per department, per year in all of its eleven departments.



A related challenge is to inculcate the IIT ecosystem and IIT culture among the faculty, students and staff. This is not as automatic as one would assume. In my opinion, this is a much harder task, and an ongoing one for some years to come. Nevertheless, a lot has been achieved in a short time. The faculty at IITH is publishing vigorously, and sponsored research is fast becoming the DNA of IITH.

Obviously I had to lead from the front, but simultaneously I had to make sure that every faculty member felt that she/he had much more stake than me in the future of IITH—directors come and go, but the faculty is there for the long haul. This too is an ongoing task and a lot has been achieved. Faculty at IITH is selflessly devoting enormous time in participating in various functions of IITH, and also the development of the main campus—over and above research and teaching.

They are wholeheartedly coming forward to increase the number of students and starting new academic programmes. By August 2012, IITH will have 1,000 students in 11 departments with roughly 1:1 UG:PG ratio. IITH was the first to start the M. Tech. programme, and its first batch of M. Techs graduated in 2011. In the summer of 2012, its first batch of B. Techs., M.Sc. and the second batch of M. Techs will graduate.

PhDs will soon follow. IITH has more than 150 PhD students and many have started publishing in internationally referred conferences and journals. In fact, even undergraduates are actively involved in research and

The next big challenge is the construction of the main campus. The challenge involves designing for the future—not just the near future, but an appreciably far one. One hopes that the present decisions will be rendered valuable in the future.



publications.

The next big challenge is the construction of the main campus. It appears that bricks and mortar is not the big challenge. But the plethora of rules, regulations and approvals make this a long drawn out and challenging task. The challenge involves designing for the future—not just the near future, but an appreciably far one. Occasionally, one looks into a crystal ball and hopes that the present decisions will be rendered valuable in the future.

Moreover, these are tasks which range from decisions like the trivial ‘colour of tiles’ to the larger vision of building a technical abode which fosters research and innovations. IITH has more than met this challenge. IITH has a master plan for 6,000 students by 2017 and 20,000 students by 2027. The campus design is modular and innovative, to create an ambience for cross-disciplinary research. It has Central Core laboratories, a Centers quad and a Commons. IITH will be the

first academic institution in India with solar power supply connected to the grid, and district as well as radiation cooling. There are numerous other innovations that cannot be recounted due to want of space.

The academic front also requires major innovations. Being a new IIT, we are agile and are able to quickly implement innovative new ideas, and of course exploit the best practices from older IITs.

Innovations at IITH:

1. Fractional credit courses: we have created quite a disruptive credit structure to enhance industry collaboration, wherein industry relevant credits in cutting-edge areas can be given by industry personnel.
2. A 15-day project for freshmen upon entering IITH, to be presented on August 15.
3. A one-credit project for freshmen to be presented on January 26. Here, the project topic is defined by the student and all faculty members at IITH are consultant guides.
4. The project component comprises 33% of the overall curriculum.
5. From 2012, IITH will start a new B.Tech. programme in Engineering Sciences to give a holistic education. For the first 2.5 years, the student will get exposure to several engineering disciplines. In the next 1.5 years, the student will specialise in the discipline of his/her choice—it can be any discipline offered at IITH.

Besides engineering, this can include Physics, Chemistry, Mathematics, Economics, Psychology, and so on. Perhaps for the first time in India, such a flexible programme is being offered to students. At IITH, we have a Liberal Arts department as opposed to the conventional HSS department. The vision is to incorporate fine arts and performing arts

At IITH, we have a Liberal Arts department as opposed to the conventional HSS department. The vision is to incorporate fine arts and performing arts in the curriculum soon.



in the curriculum soon.

On the international front, IITH has MoUs with some of the leading universities in the world: University of Illinois, Urbana-Champaign; Georgia Tech.; University of Southern California; University of California, San Diego; University of California, Santa Cruz; University of Utah and several others. We already have faculty and student exchange with some of these universities. IITH has already received its first donation from Arimilli Rao, a \$100,000 donation for faculty development in CSE.

IITH has a very active collaboration with



Japan. Japan is investing in some of IITH's infrastructure and their architects are designing the International Guest House, Sports and Cultural Complex, and the Incubation Center cum Research Park.

To conclude, the journey at IITH has just begun, the road ahead is full excitement, laughter, team-building and joyous experiences—we hope to give a whole new definition to education and research in India.



Uday Desai

Uday Desai has been the Director of IIT Hyderabad since June 2009.

From 1987 to May 2009, he was a Professor in the Electrical Engineering Department at IIT Bombay. He was Dean of Students at IITB and spent two years as Director of HP-IITM's R&D Laboratory. From 1979 to 1987 he was faculty at School of Electrical Engineering and Computer Science Department at Washington State University. He has held Visiting Associate Professor positions at Arizona State University, Purdue University and Stanford University. He was a Visiting Professor at EPFL, Lausanne. He received his B. Tech. degree from IIT Kanpur, M.S. from the State University of New York, Buffalo and Ph.D. from the Johns Hopkins University, Baltimore.

First and last lessons at IIT

Kailash K. Mishra

It was way back in 1958 that IIT Bombay invited about a hundred of us from different parts of the country for admission to its first batch class. We were asked to report on July 1, 1958 (if I remember the date correctly) in the Silk and Art Silk Mills Research Association building on Dr Annie Besant Road in Worli, Bombay.

I happened to be from an orthodox Brahmin family, rarely exposed to the life in a metro, particularly with regard to eating habits. I hailed from Uttar Pradesh which had the ancient towns of Ayodhya, Mathura, Varanasi, Haridwar, Prayag (Allahabad). These are actually not towns but shrines. Living habits were formed based on one's environment (in those days, not now) and Brahmanism added its own flavour to the miseries.

It was bit awkward for me to take food in the mess where non-vegetarian food was also prepared. Initially, along with me, a few others opposed the combined mess at Worli so much that Dr Shah, our warden had to ask me extremely politely which part of India I belonged to. I very innocently murmured, "Varanasi," and then he turned to B. D. Tiwari and asked him, "What about you?" to which Tiwari replied, "Sagar in M.P." Dr Shah asked Tiwari if all the people in his area were vegetarians. Tiwari also replied as innocently as me, "No sir, only low-caste people eat non-vegetarian food." Dr Shah was vexed

Dr M. N. L. Narsimhan never forgot to talk about the forthcoming life in Powai when we would shift there next year (July, 1959). It was a treat watching T. K. Agarwal imitate him after class, ending with the phrase, "There will be a plaza at Powai."



at this conversation (I guess) and told us he would see what could be done. It took us no time to realise that we had been living in a frog's well so far. It also took us no time to climb out of it too, and share the table in harmony with all our friends. This was the first change which was perpetuated by IIT.

Dr M. N. L. Narsimhan never forgot to talk about the forthcoming life in Powai when we would shift there next year (July, 1959). It was a treat watching T. K. Agarwal imitate him after class, ending with the phrase, "There will be a plaza at Powai." To this date I do not know where this plaza is but our curiosity virtually forced some of us to take a trip to Powai in December, 1958 along with Sudhir, Siddiqui, P. K. Rao and V. S. Ramanadham. We came to Vikhroli, took a BEST bus going to Bhandup and got down

at the Anand Chemical stop near Gandhi Nagar Naka. We then walked down to the proposed site of IIT on a lone road connecting Gandhi Nagar Naka (on Bombay-Agra Road) to somewhere near Andheri.

On this road there was a stone quarry after a climb of 75 metres between the hills. Some people could be seen there. From that point onwards, the road turned into a blind curve such that even people working in the quarry did not know what was happening at a distance of 50 metres from them on the other side of the curve.

I mention this purposely to recapitulate that two years later, when the Gymkhana Elections were being campaigned, Vanjare (a friend from the third batch of IIT) was contesting for the post of Games (Sport) Secretary. He would approach the boys asking them to vote for him, illustrating his capability for the post with a story of his bravery, involving this steep curve. While coming back from Bombay on the last weekend, I was stopped and challenged by some burglars on the curve near the quarry. Vanjare dashed after them and stopped only after reaching the campus. The narration paid its dividends, and Vanjare was elected.

Coming back to our trip to Powai in December, 1958. After walking a distance of 1.5 kilometres we had a look at Powai lake, situated in the future campus. It was full of shrubs, bushes, trees and small pieces of barren lands. The ecology was fabulous. In our second year whenever we encountered Prof. Mhatre (Head of Civil Engineering) it was possible to hear about Prof. Narvi of Italy (who had propagated RCC and precast concrete) wanting everything to be made of RCC and PCC. We always wondered if this excellent ecology would very soon give way to Narvi's imagined world. We enjoyed the day and came back in the evening to our

He [Pandit Nehru] stressed immensely on preparing the right kind of boys as engineers who would work relentlessly and honestly towards nation building.



respective places.

Two months later, Prof. K. S. Mani asked some of us to come forward as volunteers to work at Powai to prepare the place for the inauguration of IIT by Pt. Nehru. We all offered ourselves immediately. On the inauguration day we all took seats in the pandal and Pt. Nehru came right on time. His speech was fascinating. Right at the beginning, he mentioned, "*Many people comment on me that I go to inaugurate anything and anywhere. My personal rejoinder to them is that when I go to places I get to meet my people, I see their glowing faces and even come to know of their feelings which make me happy and paves my way to do whatever better I can do for them. I feel neither it is a waste of time nor the energy.*" He stressed immensely on preparing the right kind of boys as engineers who would work relentlessly and honestly towards nation building. He said that in Uttar Pradesh there is a legend:

Kaam kiye ja, Ram bhaje ja, kya kahoon kya dar hai?

Is nagari mein sabhi musafir, kaun kisi ka ghar hai?

It means, 'Keep on working fearlessly, remembering God all the time. All of us here are travellers in this city; this is not the permanent abode of anybody.'

I have not been able to forget this Geeta-like teaching. This was an introductory preaching by a great son of the nation.

My last teaching was also equally touching. I had my last viva in fourth year which would qualify me as B.Tech. (Hons). I was the last boy to be interviewed for the viva. Our teachers had arranged a farewell party for us in Bristo Restaurant in Flora Fountain (presently known as Hutatma Chowk). All my other batchmates had made their own arrangements to reach the venue, but I had to be given lift because of being last.

Dr G. S. Tendulkar along with two Russian professors gave me lift in a Russian car. On the way, Prof. Tendulkar said, “My dear friend! Now you will be entering life. Remember two things.

- i. You might have been a front-bencher here but in a job, you may have to work under the worst of stuff. Take it as a way of life. If you do not like the situation, try to find an alternate job silently without expressing anywhere that you are not happy. Do not destroy the discipline of the organisation by grumbling and talking rubbish before others who will not be able to help you at all, because all are bothered about themselves.
- ii. Remember the proverb that life is short but there is always time for courtesy.”

I could never afford to ignore or forget the preaching of my teacher. Two years later, Prof. Tendulkar came to H. E. C. Ranchi (where I was employed). I saw him and wished him. He promptly replied, “How are you my friend? I forget your name.”

I told him I was his student in IIT Bombay. Immediately, his eyes fell on a safety slogan, ‘Safer ways are better ways’. He asked, “My dear friend, is that for family planning or something else?” Without waiting for my reply he walked ahead with the guide, leaving me to continue working.

I feel very happy that the first teachings by Pt.

Nehru and the last of my professor’s at IIT both paved my way all along. I am a happy man despite all the odds of life.



K. K. Mishra

K. K. Mishra was a student of the first batch of IIT Bombay which he joined after completing his B.Sc. in 1958 from Agra University. He received his Ph.D. from the University of Wisconsin (USA) in 1985. He served in the Foundry Forge Plant of H. E. C. Limited in Ranchi for 12 years; Tata-Yodogawa Limited in Jamshedpur for 11 years, Gontermann Peipers (India) Limited in Calcutta for five years and finally superannuated from CSIR in December, 2001. He continued there for six years after that as an Emeritus Scientist. He is presently living in Jamshedpur, Jharkhand.

IIT Bombay's Foundation Ceremony

A Memoir

Sudhir K. Sharma

IIT Bombay opened its doors in June, 1958 after initial planning by Dr P. K. Kelkar who was the first Deputy Director, and his team. Their offices were set up at VJTI (Victoria Jubilee Technical Institute of Bombay, where he was a professor). About 100 students, the best and brightest of India based on merit from their respective universities or intermediate colleges, were admitted for the first batch in 1958.

Soon after setting up of IIT Bombay, Dr Kelkar was given the task of establishing IIT Kanpur where he was appointed director, and here at IITB, Brig. S. K. Bose from Military College, Pune took command as the director.

Though the site of IITB's campus was already decided on a location adjacent to Powai Lake in Mumbai, there was no campus constructed per se at the beginning of IITB's existence. This site was basically a jungle at that time.

SASMIRA (Silk and Art-Silk Mills Research Association) in Mumbai had just finished constructing a magnificent building for their own research purposes, right on the main road at Worli. It consisted of two wings of three floors each and was mostly unoccupied at that time. One side of the SASMIRA building was fortunately given to IIT Bombay to start their classes right in June, 1958 and thus began our journey.

Our campus was going to be on the eastern shores of Powai Lake, with no easy public transportation available to reach it. There was a road by the site that connected Kurla on the east, with Saki Naka near Andheri in the west. Being curious to see our future home, six of us decided to go to Powai and see for ourselves what was going on there.

This was in December, 1958 or January, 1959. As there was no bus service by the site, we went to Vikhroli by train, then took a bus and got down at Anand Chemicals on Kurla Road. From there we hiked to the campus site. I have a vague recollection that we got a lift on an open truck, halfway through our hike to Powai!

At the site we also met some of our professors, Dr G. S. Tendulkar, Head of Metallurgical Engineering, Dr R. P. Singh (Physics), and Dr Srivastav (Chemistry), who were there on a similar mission as ours. As expected, we found most of the terrain to be a jungle with some trails, where we wandered all over. Though the campus site was somewhat cleared of the trees, it didn't impress us. We couldn't imagine moving in there by the following year.

In March, Pandit Nehru came to lay the foundation stone of IITB. By that time, more of site had been cleared out by cutting off the trees. The construction of the Main Building had started in 1959 after its foundation stone laying ceremony on March 10, 1959.

During our first year at the Worli campus, IIT had acquired two buses—painted in the institute's iconic blue and white colour—which were used for transporting the staff. On the morning of March 10, 1959, we went to the Powai site in those buses. Later, guests and other staff from Vikhroli railway station were taken to the Powai site.

A large area on the site location of Main

Building was already cleared and a tent was erected where the foundation stone was to be installed. All the students and professors wore red volunteer badges. Our job was to help guests find their seats, and general hospitality.



Volunteer badge worn by students and staff at the function

Upon arrival at the site, Nehruji was greeted by Kasturbhai Lalbhai, Chairman of IITB's Board of Trustees. Nehruji gave a short speech (the contents of which I do not remember, but I am sure that he was exhorting us to be patriotic and work towards the development of India after graduation).

I do remember the thrill of taking a photograph of Pandit Nehru laying the foundation stone. I was barely five or six feet away from him while taking the photograph. Though the photo did not come out very well—because we were inside the pandal and I did not have a flash with my camera—the very idea that I was fortunate enough to take a historic photograph of him laying the foundation stone of my alma mater was very exciting and thrilling.

One of the Civil Engineering professors helped Nehruji with a trowel to place the cement for setting the stone. Today, this foundation stone can be seen in the wall on the ground floor of the Main Building, near the staircase.

After the ceremony was over, Pandit Nehru was taken around for a short recce in a jeep

Pandit Nehru arrived in a white Buick along with the Union Education Minister, Humayun Kabir and Mumbai's CM, Yashwant Rao Chavan.



driven by our director, Brig. S. K. Bose.

Refreshments were served later to everyone at the function. Coca cola and cold coffee were a hit among our classmates, as I remember it even today! The whole ceremony and function was over in three or four hours, and Pandit Nehru and the other dignitaries departed from the site for their destinations.

Epilogue

The ceremony was a joyous occasion for everybody at IITB and more so for us, the first batch students, who were convinced of moving there in the second year of our stay at IIT.



Sudhir Sharma

Sudhir Sharma is a first batch graduate from IIT Bombay with a master's from

McMaster University in Hamilton, Canada and a PhD in Metallurgy and Materials science from Carnegie-Mellon University, Pittsburgh, USA. Subsequently he worked in the research and development of steelmaking processes at Bethlehem Steel and Praxair, Inc. He is settled in New York where he is enjoying his semi-retirement travelling and photographing nature and natural phenomena.



Sim Sim Khul Ja

Ali Baba

Prof. Aliasgar Qutub Contractor, former HoD of the Chemistry department, is the current Dean (Alumni and Corporate Relations), or Dean ACR in short. An alumnus from C73 himself, he is a hands-on person and is extremely well-versed with all aspects of alumni activities. Amongst his many claims to fame is the possession of a razor-sharp wit, which is on regular display at Board meetings and alumni events.

To enlist his services as our regular columnist, fundabees hit upon a plan of getting the inaugural issue released by him on Alumni Day, December 25, 2011 at IITB. As one who possesses the rare gift of narrating serious and heavy matters with a tongue held firmly in cheek, Prof. Contractor has agreed to appear before Fundamatics readers in a new avatar of Ali Baba. His column is titled Sim Sim Khul Ja, and just in case you thought that Ali Baba is slipping into topsy-turvy-ism, hold your comments.

Read on to understand the rationale behind what can be considered as analogous to 'sulphate copper' in his chemistry class. He is currently 40 thieves short of his target, but is trying to woo them on his Facebook page. Fundabees thereby call out all thieves and non-thieves to brace themselves for a hearty laugh, and to reach out for your wallets before they get stolen.

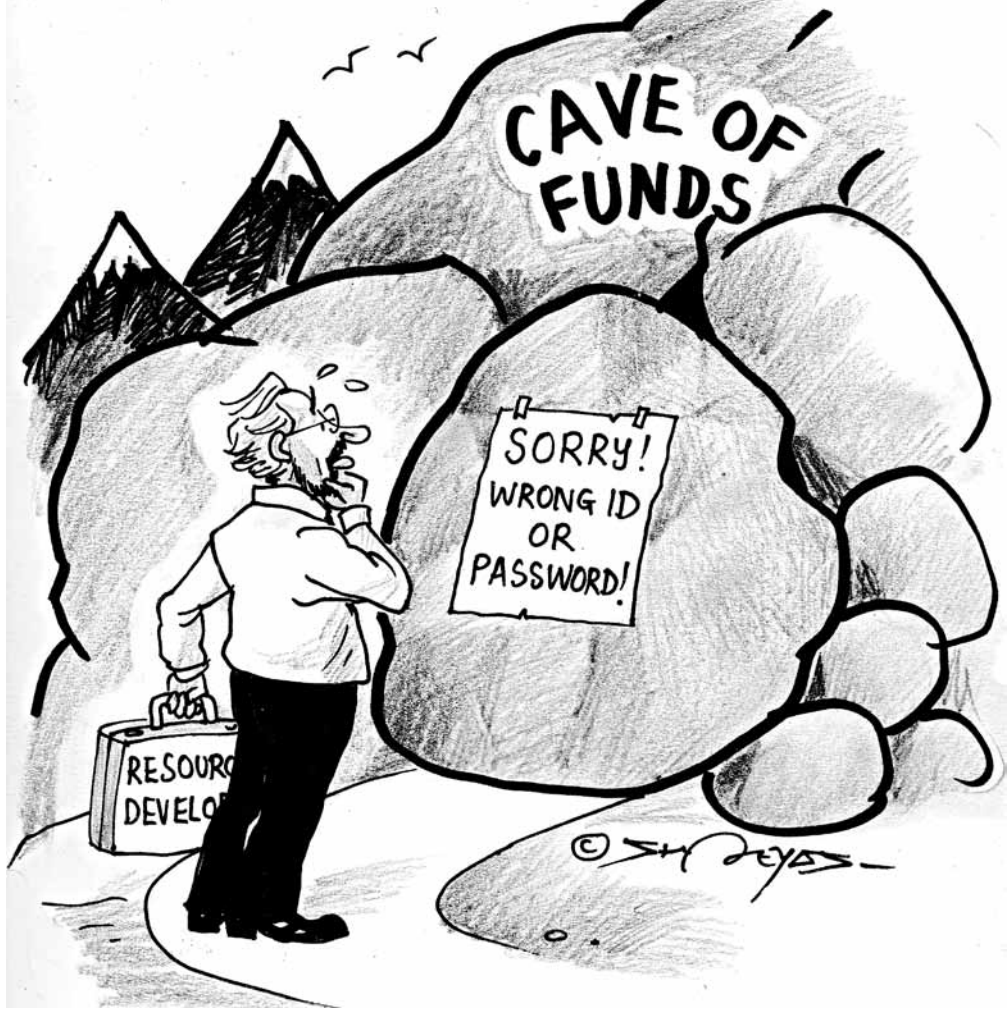
Fundabees

It seems like I have forgotten the password, and I desperately need to get out of this cave of treasures. It isn't thieves who have stashed the treasure, well, certainly not all of them, but one does not know how even friends will react when asked to part with their hard-earned money. Do I remember the security question? No, but I do remember the answer. Give me more!

So here I am, attending this workshop on Fundraising and Painless Giving. It is quite a specialised skill, I am told, and not an easy one to acquire. I guess that reducing the registration fees could make it considerably easy to acquire, but then, I am here to listen, not to advise. We are told that the dress code is business-casual, though we are assured that the business itself is far from casual. The government is trying to reduce the fiscal deficit, but auctioning telecom licenses is obviously not the way to do it. Since the same chap is controlling IIT's budget, it's easier to cut that and make the IITs financially independent in the same stroke. Marvellous sword-play, that. Only a lawyer could do it.

So let's get down to the not-so-casual business. The cardinal principle in fundraising, we are told, is transparency; therefore it is called Development. Since Resource Development was a dead giveaway, Resource Mobilisation was tried; but when that too was viewed with suspicion, one settled for Development. So when one presents one's visiting card to an unsuspecting founder of a multi-million dollar corporation, one is invited in for a cup of tea and nostalgia. But don't forget what you are there for, or you will be full up to the gills with tea, nostalgia and nothing more. That is certainly not Development; least of all, your own.

The very foundation stone of Development is exactly the same as that of the oldest and most lucrative enterprise that human civilisa-



The very foundation stone of Development is exactly the same as that of the oldest and most lucrative enterprise that human civilisation has invented: Religion.



tion has invented: Religion. The myth is that there is life after death, and what's more, one has a choice of the kind of life one can have the next time, depending on what one is willing to part with this time. So the Development Officer is really a kind of insurance agent, but since we insist on transparency, we can call him a Philanthropic Advisor.

In a globalised world, we need Global

Philanthropic Advisors. That explains why a Boston University evangelist has flown halfway across the globe to talk to natives in India. And Global Philanthropy also means offering Indian billionaires to book a seat on a flight by giving to US universities. I suggest to him that there is an opportunity for a deal here. You convince Indian billionaires to give in India, and we will put in a good word for you with our alumni in America.



*Prof. Aliasgar
Qutub
Contractor*

Hos-tales



No, Hos-tales is not Gujarati for hostels. It is about tales from our hostel days. Memories fade and become jaded with time. Many forget their anniversary dates and spouse's birthdays. If they live to tell what they remember, they rattle off stories about ragging, mess food, gaali competitions, wing cricket, weekly baths, Holi and bhang and a camaraderie through thick and thin, sick and sin. These are stories and anecdotes that are integral to our being, which cannot be erased by any delete button in our memory cells.

In this section, Jumblebee has cobbled together short anecdotes sent in by our readers, reminiscing about their memories. We hope they make you snort, chuckle or heartily belly-laugh every now and then. Of course, we're also hoping that these little stories make you recollect your own moments and finally put you in a position where you can't help but send us your own anecdotes for our subsequent features.

Jumblebee

Hos-tale 1 from H-9: Mohamed Ali was a Nigerian who landed at Santa Cruz airport in 1976, with dreams in his heart and a vision in his mind. He was admitted into IIT and that's where he asked the taxi driver to take him. The not-so-worldly-wise cabbie took him to ITI Mulund. After an intense argument at ITI, he was told by the ITI staff that he was admitted into IIT, that IIT was in Madras and that he should head back to the airport and catch the next available flight to Madras. While the hapless Mohamed Ali was cabbing it back to Santa Cruz, he fortunately happened to pass through Powai and managed to see the sign on the Main Gate in the nick of time. Mohamed Ali was thus saved the hassle of a Bharat darshan, that would have taken him to Kharagpur, Kanpur, Delhi and finally back to Bombay.

Hos-tale 2 from H-3: CKM (name withheld) from H-3 took forever to graduate during our times, and was an almost permanent feature in our hostel. He had great skills in both weightlifting—with so much smoking I couldn't figure out how he did it—and chess. He was in the institute chess team, and every time after our adjourned game in any inter-hostel tournament, we used to rush to CKM for his analysis to plan future moves for the next day.

One Saturday morning, CKM's opponent in one of the inter-hostel tournaments landed up

in our hostel. I duly took him to CKM's corner room in the zeroth wing. (Corner rooms were much sought after and went to those who got sports points based on their skills.) The door was closed; I knocked on it. CKM said, "Come in," from inside and we pushed the unlocked door and came in. CKM was asleep with a sheet on him.

I introduced CKM to his opponent and told him that he had come to play the game.

There was a long pause, as CKM opened his eyes. Then, CKM suddenly brushed the sheet aside and stood up; he was completely naked. He got up and shook hands with the guy and said, "I am CKM." I didn't wait to see the scene; I just pushed off from behind.

Next day, H-3 had won the match. CKM's opponent just gave him a walk over.

Samir Kelekar, H-3, '83

Hos-tale 3 from H-5: This happened when we were freshies at H-5. We used to go for late-night snacks to a small canteen run by a contractor, above the old gymkhana building. Soon some of us figured out that the guy at the cash counter was not very strong at arithmetic and got confused easily. So we would place an order, change it a few times so that he had to repeat the arithmetic, jingle a few coins at the cashier's desk and drop and pick up cycle keys.

More often than not, the cashier would goof up the totals, and once we ended up paying less than half of what we should have. After a few such incidents, the fun wore off. We felt sorry for the guy and also acknowledged that this was not very healthy fun, and stopped doing it. The guy never realised it.

Vivek Joshi, H-5, '86

Hos-tale 4 from H-10: After numerous

complaints, we finally managed to have a dog gate installed in H-10. It is supposed to be installed in such a way that one can come inside only by pulling it, which dogs can't, thereby preventing them from coming into the hostel. I don't know which intelligent fellow installed it in the other way, which allowed dogs to come in but prevented them from going out. As known, IIT has more animal-lovers than haters. Gradually, the population of dogs in H-10 increased from one dog at the main gate of H-10, to one dog per floor of the new building, where mattus (M.Techs) used to stay.

One day my non-IITian friend delivered me a not-so-small kitty, in a highly terrified state, packed in a bag. My friend requested me to unleash her in the IIT campus, increasing her chances of survival because of the lovely ecosystem here. But instead I took her to my friend's room and opened the bag without realising that when she could hold up Mumbai's traffic, then she could surely prevent us from sleeping too. Our whole night went by in chasing her and stopping her getting on our beds or from eating anything.

Thankfully (or not), the cat ran into the cozy toilet. Finally, in the morning, she jumped out to find her 'survival probability in IIT ecosystem', and only then could we sleep properly.

Prachi Bhatnagar, H10, '11

Hos-tale 5 from H-5: On the day India and Pakistan were playing a hockey match final, circa early 1970s, UJ (name withheld) and I were at RK, for a cup of tea. UJ had graduated and was working, but continued to stay on at his hostel, having wrangled a room on some pretext or the other, since accommodation was scarce and the arrangement was convenient. We asked Shetty (may his soul rest in peace), the owner, to turn on the radio to hear the commentary.

Shetty suggested we bet each other over beer instead of tea, with the loser picking up the tab. Reluctant as we were, Shetty was persuasive. We were both broke, I being a student and UJ having run through his salary way before the next pay day. But we had a running account at RK and we agreed to take on Shetty's suggestion, provided he added the bill to the loser's account. It was a great match, it went into over-time, and with time passing, so did the number of bottles of beer consumed. To Shetty's chagrin and against all odds, the match ended in a tie. This Shetty did not anticipate, and since neither of us lost, he was stuck with the bill. I am still not sure whether Shetty asked for this amount from me or UJ. His son told us on one reunion (when we saw Shetty's photo duly garlanded and decided not to booze) that his father used to look forward to meeting us on reunion day.

Ramesh Ukidve, 'Uki' '74

UJ adds: Uki is too generous to Shetty. Shetty was trying to sell us beer when we did not want it and could not afford it. Shetty was actually too clever by half. He took a bet with each of us, thinking he had hedged his bets, but he didn't cover the possibility of a drawn match.

Hos-tale 6 from H-1, 2, 3, 5 & 6: To 'topo maaro' a design sheet or flowchart, one needed two chair frames, a square piece of glass that fit between the two, a lamp lit at the bottom of the chair, one finished product on top and the unfinished product placed above it. An easy trace-over followed for a new wheel to be generated. The idea may or may not have been original, but 'glass topo' the name sure was. 'Topo maar' was a quick-fix done the night before submission. Our batch was the original inventor of 'topo', 'glass topo' and everything else associated with 'topo'. Unfortunately, we didn't get any

credit for our invention.

Sudhir Sharma, H-1 & H-3, '62

K. K. Mishra, H-2, '62, adds: Our classmate Venkatraman was nicknamed 'Toppo' by two eminent examiners, namely O. P. Vyas and H. M. Srivastava. They were our classmates too, but awarded this patented name to Venkatraman. Glass Topo is definitely an invention of institutes which existed before IITB, because my mathematics teacher Raghbir Singh (from Aligarh in UP) used to refer to this term as early as 1950 when I was in class 6. Eventually, Aligarh was legendary for starting all activities like copying, paper leaking, fake certificate printing, fake currency note printing, artificial milk-making techniques—the list is long enough.

Jitendra Bhatia, H6, '67 adds: Glass Topo stirs vivid memories of H-6 guys practising the art at breakneck speed to meet deadlines. Ravi's original was always the most sought out one. I remember an enthusiastic novice who, in his desperate hurry, copied even the name plate including the name of the originator!

Rajnikanth Shastri, H5, '75 adds: In our time, one also added 'pin pricks' and 'erasure marks' to a topo-ed drawing to make it look like one had done it on their own. The Drawing instructor was pretty sharp at identifying topos. We also moved things a bit so that the topoed drawing did not match the original. I think the Drawing instructor must have had a topo set-up as well.

Hos-tale 7 from H-4: Our chief cook was a guy called Rafael, supposedly known for his chicken curry but far more famous for his heavy drinking. After every Special Dinner Night, the guy would load up on some country liquor of local vintage and remain totally stoned the following few days. You knew it because the dinner would be even more taste-



Dan Mayur, H4, – '67

Hos-tale 8 from H-6: Among the popular guys from the last wing was Vasudev Munjal, who after his bath, regularly found his towel hung on the tree behind the last wing (the handiwork of one of the Delhi trio of Rajeev Kumar, Virmani or Dinesh Mohan) and was thus forced to rush to his room in underwear, and on one occasion even without it.

The telephone department had installed a payphone between the wings, but everyone managed to operate it with a crooked wire without putting in coins. For the convenience of all inmates, the wire contraption was permanently kept near the phone itself. The telephone department finally decided to remove the phone from such an unprofitable location.

Jitendra Bhatia, H6, '67

less on those days than usual.

I remember one of the Gurkhas with a particularly pleasant face. These hard-working guys have an undeserved reputation for being dimwits. This guy had not gone back to Nepal in years and yet, was known to rejoice upon receiving a letter from home, year after year, announcing the birth of a new child his wife had delivered. His very nonchalant, matter-of-fact explanation was that he had brothers back home.

I also remember the dhoban of H-4 who was the secret heart-throb of all 252 inmates of our hostel. With hormones raging at the age of 21 and in an essentially all-male environment, anything in a saree or skirt looked attractive and looked even better as time went by. Those were the days. I am wondering if in rapidly changing India, the IIT hostels will ever go co-ed.

Governance of India Undertaking

Right from its years of independence, India has muddled along and occasionally flourished by making do with what is available to it, and turning adversity into success. Endemic corruption and problems of governance have been constant dangers faced by a democracy, at the mercy of being governed by the socio-economic elite. As a result, much of the country has remained in a constant state of unstable under-performance which often benefits those in authority, because this way they can bypass the failures and gain corruptly from the chaos. However, it has left hundreds of millions of people in various forms of poverty. This is why historian Ramchandra Guha had stated, "Instability is India's destiny", in England's Prospect magazine.

*The preoccupation with governance and democracy undoubtedly looms large in the minds of IITians, so much so that we got a spate of articles which explored many facets of this issue. The need and limits of a people's democracy is explored by an interview with Arvind Kejriwal and in a new section called **Ranticle** inaugurated by Hemant Kanakia respectively; an episodic encounter accessed from the memory of our first columnist, Ajit Ranade. An insightful addition to these are the experiences of the current Information Commissioner, Shailesh Gandhi, creating a nuanced reading of issues of democracy and governance as it exists in India today. Bumblebee hopes that our readers agree.*

Bumblebee





From Mechanical Engineering to Civil Society Crusading In Conversation with Arvind Kejriwal

People in the public domain comment, debate, give interviews and make speeches. The good ones are almost always those who sound unrehearsed, spontaneous and easy-flowing, with a generous smattering of eloquent remarks and witty sound-bites. Those who perform regularly know well that this ease comes only with years of practice. For someone who has been in the public domain for so many years, Arvind Kejriwal comes across as the kind of person who may have only had a straight, unrehearsed way of speaking all his life.

There is little need for a long introduction for this Mechanical Engineering graduate from IIT Kharagpur. In a nutshell, he joined Tata Steel through a campus interview while preparing for the Civil Service exam at the same time. He spent a few months with Mother Teresa and the Missionaries of Charity, a period he describes as, “one of the most satisfying phases of my career.” He went on to join the Indian Revenue Service but from the year 2000 onwards, went on study leave. He finally quit in 2006 and moved full-time into the social sector.

Here was a man who chose the path of reform over fat paychecks that he could have earned from the IRS. This is the Ramon Magsaysay award-winning Arvind Kejriwal for you: the well-known RTI activist, who is now the brain behind the anti-corruption

movement led by Anna Hazare. After trying in vain to approach Arvind Kejriwal through ‘influential channels’, fundabees were pleasantly surprised to learn that Arvind Kejriwal was easily approachable and responded promptly to our requests without any fuss.

Not all the questions were easy, but he patiently dealt with each of them with honesty and openness. However, what was really striking about this conversation was the way he always chose simplicity and sincerity over wit and eloquence. There is grace and fluency in the language of simplicity which, unfortunately, we seem to be losing at a fast pace. A true ambassador of the common man, he uses only common words but they never fail to churn and stir something inside us. Read for yourself and find out.

Queenbee

Queen Bee: If one has to do a quick recap of your journey post IIT-KGP, it would begin with your job at Tata Steel to joining the Indian Revenue Service, to finally joining the social sector full-time. Somewhere in between your quitting the IRS and entering the social sector, you began your involvement with the RTI movement. What was the motivation?

Arvind Kejriwal: RTI first came into focus in 1976, when the Supreme Court ruled in the Raj Narain vs. State of Uttar Pradesh case, that citizens should have the Right to



Information under Article 19 (1) of our Constitution. But merely having that right would not allow a citizen to walk into a government office and ask to see the files. We needed a formal law and a movement to bring this about. It started in 1992 in Rajasthan by Aruna Roy and others, and this movement resulted in a law in 2005. My own journey started when I attended a ‘Jan Sunwai’ conducted by them in Rajasthan and I joined Aruna Roy’s team in 2001. I have learnt a lot from her and on issues of democracy, she is almost like my guru.

QB: Speaking of teamwork, the current Jan Lokpal team consists of a different set of people and your erstwhile colleague, Aruna Roy has her own take on the bill. What do you attribute this difference of opinion to?

AK: I would say that a difference of opinion is a healthy trend in any democracy. What is wrong with it? Actually, Aruna’s team and our team have concurrent views on most aspects of the Jan Lokpal bill. Why does no

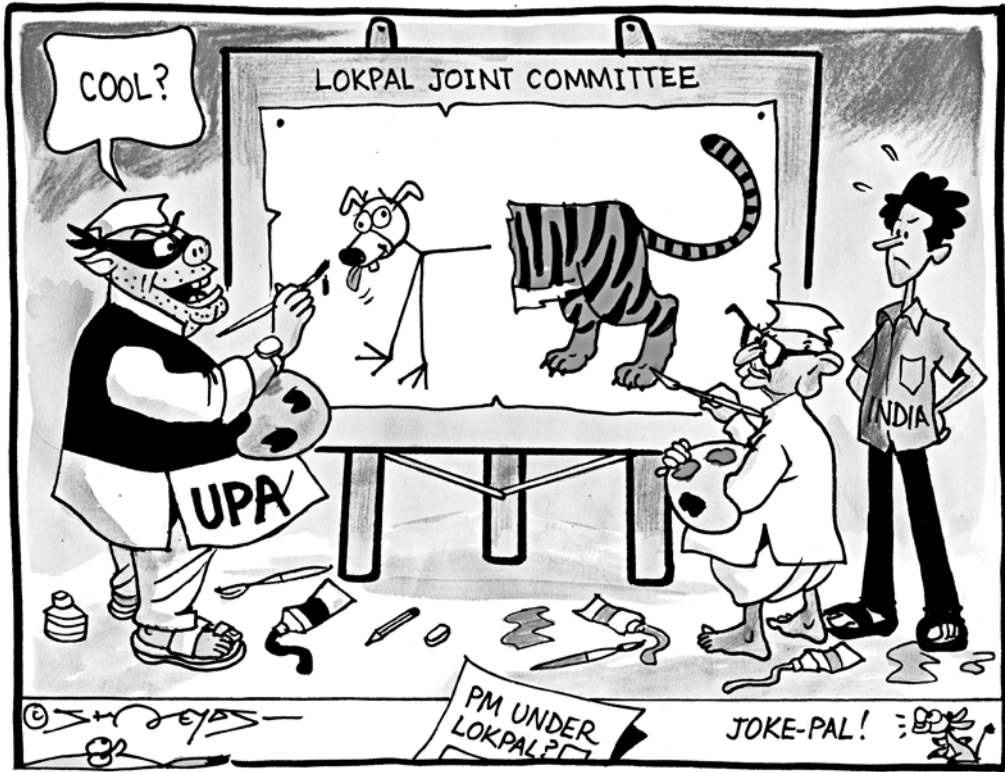
one talk about the areas in which we agree? The media seems intent on overplaying only our differences. To quantify this broadly, out of a total of about 35 pages (of the Jan Lokpal bill) our difference span only about three pages. We have identical views on the rest. To be specific, we have minor disagreements on three specific issues that are related to the inclusion of the Prime Minister in the ambit of Lokpal, and also about Class C and Class D employees.

When a difference of opinion persists, we have to take it to the people and let them decide. That’s what we have done. We had a public meeting at Jantar Mantar on 11th December, and Nikhil De from Aruna Roy’s team was invited to present their version of the bill, which he did. But most of the people present preferred our version, i.e. Jan Lokpal bill. That’s how democracies function. We form opinions and try to reach a consensus. In case of differences, the people should decide.

QB: The whole RTI movement was conducted away from media scrutiny, whereas the struggle for the Jan Lokpal bill has not only been under full media glare, but the media has also acted as a pressure group on the government. Would you then say that RTI compared to Jan Lokpal was a relatively silent movement? Has the media helped or hampered Jan Lokpal bill?

AK: There is no doubt that the anti-corruption movement has received tremendous support from the media and we are indebted to them in helping us spread our message far and wide. However, I am not sure what you mean by a ‘silent movement’. My recollection is that RTI did receive a lot of media coverage in the course of the 13 years of the movement.

And I must also tell you that at the very beginning, Arunaji spoke to Mrs. Sonia Gandhi



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and convinced her of the necessity of RTI. So RTI had the backing of Mrs. Gandhi at every step of the way. So along with popular support, the political will was also there right at the top. In the case of the Jan Lokpal bill, it is the people who want the bill and not the political leadership. Another difference between the two is that RTI was about sharing information while Jan Lokpal is about punishing offenders and sending them to prison. If the law were to be passed, many of the present lawmakers might be jailed.

RTI had Sonia Gandhi's backing at every step of the way. In the case of the Jan Lokpal bill, it is the people who want the bill and not the political leadership.

Jan Lokpal is about punishing offenders and sending them to prison. If the law were to be passed, many of the present lawmakers might be jailed.



QB: If RTI took 13 years to succeed, how much time will you give to the Jan Lokpal bill movement?

AK: It is not fair to compare one movement with another. All movements have a life of their own. What is more important is that movements involve the people and work towards improving our society.

QB: The Jan Lokpal movement has been a success and the government seems to have reacted in a predictable manner, by slapping



petty cases on you. Are you doing anything to counter these cases, or do you not find any merit in countering these allegations?

AK: All cases against us are absolutely false and motivated. I can understand why the government is trying to victimise us. As Annaji often says, “Aam ke ped par hi patthar phenke jaate hain” (stones are thrown at only those trees which bear fruit), so we are not worried. We have offered to prove our innocence before any forum that the people desire.

We are also contesting all legal cases in the courts. Prashant Bhushan is fighting the bogus Amar Singh tapes case in court. Kiran Bedi and I are also fighting our respective cases in the court. I have even paid up ₹ 9 lakh of the bogus demand raised by the Income Tax department. We want everyone to realise the pettiness of the cases for what they are.

QB: Speaking of your IT case, it was reported in the press that Harish Hande and a few of your hostel-mates pitched in and collected funds to help you pay off ₹ 9 lakh. You then wrote to the PM and requested him to not harass Harish and your other friends. Is it true?

AK: Yes, that’s true. I was worried for my friends. The government has been systematically attacking anyone remotely associated with us. That includes two media houses and one industrial house who donated money to us for our campaign.

QB: Another Magsaysay award-winner and your wing-mate Harish Hande had once narrated somewhere, that he and you would have spirited debates on the importance fighting corruption versus fighting poverty, and that you still haven’t come to a consensus. Who do you think will win the argument finally?

AK: I don’t think it’s right to call it an argument. Both poverty and corruption are important issues facing India today and both are interlinked. Poverty exists due to corruption and corruption takes place due to poverty. It’s like the chicken-and egg-syndrome. None can be taken to be the first cause and neither can be dismissed as less important. We have to jointly fight both poverty and corruption. This is India’s biggest need now, and all of us should join forces to weed out these twin evils from our system.

QB: From the original Team Anna, Justice Santosh Hegde seems to have distanced himself and Swami Agnivesh has been openly critical of all of you. What are your comments on this?

AK: Justice Santosh Hegde is very much a part of our team. I am right now in Bangalore with Annaji at the Jindal health farm. Justice Hegde visited us and spent almost 1.5 hours with us and left just before your call. He spent an hour with us two days ago as well. He is getting old and is not able to participate in all meetings. The media seems to be speculating that he is distancing himself. That is not the case at all and he continues to be an important member of our team.

As far as Swami Agnivesh is concerned, you are right. He is no longer associated with us. You must have seen the video that is circulating on youtube. He is seen talking to someone from the government and trying to sabotage our movement.

QB: The Jan Lokpal team has announced they will campaign in all elections to defeat the Congress without supporting anyone in particular. You have already demonstrated your might in Hissar. What do you think will be the outcome in Goa, UP, UK, Punjab and Mizoram? Do you think Anna mystique will work in these states as well?

We campaigned against the Congress in Hissar for a reason. Our experience shows that no matter how much support a movement draws, the only thing politicians understand is the language of votes.



AK: In Hissar, we campaigned against the Congress and it lost very badly. We campaigned against the Congress for a reason. Our experience shows that no matter how much support a movement draws, the only thing politicians understand is the language of votes. They have learnt a lesson in Hissar and may have realised that if they don't listen to the people, they will lose their position.

But now we have changed our strategy. In each of these states that are going to the polls, we have told the voters about what each party has done for the Lokpal issue in each state. We have told people what Congress, BJP, BSP and SP have done and what their past stand on the Lokpal has been. We would like to leave it to them to decide. For example, in Uttarakhand, the BJP has adopted a very good system of Lokayukta. But it has not been done so in any other state ruled by them. So, in these elections, we wanted to let the people decide what to do, after telling each of them what different parties are doing about Lokayukta in their respective states.

QB: With your new strategy, what do you think the outcome of the polls is going to be?

AK: *(laughs)* I cannot say that. I am not a psephologist. But I do believe that the anti-corruption struggle has exposed the hollowness of our democracy. When a large number of people take to the streets in support of a movement, it does not affect the government. In fact, the parliament goes ahead and passes

a bill that does not even affect them.

QB: While it was obvious that the government scuttled the Jan Lokpal bill in the last session of the Parliament, do you think it will save face by reproducing the bill in the budget session? What do you think will be the final outcome?

AK: My feeling is that in this budget session, the government will push through their version of the Lokpal bill by hook or by crook. That will be unfortunate because it is a very regressive bill. So I anticipate a long battle ahead.

QB: But will the government succeed? They do not have a majority in the Rajya Sabha. That's why they scuttled it in the first place.

AK: I am not sure how the numbers will play out in the Rajya Sabha. But our information and my own gut feeling is that the government will connive to get their dubious version passed anyhow.

QB: In this issue of the magazine we are also carrying an article written by Hemant Kanakia, where he shares his apprehension that even if a strong Jan Lokpal bill is passed, in the hands of the bureaucracy (which will fashion rules for its implementation) it will become another bill to collect bribes. What are your views?

AK: That is all the more reason why we should have a strong law and also an equally strong measure to implement the law. But this is only the first step. Equally important are the rules for implementing the law and the machinery that will implement it. There are three stages and citizens should not rest once the law is enacted. They need to be involved in all these stages. They need to work equally hard to ensure that the law is implemented in practice and free from misuse by the bureaucracy.

QB: Have you ever accepted or paid a bribe at any point of time in your life?

AK: I have never accepted a bribe. I have paid a bribe once to a traffic cop. I felt so bad that after this, I would insist on paying the official fine and collecting a receipt. I have broken the rule several times of not wearing a seat-belt or using my mobile phone while driving.

QB: But as an Income Tax officer, have you not had people attempting to bribe you with a ‘*bachhon ke liye mithai*’ box?

AK: It has happened to me several times. In fact, I remember on the first day of my service, a chartered accountant asked me, “*Aap seva kya lenge?*” When I told him that I wasn’t interested, he told me that his client had already given him the money to pass on to me. If I wouldn’t accept the bribe, he would pocket it himself. I did not know what to say except to ask him, “How can you do that?” After some time, though, your reputation builds up and people realise that this is one officer who will not take any money.

QB: IITs together have produced more than 2.5 lakh alumni. However, only a small fraction of them have entered the field of politics, activism and administration. What do you think is the reason? What should be done?

AK: Aren’t you happy that only a few of us have entered politics? (*laughs*) IIT teaches you technology and it does that very well. People like me are offbeat. IIT is not supposed to teach you to join politics.

QB: Do you not think that there is an inherent paradox in a situation where IIT products like you (and others) are fighting for a more active and involved civil society, with movements like RTI and the Jan Lokpal bill, whereas the institution that produced them

The core objective of an IIT education is to impart technical training but once that training is gained, it can also be used for addressing the real, long-term problems of India.



encourages a largely apolitical environment? What are your thoughts on this? Would you prescribe a change in the existing set-up?

AK: I repeat my earlier point that an IIT education is about technology and not about politics. It is also true that as a student at IIT, I did often feel that the IITs and students within are completely cut off from the real problems of India, of rural India and small towns and villages.

The core objective of an IIT education is to impart technical training but once that training is gained, it cannot be deployed in areas like IT alone, but can also be used for addressing the real, long-term problems of India. Take for instance someone like Harish Hande—he has used his technical skills in Energy Engineering learnt at IIT-KGP, to provide energy solutions to the poorest of the poor villages. In my view, it is people like him who are true IITians.

POST SCRIPT: The Lokpal bill is one of the longest pending bills in the law-making history of independent India. Ever since the first Lokpal bill was introduced and passed in 1969, at least ten different versions of the Lokpal bill have been introduced.¹

Opinions might differ on the various versions of the Lokpal bill, its eventual fate or even the methods adopted by Team Anna in the current anti-corruption struggle. But can any of us disagree on the need to strengthen po-

¹ The Lokpal bill was first introduced in 1969 and subsequently in 1971, 1977, 1985, 1989, 1996, 1998, 2001 2005 and 2008.



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litical participation and civic engagement for a more inclusive people's democracy in India? Civil society is neither homogeneous nor can it replace political parties or undermine the democratic process.

By the same coin, democracy cannot sustain itself, unless it is underpinned by a vibrant political culture of inclusive civic engagement. If Indian democracy is to move beyond the flawed politics of a few (read: political elite), then what we need are transformative people's struggles, which can transform politics onto a higher or broader domain.

Today, it is people like Arvind Kejriwal and others like him who are in the vanguard of such people's struggles. His passion to reform and change society provides the inner impetus to influence change and impact millions of lives. Today, he carries on relentlessly with a smile, while being subject to the worst kind of vilification and vindictive vendetta from those he has taken on. Arvind Kejriwal is a model *aam aadmi*, who is ironically taking on the government that claims to serve the *aam aadmi*.

Andolan Democracy

Hemant Kanakia

Indians have developed a distinct version of democracy that I shall call Andolan democracy. No change to the status quo is made or even attempted at, unless the janta have an agitation, backed up invariably by a fast-unto-death (or until hospitalised at least) by some concerned citizen.

I wonder if we will start seeing higher versions of such concerned citizens resorting self-immolation or suicide-bombing in support of just causes, to force the government to change the status quo.

There is nothing wrong per se in allowing self-expressions—even of extreme kinds—to enforce changes, but there is a problem when such an instrument is used consistently (and capriciously) for trivial things. One wonders about its validity. We clamour to change specific little things but never to create a robust system to enforce far-reaching reforms.

The Right to Information act made sense as a reform for bringing transparency, but then we have gone ahead and created Right to Education and Right to Food bills! When the government can't do its job of providing education or prosperity to the masses, we rush to make it a right! What comes next, fellows? The Right to Breath (clean air) or the Right to Urinate in Closed Spaces?

What I feel is wrong about this mad rush to declare various rights is that it passes on

What I feel is wrong about this mad rush to declare various rights is that it passes on responsibilities which ought to be understood and taken care of by our elected officials, to our Supreme and High courts (unelected and thus unaccountable to the public, as envisioned by our Constitution).

We, of course, know how efficient and just our courts are.



responsibilities which ought to be understood and taken care of by our elected officials, to our Supreme and High courts (unelected and thus unaccountable to the public, as envisioned by our Constitution). We, of course, know how efficient and just our courts are.

Instead, how about first we have an andolan to pass a bill for the Right to have a Speedy, Timely Trial? Throw judges and lawyers in slammer or fine them if they drag a case—any case—beyond the one year mark.

But I too have fallen into the trap I had described earlier. We need to govern with rules and regulations that are minimal, non-conflicting, and also with systems that have the ability to adapt and deliver results.



The business of andolan tends to create a crazy quilt of what we call democracy, and is in fact quite prone to misuse by demagogues, who double up as saints and ascetics in India. I believe that being ruled by demagogues is only a step away from being ruled by dictators.

The other problem with the business of creating ‘rights bills’ was described brilliantly by Yamini Iyer in an essay piece published in *India Today*. She pointed out that once these bills are passed, bureaucrats have to implement them and they do what they do best—turn these rights into rules and regulations that are as detailed as they are nonsensical. For instance, to implement the RTE, say a bureaucrat designs rules for student/teacher ratios, the size of classrooms, the size of desks to use, the colour of the blackboard and

cleanliness required, etc. (My comments and not hers follow) ‘And, then of course we need to hire more bureaucrats to monitor that schools follow these rules. In practice, what this would amount to is that officials will visit such pesky private schools, find faults among those which are unable to implement rules and threaten to close them down unless they get their cuts. Viola! The Right to Education turns into the Right to Get Paid Bribes.’

I think the Lokpal Bill, if it is ever passed, will suffer a similar fate.

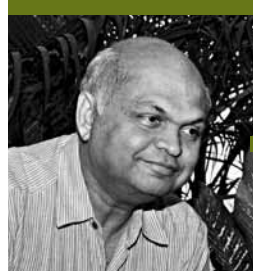
Instead, I think we should have an andolan to have the right to publicly hang corrupt officials. We can volunteer misguided righteous persons for self-immolation to ignite this andolan.



However, I have just realised what would happen if we succeed in passing this bill in the Parliament against all odds. Bureaucrats will go to work and design rules on how high the scaffolding should be, how thick the rope should be, the proper length of rope, and who can be designated as an executioner. That post will again be sold to highest bidder.

Bribes will be extracted from those who fail to follow rules of public hanging. Fantastic!

Maybe I should give up now and catch up on some sleep. After all, it is an early morning flight that I am about to catch. I wonder as I am falling asleep, if bureaucrats have rules for writing too. Right to Write, Zindabad!



Hemant Kanakia

Hemant Kanakia did his B. Tech. from IIT Bombay in Electrical Engineering in 1975. He led an elite research team at AT&T Bell Laboratories and is a start-up guru. He set up Torrent Networking Technologies and later sold it to Ericsson. He went on to start two more companies, Photuris Inc. and Gemplex Internet Inc., and sits on boards of PriceHawk, Photuris Inc., Pipal Inc. and ViaGate Technologies. He is a private investor in start-ups focusing on internet infrastructure companies.

Decadent Governance

Shailesh Gandhi

As an Information Commissioner, I frequently come across situations which raise some fundamental doubts about our governance. Information comes into the public domain, but the governance structure appears to be unable or unwilling to do anything even about blatant illegalities. Since I am of the conviction that citizens have the power and authority to bring corrections in our flawed governance, I want to share the details of one such instance, a case which had come to me in 2009.

A citizen asked about proof of whether a mobile tower, which had been erected on top of an existing building, had been given permission by the Municipal Corporation of Delhi (MCD) as required under the law. The information, revealed after some coaxing, was that no permission had been given. The PIO promised to take action. But in spite of a complaint to the Municipal Commissioner and the Police Commissioner, no action has been taken to bring down the tower which could pose a public hazard, endangering the lives of people staying in those buildings.

The Additional Commissioner has revealed that out of 4,532 mobile towers in Delhi, only 2,015 have the requisite permissions and 2,517 exist and function without MCD permission. Thus, large corporates are putting up mobile towers on the terraces of existing buildings without legal permission. Is this an

Out of 4,532 mobile towers in Delhi, only 2,015 have the requisite permissions and 2,517 exist and function without MCD permission. Is this an example of Corporate Social Irresponsibility?



example of Corporate Social Irresponsibility?

The Additional Deputy Commissioner of Police undertook an inquiry and came to the conclusion that the police cannot take any action since all ‘unauthorised development’ in Delhi has been given official protection by the Delhi Government, by Section 3 (2) and (3) of the NCT of Delhi Laws (Special Provisions) Act, 2009. This protection is renewed annually by the Parliament and now its protection has been extended to 2014.

I call this the Protection of Illegal Structures Act (PISA). By this provision, all unauthorised developments like mobile towers are given protection from any punitive action—up till 2014. I had heard about mafia protection for illegal activities, but am surprised that protection is offered by the Parliament, and it is called a law!

To install a mobile tower, one needs to obtain a stability certificate to ensure that the building is not likely to be endangered by putting additional load on top. MCD has specified that the stability certificate will be accepted only if it is issued by one of the five agencies approved by it.

One of the approved agencies is IIT Delhi. During the course of a hearing at the Commission, I had recorded, “The Appellant had pointed out there are two certificates issued for the same address. The PIO has stated that the faculty members of IITD issue a stability

certificate based on the drawings provided by the client in which the address is mentioned. The PIO also states that no records are maintained by IITD of the drawings.”

The Commission has taken a look at the stability certificate provided by IITD which states, “This building is safe and capable of resisting the forces and moments which may be increased or altered by reason of the additional structures for a 15 metre, three-legged tower with GSM and MW antenna....”

The wording of this certificate appears to indicate that it is certifying the stability as existing tower, whereas the PIO described that it is a certificate based on a drawing with an address which is not verified at all. Given the fact that IITD does not maintain any copy of the drawing with itself, this process appears to have great potential for misuse. Statutory bodies (which permit these towers) and IITD would do well to take a look at these practices, which may have the potential of endangering safety.

Alternately, people may discover that there is no need for such certification, in which case it would be done away with. I am distressed that any engineer can issue a safety certificate for an existing building without even looking at it! If some of the buildings collapse, an Enquiry Commission will get a few years work at the public’s expense.

To me, the foregoing gives an indication of some fundamental reasons for the steady decline in the rule of law and the rise of decadent governance. The key elements are:

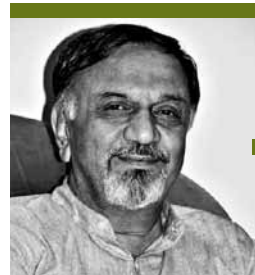
1. Major corporations are flouting laws by operating without legal permissions in over 50% cases
2. MCD will take no action against them
3. The Parliament will offer protection to unauthorised activity by major corporations

by enacting laws. (The PISA Act, which was earlier renewed annually, has now been enacted for protecting such structures until election year 2014)

4. A premier academic institution—IIT Delhi—issues safety certificates in a manner which is completely wrong and fraudulent

I had written to the Director of IITD to look into this and take corrective action, and he replied back saying that they had constituted a committee for this!

This is a potent combination, whereby conscious collusion and inactive passivity leads to a society where the rule of law is effectively subverted by the powerful, leading to a decadent governance structure. Institutions and citizens need to find ways to correct this.



Shailesh Gandhi

*Shailesh Gandhi
DA, DSA B. Tech.
Civil, C’69. He ably
shepherded IIT-*

BAA in its early years and was Chairman of the Board for three years. Shailesh is a first generation entrepreneur in plastic packaging, and was the CMD of Clear Plastics Ltd. He went on to sell his packaging business to become a Right to Information (RTI) activist. He has conducted over 500 workshops for citizens and government officers in slums, clubs, offices, schools and colleges, without any charges. He is also a recipient of the Nani Palkhiwala Civil Liberties Award in 2008. Currently, Shailesh is the Central Information Commissioner for the Right to Information and runs a file-less digital office.



Every editor has grappled with the dreaded feeling of looking at the Content page and experiencing the slow, dark foreboding that a vital ingredient is missing. An approaching, remorseless deadline coupled with the complete lack of ideas makes you start tossing ideas around with the Edit team, in the faint hope that somewhere, in the flurry of words, will be the germ of a idea good enough to send you back to the top, where you can start hoping all over again.

That is how Stumblebee stumbled upon the idea of a column entitled Random Access. It is sufficiently techie to appeal to IITians—at least, we hope so. We've come to the conclusion that getting a good columnist (i.e., stars with puffed-up reputations) works as a good failsafe to kick off a new column. And so, we present to you our new columnist, Ajit Ranade.

Ajit is both a Distinguished Service Awardee and Distinguished Alumnus Awardee of IIT Bombay. He is also a former Chairman of IITBAA, and a member of the Advisory Council of IITB. He is the Chief Economist of the Aditya Birla Group and has engaged with the RBI, Planning Commission, CII and the World Bank. Ajit is also the founder of an NGO called the Association for Democratic Reforms.

He speaks to us through all TV channels, barring Cartoon Network and Star Movies.

He is also a favourite on the expert panel of KBC. (He once cracked an IIT-style PJ on the show: "Amitji, yeh khel hai sawaalon ka, lekin is khel ka koi jawab nahin.") In brief, the most-seen-on-TV, read-in-papers, heard-in-person sort of guy you'll meet.

Ajit discusses democracy with Barack Obama and has the ear of finance ministers during budget time. While he delivers talks all over the world, he still likes to climb an occasional mountain, but the mountain has to come to him nowadays. His favourite quip: "God created a few perfect heads. The rest he covered with hair." Ajit also claims to have done Electrical Engineering from IITB in 1982.

Stumblebee coaxed this reluctant columnist to sign up from this issue onwards, which appears close on the heels of the budget. Fortunately, Ajit starts his Random Access on a non-budgetary note.

Stumblebee

When Kalam withheld his ‘kalam’

It was the morning after our Independence Day in 2002. Around 8:30 in the morning, about forty of us gathered atop Raisina Hill, outside India’s most famous mansion. We had an appointment to meet with the master of the house, who was also India’s Head of State. It was too early for the rest of Delhi, and the only sounds outside were the cheerful chirping of sparrows and koels. The President’s palace had begun humming, since he was known as an early riser, and an early appointment giver. Outside on both the flanks of the mansion, the renowned South and North Blocks were still sleepy. Maybe it was because of the previous day’s celebrations.

We were ushered into a large drawing room. This was after the usual entry protocol and the mandatory surrender of cell phones with the security folks. The room was large with a chandelier, and the seating was informal. It didn’t resemble a venue for a state banquet, but was like a lounge for a book reading instead. People spoke in hushed tones in anticipation of our host.

We had all done our homework, and had decided who would speak when and in what order. We were an unlikely motley crew having flown in from different corners of the country, and now crowding this drawing room of the Rashtrapati Bhavan. This was a rag-tag coalition called National Campaign

for Electoral Reforms, consisting then of 26 different NGOs.

In a few minutes, at the appointed time, the little man with long hair sprinted in, followed by his ADC. Without much formality but with his trademark smile, he quickly moved

For someone aspiring
to become a people’s
representative, surely we
needed to know more before
voting for one.



to shake hands with each one of us, and then asked, “Okay, so what is this all about?”

For this, dear reader, we need to rewind by three years to the middle of 1999. The Association for Democratic Reforms (ADR) of which I was one of the founders, had filed a PIL in Delhi’s High Court. ADR’s journey to the PIL in Delhi had begun earlier in Ahmedabad, flagged off mainly by professors Trilochan Sastry, Jagdeep Chhokar and others. The PIL was aimed at the Election Commission, and the plea was to ask the court to ask EC to make it mandatory for all candidates to disclose certain personal details. Until then the only details that an election candidate had to disclose were his or her name, birthdate and party affiliation. For

someone aspiring to become a people's representative, surely we needed to know more

Strangely, to this day, the law still does not prevent criminally charged persons from contesting elections in India.



before voting for one. Even an applicant for a Class IV job in the government had to give a much more detailed bio-data.

With increasing evidence of criminality we felt that candidates must disclose pending criminal cases against themselves. Strangely, to this day, the law still does not prevent criminally charged persons from contesting elections in India. Many candidates continue to stand even from prisons, since although convicted, their case is usually pending in a higher court. And technically you are innocent until proven guilty. Our PIL was thus about more disclosure, not outright disqualification. Debarring criminal candidates can happen only if a law is passed, which is beyond the remit of courts.

Luckily for us, we won that PIL in the Delhi High Court in late 2000. The verdict directed the EC to make it mandatory for candidates to disclose their wealth, education and pending criminal cases. After this, all hell broke loose. All political parties were up in arms against the court, charging it with having usurped legislative turf. Who was this Delhi

After this, all hell broke loose. All political parties were up in arms against the court. Who was this Delhi High Court to pass such a judgment and usurp upon legislative turf?



High Court to pass such a judgment, which should have been done in a legislative arena? (Never mind the fact that for 50 years, the parliament had not found time to strengthen the Representation of People's Act to debar criminal candidates from contesting.)

Thus, even though it wasn't even a respondent or an aggrieved party in the PIL, the government of India went to the Supreme Court, appealing against the HC verdict. There was an unprecedented unanimity across party lines, that such an upstart judgment of the Delhi HC should be annulled. (The only other time parties show such rare solidarity is when it comes to increasing the salaries of members of the legislature.)

To cut a long story short, luckily for us, the Supreme Court upheld the High Court's judgment. This process took two years and happened in May, 2002. By then this issue had received nationwide publicity and many citizens' organisations, NGOs and the media had begun rallying around the cause of greater transparency for political candidates. But the political class was not ready to give up. The Law Minister called for an all-party meeting in June (even though the Parliament was in recess), and they reached a unanimous conclusion that the Supreme Court judgment must be overturned by a new law.

An ordinance was crafted in a record six weeks. The Law Ministry has never been known to move with such alacrity. Since the Parliament stood adjourned, the ordinance was sent to the newly appointed President of India for his signature, to make it a law. As per custom, the ordinance would be converted into a regular legislation during the next session of the Parliament. (An interesting tidbit: the Parliament was then in adjournment, because of a huge commotion about the so-called 'petrol pump scam' which involved the same lawyer who had helped us



with our PIL. But that's another story!) This ordinance was not just seeking to erase the SC's verdict, but it had clauses which were unconstitutional, such as a permanent prohibition on citizens' right to know. (The RTI Act came in much later in 2005.)

So this draconian ordinance had reached President Abdul Kalam's desk for his final seal. But before he could sign it into a law, we wanted to brief him, and urge him to refuse from signing such an unconstitutional docu-

ment. By now various groups were very active on the internet, and we quickly cobbled together the National Coalition for Electoral Reforms, and using the contact of one of President Kalam's ex-colleague, a scientist, we got an appointment for the morning of August 16, 2002.

We told him to return the ordinance back to the Union Cabinet, asking for deleting or modifying provisions which were outrightly unconstitutional. He said he would look into it.

As we tumbled out of the Rashtrapati Bhavan on that August day, we wondered what the President would do. Within a week, the President sent back the ordinance, refusing to sign it in its present form. This was the occasion when Dr Kalam held back his 'kalam', his pen, which would have sanctified an unconstitutional document as law.

POSTSCRIPT: The Union Cabinet refused to modify the ordinance, and sent it right back for his signature. This time the he didn't have much of a choice or privilege, and hence signed it into law. The ordinance was then challenged by ADR and others in the Supreme Court, in yet another PIL. The Supreme Court struck down the bill in a landmark judgement on March 13, 2003.



Ajit Ranade

The Adventures of Zappa Man

(A futuristic fantasy)

Vivek S. Borkar

Zappa Man was getting cosy with his girlfriend Lympha in their chamber in Zappodome, when his phone implant buzzed. It was the President of Rothan City himself.

“Zappa,” the President sounded tense. “It’s an emergency. Come quick.”

“Right on,” said Zappa, as he zapped out of the bed into his Zapsuit and was soon racing the Zapmobile towards the presidential palace, leaving a very unhappy Lympha behind. Within minutes he was striding into the large, oblong presidential office which every citizen of Rothan City knew about, but few had the privilege to enter.

“Zappa,” the President fired away, “the mysterious recent epidemic in Rothan City has been linked by our scientists to the pollen of *Bizzarum obscurantum* from Planet Simpleton, which has accidentally crossed over the intergalactic space. Your job is to go there and bring a sample of *Bizzarum obscurantum* for our scientists to analyse.”

“Done,” said Zappa, as he zapped out of the palace on his Zapmobile, which promptly morphed into a spacecraft at his command. In no time he was landing on the open plains of Simpleton, and racing towards Simple City in a reconvered Zapmobile. Zapmobile’s GIU (Geographical Intelligence Unit) took him to the presidential palace of Simple City

before you* could say, ‘Zappa Man’. He stormed into the palace, zapping off with his Zapgun the few foolish sentries who tried to stop him. Inside, a meeting was in progress, presided over by a serene old man with a flowing white beard. Zappa correctly surmised that this indeed was the President, and conveyed to him his mission.

* or I

“Why do you think your problems come from somewhere else?” the President asked him.

Zappa had no time for such babble, so he quickly zapped off the President with his Zapgun, zapping off a few more in audience to quickly quell a nascent uproar. As he stormed out, he was surprised to see that word had gone around and a crowd of angry citizens was waiting for him outside. Being quite adept at crowd control, his Zapgun went into action and the crowd (or what was left of it) became quiet. He grabbed the nearest guy still standing on his feet by his collar and asked him where the fields of *Bizzarum obscurantum* were located. The man pointed a shaky finger eastwards.

“Good man!” Zappa patted him on the back, “From now on, you are the President.” He thrust the man onto the presidential seat from where the corpse of its previous occupant had recently rolled down. Soon, the Zapmobile was zapping eastwards.

Sure enough, Zappa found a large savannah covered with lush, green vegetation, swaying in the breeze. He quickly inflated his inflatable haversack and filled it up with a generous load of samples. In no time the Zapmobile, a spaceship once more, was zapping back to Rothan City.

Zappa delivered his booty at the presidential office and was back in Zappodome with Lympha to complete their unfinished busi-

ness, when his phone implant buzzed. Again.

“Zappa!” the President screamed into the phone, “you jerk!”

“Umm...,” Zappa mumbled, but the President thundered on.

“Trying to palm off ordinary grass from your backyard as *Bizzarum obscurantum*? What do you think we are? A bunch of morons?”

“Umm...,” Zappa tried again, but the President wouldn’t stop.

“You are sacked, Zappa! Out! Fini! The contract now goes to Snappa Man.”

“Umm...,” Zappa tried yet again, but the phone implant went dead on him.

Snappa Man was getting cosy with his girlfriend Zeta in their chamber in Snappodome, when his phone implant buzzed.

(To be continued)



Vivek S. Borkar

Vivek S. Borkar DA, B.Tech. EE C76, did his MS in Systems and Control Engineering from Case Western Reserve University in 1977 and PhD in Electrical Engineering and Computer Science from University of California, Berkeley, 1980. He is a Senior Professor with the School of Technology and Computer Science at Tata Institute of Fundamental Research, Mumbai. Among the many honours that he has received a few are: IEEE Fellowship, the Bhatnagar Award, the Distinguished Alumnus Award from IIT Bombay and the J. C. Bose Fellowship. He has also held regular and visiting positions at various places like IISc, MIT, UC Berkeley.

Close Encounters with a Practising Engineer

Chairman of the Kinetic Group of Industries, Padmashri Arun Hastimal Firodia is a practicing engineer in the true sense of the term. An Electrical engineering graduate who has spent his entire life in Mechanical engineering, he has been a pioneer in putting affordable mobility within the reach of the Indian population. Bumblebee buzzed off to Pune to interview him and discovered that Arun Firodia still test-drives all his machines, and is passionate about affordable engineering solutions for the common man.

During the interview, he was at his most animated when he spoke of innovations in frugal engineering, or while speaking to a student representative from Project Velocity—IIT Bombay's Formula-1 car building team. Questions on welding techniques, cylinder type and propulsion mechanics flew thick and fast, as Bumblebee got an insight into the man.

Old-school engineers, who would deal with nuts and bolts, are fast becoming a rare breed. Yet here was the real deal, the type of engineer-scientist envisioned by the Sarkar Committee when it drew up its proposal for setting up IITs. His interview not only provides interesting historical nuggets about IIT Bombay in the early sixties, but also serves as an inspiration to many aspiring engineers graduating out of IITs today.

Bumblebee

Bumblebee: You were one of the early graduates of IIT Bombay (the fourth batch to graduate from IIT in 1965). Can you share some of your early recollections?

Arun Firodia: Ours was the first five year batch. We studied Physics, Chemistry and Maths for three years and engineering for two years. It prepared us well to embark upon a career in any branch of engineering. I majored in Electrical engineering, but spent all my life in Mechanical engineering without facing any difficulty, thanks to the solid foundation in all the basic subjects at IITB.

IITB was under construction those days. We wore gum-boots around the year and waded through mud to get to classes. There were snakes, centipedes and frogs galore. Brig. Bose had declared that fans were not allowed in hostel rooms, in order to toughen us up for the hard life outside. Mosquitos made our life miserable, with no fans to drive them away or to ward off the summer heat.

All of us, however, students and professors alike, were aware that history was being made at IIT. I remember that choosing the institute's motto was a collective decision, with students and faculty members deliberating on whether the motto should be *Gnyanam Paramam dhayam* or *Gnyanam Paramam dheya*.



caricature by Prof Arun Inamdar, CSRE, IIT Bombay

Most of our professors had just returned from a stint in USA or UK. We studied with the same textbooks that students abroad did. We had excellent teachers and it was apparent that there was an inner fire within most of them. Prof. N. R. Kamath was probably the best teacher in the institute. He taught us Chemistry and the History of Technology, and was generally available to address any questions that we had.

We studied hard, but all of it was not mugging. I remember starting a house magazine called *Pragati*. I was its first editor (I even coined its name). This went on to bag the 'Best House Magazine' award in later years. We also started *Rejectra*—an unofficial publication that would publish articles and cartoons not covered in *Pragati*.

Our Director, Brig. Bose, was an ex-army man but very jovial. He used to join us for

Holi celebrations and did not mind getting dunked into the swimming pool.

The first inter-IIT meet was held at IITB to foster a spirit of IITian pride. It was a big success. I was in the hockey team and I remember that R. S. Gentle, the famed Olympian who had scored the winning goal in the 1956 Melbourne Olympics, coached our hockey team.

The war with China where India fared poorly and the death of Pandit Nehru were two very traumatic events faced by us. The liberation of Goa was an exhilarating moment, especially when USSR's President Mr. Breznev declared his country's solidarity with India right in our auditorium at IITB.

BB: You went on to pursue higher studies, first at MIT and then at Sloan in USA. Very few IITB graduates who went abroad returned, and you were one of the rare ones who decided to come back. What prompted this decision?

AF: I was determined to return to India, although the US Defense Department was pressing me to apply for US citizenship, as I was working on a highly classified project—the control system of a torpedo. They got me an exemption from the 'draft' (these were the years of the Vietnam War), thinking that I may be averse to US citizenship for fear of being drafted.

My father wrote me a letter (in those days there were no intercontinental phone calls!) telling me to come to India, because he wanted me to make a moped. I enquired what a moped was. He wrote that the moped was a vehicle for the common man. I thought it was probably something like a Volkswagen Beetle. I returned to India to find that a moped was the common man's 2-wheeler!

BB: In the 70s and 80s, automotive industry



was still underdeveloped in India. Yet, you created a successful moped, i.e. the Luna, which fulfilled the dreams and aspirations of middle-class families. We would like to know more about how you succeeded, particularly at a juncture when other moped manufacturers (like Suvega) folded up.

AF: The Luna was designed for Indian conditions. Its power pack was divided into three aggregates—a separate engine, a separate gear box and a separate clutch. This meant that the repair or maintenance costs were low, as one wasn't required to do an 'engine down' to repair the clutch. Even the cylinder head of the engine could be cleaned (and thanks to heavily adulterated petrol, this had to be done almost once a month!) without the 'engine down'. Plus, punctures could be removed without dismantling the wheel. This made Luna the darling of mechanics, and they promoted it for us.

BB: How many two-wheelers (including mopeds and scooters) have been churned out, so far, from the Kinetic group? This is also to gain an insight into the business strategies employed at Kinetic, which has enabled it to become the company that it is today.

AF: We went on to sell 5 million Luna mopeds and 3 million other vehicles. We exported more than 30,000 mopeds to USA, a feat that no other company in India has

achieved so far. We also exported our scooters all over the world.

Our strategy was to have a heavy emphasis on simplicity—simplicity in usage, in design and in maintenance. In other words, it had to be user-friendly and low on maintenance costs to make it consumer-friendly. We were pioneers in this brand of simple engineering.

India needs more frugal innovations. The key to success, however, would depend on ease of maintenance of the product, ready dissemination of the idea and allowing the person interested in production to do their work without too much red tape.

BB: On a lighter note, have you ever test-driven a Luna moped or any of your own vehicles?

AF: Oh, I used to test-drive all the vehicles during my weekly visit to the factory. The first Luna was assembled by me and our chief engineer late at night, at 3 am. I was a very hands-on entrepreneur.

BB: If you were to recollect one incident as the most memorable one from your IIT days and one from your professional life, what would they be?

AF: In my fifth year, I chose to write my Home Paper on 'Step Exponential Response of a Second Order Control System'. It created

a new theory in the s-domain. When I sent this to MIT, they immediately gave me a Research Assistantship as they felt that I could do good research. My thesis at MIT was a classified one. When I visited MIT some years later I wanted to go through it, but the librarian refused to give it to me until I told her that I was the author.

Of course, my memorable moments were when I received the 'Distinguished Alumnus' award both from IITB and MIT, and the 'Lifetime Achievement' award from the Society of Indian Automobile Manufacturers.

BB: During the course of your career, of all the people you have met, who has left the most lasting impression? Who has been the most important influence in your life?

AF: Dr Raja Ramanna, the eminent physicist, Dr C. Subramaniam and Dr M. S. Swaminathan, the architects of India's green revolution are the tallest persons I have interacted with. My father, H. K. Firodia, the doyen of India's automotive industry has been the most important influence in my life.

BB: What will the future of indigenous engineering in India be like? Would you agree that very few of the IIT alumni (barring yourself) have been wealth generators in the manufacturing sector?

AF: Let alone the manufacturing sector, even India's proud technological achievements like the detonation of a nuclear device, the development of guided missiles and the moon mission have not been replete with contribution from IIT graduates. Imagine the technological progress India could achieve, if most of its IIT graduates contributed to it!

I think that the great technology powerhouses of India, like BARC, IISRO, DRDO and CSIR should make a special effort to come to IITs. IITs also need to decide their

own focus first, and give them priority during placements. They should also go to world-class research laboratories abroad, to induce Indians working there to return to India and occupy senior positions.

BB: Do you ever experience moments of leisure? How do you spend your time when you are not working?

AF: Music is my favourite pastime. I enjoy listening to Hindustani classical and semi-classical music. Not playing!

BB: Finally, there are many young alumni who are budding innovators and entrepreneurs. How can they benefit from your experience?

AF: Indian students should take to vocational training as a fish takes to water. Somehow, there is a feeling among Indian students that all that they need to learn is 'theory' during their institute days. One cannot be an innovator without trying one's hand at creating a product.

One of the pre-requisites in getting a degree at IIT Bombay should be to create or improve a physical product (not just software). Thesis papers on innovations in product development or improvement would go a long way towards encouraging research that is relevant to India.

Simplicity and the need of the nation seem to be the guiding principles for Arun Firodia, a man who walked with Vinobha Bhave on his padyatra through Maharashtra. . He goes about his many philanthropic initiatives (like Project Swapnabhoomi, which has taken up 100 villages for all-round development) with almost no fanfare.

We wish him all the best and look forward to the day when he is more actively engaged with IIT Bombay and IITBAA.



M&B

For some, M&B denotes Morrison & Boyd, authors of the Organic Chemistry textbook taught in the second year. For a few more, M&B or, Mills & Boons takes them into the mushland of sunsets and roses. For most, MB is the dreary, dark-grey Main Building with classrooms and lectures. But for a very few, MB denotes all three. Boy meets girl in a lecture hall at MB. They trade lecture notes. An organic chemistry develops between them. And they walk away hand-in-hand towards a Powai sunset and swear undying love over a glass of sugarcane juice at YP.

To repeat a point made countless times afore, the skewered boy:girl ratio in the eighties was 2,500 boys to 70 girls. So while the guys planned, plotted and conspired to get an 'intro', there were thousands who did not even get on to simple 'Hi' terms with a single girl. Most dismissed their lack of success with a casual, "I am not interested in an IITian female." Girls who wear spectacles and think of differential equations which can be used to emit signals in a remote sensor, are not good enough dating material—that was the refined opinion of the did-not-even-run, leave alone the also-rans.

But in 1980, when a fresher came to IITB, and that too as a PG, she raised many eyebrows. She was exceptionally pretty, a songstress extraordinaire and a sensational badminton player. Whenever Vijaya Rao

aka 'Vijjy' belted out hits from Kabhie Kabhie in Convo, thousands of eyes closed and imagined that she was singing for them. Thousands of hearts bobbed up and down like a shuttle-cock every time she served and smashed her way to success for the IITB team. And with this bundle of beauty and talent, there resided a brain that posited her into the Electrical Engineering department.

Dinesh Verma was a smart dude, an architect by training and an IDC grad-in-the-making, who developed industrious designs in winning the heart that launched a thousand cribs (once it was won). He wooed her most ardently and deserved every moment of success that came his way. He was in possession of a green-coloured Luna Moped, and Dinesh performed the rare feat of plying himself and his pillion rider up the treacherous slope of Convo, while hundreds of onlookers gaped in disbelief.

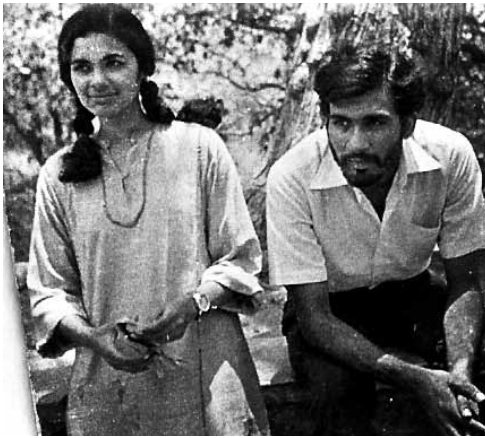
Noseybee nagged the Vermas to pen their unique story for Fundamatics.

Vijjy is a successful software entrepreneur (after having served Wipro in various capacities) and Dinesh is a national award winning architect. Both live in Bangalore with the colourful memories of their very colourful romance that was sealed with—would you believe it—a snake bite.

Noseybee

M&B v. 1982

Her story:



Let's start at the beginning. It was the year 1980. Dinesh came to IIT Bombay from Nagpur, and I came from Baroda. He was Punju-born and bred in Maharashtra, and I was a TamBram, born in London, bred in Hyderabad and Baroda. He was an architect, very hands-on and earthy; I was an electrical engineer, very much into literature and music. He was in IDC and I was in the Electrical Engineering department, and our paths may never have crossed in the two years we were destined to be there, had his classmate in IDC not happened to be my room-mate in my first year at IIT.

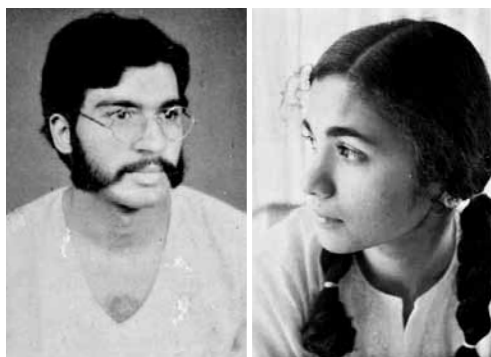
As it happened, IDCians apparently did a lot of collaborative work, and so there used to be a person who would constantly come to H-10 and have the security call for

Room number 69 (for his classmate and my roomie, Poornima). More often than not, I would hurry down only to see that the call was actually for her. In fact, that was how I met Dinesh for the first time—maybe about six months after we both had entered IIT. It was later that I realised that he had already seen me earlier in the campus and found out about me from Poornima, and this was one of his ways of getting to see me at least two to three times a week!

But apart from these short meetings, nothing much happened for a while. I was still far from being interested in him. I was still too busy with various other interesting happenings in IIT: cultural activities, intra-hostel programmes, inter-hostel competitions and the likes, thanks to being the Social Secretary (SocSec) of H-10. And he also was busy with his IDC course-work, and various hostel activities as the SocSec of H-2.

Seeing that things were not moving anywhere, his friends in IDC and H-2 (who had decided much before us that we were 'made for each other') felt that they needed to do something and somehow get us to move ahead. The first step was to get me into their gang—once this was done, the courtship would definitely follow.

So there followed a series of hostel gatherings and movie or dinner outings, for which Poornima would be deputed to bring me



along, and then the gang would somehow contrive to leave us alone so we could spend time together.

There was one really memorable outing organised by Dinesh and his IDC mate, Pradeep, one weekend. Poornima as usual was asked to somehow get me to the Gateway of India, where Dinesh and Pradeep were waiting for us. From there, we all went to Elephanta Caves, where we hung out for the whole day. From there, we went to a movie called *Foul Play*, followed by dinner at a very upmarket restaurant in Churchgate. We finally returned to IIT well after midnight by taxi.

All the planning was done by Dinesh, and he must have probably spent a bomb for executing it! It was definitely one of the nicest days I had after joining IIT, and it was also the first time I spent some quality time with Dinesh. I felt then that there was something different about him, and maybe it wouldn't be a bad idea to start spending more time with him.

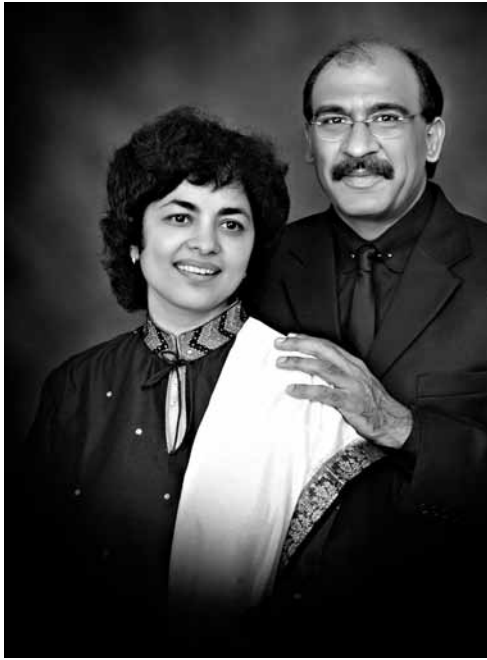
But my head was still dominating my heart. I was not sure whether we could really be together for the rest of our lives, since we seemed to be quite different as far as our tastes were concerned. I loved books and music. He was (and still is) completely tone deaf, and books put him to sleep. I liked going to concerts and plays, he would rather go out for a drive and dinner. I had very

socialist ideas, and could spend hours in serious arguments. He was completely apolitical and would stop any serious conversation with a PJ. I think Chetan Bhagat probably took some ideas from our story for his book, *2 States*.

So though we had many group outings together, I continued to move around with my other friends and would sometimes treat Dinesh as just 'one of my many friends', which probably started irking him. There was a major incident where I kept him (and his friends) waiting at RK—where I was supposed to join them for dinner—because I was busy with some music practice for a Hostel EP. There were no cell phones those days, so I couldn't let him know why I was late. By the time I was cycling along the road to reach RK, Dinesh and his gang were already heading back. We met somewhere near Convo, and as I got down to give an explanation, Dinesh just picked up my cycle and threw it into the gutter and walked away. It was the first time I'd ever seen him do something so explosive, so I guess my no-show had really hurt him.

As I walked back to my hostel somewhat shell-shocked (leaving my cycle in the gutter for Mukul, Kaulie and Devdas to pick up and deliver to H-10 later), I thought this was a sign that he was serious about the relationship, and I couldn't dilly-dally anymore. (Dinesh later made a very nice memento of the cycle-throwing incident and presented it to me. It looks a bit like the Raj Kapoor films logo, except the hero has a cycle in his arms instead of the heroine! I still have it.)

Anyway, after this incident, I also started taking the relationship a bit more seriously and we sort of started 'dating', which in those days meant just going for long drives on his Luna, hanging out at RK (the local dhaba) having oily samosas and tea, and an occasional dinner outing. The first dinner date at



nearby Vikhroli ended rather disastrously, with both of us not having taken any money with us, assuming the other would pay! We had to sheepishly leave behind our ID card, and collect them the next day after paying the bill.

But some others were better, like one where we ate only four five desserts for dinner at an upmarket restaurant called Purohit. (I'm sure the waiters thought we were a crazy couple.)

After five or six months of this, Dinesh took me out to Cream Centre in Chowpatty one day, where he put forth the question, "Why are you stuck at sea-side? When are you going to move from there?" I don't swim, so I told him I didn't want to be at the sea-side in the first place. It turns out it was his way of asking me when I was going to 'decide' on our relationship, i.e., move to D-side from the C-side. A rather corny PJ, but an example of what I have had to put up with ever since!

But I still hadn't quite made up mind yet,

and I couldn't quite understand why, since I obviously enjoyed his company and all the attention he gave me. Dinesh was a very innovative gift-giver. He would make all kinds of interesting little trinkets in the IDC workshop and surprise me with them from time to time. I remember his first major gift to me: a beautiful rust-coloured kurta, and I remember trudging all over Colaba to gift him a Chiragh Din shirt for his birthday! (It used to be a really exclusive shop in those days.)

In the end, there was a very interesting incident that made me move fully from the C-side to D-side. There is a small hill just behind H-1, and Dinesh and I decided to trek up the hill one evening, and watch the planes land from a nice vantage point halfway up the hill. After having watched enough planes land (seriously, that's all we did), we started walking down, and I happened to step on a snake (a poisonous one, as we found out later), which promptly turned around and bit me on my foot.

Surprisingly, both of us did not panic. Dinesh just tied a hanky on my foot and we calmly walked down to his hostel. No, he didn't carry me down like a hero. I was probably too heavy, even then, for this! He borrowed a scooter from a friend and we went to the IIT Infirmary (hospital) for help, where we were told that their stock of anti-venom was over and I would need to be taken to Ghatkopar hospital for treatment. That was a good hour or more away, and I was already starting to feel dizzy by then and it was unlikely that I could have made it there on time.

As luck would have it, someone found the required anti-venom after a frantic search, and I was administered the vaccine in the nick of time. By then, a whole crowd of both our hostel friends had gathered in the hospital, and most of them were taking Dinesh to task for being so foolhardy as to be up in the hills till dark!



The long and short of it: I had to spend almost four weeks in the hospital, recuperating from the snake-bite. Dinesh happened to be doing a project with Philips as part of his IDC course-work at that time, for which he had to leave the campus by seven in the morning. All through my stay in the hospital, Dinesh would come over to see me before leaving, and give me a rose every morning (the first and last time he has ever done anything so romantic in our 30 years together). More than me, the nurses in the hospital were charmed by this. They would tell me in Marathi, “What a sweet boy he is! When are you getting married?”

So maybe I should give credit to the snake and the unnamed nurses in the hospital for helping me making the final decision, for shortly after this incident, Dinesh and I informed our respective families, and we got engaged in June, 1982 while we were still in IIT.

The next six months went by in a whirl. A lot of time was spent in rooms 284 and 31 during these months, where we lived in the present and planned for the future. Finally, we both graduated on 2nd December, 1982, and got married two days later on 4th and 5th December –the Punjabi wedding was on 4th and the Tamil wedding on 5th (and so we

celebrate our anniversary on two days every year!). A whole gang of friends from our hostels made it to the wedding, and I remember our fellow travellers asking us if we were all going for a college picnic.

Well, life has been no less than a picnic with Dinesh in the last 30 (almost) years. We have a wonderful daughter, Akshara, who always says she’s really lucky that I didn’t go off to the US to do my MS there, and landed more or less serendipitously in IIT Bombay. After going back in time and reliving those days, I feel the same too.

Epilogue

Apart from the snake and the nurses, my due thanks to all the H2-ites and IDCians who played a vital part in this love story, and specially to Poornima, who sadly is no more, but has always remained in our hearts for her role in bringing us together.

M&B V.2000



Shruti Kashyap defied stereotypes, specially the disparaging, age-old IITian stereotype about beauty times brains being constant. Tall, fair and very pretty, she was particular about carrying herself well at all times. It comes as no wonder that Kashyap couldn't miss her in an auditorium of 450+ freshies, and it was love at first sight. He didn't even have to wait to find out that she was talented in various other respects, including being a brilliant actress and dancer.

But Shruti was not one to be easily pleased. Amongst her friends, she was sometimes teased as 'Panju aunty' or 'teacher ji' for she would readily scold anyone around her who was not on their best behaviour. Despite all his influence and two year seniority, Kashyap's first awkward 'Can we talk?' request

was rebuffed. Persistence paid in the end, and Kashyap won Shruti's heart before the other guys of her batch could even formulate strategies on approaching her. And he won her heart so well that even many years of an inter-continental relationship couldn't do them apart.

Kashyap Deorah aka Spock (for his Vulcan ears and eyebrows) a.k.a. Deorah-bevda (well) and more recently Ketchup-kaka (to his friends' kids) was the most multi-talented creature to emerge from the B. Tech. CSE class of 2000. Besides academics, his repertoire included inter-IIT football, far too many PAFs to list and of course helping to found and nurture Techfest.

But perhaps his biggest talent is his personal charisma and reality-distortion-field—all of which caused a certain someone to finally stop resisting his charms (and caused this poor scribe to write this intro). Kashyap has founded and sold two startups, and is about to find out what follows 'First comes love, then comes marriage...'

- Parul Gupta & Hrishikesh Deshpande

His story:

Save (read as 'saa-vay', a.k.a. Danav) was a larger-than-life character on campus, riding his bike like a storm in 1998, usually with me tied at the hip behind him. We used to fly around the campus without a worry in the world, as if we owned the place. One fine afternoon, we were standing in front of Convo under coffee shack, watching the incoming batch of freshies walk to the registration office. There she was, wearing a black and white salwar kameez, walking between her parents and pretending to evade our curious glances. Save and I looked away, only at each other, with a nod that was to become an acknowledgement of history that had just been made.

Save and I entered the lecture theatre with a funny presentation video of Techfest '99, to woo the freshies into pledging their extra-curricular life for the next six months to a college fest. I followed it up with a speech. Between my words, I found her wearing a pink salwar kameez in the audience, and wished she would talk to me after my speech, or at least enrol as a volunteer. As fate would have it, she walked up to me after the speech, (the rest of the orientation tour was yet to happen across the campus) and said, "Excuse me. Is it important to do the entire orientation trip today?" I looked back with my eyes popping out and a gaping jaw. She continued in the sweetest voice, in what seemed like in slow motion, "*Vo asal mein mujhe kahin jaana hai.*" (the thing is, I have to go somewhere.) It took me an eternity to come back to my senses, before laughing it off nervously. "You have to stay here for four years..." "Five," she corrected. "You won't miss anything that you won't discover anyway," I told her. She gave me a smile and said, "Thank you," which made me feel like her knight in shining armour, who had freed her of the gruesome sentence of the fresher's orientation. I felt a sense of achievement and stood there for several minutes, celebrating my accomplishment. I was in love.

Freshies were appointed to give me her class schedule. Save was summoned with his bike for a drive-by if she was spotted in a public area. Well-wishers made calls to her hostel requesting a meeting at the lecture theatre with a secret admirer, and so on. In other words, I stalked her. One day, upon confirmed news of her presence in the MB foyer one late evening, I resolved to speak with her and not just walk or ride by. I crossed the foyer without the courage to speak. I thought I would play it cool, make a phone call at the PCO, and then come back. By the time I did, the foyer was empty. She was gone.

Save was nearby. He stepped on the pedal. We swooshed past her on the bike while she walked back to H-10 with two freshies on either side. I waved violently, asking Save to stop. He stopped with a shriek. The bike literally skidded to a halt. The girls shrieked and stopped, picturesquely enough, under a lampshade. I got off and walked straight to her. The other girls walked ahead as if on cue, leaving just the two of us under the radiant lampshade. Two broken sentences later, she walked away.

After this, I waited for her to speak to me. Sinha (a.k.a. Senti Sinha) knocked some sense into me about how I was being a brat and causing distress to the damsel. I still kept waiting for her to speak to me. Love, wrapped in guilt, ego, chaos and campus dynamics, can be a really bittersweet pill to swallow. I consumed the pill regularly for a year. A year later, in a momentary lapse of reason, my guard dropped. I wrote a sentence to her, "Just wondering... Can I write to you?" After the longest 36 hours of my life, she wrote back with a word "Yes." The rest is history.

Love, wrapped in guilt, ego,
chaos and campus dynamics,
can be a really bittersweet pill
to swallow.



Her story:

As with most students, IIT was the first time I was going to be on my own. Initially, my excitement was mixed with nervousness. I clearly remember the moment when my parents left me at the hostel after the registration, and our rounds in Mumbai, meeting relatives who were going to be my local guardians.

Of all the orientations we had as freshies, the



most memorable one was Techfest's, given by the Techfest OC of that year, Kashyap Deorah. Orientations are usually forgettable, but I do recall that Kashyap was unusually passionate and forceful about what he was saying. I remember thinking that it would be good to get to know him.

On our department Welcome Night, five girls in the Electrical department including me were coming back from the hostel after 10pm. I took the deadline for girl freshies quite seriously. Suddenly a bike swooshed by, and then came back and stopped near us. Kashyap hopped off and approached me, and a funny conversation ensued:

K: Are you Shruti Mahajan?

S: Yes, tell me.

K: Can we talk?

S: Okay, what is this about?

K: Do you want to talk here standing, or do

you want to walk and talk?

S: But this is not the time. We can talk some other time.

This was funny but weird; I was a little flattered that he came to talk to me, but was thoroughly confused about the whys and hows. I just let it be. In fact, my conservative mind-set said, 'he seems to be interested in being more than just friends—not cool.' I also got a few 'internal calls' saying things like 'Someone is waiting for you at LT, please come.'

I used to randomly run into Kashyap. I would suddenly spot him sitting at the computer next to me at the Comp. Science practical. Then suddenly at SAC when working for Techfest, I would bump into him again. I remember a conversation which happened on the SAC stairs once. He was the Techfest OC addressing a few freshies, motivating us about the grand cause we were all working towards. I don't remember a word of it, since

He was the Techfest OC addressing a few freshies, motivating us about the grand cause we were all working towards. I don't remember a word of it, since all the while he was sitting there, he was looking at me.



all the while he was sitting there, he was looking at me. He seemed like a cool guy, as I would observe him from the corner of my eye, in his element at SAC, jumping around in a 'human train', at inter-hostel events or at the library.

A year passed. In my third semester, I got an email from Kashyap checking if he could write to me. I thought, why not, and responded with a yes. On that same day some network issues happened, and I was nervous if he got my response or not, and debated on whether I should write to him again. But then after a day, I got a long email from him, the gist of which was, 'let's get to know each other'. For the next month, I was in computer room most of the time, emailing or chatting for hours at an end. I still hadn't met him in person (really funny in hindsight!); I was way too old-fashioned. Then we first met at coffee shack, and started meeting regularly. There were faux pas moments during the initial acknowledgment instances—Kashyap once sent me a stereogram, which I couldn't read after trying for some time. I asked my friend Parul, and she immediately read, 'you charm me.' I turned pink. Then once, while I was sharing my interactions with Kashyap with my friend Bhavna, we happened to log into my inbox to read this email from Kashyap, together:

<thread about music interests>

now that it has come to it, let me tell you that

I have been listening to the sarfarosh jagjit singh song over and over again ever since i made friends with you...

just thought i'd mention it

She was amused and said, 'He's falling for you.' I blurted out a meek, "Yes."

So that was the beginning. Kashyap's fulfilled approach to life, sense of humour, honesty and sensitivity swept me off my feet; our common passions in travel and music brought us close. Flowers, cards and poetry followed: teenage romance expressions. Soon it was his fourth year, and he started a company on-campus with a couple of friends. He stayed on in Powai for some time after he graduated, but then moved to Bangalore and thereafter the Bay Area in the US. I still had three years to go. We had our highs and lows with the long distance thing. I went to the US after I graduated (in 2003) to work with Capital One in Virginia. So from opposite corners of the globe, it became opposite coasts of US. Much better!

After over a year of red-eye cross-country flights, Kashyap proposed to me by going down on his knee at a pier by a lake near Richmond, on a misty March afternoon.

Kashyap and Shruti got married in the summer of 2005 after they first met seven years ago. About two and a half years after that, they moved from the Bay Area to Mumbai. They continue to experience the world and life together.

The DOWN Side of Olympic Proportions

Kirat Patel

Before I launch into my arguments, I must reveal that I work for a chemical company.

The business of hounding Dow because of the Bhopal Gas tragedy sounds a bit hypocritical to me, considering the behaviour of our judiciary, government and the grave lack of transparency in our bureaucratic machinery.

Let us revisit the facts. The Bhopal Gas tragedy happened in 1984. The criminal and civil liabilities of the tragedy were settled by the Supreme Court of India in 1989, after a Special Act of Parliament consolidated all the claims. The government of India wanted \$1.3 billion, and Union Carbide (UCC) offered \$350 million or so initially. Eventually, UCC remitted the full money, i.e., \$470 million.

The population of Bhopal was about 6.5 lakh in 1980, and grew to a probable 8.5 lakh by 1984. Since then, the population has grown to cross over 10 lakh. According to the Madhya Pradesh government, about 5.5 lakh people (i.e. about 65% of the population then) have been awarded compensations totalling ₹ 1,550 crore or so to date (an average of ₹ 30,000), among the claims of over 10 lakh people. (Note: the claimants have now exceeded the population of Bhopal at the time of the tragedy.) Knowing our way of working, a lot of undeserving people got the money, and it is quite likely that as a result, many deserving survivors got left out.

It is my understanding that the original money has still not been fully utilised by the government of India, and a sum of about \$400 million is still lying with the RBI.



Estimates of how many people died from the methyl isocyanate gas vary from 2,250 people at the immediate moment of the tragedy, to 20,000 people over a period of time.

What is unknown to many is that besides the cash compensations, medical facilities and training institutes have been set up from additional Union Carbide funds available in the country through the disposal of its assets—the Eveready battery brand being the most valuable.

It is my understanding that the original money has still not been fully utilised by the government of India, and a sum of about \$400 million is still lying with the RBI. This arose mainly out of interest after disbursements of the \$400 million over time, as the government was very tardy with its disbursement, needing court promptings at every stage. Despite this, there are still claimants who haven't received their share of the compensation. Perhaps, the government has come to the conclusion that these claimants don't meet their criteria for compensation.

If there are still environment and health issues persisting 28 years after the incident, there is another \$400 million available for remediation measures. Why not use it? Perhaps the government's dilemma is that loosening the criteria might have a cascading effect on other compensations.

I also understand that the government has been sitting on the proposal to clean up the site (which has been in their *de facto* pos-

session since the tragedy, and therefore in their legal possession since 1998) even when FICCI and others have offered to do it. I am not sure why, but I understand the NGOs objected on the grounds that it is Union Carbide's/Dow's responsibility.

Dow bought Union Carbide in 2001 or thereabouts. Incidentally, UCC's (the American company's) entire shareholding in UCIL (51% of the Indian company) was sold to McLeod Russel Limited/Eveready Industries in 1994. The receipts of that sale have been donated to the Bhopal Hospital Trust. If it is anyone, it is actually this Indian company which is the direct inheritor of UCIL's liabilities, if any.

There may be other evils of its own that Dow may be accused of (for instance, Agent Orange). But without knowing the details of the merger agreement, I would hazard that the personal criminal liabilities of the Bhopal Gas tragedy should remain with the previous management. In the likelihood that a case is made against them based on civil responsibility, let the Supreme Court review its earlier decision, if required. It would, of course, require strong arguments to overturn the legitimate court settlement that the UCC and the government of India arrived at in 1989, which was also approved by the Supreme Court. Loud noises are not enough.

As of now, under court directions, the government has been trying to dispose the waste through approved waste disposal facilities, but has been blocked by agitators in three states—Madhya Pradesh, Gujarat and Maharashtra. It's not actually about the toxic nature of the material per se, since these facilities routinely handle waste from chemical plants and other sites, but the politics of the situation.

When man-made disasters of a gigantic

scale occur, the subsequent blame-game that is played between the government and the corporations involved is often fraught with complex questions of moral and social responsibility. Who is to blame? A company, after all, is a community of people. But it is also a deeply hierarchical community and thus a few people can be held responsible for the company's actions as a whole. Thus, criminal charges ought to be made on individuals (such as the management of the company when the disaster took place) and not on the company as a whole or its successors. You can't put a company in jail, but you can ask them to pay more.

The case for criminal liabilities, though settled at that time, was reviewed and its previous judgment was set aside by the Supreme Court in 1991 with regard to criminal liabilities. Subsequently, the lower courts have convicted eight Indians—including Keshub Mahindra, then Chairman of the Board of UCIL, for negligence—and sentenced them to two years in jail and a fine of a lakh each, the maximum amount which can be levied as per the law. This is in appeal and bail has been granted to the indicted.

If our Supreme Court or the government has sold us down the drain, then let us protest against them. How can we expect justice from the world, if our own courts and government have not convinced us?

Do we take proactive steps before the court decides upon a verdict? I understand that the IITs have dissuaded Dow from coming to the campus recruitment a la carte this kind of campaign. This is like running a kangaroo court. This kind of rule can be applied to any chemical manufacturer, nay, any company. In the end, you might as well disband the entire Chemical Engineering Department.

On the other hand, there are many causes nearer home confronting us. For exam-

If our Supreme Court or the government has sold us down the drain, then let us protest against them. How can we expect justice from the world, if our own courts and government have not convinced us?



ple, the local train services in Mumbai kill more people every year than the Bhopal gas tragedy did in its first year! Nobody has ever gone to jail for this daily mass murder.

Unfortunately, there is so much emotion surrounding such a large-scale human tragedy, that it is causing corrective and preventive actions to fall by the wayside. Our focus should be on getting the site cleared and in identifying and helping the affected if they have still not been compensated by the government—not in chasing after the old man Anderson, and trying to get Dow/Union Carbide to fork out even more money, when we have not been able to use even the original amount!

More importantly, we must aim at improving our practices in chemical and other plants, to ensure that these things don't happen again. Can the Chemical Engineering department contribute to this? Instead of boycotting Dow, why not ask them to fund a chair for industrial safety, and proactively assist the Indian chemical industry in improving their safety standards? Why not make a compulsory course in industrial safety in the B.Tech. syllabus? And how about designing and conducting a diploma course in industrial safety for working people? I'm sure many more ideas like these can be worked on.

Dow has partnered with Olympics 2012 in London, and certain politicians and political groups have decided that India must boycott

the Olympics, out of a supposed solidarity with the survivors of the Bhopal Gas tragedy. While these politicians use this initiative to derive publicity for their cause, our athletes watch in mute frustration as they are forced to concede a once-in-a-lifetime opportunity to earn and enjoy international glory.

With our track record concerning Bhopal and other such grave tragedies—where we have somehow managed to transform a tragedy into a farce—our voluntary withdrawal from the Olympics will only highlight two things: poor governance and our inability to manage our affairs.

Is this yet another CWG kind of image-fiasco in the making?



Kirat Patel

Kirat Patel, DSA, B.Tech. Mech. Engg, V'75 is the Executive Director of Alkyl

Amines Chemicals Ltd. An erstwhile Technik editor, he is one of the original founders of the IIT Bombay Alumni Association. He is on a roll and seems to have rediscovered his love of writing as he appears on back to back issues of Fundamatics. The fundabees are elated and hope to have him as a regular columnist.

Shaniwarpeth

Samir Dhume

89-93 EE H5

people gather on saturday in shaniwarpeth
come to shaniwarpeth on a saturday

the weather forecast is murky
no matter what time of the year in shaniwarpeth

expect low visibility
sulphurous dust fog
two or three cows
dung expertly plastered on backsides
five or six dogs
one crippled
one pink-diseased, all randy

ladybug rickshaws
slithering motorbikes
dust laced trees
peepal, supari, kadu-nimba
barely breathing

on a saturday, before everything,
go to the hanuman temple
shani must be paid his due
then you may do as you please
ganapati next to hanuman
and vishnu-laxmi across the street
another ganapati down that bol
everybody you have to greet

you may think they're looking stonily in front
parallel gaze meeting at infinity
but don't overlook the third eye
rotating omnisciently

ominously omnipresently
watching your every move
not a leaf shakes in shaniwarpeth
without a report filed in some divine register

observe courtesies
pay respects
breach no protocols
play no favourites

but no need to walk on eggshells
no need to hold your breath
only, don't make eye-contact
or sudden moves
praise no god
over and above any other
just act like everything is normal
and godly politics farthest from your mind
your life may depend on it

an uneasy peace reigns in shaniwarpeth
on saturday, sunday and every day of the week
but best to come on a saturday
just to be on the safe side

The Masti of Batch 1975

Rajanikanth S. Shastri

Those were the days my friend, we thought would never end! I landed at the right place for the wrong reasons, and as a result, I am very fortunate for having a great group of jigri dosts, which by far is the most important take away for all of us who pass through the hallowed portals of IIT.

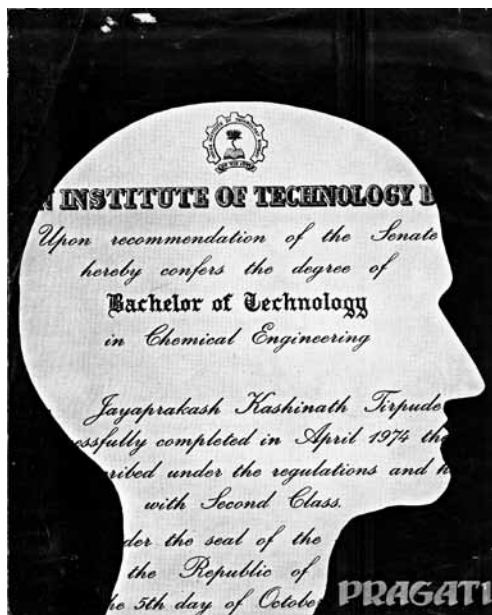
In Search of FOTS:

The year was 1973. We had spent a little over two years in this desolate outpost. Those who lived in Bombay (that's what it was called then), would disappear for the weekend for 'alimentary' reasons, the comforts of home and getting their laundry done. Out of town junta amused themselves with whatever means available to them. It was inter-wing gaali competitions and water fights amongst other things then. It seems that it is computer games now. A few dressed up occasionally and would gatecrash into wedding receptions, sometimes at the Taj, to gorge on the sumptuous grub. Now there are so many good eateries around. But nothing tops free food.

Our hormones were popping, and this was exacerbated by the fact that IIT-B had a dearth of the Female of the Species (FOTS—blame P. G. Wodehouse for this moniker) then, unlike now with Hirandanani Nagar close by and lots more FOTS enrolled. And so an idea was hatched by Salil Gutt and

Abhay Talsania of Hostel 8. If there are no girls here, then let's bring some in from the city. The problem of transporting them was solved by use of private cars (approx. half a dozen driven by H8 students), to pick up and drop off thirty Sophia College Hostel girls. This process 'broke the ice' and helped the girls feel comfortable about visiting IIT for the first time. Back then, IIT was considered a strange place where bright boys would go to and disappear. We weren't considered 'cool'. We didn't enjoy the prestige and privilege enjoyed by IITians today. That first social was a great success; this was confirmed by the invitation received by H8, about six weeks later, to a social at Sophia. Needless to say, they all jumped at the opportunity to attend! The confidence the H8 organisers gained from this experience led them to arrange a similar social with Nirmala Niketan in the second term of that year.

Hostel 5 followed suit. Unlike H8, which had taken a capitalistic approach of 'private cars', H5 had a transportation barrier. IIT provided bus transportation to take students to sports meets and educational events. It took some convincing the Transportation Manager that this endeavour was an educational event—ahem, an inter-hostel cultural evening. Skeptical as he was, he relented. Great care was taken to make the dance room off limits to non-participants and curiosity-driven cheap thrill seekers.



And that's how it all began almost 40 years ago.

Harmonic Convergence:

With the success of Hostel Socials, there was enth to take this FOTS import endeavour to the national level. This would attract more local FOTSs as well and improve the coolness of IIT-B. Colin Gonsalves was the GSec; he and a few others dreamed up the idea of holding a Cultural Festival. The *Nama-karna* happened at a *Technik* Board Meeting attended by the editors—Ramesh Advani (C74), V. V. Chari (C74), Basabi Mukherji (C73, MSc. Physics), Kirat Patel, along with Colin Gonsalves (GSec) and Salil Gutt (Soc-Sec). During the ensuing Bull Session after discussing *Technik* business, Basabi, an avid fan of Jazz, suggested Mood Indigo after the song by Duke Ellington and the name was unanimously accepted.

MI then was almost Mission Impossible. It was a huge success despite no corporate sponsorship, and a seat of the pants endeavour, which was nothing like the organised

activity it is now. The budget sanctioned by the authorities for “An inter-collegiate cultural competition” was ₹ 17,000. The event went over budget and landed up spending ₹22,000. The *Technik* Board (they were the only group of official *bakras* the authorities could identify) was called in and hauled up to Dr Sarkari's office for a dressing down. They were issued a threat to collect the balance from their parents (₹ 1,000 each.) Luckily, this was just a threat; the authorities didn't take any follow up action and they were spared from approaching the other involved *bakras* (who? what? where?) and passing a hat around.

The budget problem of MI '73 prompted the mindset change about sponsorship (which was proposed for MI '73, but shot down by the director), and the determination not to depend on institute budgets. Sponsorship was the real innovation amongst all the cultural festivals that the colleges were doing at that time.

Enter the Idiot Box:

The first televised cricket match in India was in 1973. Pari Choksi, the SocSec of H8, came up with the idea of acquiring one. Acquisition was approached in a capitalistic manner—invest first, and then recoup. A loan was taken from the Hostel funds, Hostel 8 residents were charged 50 paise per view, and outsiders paid ₹ 1.

Hostel 5 took a socialistic approach. Contributions were solicited from Hostel residents with a graduated scale. Freshies contributed more since they would enjoy the TV the longest. Graduating seniors paid the least.

Hostel 4 was a hotbed of Leftist thinking in those days, and felt that a TV was an extravagant expenditure. It was fashionable to be a Leftist then. Today in IIT, while it might demonstrate a presence of intellect, it would indicate an absence of right thinking. Having missed out on the first Test, there was a proletariat revolt and even the hardened commies had to relent. Hostel 4 acquired a TV.

That's Entertainment:

It was a dry spell after MI '73, as far as on-campus entertainment was concerned, save the Friday evening movie at Convo, which was a popular interactive affair. This dry spell is not to be confused with Old Monk which was a favourite of the spiritually inclined. Pradeep Anand (GSec) came up with the idea of an Inter-Hostel Entertainment Competition and, along with Harsh Gupta and Kirat Patel, launched the Entertainment Program (EP) which became an evening of tamsaha, distraction and merriment. This event brought out hidden talents within the student community; it brought together different factions within hostels and teamed hostels to put on a good show. And so it continued until it morphed and got rebranded to become the Performing Arts Festival (PAF).

On the Literary Front:

When Pradeep Anand (aka PA) was GSec, he noticed that IIT used to include ₹ 5 in the fee schedule for an annual magazine called *Pragati*. This was collected despite the fact that it had long since disappeared into oblivion. PA took an executive decision to revive it and appointed Krishnaswamy Ponnani (Kichami, C78, PhD) as editor to encourage PG participation. Kishami was tasked to pick his team which consisted of Basabi Mukerjee (C73), Jairam Ramesh, Kirat Patel, and Nandkumar Mugve (C74). There was also a team for the Hindi section consisting of Editor Shahid Abbas Abbasi (C77, Phd. Chemistry), Sawaria Jajodia (C74, M.Tech ChE) and Krishna Kumar Jhunjhunwala (C76). Harsh Gupta did the design and graphics.

The first issue had a red cover with a game of snakes and ladders. This issue won prizes at the Maharashtra State level—Best Cover (shared with JJ School of Arts), Best Poem (George Jose K), and Best Short Story (PA). The following year, Kirat Patel was the editor. The second issue, the *Black Pragati* as it was called, had a photo collage in the form of silhouette of a left-facing face. The photo collage consisted of the typical contents found in a hostel room—a running shoe, mark sheet with a couple of 'F's, a slide rule, cigarettes, a whisky bottle and the novel *The Last Tango in Paris* that Kirat Patel (aka KP) was reading amongst other things. The novel had Maria Schneider and Marlon Brando on the cover from the then hit movie. At the very top, the head crown was a frontal (but quite tasteful) picture of a naked woman; an age-old evergreen preoccupation of young men. The back cover had a right-facing silhouette of a face which showed a portion of the degree one received. The title of the magazine *Pragati* was printed on the back page. The idea was to show what goes into the progress or *Pragati* towards a degree. The imaginary stu-

dent's name, Jayaprakash Kashinath Tirpude, on the certificate was from a short story by PA. Harsh Gupta had to jump through many loops to get the fake degree certificate. Today it would be a cinch using publishing tools. Okay, don't take that thought too far!

The editors and publishers were summoned by the Powers, but since it was vacation time, only Harsh Gupta could be located and he had to face the firing line for this infraction. Too late, it was already printed. Very interestingly, he got the full backing of the Academic Council, the defense led by none other than Prof. Indira Mahadevan. It is always better to do something wrong and beg for forgiveness later. There was a national emergency in India, puritanical forces ruled the country then (no difference now) and it still won the best cover. It is perhaps, till today, the only quasi-governmental publication with a nude (pubic hair and all!) on its cover!

Side Note: Since this *porno mamla* was the rage recently, a response is provided for 'you know who', in case of a confrontation. Firstly, never judge a book by its cover; secondly, the involvement was in the contents not in the packaging; and finally, thoughts like these are expected in young impressionable boys.

Go West Young Man:

In those days, opportunity in India was limited and IITians found themselves over-qualified for most jobs offered by India Inc. The conversation then used to be *Kisko kidar admission mila? Kisko schol mila?* Today it is *Kisko kisne liya? Usko kitna mila?* Salaries were in the range of ₹750 to ₹1,500 per month then!

Back then, the Five Years (it was five then) took forever to pass. Those were the days my friend, we thought would never end! Now, it feels but a blink of an eye as we approach our sixties, and memories linger on. Oh what fun we had.

To be continued



*Rajanikanth
Shastri*

*Rajanikanth (Rajan)
S. Shastri B.Tech
EE, C'75 received
his MS in Computer*

Engineering from Syracuse University, NY (1978). His professional career spanned 6 years at Gould Computer Systems and 11 years at Intel. In 2005, he relocated to India, much to the chagrin of his three children. He currently resides in a rural part of the Konkan Coast, Karnataka, from where he wishes to partake in educational initiatives and other activist endeavours.

Banking on Governance

An Engineered Defect?

Back in 1970, a mechanical engineer worked in a machine factory, a chemical engineer worked in a chemical factory, a civil engineer worked on a construction site. Occasionally the odd cross-dressers moved from Mechanical Engineering to Electrical Engineering, and were looked down upon as ‘degree-wasters’. The current trend of IIT grads being lapped up by banks and finance companies would have been treated as sacrilegious in those days. After all, banks were meant to employ B.Com graduates with the sole aim to take deposits and give loans.

But someone back then had already started living in the future. Just years after a headline grabbing bank nationalisation in 1969, Deepak Parekh dreamt of creating a private bank that would specialise in giving out

housing loans: HDFC. To set it up in the state of Andhra Pradesh, he picked up M. Sivaramakrishna, a mechanical engineer from IITB. Sivaram arrived in Hyderabad to jeers and barbs. Who will patronize your bania bank? Who ever heard of banks specialising? Today, Sivaram looks back at his journey with a happy smile, as he and the HDFC team scripted a major success story. Humble to the point of being shy and famous for ducking from TV cameras and reporters, Sivaram now guides governance reforms in AP as the additional Director General Centre for Good Governance in AP. Humbl(ed)bee coaxed Sivaram to write about his life and times in his own words. Read on.

Humblebee



Journey of an unknown IITian

When Shashi Mantrawadi (M. Tech., '75) and Bakul Desai (B. Tech., '82) suggested last year that they wished to nominate me for the Distinguished Alumnus Award, I was deeply touched by their magnanimity. I am no CEO, billionaire, political leader, senior bureaucrat, distinguished professor or brilliant researcher. I humbly requested them to reconsider their decision and they understood my embarrassment. It has left a deep impression on my mind. How could someone see greatness in the lesser known and want to recognise it?

When I was in my final year at IITB, somebody complained to ETS that there was something fishy at the examination centre, leading to most students getting high GRE scores. ETS wrote lovely letters, giving some of us a chance to reconfirm our scores. I knew I had done no wrong and had decided to join IIMA, so I didn't care.

My father insisted that I must redeem my honour, even if it did not matter. After the final examination, I had to grudgingly prepare again, to achieve the dubious distinction of being among a rare breed of techies, who had to re-confirm their high GRE scores within a year. My father was hammering the value of integrity into my psyche.

During my second year at IIMA, I had the privilege of meeting Dr Vikram Sarabhai at his residence, for one and a half hours to be

precise. At one stage during our conversation, he asked me about the institute. In my youthful zeal, I told him that they do not practice what they preach. They preach an open culture, but do not appreciate incisive questions and that I pitied the founder, who must have had noble intentions.

He had a magnetic, paternalistic smile and agreed with me saying that it was good to know of these things. On my return to the campus, my friends eagerly gulped the narration. When I told them about my comments, I received the choicest expletives. It was then that I realised that he was the founder and Chairman of IIMA's Board of Governors! To this day, his visage is vivid in my memory. It made me understand that the hallmark of a great person is in the way he deals with lesser mortals: with compassion and simplicity.

Subconsciously, he became my role model. I was keen to join the Strategic Planning Group that he had constituted in the Department of Atomic Energy, which some of my seniors had joined. The next moment, I saw his dead body being brought from Thiruvananthapuram. A premature end to a great life! His daughter went into a state of shock. She wanted to perform his last rites. On medical advice, the elders relented. Clad in a white sari, she lit his pyre at the family cemetery, on the banks of the Sabarmati within the Shahibag Estate.



It dawned on me that truth is indeed stranger than fiction. After his demise I witnessed the usual tangles that arise in wealthy families, over properties and control of industries. I began to wonder whether power and money could bring lasting happiness.

In 1981, I joined HDFC, hoping to avoid the commercial functions of the corporate world. By then I had realised that my value system was a stumbling block to ‘managing’ affairs in the corporate sector. HDFC was an unknown entity then.

In 1982, Deepak Parekh sent me to Hyderabad to set up operations in the state, as I speak Telugu, on the condition that I would be back in a couple of years. Living in a smaller city, I began to appreciate what quality of life meant. I refused to go back to Bombay. Sri Parekh was magnanimous in permitting me to stay on.

In the year 1984, when I had gone to Bombay on official work, he walked up to me in office and quipped, “Siva, do you know what your problem is? You want everybody to be like you. Just imagine how boring it would be

for god if he made everybody like you.” And he walked away. Years have rolled by, and his words are still ringing in my years. He was hinting at what great leaders do. They bring together a motley crowd and inspire them to put in extraordinary performances.

He was a man of great vision. I told him once that I wanted all my colleagues to become home owners, as only then could they serve customers with a genuine smile. He assured me that it was a good idea and said “Siva, do you know what my dream is? It is to see that every Indian is sheltered.” I felt humbled.

I have not been able to mimic even a fraction of his leadership and other traits. I shall always fondly remember him for permitting me to work with dignity, integrity and service orientation for the best part of my professional career, and for the financial stability that HDFC afforded me.

I am impressed when IITians speak assertively about their career plans, growth and achievements. It is said, “Those who can, do. And those who can’t, teach!” I belong to the latter category.

After leaving HDFC in 2004, I wanted to hang my boots. I didn't realise that I would be a nuisance at home! I started teaching part-time at local business schools. I would sit for late hours to prepare for my sessions. My wife was intrigued. She asked me why I was putting in so much effort, as if it were an exam, when it was in fact only a casual engagement.

This went on till a friend of mine (a batch-mate from IIMA) enlightened me. "Look, they come to your class because they think you know more than them. Just remember this fact." It worked like magic—I regained my confidence.

My entry into the Centre for Good Governance (CGG) was another accident of life. The Director General (DG) of the institution is an IAS officer. I have worked with three successive DGs. I have learnt how public institutions are also built on sound footings, with appropriate policies and people.

CGG is an example. I have understood that given the current socio-political ethos and work culture, governance reforms can be partly driven and supported through e-initiatives. The dimensions that a public official has to assess and handle are far too many and far too complex, compared to those confronted by a corporate entity. Deep understanding of a problem in governance does not necessarily throw up any implementable solution.

It is true that corruption, lack of transparency and accountability are making a significant dent on development, leaving India far behind China. Yet I am amazed at the number of government officials who, despite the constraints, are persistent in their endeavour to bring in reforms, wherever they are posted. They are the unsung heroes (a la Kargil war heroes). There are, among them, our alumni

in this group of distinguished public servants.

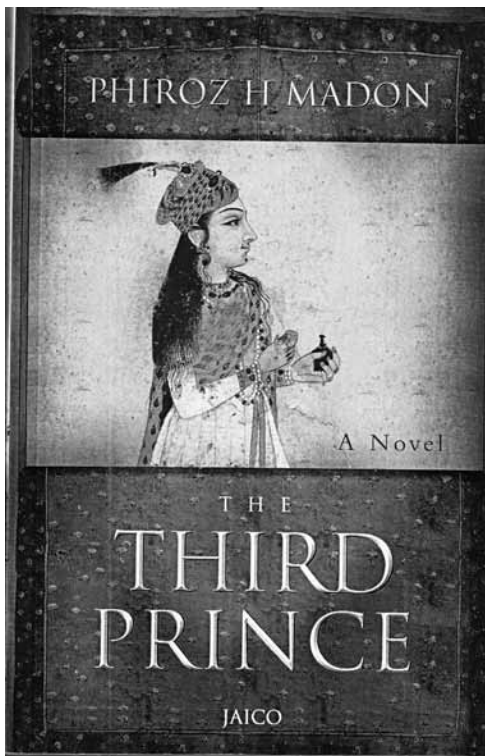
Each of us has a sphere of influence. We need to do what we can, to improve the lot of others around us. It is sad to see Warren Buffet exhorting Indians to do more for the society and the world.

I conclude with these words I have read: "Oh God! Grant me the courage to change what I can, the serenity to accept what I can't, and the wisdom to know the difference."

Long live the tribe of IITians!



Mughal Collins



ITB alumni are master authors when they write about turbines, thermodynamics and internet security protocol. Few foray into the more adventurous world of fiction writing and Phiroz H. Madon from C'77, H4 is one such fellow. What do you get when you combine Satish Chandra's textbook on Mughal history with the racy and risqué, fast-paced narrative style of a Jackie Collins?

The *dramatis personae* are the Mughals. Akbar, Jehangir, Nur Jehan, Man Singh, Birbal—they all return to us in this fictional narrative.



You get *The Third Prince*.

The Third Prince is not just set in the Mughal era; the *dramatis personae* are the Mughals. Akbar, Jehangir, Nur Jehan, Man Singh, Birbal—they all return to us in this fictional narrative, decades after we had shut them off in our history textbooks.

The main protagonist of this story is Paru, a young concubine on the run. A precious jewel, her only possession, has been stolen. And now, mysterious assailants are after her. Friendless and penniless, Paru decides to fight back. With her razor-sharp wit and sensuous charms, she eludes danger each time the assailants make a new attempt on her life. Meanwhile, the empire is facing a crisis. An heir has to be chosen. Who will succeed Emperor Akbar to the throne? Will it be his alcoholic son, Jehangir—who is known for his cruelty and is infatuated with wine and women? Or his young son, Khusrau, who is still a child?

The noblemen choose neither. They place

their hopes on a prince who has never been seen: the elusive third prince, fathered by Akbar long ago on a sacred battlefield. The only way to find the prince is by tracking down a precious jewel and a secret document. Will the third prince rule the empire? Will Paru wrest back what is rightfully hers?

Madon appears to have researched his historical facts reasonably well, but in any case, the need to conform to history is needless, since a lot of the book's USP does not thrive on factual accuracy. The language falters a bit initially, but stabilises later consistently enough to call itself well-written. The pace is fast with palace intrigues, harem politics, succession battles, fierce wars, seedy sexual encounters—all the necessary ingredients for a whodunit potboiler.

In fact, it appears that this book has been written keeping in mind a film script. Paru is constantly fleeing from her assailants in a heart-pounding chase, which lasts a few pages per chase. Seasoned hit-men keep swishing and sashaying their swords, yet miss her by a whisker. There are mujras enacted to trap an unsuspecting assailant, and the graphic description reads like a placeholder for a sensuous song in its film version.

Madon's characters are all rascals and uniformly so. Painted black by a common tar brush, Akbar is a philanderer, plotting against his own son. His religious durbars show him to be a pseudo-secularist who would be vying for a Congress ticket if he were alive today. Jehangir loves wine, women and opium. Nur Jehan is an ambitious seductress who asks Jehangir to make her his concubine during their initial encounter. Man Singh, Birbal and all other courtiers and nobles are cunning, conniving, selfish vultures looking to extract their pound of flesh.

What stands out about this book, however, is the juxtaposition of an era with the language

and nuances from today. Clearly, it is not the outcome of a lazy mind and hence, it can be attributed to being a deliberate and an audacious attempt at embellishing an old relic with plastic emulsion paint. The process of choosing Akbar's successor is reminiscent of an H4 GBM. Man Singh is the GSec, conducting the GBM. The attendant nobles are from both the ghat wing and the pseud wing and regale us with their delectable PJs. Paru is a bold, saucy woman who would have got a lot of 'likes' on her Facebook page, had it existed then.

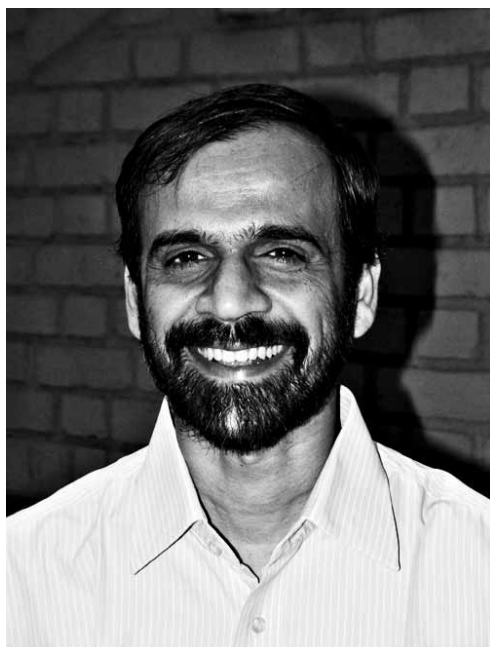
While grappling with the author's rendition—which appears inconsistent with the period that is being reported—and while deciding to like it or hate it, the reader is relieved to note that none of the sex scenes are an attempt at cheap titillation. They are narrated in a most matter-of-fact manner. The women play the aggressors and are quick at disrobing the men and themselves, because the author has decided to import them from today's times and bundle them into the past tense of sandstone walls with marble inlays. In short, this book asks you to look at bottom-lines. A nutshell-like version of all characters is that they are self-serving sub-humans with strong survival instincts.

In all, this book is good entertainment. Just like while watching *Jodha Akbar* you are expected to carry an idle brain and a can of popcorn into the theatre, you can curl up with *The Third Prince* while munching potato chips and enjoyably identify entertainment as your sole goal, because this book does deliver that in great measures.

Humblebee

Girish Sant

23.01.1966 – 02.02.2012



Girish Sant, one of the pioneering analysts and advocates of pro-people, scientific policies in the energy sector, passed away on February 2, 2012 at New Delhi due to cardiac arrest. He completed his B. Tech. in Chemical Engineering from IIT Bombay in 1986, followed by his Masters in Energy Systems Engineering in 1988. As a student, Girish was a keen mountaineer and loved spending time in the Himalayas.

Girish started his professional career by teaching Chemical Engineering in the Bharati

Vidyapeeth College, Pune followed by a short stint with the Systems Research Institute, where he researched trends in energy and appliance usage keeping in mind the changing urbanisation in Western Maharashtra. In 1989, Girish began work on macro-level energy policy and planning, starting with a detailed Integrated Resource Plan for Maharashtra inspired by the pioneering work of his mentor, Prof. Amulya K. N. Reddy from Indian Institute of Science, Bangalore.

Girish's firm belief that professional skills should be used to address pressing social questions led him along with his doctor and engineer friends to start Prayas in 1994. The word 'prayas' means focused effort. Prayas is a non-governmental, non-profit organisation based in Pune. It undertakes public interest-oriented policy analysis in the areas of health, energy and livelihoods. Members of Prayas are professionals working to protect and promote public interests in general, in addition to the interests of disadvantaged sections of the society in particular.

The Prayas Energy Group believes that effective control and influence on governance by people and civil society organisations is the key to efficient governance, that would protect and promote public interest. Public interest issues include consumer issues as well as broad social issues. In consumer issues, Prayas gives more attention to issues affecting

the poor and the disadvantaged. Social issues include environmental sustainability and equity. Girish was the coordinator of the Prayas Energy Group, which has made significant contributions over the last two decades through policy analysis and advocacy in the electricity sector.

Some of Girish's well-known contributions include scientific critique of the Enron power project; analysis of the Sardar Sarovar power project, constructive engagement with the electricity regulators and preparation of a Citizen's Primer on the electricity sector. Some of his recent contributions include implementation of innovations in the areas of energy-efficient appliances and renewable energy systems for meeting India's energy needs. He represented India in several international conventions on climate and energy issues; authored a range of scientific papers; won several awards, and was a member of various committees of the government as well as civil society.

Recently, as a member of the Climate Experts' Group under BASIC countries, the Planning Commission's Experts Committee on the Low Carbon Strategy for Inclusive Growth and the 12th Plan Steering Committee of the Ministries of Non-Renewable Energy and Power, he courageously and relentlessly championed the cause of the weaker sections of society and long-term interests of the nation.

His hard work, his commitment and dedication to the cause of the marginalised are an example for everyone to emulate. His work was characterised by high analytical rigour and fairness, and honesty with which he approached policy analysis and innovation. He always strived for and was driven by the need for tangible impacts.

Girish was truly a great team leader and team builder, and had an innate ability to

inspire and motivate everyone to strive for something higher. Above all, his friends and colleagues remember him for his humility, simplicity and the humane touch in his professional and personal relationships. He achieved a lot in his short lifetime, and leaves behind lot of work to be done. We at Prayas enjoyed working with him and plan to carry on the work he started—the best tribute we could give him.

*Sreekumar N.
(with support from Subodh Wagle,
Shripad Dharmadhikary, Ashok Srinivas
and Shantanu Dixit)*

Board of Directors? Know them Better!

The IIT Bombay Heritage Fund was founded over 15 years ago to fund and promote education and research among students of IIT Bombay. The founding directors of IITBHF from its early years include Pari Choksi, Ram Kelkar, Anil Kshirsagar, Raj Mashruwala, Sandeep Pandya, Deepak Sabnis, and Subhash Tantry. The Board has since expanded and evolved with arrivals and departures, to a group of 30 directors at present, including a core group of seven members on the Executive Committee (EC) who act as the operating Board, with the other directors acting primarily in an advisory capacity to the EC.

Amongst the many seminal initiatives of IITBHF, it is specially proud of the establishment of the first official fundraising effort anywhere in the world to enable alumni to give back *gurudakshina* to IITB, the establishment of the *iitbombay.org* website, and the birth of the alumni database which is now being maintained in partnership with IITBAA. IITBHF's close partnership with IITBAA is unique amongst all the IITs and makes IITB's alumni organisation and movement effective in connecting and networking with alumni worldwide.

For over 15 years now, Anil, Sandeep and Ram Kelkar have been the Three Musketeers of IITBHF, working as a team to build an edifice which they hope will be maintained and further enhanced by the next generation of

leaders. In this section you will find out more about how they and other alumni continue to contribute to IITB and its alumni movement.

Fundabees



Bharat Desai:

DAA, C'75, EE, H8, current Chairman of IITBHF, the 'Billionaire Yogi' and Founder and Chairman of Syntel Inc., the number

one company amongst Indian-Americans on the Forbes 400 list. A true follower of the dharma of *gurudakshina*, the state-of-the-art DS Foundation Gymkhana is but one of the enduring symbols of his commitment to IIT Bombay. He is actively involved in assisting IITB leadership and IITBHF in a range of issues, including alumni engagement. His current passion: building the leaders of tomorrow from the students of today at IITB.

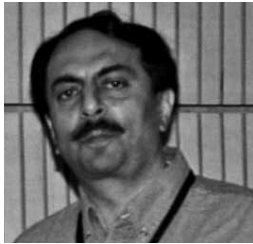
Anil Kshirsagar: DSA, C'75, ME, H5, Palo Alto, California. Original founder member, long-time president and trustee emeritus of IITBHF. He has contributed extensively in all aspects of the IITB alumni movement, i.e., networking, fundraising, alumni relations, and promoting events in constant dialogue with IITB. This is his 17th year of active uninterrupted service to IITB, IITBHF and alumni in general.



Ram Kelkar: DSA, C'80, EE, H2, Chicago. One of the Three Musketeers and current president of IITBHF, who has been involved in almost every aspect

of the alumni movement. He was instrumental in building the alumni database, newsletter and website from scratch, fondly hailed

as Lord Ram in the webteam but has been known to turn into a battering ram when required. Survives on very little sleep and known to generate sound bytes at the speed of light. His priorities in life are IITB, IITB, IITB, mountaineering and family in that specific order.



Sandeep Pandya: DSA, C'86, ME, San Francisco. Founding director and another member of the original band of Three, Sandeep is the *baniya* (long-

time treasurer) of IITBHF who runs a lean operation. He has used his professional and financial expertise to build up huge reserves at IITBHF, at a very nominal over-head cost. IITB millionaires in the US had better watch out if Sandeep is in your neighborhood.



Amit Khandelwal: DSA, C'98, ChE, H3, San Francisco. Semiconductor technologist, and sits on the board of IITBHF. Is the president of SF Bay

Area IITB and PANIIT chapter. Responsible for IITB chapter activities (social, professional and networking) in Bay Area and also assists with IITBHF activities. Collaborates with other IITs in organising PANIIT events.



Raj (Masbru) Masbruwala: DSA, C'75, ME, H7.

Holds the record for being kicked out of maximum number of hostels (Hostels 3, 4 and 7). He was a founding member of several companies where he was responsible for sales, R&D and

marketing in which he claims to have lacked any prior knowledge. He has continued his practice of counseling and investing in startups, in which unsuspecting entrepreneurs take his advice seriously. He has been also active in philanthropic activities for IITBHF and the IIT Gandhinagar Foundation, through which he hopes to contribute to society. Recently, he spent 18 months volunteering at the Unique Identification Authority of India (UIDAI) unit, pretending to be a biometric technology expert. In his spare time, he tricks his friends and family to go on treks which they would never otherwise knowingly undertake.



Dr Pramod Khargonekar: DAA, C'77, EE, H5. An expert in control systems, he has co-authored a large number of research papers and re-

ceived numerous honours and awards. Most recently, he has been the Dean of the College of Engineering at University of Florida from 2001-2009, and is currently a professor in the ECE Department there. He has been assisting IITB's leadership and faculty on issues ranging from governance, strategic planning and research and academic excellence.



Vinay Karle: DSA, C'96, Civil, H5 New York. Current president of the hyperactive Greater NY chapter, which holds multiple events in a year. The

only person who sits on the boards of the IITBHF and IITBAA, Vinay was the Chair of the GO IITB fundraising effort in 2010 and continues to be an active fundraiser. In his regular job, Vinay is a financial and software

industry professional, specialising in quantitative analytics. He also participates in various philanthropic initiatives focused on education at the United States and in India.



Vinayak Dravid: DSA, C'84, MEMS, H4. He is a professor of Materials Science & Engineering at Northwestern University, and director, NUANCE

Center, focusing on advances research in Nanotechnology. Vinayak claims to have befriended both 'pseudos' and 'ghatis' in H4 where he was known primarily for non-academic activities, as the captain of the IITB cricket and chess teams. He admits to generously bunking lectures and being accommodative to pigeons in his hostel room, much to the chagrin of his next door room-mate. Prof. Dravid was voted 'the least likely to go into academics—let alone excel!'



Abhay Sawant: C'88, EE, H6, Dallas, Texas. President and Co-Founder of IIT's Alumni group in North Texas.

Thinks herding cats is much easier than organising IIT alumni events, but does them anyway. Abhay is the chapter representative on the Board, and a former Telecom industry veteran-turned-entrepreneur. He is also an incurable CNN news junkie.

Balaji Srinivasan: C'93, ChE, H7, San Francisco Bay Area. Technology enthusiast, who has been involved with the IITBHF for over 10 years, serving as the president of the Bay Area Chapter. Webteam leader, who helped set up our website iitbombay.org and still helps maintain it. A veteran participant of the

'Diwali Dhamaka', Balaji has also been a key organiser of several PAN-IIT conferences in Bay Area's chapter as well as IITB's Golden Jubilee conference in New York.



Sreedhar Reddy Kona: C'97, Civil, H5, New York. Former president of the Greater New York Chapter, with 10 years of volunteering within the

alumni community. He was instrumental in organising the July 2008 Golden Jubilee Celebrations of IITB in New York City. Another member of this motley crew who is not bored with boards and is also a member of the PAN-IIT Leadership Council (PLC). A financial services professional, Sreedhar is also an avid marathon runner.

To be concluded in the July Issue

Village Knowledge Centres

An IITBAA Bangalore Chapter Initiative

While addressing the PanIIT meet in Hyderabad, Dr Kalam urged the alumni present to adopt a village each. ‘There are 60,000 villages,’ he reasoned, ‘and 60,000 alumni’ (then). It was his belief that if each alumnus adopted a village, we would be able to achieve the national dream of complete and comprehensive development. In this respect, he spoke of his vision, PURA (Providing Urban Amenities to Rural Areas).

Two alumni and friends—Srikant Rao and V. P. Baligar—got together and decided to take Dr Kalam’s vision a step further. Back in 2005, Baligar was an IAS officer—Principal Secretary, Rural Department and Panchayat Raj. In his experience, various NGOs began ambitiously, but more often than not their projects or initiatives were short-lived because the targeted community did not feel involved enough. They felt that an external agency was trying to impose improvements upon them. So right from the word go, Srikant and Baligar decided that their initiative had to be something which involved the local community deeply, and was later to be fully sustained by them.

Keeping this in mind, Srikant, Baligar and their team met with the Panchayat Raj of Ittamadu, a small village 50 kilometres from Bangalore. It was their first interaction with the local governance machinery and an incredible eye-opener for the city-dweller, Sri-

kant. After various discussions and feedback sessions with the villagers on what would benefit them the most, they sketched out two main concerns. One was Spoken English training for children, and the other was exposure and guidance in learning how to use a computer and the internet. Srikant recalls how the villagers said that various NGOs and government initiatives were working on sanitation and other civic concerns, but this was something they had no access to.

Finally, after further discussions with the Panchayat Raj, Zila Parishad and intensive field visits to Ittamadu, the IITBAA Bangalore Chapter and the Panchayat Raj signed an MoU, and a Village Knowledge Centre (VKC) was established in 2005. Another concern that Baligar had was that any initiative should be only begun by IIT alumni, not sustained by it. The villagers and the Panchayat Raj should run and maintain the VKC themselves. Following this, the capital expenditure required to set up the VKC was underwritten by the Chapter, but all its operating expenditures are managed and borne by the Panchayat.

This gave a sense of ownership to the villagers. The VKC was theirs—it educated their children, it generated employment for them. This is why, according to Srikant, elections have taken place and political parties have changed seats, but the VKC has continued



to function. In 2005, the VKC was a basic bricks-and-mortar structure. In 2007, when the Panchayat Raj was constructing a new office building for itself, it decided to accommodate the VKC in their building as well. According to Srikant, this was a major milestone in making the VKC a community initiative.

The initial model of the VKC focused on school children, to help them improve their Spoken English skills, and to teach them how to use computers and the internet to improve upon whatever they had already learnt in school—for free. Once the children started to benefit, the village women lent their support and encouragement, and soon the VKC was being approached by men and women wanting to learn English and computer skills. They were also ready to pay. This was VKC's opportunity to generate revenue and become self-sustaining—and according to Srikant, this was VKC's next milestone.

Currently, IITBAA's Bangalore Chapter has embarked upon a programme to establish mini-VKCs in the surrounding villages, which are about four or five km away from the major VKC hub, to provide easy access to e-

learning material to children and youth. The Chapter is trying to involve the local community in the villages to take ownership, set up and manage these VKCs.

Last year, the Bangalore Chapter partnered with Project 1947 of the Swami Vivekananda Youth Movement and established two 'Student Advancement through Teacher Help' (SaAth) centres at Ittamadu's VKC and the Government High School within the Panchayat. The SaAth programme (that currently serves over 40,000 children in Karnataka) provides personalised academic learning, leveraging audio-video resources and DVD players for high-school children in the community. It significantly improves their learning levels and performance in the SSLC exams. About 70 high-school children in Ittamadu have benefitted from these high-quality educational resources.



In addition to this, Ittamadu's VKC has also tied up with an NGO—Akshara Foundation (run by Rohini Nilekani and Ashok Kamat)—to provide intensive learning to primary-school children from class 1 to 5. The VKC is equipped with a library which has become Akshara's main centre. Ittamadu's VKC has also tied up with Premavaidya, an NGO which develops and provides video tutorials for high-school students. The Wipro



Foundation has also developed extensive e-learning material.

The infrastructure at the VKC includes:

- A computer centre leveraging thin clients for efficient usage of electric power
- A UPS that provides over 4 hours of battery backup
- Software-based e-education material
- A library with 500+ books
- Broadband internet-based video connectivity

Going forward, our plans are to deliver:

- A Spoken English course at the VKC—leveraging Internet-based video facility for remote tutoring. We are also studying various audio-visual products as options.
- Career guidance programmes for the youth—targeting parents of the students who are accessing the facility
- Establishment of distribution points to provide portable DVD players to different villages with a check-out facility

- Delivering content and curriculum from the Akshara Foundation into the local primary school

- Working with the local ITI and industry to create a ‘primary education-to-jobs’ vocational training knowledge network

- Making the entire effort financially self-sustaining in 2 years

- Spreading VKCs in Karnataka: There is substantial interest shown by many Panchayats in the state in the VKC+SaAth model. We are working on a plan to expand our footprint to Tumkur and Kolar.

As we build sustainability with the existing VKC at Ittamadu, we look forward to contributions, donations and sponsorship to make this effort reach all the villages of India and realise the dream of ‘a VKC in every village of this country’.



Thank You

Nilesh Jain: For voluntarily ironing out creases from wrinkly letters, words and phrases. Flew into our hive all the way from London, and was generous with his time, and prompt with his ironing.

Prof. Arun Inamdar: For cari-capturing a stalwart like (Padmashri) Arun Firodia to perfection.

Gautam Naidu and his camera: For trooping into Kintetic Office on a holiday to capture Arun Firodia with his Luna.

Suneet Chitale, Shantaram Kane: for their handy help and Dwarika Agarwal for giving us the right information at the right time.

Prof Sudesh Balan: Inured by now to our late night panicked phone calls for assistance with near impossible deadlines. For always bailing us out even if it meant putting in the odd midnight shift himself.

Miss Chashmiss: For her glasses and nth minute nitpickings. Perhaps for these things, we will try to tolerate her high-maintenance tantrums over multiple versions of documents.

Akshay Mishra: Was appalled at the chaotic ways of the beehive and tried to organise the content into folders and list them out on spreadsheets. But bees will be bees: they vanquished the folders with a delete button.

Nitin Kumar Singh: With Akshay and

members of the webteam of www.iitbombay.org, he oversaw web-hosting, conducted our multi-national online survey, handled mentions in newsletters, Facebook, LinkedIn, Twitter and more. Luckily for the webteam, this arena was out of the beehive's municipal limits.

Mihir Patel and volunteers of Student Alumni Relation Cell: Tweeted, Facebooked, Linked in-ed and emailed voraciously to get 1,096 responses for the poll, diligently handling names like 'XYZ', living in countries called 'Hostel 6'.

IITB faculty for poll participation: A big thank-you! Next time, please participate in higher numbers. We will certainly listen to you outside the classroom.

All poll respondents who commented on the poll: You were free-hearted and frank. If we were to be paid a penny for every word you wrote, we would be on the Forbes list.

Bill Gates: Microsoft Excel can count and analyse votes faster than the counting stations at Florida, and as fast as the EVMs at Mizoram.

Google Docs: For letting us down and setting off the bees on a wild goose chase to recover their honey trails, oops, tracks. It taught us a valuable lesson, and the quest to find a straightforward way to share and edit documents online—without losing hair or becom-

ing cross-eyed in the process—continues.

Rajan Shastri: The maverick bees were badly in need of sagely advice from a senior papa. He kindly obliged and much to our surprise, we listened.

Advertisers: Wise men who know the meaning of RoI. You keep the nectar flowing—thank you.

Non-advertisers: We thank you in smug anticipation, because we know you'll get here soon. Or else.

Contributors: You continued to push, jostle and edge your ways forward with your submissions. Your enthusiasm was unflagging, and often helped the bees get their stripes back when the honey was running dry. This issue of *Fundamatics*, the bees are happy to report, was oversubscribed by 100%—same as last time.

Board of Directors, IITBAA: These guys have mastered the right mix of when to meddle and when to stay away. A rare quality indeed—the bees are indebted to you for your wisdom.

Board of Directors, IITBHF: For applauding for us, with or without cause, from across the seven seas.

Readers: For leading us to believe that we have done something right. You remain this

magazine's life-purpose.

Future contributors: Many thanks in advance, with an added caution: we have forgotten how to move the finish line.

Subscribers, past, present and future: This tribe is about to grow to the size of a formidable vote bank, one which will be as crucial as those electoral ones, to your positions as witty conversation-starters during *Fundamatics* family-reunions.

Big screens, MS-Word and their multi-colored track changes, gtalk, family members who put up with our late-night-early-morning grumbling, caffeine, you-can-do-it playlists and assorted gadgets which make constantly accessible: the only constant team at *Fundamatics*. Y'all rock!

Red Alert: *Fundamatics irresistibilus*—the epidemic has broken out. No known cure.

Creative Bees at Fundamatics

Illustration



*Shreyas Navare
C'08, SJMSOM,
H-13*

*Shreyas Navare:
(C'08, SJMSOM,
H-13), Mumbai,
Senior Manager,*

Marketing and Corporate Communications at a private bank. He freelances as a Editorial Cartoonist for Hindustan Times. He has covered elections in 6 Indian states through the eyes of a cartoonist on behalf of HT. Shreyas has held many cartoon exhibitions, two of which were inaugurated by Dr. A. P. J. Abdul Kalam. His first solo international cartoon exhibition was held recently at Bangkok.

Design



*Anand Prahlad
C'07, IDC, H-8*

Anand Prahlad is an independent graphic designer and artist. When not design-

ing books, magazines, corporate identities or illustrating, he is an active gardener, culinary expert and amateur musician.

He runs www.thenewvitruvianman.com, where he writes and illustrates articles on design, gastronomy and music.

Photography



*Cibi
Chakravarthi,
IDC, H8.*

Architect and animator.

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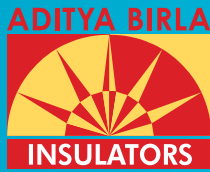
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