

**Prof V Lakshminarayanan ('06 – '83) • Quarterly BITSians:  
Ms. Punita Pandey & Dr. Reena Aggarwal**

The BITSAA Edition

# Sandpaper [2.0]

Spring 2006

BITS Pilani, Alumni Magazine

## BITSian Women You Go Girl!



**Entrepreneurship • Business • Academia  
Community • Engineering • Creative Arts**

# Sandpaper [2.0]

Spring 2006 Issue

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# Another kind of celebration...

## BITS

Pilani is an exception to stereotypes *and* realities about women in engineering, technology and related fields. We know it to be an extremely progressive institution; A BITS press release of December 2005 established that our enrollment statistics indicate that girls opt for Engineering, Pharmacy and Management programs just as they for in Science programs. The Press Release further stated that low female enrollment in Engineering can be found at institutions even across the USA (with exceptions like MIT where women currently makeup 36 percent of all undergraduates). If this is the case in the United States, one would expect a country such as India with a sliding sex ratio, instances of female feticide and women just making up 6 percent of the workforce, to have low levels of enrollment for higher education, particularly engineering. However, our Institution provides proof to the contrary.

In addition to trends in the enrollment statistics of women, we also wanted to critically assess how BITSian women have fared over the years. What kind of professions are they in? What has the journey been like for them, both through their Pilani as well as beyond?

Our cover story in this issue of *Sandpaper* attempts to answer these questions and celebrate the achievements of BITSian women. It not only addresses our curiosity, but also serves as an inspiration for us, for both women and men. It answers fundamental questions like 'how' (have women achieved success) and 'where' (what companies) and 'what' (sectors – Engineering? Business? Non profits?) BITSian women have pursued their interests.

Furthermore, it only stands to reason that this cover story would be authored by a team led by the first Woman President of the BITS Student Union, **Aditi Pany**.

For good measure and with *Sandpaper's* affinity for the humorous, we called the team that



Anu and her family – flying high!

worked very hard on about 'half' of this issue – The Better Half!

We interviewed women spanning multiple BITSian generations, attempting to discover what their experience at Pilani was like. We delved into their post-Pilani lives as well. We walked down memory lane revisiting the joyous and the sorrowful times that made up some of the best days of our lives. We explored the biases women face in technology, the business styles that contributed to women's successes and transitions of a different kind. There are many women in the non-profit sector. In fact, the first BITSian women who attended the first ever social services project by BITS Pilani, i.e. BITSunami, has recounted her story in this issue.

Our Quarterly BITSians are two outstanding women from the corporate and the academic realms. **Punita Pandey (EEE)**, an exemplary entrepreneur is the Chairman and CEO of netCustomer, founded in 1999, which is a leading provider of advanced applications support services. Her initial years at netCustomer were studied by Stanford University as part of a case study, which is now taught at various business schools.

**Dr. Reena Agarwal (MMS)** is a Visiting Professor of Finance, Sloan School of Management, MIT and Stallkamp Faculty Fellow



Our daughters and sons - making the World a better place

BITSian guys in making our Institution progressive. And, not, this is not merely to placate BITSian men who felt left out from this issue!

The **BITSian Women's Council (WOC)** was established just six months back, like an inspiring Old Girls' Club and it has burgeoned to over 300 members. We also did have one BITSian guy arguing gender discrimination, who tried to become a member. Very original!

That's what makes BITS so special. An original bunch of people pursuing their eclectic careers, chasing their dreams.

and Professor of Finance, Georgetown University. She was named among the "Outstanding Faculty" in the Business Week Guide to the Best Business Schools. Through her career, she has been Visiting Research Scholar at the IMF (2004, 2003), Fulbright Scholar in Brazil and Chile, Academic Fellow at the US SEC (1997-1999), Consultant with the NASDAQ, UN, IMF, IFC, IDB, Credit Suisse etc.

Previous *Sandpaper* issues have focused on different subjects (which is not to say, we leave them stranded subsequently). To begin with, we did feel that restricting ourselves to subjects like Entrepreneurship or Social Service or BITSians in Finance would be more neutral than focusing on women. I too was of the view initially, but this issue has indeed become a celebration of the accomplishments of BITSian women who hail from one of the most progressive universities in India, BITS Pilani.

In the last issue, **Buvana** talked about how women can overcome constraints and return to work after a break. Success, part time work, constraints, joys, transitions, sabbaticals apart; adapting their styles and overcoming biases, or just being themselves, BITSian women have done us proud. Those we have talked about, and those we have not. Those we know about and those that we, unfortunately don't.

Forget gender wars on campus. We have come a long way and cannot discount the role of

In addition, another reason this issue has been special for me is that this is Sandeep's last issue as Chief Editor. He has meant a great deal to me, doubling up as somebody I've enjoyed working with, and somebody who's become a friend for life.

And for all of us,  
Oh you can sneak time,  
and you can dream time,  
But just like some drummers  
we've had the often damaging experience of  
working with -  
You just can't keep time.  
Yes, we've had the time of our lives!

**I can vouch for most BITSian women, 'Yes, we've had the time of our lives.' Now let's read about it.**

**Anuradha Sharma Gupta ('86 MMS)**  
Guest Editor  
April 15, 2006

## About Sandpaper 2.0

# SandpaperOnline

<http://www.bitsaa.org/sandpaper/sandpaper.html>

### **BITSAA Newsletter**

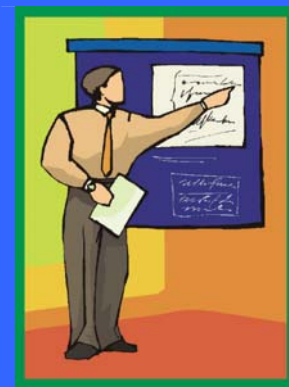
Every month we bring you a newsletter with stories about BITS and BITSAA through the Yahoo! Groups. In case you miss an edition, you can visit the Newsletter archives online and go through issues and news that you may have missed out on.

### **Photo Galleries**

Click on "Photo Galleries" on [www.bitsaa.org](http://www.bitsaa.org) and see photos of Pilani, cartoons, artwork and books by BITSians, as well as profiles of BITSians in business, academia and research.

### **BITSians IN ACADEMICS**

At last count, there were **208 BITSian** alums teaching as professors at universities and research institutes around the world. All details including research, emails and phone numbers are to be found on the website. Contact these professors. Start a dialogue!



### **TEAM SANDPAPER – 34 Pierce Road, East Windsor, NJ 09520**

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Each and Every member of the BITSAA Women's  
Council, Anurup Mitra, Mukul Chawla.

#### **JOIN THE TEAM**

Sandpaper 2.0 is created by a global team with members spanning seven countries in four continents. It's a great place to gain organizational leadership experience, network with the alumni community and enhance your writing skills.

Please send your articles, nominations for Quarterly BITSian, letters to the editor, feedback and requests to join the team to: [smukherjee@bitsaa.org](mailto:smukherjee@bitsaa.org)

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## About Sandpaper 2.0

# BITSAA SANDPAPER VISION

Focus on the BITSian community - alumni, students and administration.

Build a close knit BITSian **community** by promoting

Increase BITS brand equity

**participation**, evoking feelings of nostalgia, **pride** and

An emphasis on building engagement through awareness and debate

connectedness by keeping everyone in the community **informed**.

Our news, achievements in academics, business and in the community. What's happening at BITS and at BITSAA chapters around the world

To read past issues visit the website:

<http://www.bitsaa.org/sandpaper/sandpaper.html>



## FEATURES



## Chitti Ayee Hai

### KEEP IT UP, SANDPAPER!

Dear All

Really appreciate your wonderful work along with your team for publishing *Sandpaper*. I always look forward to it.

Thanks a lot.  
Regards,

**Navneet K Kothari**  
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### BITSian START-UP ON WEDDING SERVICES

Hi All,

I am from the 86A6 batch. I, along with my wife, am involved in something, which is definitely different from any other profession being sought after.

We are consulting in the wedding space and run a small but

professional outfit in Delhi. It might be of particular interest to other fellow BITSians who are eligible bachelors in or outside India or have children in that age group. It's just been 2 years for us and now we are working out funding for the next growth phase.

Look forward to your comments.

Regards,

**Rajesh Butta**  
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### THE SANDPAPER 2.0 TEAM

## BITS & BITSAA NEWS

### BITS, PILANI TO SET UP THIRD CAMPUS AT HYDERABAD

BITS Pilani has decided to bring up a third campus at Hyderabad. A team of directors related to academics and administration at BITS Pilani visited the city on January 4 to discuss with the Government the modalities of establishment of the institute. "We are committed to establishing the campus at Hyderabad and things are positively moving ahead," confirmed **S. Venkateswaran**, Vice Chancellor, BITS. He affirmed that the campus would be a full-fledged one on the lines of the one in Pilani, and will offer all the courses. Prof.

Venkateswaran emphasized that the education offered by BITS was very good and unique and their effort was to bring in the maximum number of students under their fold, and that it was the sole motivation for their decision to set up another campus.



### BITS IN UNESCO'S TOP 20 ASIAN UNIVERSITIES



The recently released Science Report 2005 which is the fourth in a series published by UNESCO has listed BITS, Pilani as one of the top 20 Asian universities. The report gives a Global Overview of Science and analyses the emerging trends in Scientific Research and Higher Education through the eyes of an independent team of experts. Six of the IITs (excluding IIT,

Guwahati) also figure in the list of top 20 Asian universities.

## BITSAA WOMEN'S COUNCIL – WELL BEGUN!

The BITSAA Women's Council is going strong, with a 300+ group of enthusiastic women from all possible fields and careers who are networking, debating issues and forming a support system. It has a full team in place now, with folks having volunteered to be group mentors for Corporate Life, Academics, Entrepreneurship, Work-life balance, Writing and such like categories such like. Additionally, there is a 10 member executive team that is supposed to hold events in different cities across the world, and do press coverage if needed and work on BITSAA activities. Several events have already been held -- one in East Coast, one in Hyderabad, and two in Bangalore. Each meet had about half a dozen people, which certainly portends a healthy future for the burgeoning organisation.

**To subscribe to  
BITSAA WoC,  
please visit:**  
<http://groups.yahoo.com/group/bitsaa-woc>

## SHANTI SHARMA, BITS ALUM WINS INDIRA GANDHI PRIYADARSHINI AWARD

Acknowledged today as one of the finest vocalists in the country, **Shanti Sharma**, a classical singer from the Kirana and Indore traditions is endowed



**Shanti Sharma**

with a rich voice, aesthetic sensitivity and has received intensive *talim* from master vocalists like Shri Sangameshwar, Pt. Amarnath and Ustad Mashkoor Ali Khan. Serenity, an integrated structured exposition of the *raga*, fluency and swift *tanas* are the hallmarks of her singing. Over the years, she has performed in most music festivals in India.

She was recently awarded the Indira Gandhi Priyadarshini Award on the occasion of Indira Gandhi's birthday celebrations. Shanti Sharma is at present a Faculty member of Shriram Bharatiya Kala Kendra.

## BITSAA'S GLOBAL 30 UNDER 30 AWARD

BITSAA announced the first ever 2005 Global 30 under 30 Awards. This award is dedicated to all those young BITSians who thought and acted differently, who challenged the status quo, rewrote the rules, and created their own paths. To the leaders, innovators, researchers, students, entertainers, entrepreneurs, winners, engineers, scientists and concerned samaritans who came from every corner of India; to

the best examples of what it means to be a BITSian. These awards will be presented every 3 years. Of the 30 winners, whose ages range from 18 to 29 and batches from 1992 to 2003, 8 are PhDs, 7 are MBAs and 3 are in arts, media and entertainment industry. The winners include 9 role-model women.

Among the winners was **Minakshi Krishnan ('95 Pharma)** who won in the category of Community Leadership. Minakshi completed the Mardi Gras Marathon in February 2005 and raised funds for the Whitman Walker clinic that works with HIV/AIDS patients in the U.S. She is the coordinator of Asha for the DC chapter. She has also worked organizations in India including AID, and Kalpavriksh, and has been a Service Corps volunteer and an American Red Cross



**Minakshi Krishnan**

volunteer for blood drives.

## ANITA GUPTA, BITS ALUM'S BIZ FASTEST GROWING AT FLEXTRONICS

**Anita Gupta ('81, EEE)** is currently heading the Wireless and Convergence Business Unit at Flextronics Software Systems (FSS), which is part of the \$19 Billion Flextronics corporate,

and is focused in Telecommunication software. Not only is Anita's business unit the fastest growing business at FSS, she has also been responsible for creating IPRs in the Wireless domain, which have been successfully licensed to Telecom OEMs.

## PAINTED PLATTERS

**Sonali Mohanty (95 Phy Instru)**, a talented artist had her first exhibition of paintings at a coffee bar called "Painted platters" in Bangalore that received rave reviews from the Times of India (Bangalore Edition). Ten paintings ranging from oils to pastels with varying themes were displayed. Sonali is a Marketing Executive at Aztec Software & Technology Services Ltd., – we owe our cover design to her and Aditi Pany!.

## BITS ALUM AUTHORS BOOK ON GLOBAL ECONOMIC AND GEOPOLITICAL ISSUES

BITS alum, **Dr. Rajendra S Sisodia** and **Dr. Jagdish N Sheth** have authored a book, *Tectonic Shift*, which speculates on the world's economic and geopolitical future. While the



world is still coming to grips with the implications of globalization, *Tectonic Shift* discovers the unfolding of an

unprecedented realignment of

forces - arguing that regionalization will replace the much celebrated globalization. **Rajendra S Sisodia**, EEE, BITS, Pilani, PhD, Marketing and Business Policy from Columbia, is Professor of Marketing and the Founding Director of the Center for Marketing Technology at Bentley College, Waltham.

His forthcoming books (all with **Jagdish N Sheth**) include *Does Marketing Need Reform?*, *Firms of Endearment* and *The 4 As of Marketing*. In 2003, he was cited as one of the '50 Leading Marketing Thinkers' in the world by the UK-based Chartered Institute of Marketing.

## MOBILE MEDICS WINS 2006 GSVC IN NEW YORK

Mobile Medics, an idea floated by **Sriram Gutta** from BITS Pilani and **Jordan Tongalson** (Columbia MBA 2006) took top honors in the 2006 Global Social Venture Competition ([www.socialvc.net](http://www.socialvc.net)). There were nine final teams from 110 plans, half of which incredibly came from India, some from existing businesses in the US, Africa and Asia. The GSVC is a premier event for social entrepreneurship in the world, and it turned out to be a great day for BITS Pilani. The entire Mobile Medics team at Pilani worked hard on the surveys, videos and pilots to make this happen, along with their management team and advisors in the US. **Anupendra Sharma** and co. will seed the venture with the prize money they have received.

## KOTHARI: EXCELLENCE AWARD HONOREE

Telephonics Corp, Farmingdale, New York, the largest defense company on Long Island honored **Navneet K Kothari** with Excellence Award by Mr. Joseph J. Battaglia, President, Telephonics Corp, at an award ceremony held on October 12th, 2005 at its Corporate Headquarter, Farmingdale, New York. He has been working as a Principal with the company providing technical expertise on various commercial and defense programs. He has been instrumental and successful in timely completion of multi-billion dollars rapid transit program. He was congratulated on having attained many milestones in his career. His dedication of service for last five



years was exemplary in many ways and thus has been entrusted with many programs on multiple platforms on Secure Digital Communications programs worldwide.

He is an Honors engineering graduate from Birla Institute of Technology and Science (BITS), Pilani, India and Dual Masters diploma in Telecommunication Networks and Management from Polytechnics University, New York.



By DILIP D'SOUZA ('76 EEE)

## HEEDING THE CALL

Dilip D'Souza is a prolific writer for several publications and is a member of the Editorial Board of BITSAA *Sandpaper*. For more of Dilip's musings, visit his blog at <http://dcubed.blogspot.com>.



**TRAVELLED** to Rajasthan recently. By road. Entered the state at its southwestern end, town called Sanchor on NH-15. But here's the thing: almost from the minute I entered, I began feeling the distant call from a little town way the hell over on the other end of the state, that place where generations have grown to be women and men of substance. I knew the call would come, and that's why my travelling buddy and I planned a night halt there. But for various unfortunate reasons, we had to cancel, less than 24 hours before we would have arrived in Pilani.

Too bad. But the call, it was there. And when it next comes, I will heed it.

As something of a substitute, though from my Pilani-biased perspective a poor one, we visited another place where they teach things to students, MBA types. (Aside: why do people do MBAs? Decades out of college myself, and I'm still trying to figure that puzzle). Without knowing it would happen, we found ourselves thrust into a class full of them. Bright eyes and eager faces listening to what two middle-aged men, dusty from days on the road, could find to say off the top of their heads: it must have been quite a sight. But yes, they listened. Then they asked many questions, and we would have

loved to go on discussing stuff till the cows came home, but a bell rang and we were shepherded out.

But I found myself brooding over one question in particular. Apropos of nothing else that had come up for discussion, one young man put up his hand and wanted to know our opinion about what he called "recent peace moves towards Pakistan." Like it often happens, he didn't really want to know our opinion, he wanted the chance to offer his: that this was going to be a disaster for India because Pakistan instigates terrorism against us and Pakistanis cannot be trusted and they are a dictatorship and we will never compromise on even an inch of our land and we have been so kind to them for so long and our patience is wearing out and our position is morally right and Kashmir belongs to us! (Said in pretty much that breathless fashion).

This is not the space to get into a dissection of all those allegations and arguments. But I mention it here because at the time, it struck me that he was saying essentially what our governments have said for years about Pakistan. What, therefore, a lot of Indians say about Pakistan. Nothing wrong there. But it also struck me, as we discussed what he had said a little bit, that he would not, or could not, question these

statements. In fact, he seemed unable to imagine that they could be questioned at all. To him, these were givens. Much like observing that the sun comes up in the east. Who would question that? And I wondered how it was that this man had missed the fundamental lesson of education and citizenship that I think I picked up in that little eastern Rajasthan town those decades ago. In a word, questioning. Question everything, authority especially, yourself always. This does not mean that you go through life disbelieving everything. Question, that's all. Question and satisfy yourself about the answers as they are given, that's fine. But question.

Yet with this bright-eyed student, I got the distinct feeling that the very idea of questioning, at least with the Pakistan issue, was not even a possibility. Why do I say I picked it up in Pilani? It's not that our professors, whatever the subject, told us to do it in every class; not that they dinned it into our heads. We didn't have a course anything like the one I know IIT Kanpur recently offered its students, "Responsible Dissent". No, there was no explicit, overt mention of the value of questioning and scepticism.

But it was certainly there: unstated and subliminal, perhaps, but there.

And here's where I think it came from: the much tom-tommed "broad-based education" BITS offers.

Think about it. Why, after all, should an electrical engineer know anything about economics? Why should a physicist know anything about sociology? Why should a computer scientist know anything about English literature? Yet if these are BITS graduates, it's likely they have taken such courses.

And what's the value of it all? In a previous column here, I wrote about the different paths that BITS alumni have taken, and of how that's a tribute to the kind of place it was and the education it gave us. That's the value.

But more subtly, I believe the exposure to a wide range of subjects and issues gives you the tools, the confidence, for that process of questioning. When

you're immersed in one subject, it is easy to emerge thinking that's the way of the world. Yet of course, it isn't, and that's the sometimes harsh lesson you have to learn. It's when you understand that there are multiple truths out there, different ways of looking at things around you, that you begin to ask questions.

In fact, this is precisely why two professors at IIT Kanpur -- one in Computer Science -- came up with the idea of the "Responsible Dissent" course in 2001. They were increasingly worried by the kind of citizens that great institution was turning out, with its relentless focus on specific engineering disciplines.

Now I have no idea which college my young friend with the firm opinions on Pakistan graduated from. I also have no doubt there are plenty of BITS alumni who have just as firm opinions -- on Pakistan and on

other issues -- that they will not question.

Still, my feeling is -- and believe me, I am trying hard not to be the alumnus holding a worshipful candle for the alma mater -- my feeling is that as a rule, people graduate from BITS with a certain openness of mind and spirit. And I think that comes from the kind of education. BITS has always prided itself for offering.

And -- to return to my road trip - - that's really why I feel that call whenever I enter Rajasthan. Because as the years go by, you appreciate that spirit more and more. You appreciate the place in your life, the time in your life, that you learned those lessons.

So really, the next time that call comes, I will certainly heed it!



## BITSians Partyin' Around the World *Silicon Valley Chapter – 7th Annual Reunion*



For more photos and complete event details, please visit:  
<http://www.bitsaa-svc.org>

BY HIMABINDU CHITTA ('02), KRITHIKA KALYAN ('00), BHARATI BALAKRISHNAN ('00), DEEPTHA GANAPATHY ('95), ADITI PANY ('00) AND DILEEPAN NARAYANAN ('00)

# BITSIAN WOMEN

## YOU GO GIRL!

Several generations of women have passed through the hallowed portals of BITS Pilani and they have steadily, often inconspicuously, carved out a niche for themselves in the world. These BITSian Women boast impressive academic, professional and social credentials. They have neither shied away from taking risks nor bucked an at-times stagnant social system. And, most importantly, they have persevered relentlessly, sometimes in the face of significant cultural and attitudinal challenges. *Sandpaper's* Cover Story produced in collaboration with the BITSAA Women's Council is a celebration of the achievements of every single member of this community.

### Introduction

Circa 1981, Meera Bhavan, BITS, Pilani. Sangeeta Samar (now Patni) found herself one of the twenty girls "inducted and familiarized" with BITS, Pilani. Her batch was one that featured 20 girls in a batch of 400 guys. The previous batch had had 16 girls, and around 400 boys. And the earlier batch, an even lesser number of females. So, what did these girls find in Pilani? She fondly recollects, "They walked in as girls, older than they ever were, and walked out as women, younger than they would ever be. And, being one of them I know, it was great in the meanwhile!"

The bold parents of these ambitious girls did not know that they were setting a trend: one that would gradually permeate through the middle class and, in the process, help fulfill the potential of the Indian professional woman that had

previously remained unrealized, fettered by Indian conservatism. The talented girls took to their new-found professional freedom like a duck takes to water.

Sangeeta says, "So, we were a real minority. Did that bother us? No – for most of us, it was exhilarating. To be at a place where most parents of that time would fight shy of sending their daughters. After all, 25 years back, engineering was very much a 'Men Only' profession. Some of us, including myself, had to fight tooth-and-nail with our parents to be here and to study engineering."

"On campus, we were an 'equal' sex. Though we were unequal in numbers, there was no gender persecution. There was reason for this – our EEE batch topper was a female, and so was the previous EEE batch too."

The signs were already ominous for the parochial lot. The BITSian woman was enjoying

some success; she was here to stay.

Today, generations of proud BITSian women have passed through the Birla Institute and are now carving a niche out for themselves in the world. They are those that threw caution to the winds, bucked an increasingly stagnating social system and persevered steadfastly, absorbing massive cultural and attitudinal changes and the pressures that came with them. Some of them even drove the changes, rebelling freely against issues, unacceptable.

It was not always easy battling against the tide and society. According to Dr. Meera Banerjee, ex-warden of Meera Bhawan and someone who has seen BITS evolve over four decades, the 60's were strict times. Girls had a dress code (yes! Sarees with plain borders) and were not allowed outside MB beyond 7pm. No interaction unless necessary for academics, was permitted between girls and



Holi at Meera Bhawan, 1996

boys. In fact, girls seen to be talking to boys outside classes had to face an interview with the warden. A few girl students were not allowed to take on courses in the lunch period since only male professors would be in the institute at that time and the MB warden in those days believed in severe discipline. But the girls in the 60's and 70's, some of whom Mrs. Banerjee knew as classmates of her oldest daughter, were fun-loving and spirited. They were never docile, she asserts. Academics were a level playing field, though social interactions between boys and girls were limited. Leadership was a quality she admired in a few girls she befriended. She remembers the strong women who contested fairly for political posts and fulfilled their responsibilities with a passion. "These girls helped their fellow students adjust and truly made BITS a second home for them" she says fondly.

Dr. Raj Singh, a 76 batch BITSian currently doing cutting edge research in VLSI design in CEERI, remembers that his classmates, though few, were never inactive. Whether in cultural, academic or sports activities, girls were always eager and equal participants. He remembers Pragnya Nimbkar, the only female hockey player in BITS, who played with the boys' team for lack of female company!

The number of girls joining BITS increased significantly towards the 90's, but it was really the IT boom that bolstered these numbers and dispelled the notion of 'hard mechanical and physical labor' that was associated with the core engineering disciplines like Mechanical and Civil Engineering. The year 2004 saw the percentage of girls at BITS rise to nearly 40 percent and in fact, in the disciplines of Computer Science, Electronics and Instrumentation, Chemical, Information Systems,

Engineering Technology, MMS and Biological Sciences, it was even higher!

The playing field was level. The boy girl ratio marched closer to unity and the girls were moving on from strength to strength. Why; by the advent of the new millennium, girls were regularly standing up to compete for posts of major responsibilities; the likes of Student Union President, General Secretary and other key Student Union responsibilities. And they were doing a great job!

It is really no surprise that quite a few of these uninhibited achievers have translated their potential to become highly successful in their professional lives, in a number of different fields. In fact, some of them have steadily accrued national and international renown. The Sandpaper team, in this issue, seeks to profile an eclectic sampling of BITSian women who have carved their own niches in their respective

professions, through the data available to us. In doing so, we have categorized women for this issue into various professional fields.

- Entrepreneurs
- Business Leaders
- Academia
- Community and Public Service
- Engineering & Technology
- Creative Artists

Each of the women featured is the definitive BITSian Woman in the fullest sense: a shining beacon of the BITSian spirit as well as the modern day woman.

We thank all the BITSians who have helped us in compiling this list.

## Entrepreneurs

Experts and surveys conducted in recent times reveal that the lack of role models is the No. 1 factor discouraging women from pursuing MBAs and taking up roles as business leaders. But if you take a look at the illustrious list of BITS alumnae that we have been able to identify, you will find that not only has BITS left you with a fine education and memorable life experiences, it has also left you with an inspiring legacy to follow. This article profiles the achievements and experiences of BITSian women entrepreneurs from around the world, in fields as diverse as Consultancy, IT, Education and Manufacturing and batches as far apart as the mid 60s to early 90s.

Female entrepreneurship is expanding around the world. The Global Monitoring Report 2005 on Women and Entrepreneurship ([www.gemconsortium.org](http://www.gemconsortium.org)) estimates that more than one-

third of all people involved in entrepreneurial activity are women. The growth of the IT-ITES industry in recent times has resulted in the narrowing of the gender divide, particularly in the field of entrepreneurship. From mom stores and traditional businesses, today's women are beginning to make their mark in the ranks of high tech entrepreneurs.



Punita Pandey

Much has been written about **Punita Pandey** (1980-84, EEE), CEO and Founder, netCustomer, a leading provider of enterprise software support and services. Her company has customized its innovative services for clients like PeopleSoft, J. D. Edwards products, Sony, Dell, Qualcomm and IBM. In fact, netCustomer's success is taught as a case study at the Graduate School of Business at Stanford University and at several leading universities around the world. But there's more to be said, and learned from.

She started off like most of us. The daughter of retired

educationists says she owes her current status to her education and her family. "I was good at math and science in school. My father encouraged me to pursue engineering schools and recommended BITS. That was my entry ticket into the field of technology. After that there was no turning back. I pursued a career in IT and software development and later, after my MBA, I started refining my business skills with a career in management consulting and marketing. A culmination of all these experiences led me to found netCustomer," smiles Pandey.

And today she's an icon in the Silicon Valley. For Punita, starting her own business has been a most rewarding experience. "The creation process is so exhilarating - to conceive something, assemble a team, execute, and offer your customers something which is valuable for them, your company, and all the individuals involved.

There have been lots of ups and downs, but I have never been more satisfied", she says.



Vandana Malaiya

Another inspiring example from the very same batch and discipline is that of **Vandana Malaiya**. She began what was to be a remarkable career at DCM Data Products in Delhi in hardware R&D. A few years down the line, she left behind stints in the US and Verifone, Bangalore and co-founded a software services firm, EximSoft Technologies Pvt. Ltd., in the product engineering space based out of Bangalore. Her clients were primarily from Japan, the U.S. and Europe. In October 2004, her company merged with Trianz Consulting a Silicon Valley based management consulting firm. Currently, she is Director at Trianz.

Vandana juggles traveling, photography, painting, gardening and cooking for hobbies. Whew! All this of course apart from spending time with her son, playing an important role on the Software Process Improvement Network and promoting entrepreneurship among women particularly in IT and BT through the TiE Women Bangalore chapter. "Perseverance is the key to success", she maintains.

We asked her what it was like to be a woman entrepreneur; "Personally I do not give much weightage to gender biases of the people working with me. I guard against taking any privileges specifically designed for women. I make sure that people do not nurture pre-conceived notions about what women can do and cannot do, will do and will not do." She goes on to say, "As women, we will always have to create a good work-life balance. However, if you choose to give more importance to one over the other based on the phase in your

life do so without guilt and without losing sight of your professional and personal goals." Different strokes for different folks? You bet!

Then there's **Sangeeta Patni** from the '81 batch, also a *EEEite* –a woman with several firsts to her credit: she was the first woman in the management team at Eicher Motors, an automobile company, and the first woman engineer at Rajasthan State Mines and Minerals, Udaipur, a mining company! This trailblazer went on and co-founded Extensio Software Inc. which builds and sells information delivery solutions to enterprises all over the world. She currently wears two hats for Extensio -as Vice President, Engineering and also Country Head. Sangeeta leads the engineering center based out of Nagpur and has been successful in building a core middleware solution that has been reviewed positively by analysts such as IDC and Gartner, and has partnered with companies such as IBM and webMethods. For her achievements, Sangeeta was featured by *Network Computer* magazine in November 2002 on its cover as one of the four top successful CIO-turned-entrepreneurs.

Sangeeta loves to dance, read and write and teach her an eight-



Gayathri Viswanathan

year old daughter, Nidhi.

The youngest entrepreneur in our list is **Gayathri**



Anuradha (Anu) Parthasarathy

**Viswanathan.** Gayathri graduated from BITS in 1995 with a degree in Chemical engineering. In 2002, she co-founded a company called Maarga Systems, a software company focused on the Lotus Notes technology which has today grown to a 25 strong organization. Gayathri specifically looks into the entire delivery organization.

Her career path follows a sequence that many of us women can relate to. Gayathri joined IBM from BITS and rose up the ranks from being a programmer to becoming a project lead. She then moved to the US where she consulted briefly with Lotus Corporation after which she worked with PriceWaterhouseCoopers as a Senior Consultant. When she moved back to India from the US, Gayathri started Maarga.

Gayathri had always wanted to climb the corporate ladder and be a top executive by the time she was 30. But today, she is far happier facing the challenges of entrepreneurship. However, she

boldly adds that she is not afraid to limit the growth of her business so that she can retain the time to do her other activities.



**Chandralekha Bhaskar**

Senior to Gayathri by more than two decades is **Chandralekha Bhaskar** whose story is truly ground-breaking. Chandralekha joined BITS in 1966 to pursue Electronics engineering and forty years down the line she is Director of Bhaskar Energy Private Limited, a 150 Crore group manufacturing generating sets.

Prior to her current role, Chandralekha headed the Marketing Divisions of leading OEMs of Kirloskar Cummins of their times and gathered experience in Gensets for over two decades. In 1988, she set up an assembly plant at Noida and has been the OEA of Cummins, Kirloskar Oil Engines and Leyland since then. Chandralekha's hobbies include reading, traveling and theatre and she also has worked in the area of girl child development. She encourages as well as cautions us with her message for the BITSian woman, "You have great opportunities and challenges ahead."

In the early 1990s **Anuradha (Anu) Parthasarathy**, MMS Batch of 1983, founded and built Nexus Search Consultants which is the No.1 Search Firm for the technology sector in Bangalore. Her clients at Nexus included technology giants such as Autodesk, Cadence, Compaq, CA, 3COM, Cisco, Epson, HP, IBM, Sanyo, SUN and Siemens, as also startups such as Aspect, Aztec, Entevo, IDEA, Silicon Automation, Sierra and Talisma. Prior to founding Nexus, Anu was the Head of Marketing for Wipro's International Operations Division. In 2000 Anu co-founded *e4e* in the US, a company that provides business processes and engineering outsourcing services through its portfolio companies. She didn't stop there; today she is the Founder and CEO of Global Executive Talent, a senior executive search firm that identifies leadership talent for US-based companies going offshore and Asia-based companies making forays into the US market. Three role models in one great gal!



**Anita Sakuru**

Anita's story of success is very powerful. **Anita Sakuru**, from the '87 batch, is the founder, CEO and Chairman of Kenpeople. Just before starting

Kenpeople, she was selected for the Executive MBA at Kellogg. She joined when she was 32 after having two kids and when her second child was just 3 months old. At the same time she was running a \$25M business unit and commuted to Chicago from Boston every alternate weekend. In between the program, her family moved to India and she commuted from India. The pressure of being a role model for her children and her never say die spirit kept her going!

She has clear advice for budding women entrepreneurs. She warns, "If you are a



**Chandni Sahgal**

perfectionist- forget it. Prioritize and that's very, very important." Anita stresses the importance of building a support group. "Your family will be the most important support factor for you. Take help from parents, in-laws, network with friends and people from the same college and schools. Find them and build newer bonds", she says.

And finally, a lady with a most exciting profile – **Chandni Sahgal**! We've all watched the music and madness of MTV, but little did we know that the person behind the launch of MTV India was none other than

a BITSian! Yes, Chandni was the Country Head of MTV India, and was instrumental in launching it in India. She has also worked with Pritish Nandy Communications as the CEO and was a key driver in establishing the company. She led a complete turnaround of Times FM, Cyanamid India, Novartis and Eicher Motors and has been instrumental in establishing the operations of Cyanamid, Novartis and Eicher Motors in various markets. Chandni, an MMS graduate from the 1981 batch, is today the founder and Managing Proprietor of D'Essence Consulting, a Management Consulting, Business Advisory and Talent Management Consulting Boutique firm. Chandni, who believes that learning is a continuous process, was awarded the prestigious Graduate Gordon Fisher Fellowship at the University of Toronto in 1993-94. But she didn't stop there. She landed at the London School of Economics in 2001 for the Leadership Program.

**Anita Balasubramanian** is an entrepreneur of a different kind –she has started two NGOs. We have profiled her in the section on Community Leaders.

**Rashmi Datt**, author of 'Managing your Boss' runs Dialog, a Learning Services delivery consultancy. And there is **Neetu Khilnani** ('87, MMS) who started a web services firm called NetResult Co. in Mumbai, before moving to the US. Each of these women has broken stereotypes and stand testament to the amazing opportunities that lie before us. Go girl!

## Business Leaders

Perhaps the greatest testimony to a well-rounded education program is the multifaceted leaders it is able to nurture and supply to the world. In that respect, the Integrated Program at BITS certainly seems to have well justified its intent. As we thread together the achievements of several of our women alumni under the Corporate Leadership head, we tread paths set ablaze with outstanding work, be it in Information Technology, Quality Assurance or Marketing; glass ceilings lie shattered by the way side as new horizons are scaled, and repeatedly, we are awed and overwhelmed by some awesome grit and determination on display.

The first time I recall contemplating the definition of a leader was in a test in the Principles of Management course (popularly termed PoM), where we were asked to write an essay on "Are leaders born or made?" I don't quite know the answer to that one yet, but I definitely believe being a leader in today's corporate jungle places huge demands – you need to lead by example, be a team



**Srividhya Rajesh,**  
Fund Manager,  
Sundaram Mutual  
Fund

player, make quick, sensible decisions and zoom past a stream of success milestones. These women have done it all – be it **Akhila Krishnakumar** ('89) who is today CEO of SCT Software Solutions India Pvt. Ltd. while chairing the AMCHAM Bangalore chapter or, **Renu Muralidharan** ('77) who holds dual roles as Corporate Quality Head and Delivery Head with Datamatics Ltd., Mumbai. Taking the world of finance by storm are **Srividhya Rajesh** ('90, MMS) and **Yashodhara Mishra**. While the former is a leading Fund Manager of the country managing Mutual Funds at Sundaram, Yashodhara supervises IPAC Singapore's operations as Vice President.

While the characteristic corporate leader of the present is probably backed by a Masters in Business Administration or an equivalent, another remarkable feature about these women is that many have made a successful transition from the technical to the managerial side, sans the extra degree. Steering the technical side at CSLTECH is **Mitra Priya**, currently Director, with more than 13 years in the Software Industry and a rich body of work behind her, at various companies.

**Prachi Garg** is another shining example. This spirited kid, from the Class of 1986, EEE, is now Deputy General Manager at VSNL. Having established her credentials in R&D, she has ascended the managerial ladder and is known for her sheer command in the field and unique insights on several issues.

The list is endless. It captures the spirit **Sheena Verma** imbibed into a venture she started along with her husband, built and nurtured through an

entire life cycle, and the spunk of **Anu Khendry** Assistant Vice President, Quality at Satyam Computer Services Ltd. in Hyderabad. Each is a story of courage, purpose, and indefatigable drive. Let's begin with **Anupama Narayanan**, a B4A7 graduate who is currently an Executive with Bank of America at Charlotte, North Carolina. Multifaceted at BITS, with a flair for Tamil Drama, Music and Math, she even volunteered for the Chemical Assoc, while still a Computer Science student. An accomplished certified six sigma Black Belt and distinguished Master black belt, she sure is the apostle of a quality professional! (Master Black Belts are Six Sigma Quality experts that are responsible for the strategic implementations within an organization). Anu has Masters and PhD degrees in Operations Research. Before joining Bank of America, she has held various positions from Senior Research Statistician and Senior Consultant to Director of Finance and Director of Quality. A strong advocate of the home-school philosophy, she teaches her daughter along with her husband at home, apart from finding the time to sew, read and play chess. The key mantra to success in her very own words is to get right back on your feet when you fall, and know always that many others fell before you. And finally the much needed shot in the arm – "Think (quickly) before you speak, but do speak up! Your opinion may be the very thing people needed to hear at that moment..." Touche!

Also among the first few to make a mark is **Anita Gupta** ('81, EEE) who is currently heading the Wireless and

Convergence Business Unit at Flextronics Software Systems (FSS). FSS is part of the \$19 Billion Flextronics corporate, and is focused in Telecommunication software. Not only is Anita's business unit the fastest growing business at FSS, she has also been responsible for creating IPRs in the Wireless domain, which have been successfully licensed to Telecom OEMs. Anita believes that the software industry is a great place for women as it offers an excellent environment, provides opportunities to travel places to broaden one's perspective, and a huge amount of technical and management challenges! She advises budding leaders to be involved in cross-functional roles, as one can learn a lot about what goes into running a corporation. "Ofcourse", she adds, "while you work, don't neglect the family – be it your parents, grandparents, husband and kids. Whether you like it or not, a woman is an integral part of all families – and has to shoulder and plan for everything at both ends."

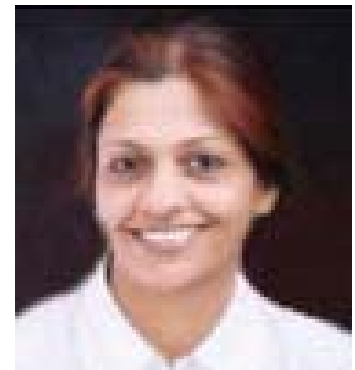


Revati Advaiti

Unusual for a woman back then, **Revati Advaiti** chose to pursue mechanical engineering when she joined BITS in 1986. Today Revathi holds dual roles as Vice President and General Manager –IM&C at Honeywell International. She has

successfully led the turnaround of manufacturing facilities in Europe in post acquisition environment and has driven strategy development and execution in a variety of environments and functions – sales through operations.

Revathi advises young budding leaders not to get carried away with trying to achieve the so called "work-life balance" in the near term, as long as they balance in the long term. "Stay grounded and have fun!" she says.



Usha Subramanian

"Be passionate about whatever you aspire to be and excellence will just follow you!" she recommends with characteristic enthusiasm. Many amongst us would recall the excellent reviews **Usha Subramanian's** classes in Computer Programming received. Her



Padma Reddy

handbook on an introduction to Computers and programming was an absolute treasure. Usha began her courses in the MVS program after her daughter was born and went on to ace all of them while Chief Coordinator, Center for Software Development, BITS, Pilani. She is credited with introducing online evaluation for the programming courses, later extended to many others. To those of us present during the transition, the significance is tremendous. She currently is President, Learning Solutions at Ascendum Systems, Bangalore.

**Padma Reddy** ('81) is two decades into the software industry and going strong. She is the Head of the India Development Center, webMethods Inc. and has been responsible for setting it up from ground up. Everything about her is versatile, right from the several managerial positions she has held across organizations and functions, to her varied interests in baking, reading and playing music. Her message for the BITSian woman strikes a unique chord. "Let's remind ourselves that we women have been gifted with amazing potential to achieve higher goals in life. All we need to do is surge ahead with hard work, perseverance, high standards of personal integrity and a positive "Can do & Will do" attitude.



Mythreyee Ganapathy

Personally, all these traits have greatly helped me in my professional life", she says. Well nurtured and stoked by education and upbringing, integrity and a positive attitude are indispensable to this technology leader.



Swati Satapathy

Corporate leadership may involve enormous multi tasking, taxing work hours, enormous job stress and pressure, and continuously updating oneself on the professional front. But above all, it requires meeting with people – motivating them constantly; chiding, appreciating, commending their every effort; simply making yourself worthy of being at their helm. Women undoubtedly bring to this rather demanding dimension an incomparable sensitive facet that is at once exciting and calming.

**Swati Satapathy** ('94), was one of the few women to land a prestigious Unilever job straight out of campus. After doing very well in her roles with Unilever in India and abroad and recently winning the *BITS 30 Under 30* awards – Swati is, along

with Chitra Balireddi ('96), among the first two BITSian women to be offered admission to the MBA program at the Harvard Business School. She nurtures dreams of starting a for-profit social enterprise that will promote her home state Orissa's traditional art and craft. With will written all over, successful realization of this dream can't be far behind now, can it?

Adventurous **Mythreyee Ganapathy** enjoys tinkering with new software products or devices, shiking, white-water rafting, reading, embroidery and cooking that is when she's not managing the External Research and Programs at Microsoft Research India. In this role, she focuses on building research collaborations between Microsoft Research and external researchers, building the PhD student community, laying foundations for curriculum and pedagogical improvements in CS as well as conducting market research to get a baseline understanding of the research community in India. Prior to this, Mythreyee was at Microsoft (Redmond, Washington, USA) working as a product manager in the Visual Studio Academic group.

**Prasanna Krishnan's** ('96) resume screams outstanding



Prasanna Krishnan

through and through. At Microsoft, where she worked most recently, she was named one of 15 Fast Track employees with potential to be future company leaders. At UIUC,

In theory, women should find few obstacles in pursuing a career in academia where they are more sheltered from external social and political stigma. Yet it remains a concern that women

M.Sc(Math), M.Tech(CS), and Ph.D.(CS) degrees from BITS, Pilani. Dr Jyothi Mathur was an Assistant Lecturer and later a Research Associate at BITS. She was awarded the Fulbright

## Discrimination in Academia?

- Women represent 41% of the nearly 1 million faculty members in the U.S.
- In 2-year institutions, women account for 42% of full professors.
- In 4-year liberal arts colleges, women account for 23% of full professors.
- In research universities, women account for 17% of full professors.
- For each year after securing a tenure-track job, male assistant professors are 23% more likely to earn tenure.
- For each year after earning tenure, male professors are 35% more likely to be named full professors.

\* Source: University of Chicago

while pursuing her Masters in Computer Science, she won the C W Gear outstanding graduate award, and her thesis was nominated for the David J Kuck outstanding award. At Microsoft, Prasanna was responsible for co-designing two patented technologies, and was among only 5 Siebel Scholars, selected for academic excellence and leadership. Now what did we tell you in the beginning!

Each story inspires in different ways, and promises more achievement in the future. And then there are some more who are just making a foray into the Corporate World, like **Indira Raman** who started with Colgate Palmolive in Sales and Marketing, having topped the Business Management Program at XLRI, and **Sushma Vasudevan**, an MMS graduate from BITS who is with Boston Consulting Group now after a successful two years at IIM Kolkata.

**Academia**

continue to face the glass ceiling syndrome, have limited networking due to the lack of an “old girls club” and face inadequate legislation to empower the working mother.

In developing countries, women face increased challenges, where higher education is limited and sometimes restricted to women depending on the socio-religious fabric of that country. Economic and family constraints many times limit women from dreaming beyond their own borders to pursue their dreams.

In spite of the challenges faced and the sad but true fact on discrimination, women have progressed in the academic profession at various levels accounting for many success stories.

**Dr. Jyothi Mathur** is currently the Educational Programs Coordinator for Interdisciplinary Computational Graduate Specializations at Purdue University. She joined BITS, Pilani in 1971. She has her B.Sc,

Fellowship in 1985 and was a post doctoral research at the Georgia Institute of Technology. From 1987 to 1992, she was a Visiting faculty, Computer Science Department at Purdue University. She now lives in West Lafayette (USA) with her husband who is a BITS alumnus. Dr. Jyothi Mathur teaches Sitar at the studio she established in 2002. She is very involved with her local community and has had several Sitar recitals for fundraising. **Dr. Reena Aggarwal** (nee Garg) is currently a Visiting



Dr. Jyothi Mathur

Professor of Finance in Sloan School of Management, MIT and Stallkamp Faculty Fellow and Professor of Finance, Georgetown University. She joined BITS in 1974 for her MMS. She earned her PhD in Finance from University of Maryland. She was the Interim Dean of the McDonough School of Business for 2004-2005. As a Fulbright Scholar in Brazil and Chile, she examined stock markets and privatization programs. Dr. Aggarwal was named in the "Outstanding Faculty" article in the Business Week Guide to the Best Business Schools.



Dr. Monica Valluri

obtained her PhD from Purdue University in 1999.

**Swarnalatha Ashok** is currently an Associate at the Institute of Systems Science of the National University of Singapore (Singapore). She earned her MSc Tech. degree in Computer Science from BITS, Pilani. Prior to joining ISS, she was managing network management (cellular networks) software development projects at the Motorola Software Centre, Singapore.

**Dr Padmini Srinivasan** is a Professor at The University of Iowa (Iowa City, USA). She graduated from BITS in 1978 with a Master's in Biological Sciences. She obtained her PhD in Information Studies from Syracuse University in 1985. She is a Professor at the School of Library & Information Science & the Department of Management Sciences at The University of Iowa. Her research interests are text mining, web mining, topical crawlers, text categorization, information



Dr. Ritu Lohtia

**Dr. Ritu Lohtia** is Associate Professor of Marketing at Georgia State University (Atlanta, USA). She graduated in 1986 with a Master's in Management Studies from BITS, Pilani. In 1991, she earned her PhD from University of Maryland in Business Administration. Dr. Lohtia was the Highly Commended Winner in 1976 for the article published in the Journal of Business and Industrial Marketing. In 1994 she was the second runner-up for the Best Article published in the *Journal of Business and Industrial Marketing*.

**Dr. Lata Narayanan** is currently an Associate Professor in the Computer Science Department and Undergraduate Program Director at Concordia University (Montreal, Canada). Her research interests are Mobile computing, WDM networks, algorithms for routing on distributed networks and parallel algorithms and computation. She has over 13 journal publications and over 25 conference publications.



Dr. Neelam Gupta

**Dr. Neelam Gupta** is currently an Assistant Professor in the Computer Science Department at the University of Arizona (Tucson, USA). She graduated from BITS in 1986. She



Swarnalatha Ashok

filtering, formal models for information retrieval (with special emphasis on biomedical applications).

**Dr. Monica Valluri** is the Assistant Director of Kavli

Institute for Cosmological Physics and Senior Research Associate at the Department of Astronomy & Astrophysics in The University of Chicago (Chicago, USA). She graduated from BITS in 1987 with her Masters in Physics and obtained her PhD in Astrophysics from IIS, Bangalore in 1993. She was a Visiting Professor in University of La Plata, Argentina in 1999 and Visiting Scientist in University of Marseilles, France in 2000. From 1999 to 2001 she was an Adjunct Associate Professor at the University of Chicago.

## Community & Public Service

In today's world, most of us who constitute the well-educated, highly qualified niche make that contribution towards social causes. Then, to most of us, this contribution equals monetary donations or a few hours of voluntary service outside of work. Then to others, it is their calling; their choice of profession; a mainstream activity- primarily, a way of life.

This section portrays the lives of those steeped in community welfare and Administrative



Kalpana Nayak

services. It is a tribute to these

fine women who have applied themselves to fields that perhaps come closest to making a real difference.

Each is a shining example of grit, sincerity and commitment to cause. We begin with

the illustrious **Kalpana Nayak** ('90 Comp Science) who is the Commandant of the first all-women battalion of TN police profiled in NewsToday. Recently, J Jayalithaa, Chief Minister of Tamil Nadu commissioned India's first All Women Police Battalion, led by Kalpana Nayak. Challenges on her job include providing commando training to over 1000 women police officers in TN. Unique in spirit and deed.

**Dr. Jasveen (Dhillon) Jairath** has charted a new course from the very beginning. A EEE graduate (1967-72), Jasveen dabbled in Dramatics and public speaking at BITS. She then followed that up with a

Doctorate in Economics and switched to the social services line. She is currently the Regional Coordinator of CapNet South Asia which is an international network for capacity building in integrated water resources management. Jasveen's interests lie in research, advocacy and networking in water resource development.

Her message for us is simple and we suspect, straight



Anita Balasubramanian

from the heart. "Escape from narrow careerism and be adventurous", she says. While there are women who work in the public service or with NGOs and other development oriented organizations, there are several who break new grounds in education periodically. **Smita A.** has been working for the past 17 years in the field of social development, of which 12 years have been spent in elementary education. She has also worked on two major UEE programs in the country - Lok Jumbish in Rajasthan and District Primary Education Program (DPEP), a national program covering 18 states. Smita is currently the Director of Education Programs at the American India Foundation, New Delhi.

So does **Chandra Anil**, who as joint coordinator of AID in Chennai specializes in innovative educational methods to improve the effectiveness of education for primary and middle school children. Chandra, who graduated from BITS in 1995, says some young volunteers working on the course of India's development inspired her when she was still an engineer in electronic design.



Praba Subramaniam

While working for seven years in Wipro Infotech and SCM Microsystems, she volunteered at AID-India. She eventually became a full-time social work volunteer at AID Saathi in 2003 after giving up her job.

**Anita Balasubramanian** has had a thoroughly wholesome career in the social sector. After graduating from BITS in 1999, she has visited more than 80 groups in India involved in a variety of issues such as education, healthcare, tribal rights, conflict resolution and human rights and has learnt that all these issues are ultimately interconnected. She has also volunteered for several *Asha* chapters and has imbibed the spirit of the participative and democratic model that has made *Asha* so successful. Perhaps her crowning achievements have been the two organizations she has co-founded: *The Learning Network* that explores the various issues associated with education in a holistic manner, and *Sangati*, an organization that explores social and developmental issues through learning and related grassroots action. Anita has also conceptualized and managed Goodbooks Teachers Center, a resource center for teachers in and around Chennai. Given her affinity for learning and her irrepressible spirit, there's no limit to what Anita can achieve in the future.

**Praba Subramaniam** (1993) has had a career in public service/nonprofit with a few gaps and breaks. She worked for sometime at Vidya Sagar (previously known as The Spastic Society of India in Chennai). She came to the US in 1999 and volunteered in several nonprofit organizations - mainly serving the technological needs of the disabled population. At Tulsa, OK Praba prepared a needs assessment report for implementing County's Headstart programs. Since last year, she's been mostly at home looking after her 3 yr old daughter and has started a small business on eBay that specializes in selling handmade accessories from India - products made by marginalized producer groups comprising women and the handicapped.

This section would be incomplete without a mention of **Minakshi Krishnan**, who has made a mark in the field of community service and is a recent *BITSAA 30Under30* awardee in the category of Community Leadership. Minakshi completed the Mardi Gras Marathon in February 2005 and raised funds for the Whitman Walker clinic that works with HIV/AIDS patients in the U.S. She is the coordinator of *Asha* for the DC chapter. She has also worked with a number of organizations in India including AID, and Kalpavriksh on issues as diverse as integrated rural development and health to women and child development. Committed all the way, Minakshi has also been a Service Corps volunteer and an American Red Cross volunteer for blood drives.

## Creative Arts

India has always been well renowned for its culture, art and architecture. Recently the West has also seen the success of the "Indian Engineer". A union of these two phenomena has led to the emergence of a new breed of individual - the creative intellect. To explain this new breed of individual, we must explore the nature and definition of creativity a little further. Creativity is defined as the ability to produce new things or new knowledge. One of the principal ways to be creative is to look for alternative ways to view phenomena or for alternative ways to ask a question. *Robert Sternberg's* theory attributes several factors that influence creativity - Intelligence, Knowledge, Thinking Styles, Personality, Motivation and other Environmental factors. Maybe creativity also requires a touch of eccentricity and stubbornness.

Voila! Is this not the environment in BITS, Pilani in a nutshell? Be it OASIS, APOGEE, plays by drama clubs, *music nites* or any other cultural event in BITS, we have had the opportunity to explore and nurture our creative side. Let me illustrate with some highlights from our own BITSian women who are prime examples of success in creative arts.

**Anuradha Gupta** (nee Sharma) who has a MMS degree from BITS ('86-'90) and an MBA from Indian Institute of Foreign Trade, New Delhi is the author of three books. Her first book was a book of philosophical short stories and poems for limited circulation, called, "The Quest for Life" that dealt with primarily social themes. The second book, "Memoirs of Army Days" was about her experiences as an Army Brat,

reliving the nostalgia and joy of Army Life.

The third book, *The Green Dragon* is a book that marries the mythology of dragons with children in India in an attempt to sensitize children to all possible environmental issues. It has received good reviews from *The Hindu* and the *Free Press Journal*. It is listed on Amazon.com.



Rashmi Datt

Her fourth book (nearing completion) is a semi-fiction book dealing with bipolar disorder, with the objective of getting rid of the myths and stigma surrounding mental disorders. She is also co-authoring her fifth book with a BITSian writer; this will be her first novel.

Anuradha is on the Editorial board of *Sandpaper* and on the Executive Committee of a New York based non-profit organization, Lend-A-Hand India.

**Rashmi Datt** is the author of the well-known book “Managing Your Boss”. This book, published in 2005, is a practical guide to constructively managing the relationship with

your boss. The book provides insights and practical tips with the help of case studies and examples based on real life experiences of middle and senior managers. Rashmi graduated from BITS in 1984 with a MMS degree. At BITS, she was the Cultural Secretary of Meera Bhavan in 1982. She worked for 8 years with Pfizer, Mumbai in Training before starting *Dialog*. Dialog, is a learning services delivery consultancy, which offers workshops towards personal and organizational development. Rashmi tells us “We are owners of talent and potential. Using it is up to us.”

**Anuradha Haasan** ('88 Physics MMS) has featured in many movies and TV series in Tamil and Telugu. She is also part of the Malayalam mega-serial “Vivahita”. In 2001, Anu won the Best Supporting Actress award for her TV role in “Anbulla Snehgidhiye” based on Chitra Banerjee's award winning novel “Sister of my heart”. Her movies include *Priyanka* (1994), *Indira* (1996), *Alavandhan* (2001), *Run* (2002) and *Nala Damayanthi* (2003). She won the Tamil Nadu Government's Best Character Artiste (Female) award for 2002 for her role in the movie “Run”. Anu Haasan also shares production credits in the film “Mumbai Xpress” starring Kamal Haasan.



Divya

**Divya** graduated from BITS with a Mechanical Engineering degree and took up a career as an actress. Although she had featured in the movie “Five star”, she waited until her graduation to take on more projects. She was Miss Madurai in 1999 and the runner-up in 2001 at the Ms. Chennai pageant. Her accomplishments include receiving the TN State Award for Educational Excellence in 1999. Known as Kanika or Kaniha (Tamil) and Sravanthi (Telugu & Kannada) on screen she has featured in Tamil, Telugu, Kannada and Malayalam movies. Her list of films includes *Otessi* Chepputanna (2003 in Telegu), *Annavaru* (2003 in Kannada), *Autograph* (2004 in Tamil), *Aethiri* (2004 in Tamil), *Dancer* (2004 in Tamil), *Ettinum* (2004 in Malayalam) and *Godfather* (2005 in Tamil).

**Padmini Chettur** is a choreographer and dancer. She studied in BITS between 1987 and 1991 and several BITSians who were on campus then remember her well from her performance in the EDC plays. After graduating from BITS, she joined the dance company run by Chandralekha. Padmini has created her own identity and style, drawing from her early training in the traditional Bharatnatyam dance style. Her first solo work ‘Wings and Masks’ (1994) was followed by ‘Brown’ (1994). She collaborated with Krishna Devanandan for the duet ‘Unsung’. Her other works include ‘Soliloquy’ (1996), ‘Fragility’ (2001) and ‘Solo’ (2003). Her most recent work ‘Paper Doll’ premiered in Netherlands in 2005. In ‘Paper Doll’, performed by Padmini Chettur's company of five dancers, she examines the chain

of paper dolls cut out of a piece of paper. The dolls were identical representing perfection but two-dimensional and attached only at the arms. In an article she wrote about the show and her work, she says “I represent an India still in the process of assimilating urbanity into its culture, an India where the ‘body’ still longs for freedoms it doesn’t yet have.”



Shanti Sharma

**Shanti Sharma** (nee Vaidhyathan) is one of the finest classical vocalists in India. She graduated from BITS in 1978 with a Masters in Chemistry. She learnt music under Pandit Amarnath in Bharatiya Kala Kendra, Delhi. She later went on to become his assistant. In an interview with *The Tribune*, she says “I am happy I have stuck to music and not given into the temptation of earning quick bucks by becoming a science teacher. Music, for me, is a vocation. God’s gift, which I humbly accept and nurture.” Shanti has won many awards and has been instrumental in the success of many artists who were her students. A deeply philosophical

person, she says “my *manzil* is to reach the heights of sublimity in singing”.

## Engineering & Technology

In an article called “Can science be women-friendly?”, the noted journalist and Chief of the Mumbai Bureau/ Deputy Editor of The Hindu, Kalpana Sharma talked about how difficult it would be to comprehend and administer the larger issues of “gendered” science - the need to evolve a system of knowledge that integrates a gender perspective in its approach and direction. While there are laudable efforts in this direction like the special “Women’s Scientists Program” by Department of Science and Technology’s which pledges to make concerted effort to give women a strong foothold into the scientific profession, help them re-enter into the mainstream (post “break in their careers” arising out of motherhood and family responsibilities) and provide a launch pad for further forays into the field of science and technology, both from the point of view of pure science and its application to societal development, there is an urgent need to address the more immediate concerns plaguing the women in this arena. The most significant of it being the reluctance on part of the women to specialize exclusively in any of the organized and niche areas of science or engineering – areas considered beyond their realm of capability.

Infact, as recently as five years ago, when a well-known all-women’s college in the United States, Smith College,

announced that it was offering a degree in engineering, an electronics magazine ran an article with the title, “Is Female Engineer an Oxymoron?” The author claimed that in his 32 years as an engineer in power electronics, he had never worked with a woman engineer. He concluded that women did not have a love or aptitude for “real” technical work. These women defy any such hypotheses.

Shoumi Das (now Sen), (EEE, 1997-2001) is one of those lone rangers, who has focused on a career in the noticeably underrepresented area as far as the number of women working in it is concerned - the HVAC (Heating, ventilation and Air conditioning) industry. She works as a Project Engineer at Carrier, the famous air conditioning company and has, so far, not met a single engineer in her company who happens to be a woman. She was at the receiving end of incredulous looks from customers and colleagues alike initially. Infact, in her training programmes at work, her instructor keeps referring to the team as “gentlemen” and adds the word “lady” as an afterthought!! But of course, the men had no choice but to get used to having her around, especially she is so dedicated. The RF industry is no different story either, points out Sangeeta Iyer, who is working as in RF engineer at LCC International in North Carolina. More often than not, women have to deal with pre-conceived notions from their peers of the opposite sex that women will succumb to the relentless work pressures and long hours. But of course, over a course of time and due to tremendous perseverance by the women to prove themselves, the men have begun to have second thoughts

about their notions. Maybe the rest of womenfolk around can let Sangeeta and Shoumi show them the way.

It is a sobering truth that several sectors have continued to be male dominated even today, let alone a couple of decades back. Sangeeta Patni (EEE, Batch of 1981) reminisces on her managerial stint in the mining industry where there were just a couple of women working and mostly in a secretarial capacity, but none apart from her as a manager. "In this job, there were people who used to drive miles from the mines to see me, the chick that worked in the mines!" she says. Men apparently even stood behind curtains to sneak a peak or two at her! When speaking to some of these men on work-related matters, some men simply did not know where to look. Some refused to meet her eye and some stared steadfastly at the walls.... Professional meetings were a mixed bag- More often than not, she was not "heard", and in some, she was the ONLY person who was heard. When she went down to the mines, where she was working on getting a plant constructed, she had the infamous reputation of being the cause of accidents, because when mining men saw a woman walk past, they were so shocked that they dropped things they had in their hands!

While Sangeeta's anecdotes seem to paint a hilarious picture of the situation, in retrospect it was anything but. The lack of more than a handful of women in areas of engineering such as mining, HVAC, cement plants, construction, manufacturing and process industries is an indicator that the steepest challenge faced by women is not handling the tougher and sometimes

physically challenging conditions at work, but rather the stereotypical thinking of the social milieu surrounding them, due to which women tend to garner fear that they might not be taken seriously if they opt for a career in science, engineering and technology. Often, women have to go farther, work harder, and accomplish more in order to be recognized. Sangeeta adds on a more heartening note that it got better with time, and by the time she quit, after 4 years, people had acknowledged that women could meld in and work in all kinds of situations. Due to her sustained efforts in hiring and recommending women to be recruited in roles such as hers, there were 8 women in about 2000 men, when left the mining company. These days, when she has a chance to visit Udaipur, she sometimes meets with the women she hired, and is filled with a sense of pride to hear about the increasing trend in the number of women engineers and accountants now working in the company.

Of course, over the decades, remarkable progress has been made in analyzing this concern of gender inequality in science, engineering and technology. Despite the roadblocks, women have responded by making significant headway, if unevenly into these arenas. Women are being bestowed with greater opportunity in these fields both in terms of wages and responsibilities. It appears that improving women's opportunities in science has benefited both the sciences and the cause of women in general. Just as Marie Curie's achievements excited the imaginations of women around the world in early last century, the escalating percentage of

women entering these areas has become the thrust for breaking traditional thought processes and taking all due credit for the growing social justice and for providing an example of what is possible far beyond the borders of scientific and technological institutions themselves.

A few of our very own kind have contributed immeasurably to this changing paradigm.



Kanchana Natarajan  
Mendes

Mitra Priya, Technical Director at CSL Tech, is a B.Tech from BITS Pilani and Postgraduate from the IIT, Bombay and a Certified Quality Assurer. Mitra has a rich experience of over 13 years in the Software Industry. Mitra has handled several large scale projects for clients in Europe, USA and India. She held Middle and Senior Management positions at TCS, Citicorp Overseas Software and MBT. Her experience includes execution of a Large and Middle scale applications Development, Deployment and Production Support in areas such as e-Business, Mainframe Systems as well as Client Server based solutions in Verticals such as Manufacturing, Banking and Securities. Mitra was instrumental in steering COSL

to attain SEI-CMM level 5 in October 1999. Mitra was heading the e-Business initiatives of MBT for IBM platforms before joining CSLTECH as its Technical Director.

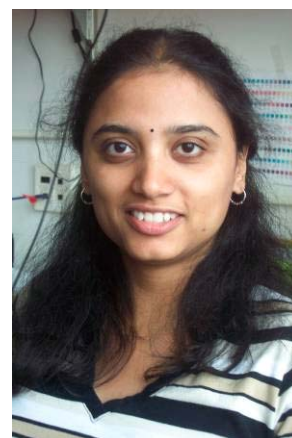
**Archana Bandari** (1980-1984, Chemical Engineering), presently the Principal Engineer, Mitretek Systems, Inc was the recipient of the 2004 National Women of Color Technology Special Recognition Award. She holds a US patent for “A computer program product and a method for using natural language for the description, search and retrieval of multi-media objects”. A key contributor to Mitretek’s corporate objective of applying leading-edge technologies in the public interest., she successfully worked on projects in the area of health care, criminal justice, national security, unemployment insurance, and transportation, related to Knowledge Management and Representation, Customer Response Systems, Natural Language Processing, Information Extraction, Information Retrieval and Visualization.

**Kanchana Natarajan Mendes** (’88, Biological Sciences, MMS) is an Instructor at the M. D. Andersen Cancer Center. She is an Institutional Training Grant Fellow, University of Rochester Medical Center, Rochester, New York. She was awarded the National Eye Institute Award at the Annual Meeting of Association for Research in Vision and Ophthalmology in 2001, and the Research Fellow Award by the Annual Meeting of American Society for Virology in 2000. Kanchana has also been invited to speak at the Annual Meeting of American

Society for Microbiology and was a nominated member of Sigma Xi, Scientific Research Honors Society in 1998. Kanchana has completed her PhD in Microbiology and Molecular Genetics. As an exceptional student, Kanchana was awarded the ASM Student Award, the Edward A. Grula Distinguished Graduate Fellowship, Oklahoma State University and the Cora Downs Award for Outstanding Presentation by a Junior Graduate Student. Ofcourse, she has to her credit publications and reviews in several peer-reviewed journals.

Soumya Krishnamoorthy (94B3A3) works for the Maryland center for Integrated Nano Science and Engineering, a multidisciplinary group at the University of Maryland working towards applying nano science towards changing the world profoundly, from electronic devices and medical care to fundamental understanding in the physical sciences, life sciences and engineered systems. Broadly speaking, her work involves developing CMOS compatible biosensors and specifically, her PhD is on developing high frequency resonators that serve as electrical fingerprints that detect the presence of antigens. While her focus is on the device and integrated circuit development, she interacts closely with biochemists at NIH to develop the protein attachment chemistry. She is also part of a group which are involved in a ground breaking the use of the high frequency resonators as pressure sensors in prosthetic legs. This sensor is to be embedded in the prosthetic leg and any applied pressure can be transmitted as electrical pulses to excite the brain. This research

is still in its nascent stages and will be included in parts as part of Sowmya’s thesis. Sowmya and her team’s work has garnered many acknowledgements from the academic community with publications in leading journals including the Journal of applied physics, IEEE Electron device letters, Applied physics letters, Biosensors and bioelectronics etc. and has been showcased in an article in Washington Post.



**Kavitha Venkatesan**

Another young star is **Kavitha Venkatesan** who graduated from BITS in 1998 after completing a B1A7 dual. She is currently Research Fellow at the Center for Cancer Systems Biology, Dana-Farber Cancer Institute and Harvard Medical School. She completed her PhD in Bioinformatics in 2004 and has published an article in Nature, one of the most widely read/reputed journals in the scientific community (2005). Kavitha has diverse interests. She helped to set up the Boston Chapter for CRY (Child Relief and You) and was actively involved in fund-raising initiatives (1999-2001). Even at BITS, where she co-founded and co-organized the first SANGAMAM, an annual classical music/dance festival in

BITS in 1997, she has been a pioneer. She believes that a big key to success is to 'do and dare.'

**Shilpa Sambashivan** ( 1997 , Msc. (Hons.) Biological Sciences – BITS Pilani and Phd – Biological Sciences at UCLA) was awarded the 2005 Amgen Dissertation of the Year Award from the Molecular Biology Institute of UCLA. She has also won the Pauling poster-prize at the American Crystallographic Associations' annual conference in 2004. Her most notable research publication was in the prestigious journal, Nature (Sep 8, 2005 issue) where she wrote about Amyloid research, presenting the new and important insights into neuro-degenerative diseases such as Alzheimer's and Parkinson's. Shilpa has been actively

furthering her passion for Bharatanatyam and has performed at several locations in Los Angeles.



**Shilpa Sambashivan**

And the list continues... Vardhini Kirthivas (Bpharm, Batch of 1995) works as Scientist –Regulatory Affairs

in the Generics Sector of the Pharma Business at Sandoz. Dr. Monica Valluri (MSc. Physics – Graduated in 1987) is a Senior Research Associate at the Department of Astronomy & Astrophysics in The University of Chicago. She also happens to be the Assistant Director of Kavli Institute for Cosmological Physics. Padma Reddy (Computer Science, 1981-1985), Head -India Development Center, webMethods Inc, Bangalore. These women have not only done commendable and meritorious work in their own spheres of specialization, they have definitely set an example for the generations to come, to follow their dreams and aspire to achieve their goals.

## What You Can Do to Help

We would encourage all BITSian Women to share their stories and successes with us. Your adoption of and active engagement in the BITSAA Women's Council is vital to the success of this networking community and will go a long way in replicating your successes among future women leaders from all campuses of BITS Pilani.

You can email your comments etc. to [bitsaa.woc@gmail.com](mailto:bitsaa.woc@gmail.com).

To subscribe to BITSAA WoC, please visit: <http://groups.yahoo.com/group/bitsaa-woc>

## About the Authors

**Deeptha Ganapathy (95B5A8)** was part of the BITS basketball team and captain of the basketball team in 1997. She holds an MS degree in Computer Science from Northeastern University, Boston. She loves to travel (defined as to take a solo backpacking trip) and is always planning her next vacation. Deeptha now lives and works in New York city.

**Krithika Kalyan ('00)**, currently based out of Bombay, works in the area of product development of retail insurance products in Reliance General Insurance. At BITS, she was a member of the Department of Controlz and was the Co-ordinator the Engineering Technology Association for Apogee 2003. She has also been a cultural secretary of Meera Bhawan. She has also tried her hands at managing a couple of bands in the Mumbai/Pune rock circuit and writing for local music magazines/webzines. These days, she is busy collecting long lost vinyl records in between reading, travelling and experimental cooking/cocktail mixing!

**Aditi Pany ('00)** works for a social enterprise in Delhi and is trying to figure if it is indeed possible to balance social objectives and business principles. She graduated from BITS in 2005 with MSc. Economics and B.E. E&E. She loves the sea, has an interest in handlooms and handicrafts and enjoys driving. Aditi aspires to contribute to Orissa's development as a social entrepreneur.

**Bharati Balakrishnan** graduated in Chemical Engineering from BITS in 2004. At Pilani, she was an active member of DOPY and was its coordinator for Apogee 2003. Enthusiastic about writing and debating, she was also lead vocalist at the Music Club for four years and part of six English Drama crew teams while dabbling in acting in street plays. She followed this up with an MBA from IIM Ahmedabad from where she graduated this April. She is now all set to join Bain and Company as Associate Consultant, in June 2006.

**Himabindu Chitta ('02 Chemistry-Computer Science)** is a laid-back Hyderabad! Himabindu is a member of the Dept of Controlz and the Cactus Flower editorial team on campus. She likes to read classics and has a new-found interest in poetry. Photography is a hobby.

**Dileepan Narayanan ('00)** He's currently doing his Masters in Industrial Engineering at the University of Minnesota, Minneapolis. He joined BITS in 2000 for an MSc in Physics but transferred to a BE in Mechanical Engineering after a year. At BITS he was the captain of the BITS Cricket team and won the Best Player award in BOSM 2k2. He was also the Sports Secretary of BITS and organised BOSM 2003, the Joint Secretary of ELAS in 2002 and organised Wordstock in OASIS 2002 and 2003. He wrote and directed a play for the English Drama Club, which was staged in OASIS 2003, a member of the Poetry Club for a brief while. He continues to engage in quite a bit of reading and writing. Wilde, Saki, R.K Narayan, Hardy, and Tennyson are among his favourite authors. His brother, Sriram, is currently pursuing an MSc in Information Systems also at BITS.

## Acknowledgements

Mrs. Meera Banerjee, Dr. Daga, Dr. Raghunath, Dilip D'Souza, Dr. Raj Singh, Sanketh, Swati Satpathy, Sangeeta Patni, Vandana Malaiya, Gayathri Viswanathan, all the women profiled, Srivaths, Padmini Misra for the amazing photographs, BITSAA Women's Council, SWD Staff, Mr. Nasir Memon, Mr. Shashi Warriar, Mythreyee, Kavya, Meena Ramakrishnan, Pushkala Venkataraman, Punita Pandey, Vidya Raman, Anupendra Sharma, Ashish Garg, Sandeep Mukherjee, Nandini Agarwal.

## Disclaimer

This article and the list of *Most Prominent BITSian Women* (see next page) was created by the BITSAA Women's Council. Both sets of data are not meant to be comprehensive in that they do not include the accomplishments of many exemplary BITSian Women. Rather, they provide a snapshot based on the information to us at the time of writing the article.



## Around the BITSian World Wide Web

*Bees Saal Baad: Return to Pilani.* An account of a trip back to BITS-Pilani after 20 years by **Rahul Simha** and **Sridhar Rajan**.

Link: <http://www.seas.gwu.edu/~simhaweb/misc/pilani/>

Help BITS Pilani

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For more information on BITSAA visit <http://www.bitsaa.org>

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To find out about news, accomplishments etc. of alumni and students and faculty from all campuses, visit: <http://sandpaper.bitsaa.org>

# Prominent BITSian Women

Name	Batch	Designation	Company	Location
<b>Entrepreneurs</b>				
Chandralekha Bhaskar	66	Director	Bhaskar Powers Ltd.	Noida, India
Rashmi (Mishra) Upadhyaya	73	President	SunSoft Technologies Inc.	Farmington Hills, MI, USA
Vandana Malaiya	80	Co-Founder	EximSoft Technologies Pvt. Ltd.	Bangalore, India
Punita Pandey	80	CEO and Founder	NetCustomer	San Jose, CA, USA
Sangeeta Patni	81	Country Head and Vice President	Extensio Software Inc.	Nagpur, India
Chandni Sahgal	81	Founder & Managing Proprietor	D'Essence Consulting	Mumbai, India
Anuradha Parthasarathy	83	Founder	Global Executive Talent	CA, USA
Anita Sakuru	87	CEO and Chairman	KenPeople Technologies Pvt. Ltd.	Hyderabad, India
Gayathri Viswanathan	91	Founder & MD	Maarga Information Systems	Chennai, India
<b>Corporate Leaders</b>				
Prabha Shankar	73	V.P. Business Development and Strategic Planning	Deepak Nitrite Ltd.	Pune, India
Shyamolie Banerjee	73	Founder and Trustee	BITSAA	CA, USA
Renu Muralidharan	77	Head, Corporate Quality & Delivery	Datamatics Ltd.	Mumbai, India
Jamuna Ravi	79	Associate Vice President	Infosys Technologies	Bangalore, India
Anita Gupta	81	Vice President	Flextronics Software	Delhi, India
Padma Reddy	81	Head	India Development Center, webMethods Inc	Bangalore, India
Anu Khendry (Bhatnagar)	83	Assistant Vice President, Quality	Satyam Computer Services Ltd.	Hyderabad, India
Anupama Narayanan Brookins	84	Executive	Bank of America	NC, USA
Priya Jain	85	VP and Area Manager	CH2M HILL	Parsippany, NJ, USA
Revathi Advathi	86	Vice President/General Manager – IM&C	Honeywell International	Phoenix, AZ, USA
Prachi Garg	86	Deputy General Manager	VSNL	Delhi, India
Gita Rao Prasad	87	Senior Manager	Synopsys	CA, USA
Usha V. Subramanian	88	President	Ascendum	Bangalore, India
Akhila Krishnakumar	89	Chief Executive Officer	SCT Software Solutions Pvt. Ltd	Bangalore, India
Yashodhara Mishra	89	Vice President	IPAC Financial Planning	Singapore, Singapore
Lula Mohanty	90	Sector Leader - Electronics	IBM	Bangalore, India
Srividhya Rajesh	90	Fund Manager	Sundaram Mutual	Mumbai, India
Monalisa Sahoo	90	Managing Consultant	Qualcomm	Mumbai, India
Mythreyee Ganapathy	91	Manager, External research and programs	Microsoft	Hyderabad, India
Anita Agarwal	92	Manager	KPMG	CA, USA

**Academia**

Pushpa Bajaj (Late)		Professor, Department of Textile Technology	IIT	Delhi, India
Jyoti Mathur	71	Educational Programs Coordinator	Computing Research Institute, Purdue University	West Lafayette, IN, USA
Reena Aggarwal	74	Professor of Finance	Georgetown University	Washington D.C., USA
Padmini Srinivasan	74	Associate Professor	The University of Iowa	Iowa City, USA
Swarnalatha Ashok	77	Associate, Institute of Systems Science	National University of Singapore	Singapore
Neelam Gupta	82	Assistant Professor	University of Arizona	Tuscon, AZ, USA
Ritu Lohtia	82	Associate Professor of Marketing	J Mack Robinson College of Business, GSU	Atlanta, USA
Lata Narayanan	83	Associate Professor and Undergraduate Program Director	Concordia University	Montreal, Canada
Monica Valluri	83	Assistant Director & Senior Research Associate	Kavli Institute of Cosmological Physics, University of Chicago	Chicago, IL, USA
Swapna Gokhale	89	Assistant Professor, Department of Computer Science and Engg.	University of Connecticut	CT, USA

**Public Administration and Social Service**

Dr. Jasveen Jairath	67	Regional Co-ordinator	CapNet South Asia	Hyderabad, India
Smita A.	80	Director, AIF Education Program	American India Foundation	Delhi, India
Kalpana Nayak	90	Commandant	All-woman Battalion, TN Police	Chennai, India
Chandra Anil	91	Saathi	AID	Chennai, India
Aarthi Rishi	92	Active Volunteer	AID	CA, USA
Anita Balasubramanian	95	Founder	The Learning Network in India and Sangati	IL, USA
Uthra Ramachandran	2001	Project Leader Plan 100, LAHI	Lend a Hand	Bangalore, India

**Creative Arts**

Shanthi Vaidhyathan	74	Singer (Hindustani Vocal)		Delhi, India
Rashmi Datt	80	Author, 'Managing your Boss'		Gurgaon, India
Anuradha Gupta	86	Writer / Social Worker		Stamford, CT, USA
Padmini Chettur	87	Choreographer/ Dancer		
Anuradha Chhilar	88	Actress/Line producer		Chennai, India
Roopa Parameswaran	96	Dancer		CA, USA
Divya (Kanika)	99	Actress		Chennai, India

**Science & Technology**

Archana Bhandari	80	Principal Engineer	Mitretek Systems	Vienna, Virginia, USA
Kavitha Venkatesan	88	Research Fellow	Center for Cancer Systems Biology	MA, USA
Anu Mookim Bohra	90	Manager –Engineering	Cadence Design Systems	Noida, India
Kanchana Natarajan	94	Instructor	M. D. Andersen Cancer Center	Houston, TX, USA
Vardhini Kirthivas	95	Scientist - Regulatory Affairs	Sandoz	Mumbai, India
Niranjana Nagarajan	96	Post Doctoral Fellow	University of California	San Diego, CA, USA
Mitra Priya		Technical Director	CSLTech	
Sangeeta Iyer	99	RF Engineer	LCC International Inc.	NC, USA

BY KARTHIK 'KANA' NARAYANAN ('01 E&amp;I)

## LOOKING BACK

Four wonderful years at BITS, the years that changed the way that I cry and the way that I think!



### “FOUR

wonderful years at BITS, the years that changed the way I cry and the way I think” – An impacting line from my wingie, Raghuraman’s blog that succinctly conveys the phenomenon called BITS, Pilani and forms the central theme of my article.

flexibilities like electives and innovations like Practice School. Or the independence expected from students in managing their resources – time and money. Or the concept of departments, clubs, messes and council, wholly managed by students which aid in developing team spirit, nurturing innovation and sharing. It could be being away from home in hostels and wings, meeting people with myriad

faculty, seniors (also known as ragging?!) and juniors that imbibes the courage to face people of every kind or the favorable sex ratio that enables understanding complex emotions of the opposite sex and self (of course, this now seems endangered with the new admission system!) ...or any of the million other reasons. Whatever it may be, it can be summarized by a single fact - BITS, Pilani caters to enhancing both intellectual and emotional intelligence. The former is widely acclaimed but it is the latter that causes more impact. Emotional Intelligence, popularized by Daniel Goleman through his book, is described as a set of five basic emotional and social competencies –

- Self-awareness – knowing what we are feeling
- Self-regulation – handling our emotions
- Motivation – using our deepest preferences to drive us towards our goals
- Empathy – sensing what people are feeling
- Social skills – handling emotions in relationships well.



**My wing – miss them a lot. About eight more were away on PS.**

Often, I wonder what it is in that place that transforms the naïve students in their late teens into balanced, responsible and courageous individuals 4-5 years down the line. And immediately it seems to be a problem with infinite solutions. It could be the wonderful curriculum with its

backgrounds, understanding them and coexisting with them. Or the freedom given to students to involve themselves in activities of their choice, face tough situations, differentiate right from wrong and develop decision making skills. Or the variety of interaction with

A look at these competencies and an understanding of the BITS ecosystem is enough for anybody to conclude that the BITS ecosystem definitely contributes to enhancing emotional intelligence, a high degree of which organizations readily welcome.

And the story does not end there. What does this highly developed emotional intelligence coupled with intellectual intelligence do? Yet again a question with many answers, but I would like to point out salient ones. BITSians are driven by their passions and continue to impact in technology, business, community and every other realm in eclectic ways (*"Fits*



The snap that sparked Madhu's comment

*BITS"*, Sandpaper Fall 2005). Energetic in what we do, this also seems to spawn an entrepreneurial spirit in many.

Another point is that, BITSians have a sense of sharing and a commitment towards social responsibilities (look at BITS Tsunami or 30 under 30 award winner profiles or the BITSian next to you).

Further, we carry so many nostalgic memories about the place that we seek BITSian company wherever we go and it has, for sure, resulted in well 'networked' alumni. Sometimes, this has also caused us to be branded as being too emotional about any issue regarding BITS or BITSians. This is the feeling that made another wingie of mine, Madhu, remark, "Yesterday, I accidentally caught sight of this one snap and I literally broke down. It

seemed brilliant, a pool of fondness beckoning from the distance... wanting everyone whoz been there to come back again and left cruelly wanting

those 4 years that seems now a bygone era"

**No doubt Raghu, BITS is the phenomenon that changes the way we cry and the way we think.**

All this and more - the result of how the place adds to our emotional quotient (EQ) which in turn helps in meeting the Institute's expectations of its graduates to make a mark in their careers; contribute to efforts for development and quality of human life and setting high standards of performance worthy of emulation by successors (adapted from Degree certificate).

No doubt Raghu, BITS is the phenomenon that changes the way we cry and the way we think.

(Thanks to Kaushik, Ravi, Raghu, Madhu and Divya for their contributions in shaping the article.)

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This award is dedicated to all those young BITSians who thought and acted differently, who challenged the status quo, rewrote the rules, and created their own paths. To the leaders, innovators, researchers, academics, students, entertainers, entrepreneurs, winners, engineers, scientists and concerned samaritans who came from every corner of India. To the best examples of what it means to be a BITSian.

**Download a PDF version:**  
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BY KARTHIK RAMAN ('95 EEE)

# AUR EK, AUR EK AND AUR EK

Karthik resides in Chicago and blogs at [chennaitochicago.blogspot.com](http://chennaitochicago.blogspot.com).

**When** I was leaving for BITS, Pilani, everyone told me that I would only need English to survive there. That the little Hindi I had learned as a third language since 5th standard would be more than enough for "emergency purposes". Unfortunately, no one remembered to tell this to all the *dhobis*, the *raediwalas*, the mess workers, rickshaw *walas* and the restaurant owners in the quaint little town in the middle of nowhere, otherwise called Pilani. Consequently, there were quite a few embarrassing moments when my Hindi did not keep pace with my thought process. However, my only consolation was that, however bad my Hindi was, there were always others who would beat me hands down when it came to making asses of themselves.

The cool thing about BITS was that the best and the brightest from every part of the country came there. However, Tamil Nadu and Andhra Pradesh accounted for the majority presence there so much so that Pilani came to be represented in our state maps (Actually, I once saw a post card delivered wrongly to my hostel by a dyslexic postman who misread Palani, the temple town. But I'm digressing here!). But what bothered me so much was that while almost everyone, irrespective of what state they hailed from, could speak fluent Hindi, the "shady characters" that went from Tamil Nadu alone couldn't speak a coherent sentence if our lives depended

on this. I guess this is what comes of living with a Government that has had a history of anti-Hindi protests and probably still harbors illusions about making Tamil the national language. So when it came to Hindi bloopers, some of the stuff we said and did were legendary. For example, let me take you to the 'camel milk' incident. A bottle of camel milk was being delivered outside a guy's hostel room everyday, even though he had never asked for it. When this routine did not stop for a while, he decided to do something about it. So he kept an alarm for 5 o'clock, promptly woke up and waited for the milkman. When he heard the bottle outside his door, he went out in a huff and, in what he perceived as Hindi, told the milkman he did not want any milk from then on. Mission accomplished, he came back and happily crashed for the rest of the day. Understandably, he was quite proud of his achievement, and strutted around the next day throwing some "saalas" and "arre yaars" for good effect. This lasted all but one day. The next morning, he got up, came out of his room only to find two bottles of camel milk, instead of one.

Yet another incident: a friend went to the coop buy a few notebooks. He needed 15, but could only count till 10 in Hindi. So, he told the shopkeeper he needed "dus notebooks ji" and patiently waited for them to arrive. When the shopkeeper brought them to him, he came up with this master stroke - "aur ek, aur ek, aur ek, aur ek and aur



ek". My EEE wing was not far behind. Once, we went to grab a bite at ANC (All Night Canteen) around midnight. I had ordered masala dosa while my friend "mandai" (big head bony body) had ordered a plain dosa. The waiter, under the influence of a few hundred filterless beedis, mixed up the orders. So mandai went up to him and loudly and clearly said "uska dosa mera paas... mera dosa tera paas". We still haven't let him forget that fateful night.

Another time, a guy was trying to negotiate with the jeep wala. After some frenetic hand gestures and syllables that could have come straight out of the *Mayan* civilization, he thought he had struck a great deal. Only to be told by his friends later that he had managed to negotiate 250 rupees for the trip when the driver had been perfectly happy with 150. Turned out he was a little confused about "daed" and "daayi". I'm still hopeful that someday, the genetic inconsistency that is solely responsible for the 'Tamil and Hindi are mutually exclusive' syndrome would be corrected as a result of inter-cultural marriages and more Hindi movies starring Rajni Kanth.



BY SUKANYA V ['02 CIVIL] AND VERNON FERNANDEZ ['04 EEE] WITH SPECIAL THANKS TO THE ENGLISH PRESS CLUB

# APOGEE 2006

A round-up of the major events that were a part of this year's APOGEE.

## The APOGEE 2006

Inaug inspiring speech given by the Chief Guest, M.S. Ananth, Director, IIT Madras. The speech, studded with amusing anecdotes and deep insights, managed to entertain and enlighten the audience at the same time. His views on education, in general, and student-teacher interactions in particular, were thought provoking and brought a restless and fickle audience to some stability.

Sponsorship generated is around Rs. 3.65 lakh this year. ALTERA, a leading manufacturer of programmable logic devices, agreed to be the title sponsor for Apogee-2k6 and Apogee-2k7 for an amount of Rs. 2.7 lakh (Rs. 2.35lakh-sponsorship amount, Rs. 35,000-prize sponsor) each year. They plan to hold a nation-wide design contest called INNOVATE which is going to be held during Apogee-2k7. INNOVATE is a nation wide multi-disciplinary engineering design contest open to all graduate and under-graduate students. It not only tests the designing capabilities but also the market value of the product designed. With the winning team getting two laptops and a fully paid trip to an embedded systems design conference to be held at San José, CA in April 2007, it ought to boost participation levels during Apogee-2k7. Keane sponsored the holy grail of all quizzes in BITS –BOB, OHT, et al.. The

software major Wipro and Infosys complete the list. Wipro sponsored Cyberfiesta for Rs. 30,000 while Infosys sponsored the Computer Science Association events for Rs. 25,000.



MS Ananth, Director, IIT Madras inaugurating APOGEE 06

**APOGEE had some big corporate tags and sponsors this time. Sponsorship generated is around Rs. 3.65 lakh this year.**

## OVER HEAD TRANSMISSION

The first big Audi event of APOGEE 2006, Overhead Transmission (OHT) started off at 7.45pm. Turnout was impressive: 130+ teams including 20 outstation teams. It is worth noting that after a gap of few years ELAS managed the event. The Quizmaster was **Anustup Dutta**. The winners were a team named the "Stalwarts of BITS".

## FOREX

FOREX – a game conducted by ECO-FIN assoc on the first day started on time. The game tried to simulate the actual currency

market by having booths for the capitals of different countries (Delhi, New York, European Union, London and Japan). At the start of the game, all teams were given an initial fund of 2 lakh INR equivalent each in five different currencies (Rupee, Pound, Yen, Dollar, Euro) making it a total of 10 lakh INR. Each round was preceded by a small bit of news which would have affected the currency rates. The participants were allowed to trade one currency for another and thereby attempt to increase their total holding as the currency rates fluctuated. **Arun, Prashant and Vikram** from BITS won the event.

## VLSI DESIGN CONTEST

It was time for the nerds to rack their brains at the VLSI Design Contest organized by the EEE association. The participants were asked to solve a mixture of design problems and answer a few objective questions related to Digital VLSI in a time limit of half an hour. The questions

## CampusNotes

were set by Mr. Ninad Kothari and Ms. Shipra Bahl. The organizers said that they had followed a campus interview style in setting the elims paper. Though initially announced that 8 teams would qualify for the finals, they ended up taking 11. The finalists consisted of 8 BITSian teams and 3 Outsi teams. In the Oysters Lab they were asked to simulate and synthesize one design problem in HDL. The participants were evaluated on their approach to the problem, coding skills in HDL, synthesis and viva.

**Madhusudhan Sardha** and **Bharadwaj** emerged as the winners, followed by **Harshit** and **Abina**.

### MITHALI

A confluence of creativity, coherence, imagination and talent, Mithali- 2006 was a huge hit with all the three clubs, Music, Dance and Mime putting their best feet forward. The evening was an expression of brilliance, inspiration, confidence and perfection. An overflowing audi perfectly summarizes the show. People fought for places inside and when the stairs and entrances were also crowded, the rest of them had to retract to FD-2 QT to



Dance Club – adding colour to Mithali

watch the show.

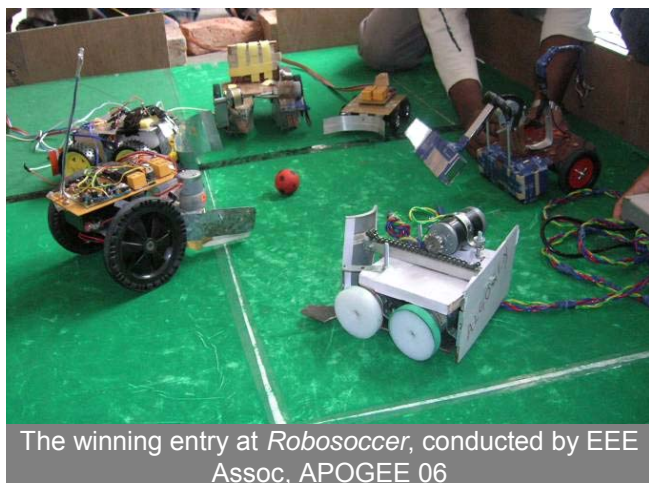
The CCTV presentation for Mithali had brilliant animation as usual. Music club's first piece was an instrumental fusion with a nice blend of western and classical music. Popular numbers from movies like Dil Se, Bunty Aur Babli, Taal received good response. A brilliant co-ordination and scintillating performance from the Music Club marked the beginning for the night, which only seemed to be getting better. The mime club's performance started with a small presentation about a school reunion plan. Dance club put up a dazzling show with four dances. They danced brilliantly to numbers

like

"Radha kaise na jaale," "MumBhai," a medley consisting of a song from "Bluffmaster," and two Janet Jackson songs, they ended the show with the song "Chandralekha." All the dances had new concepts with well-choreographed steps and props were used for certain dances. Overall, Mithali managed to meet the expectations of everyone.

### CYBERFIESTA

"Unveiling potential" seems to be the catchphrase this APOGEE and CYBERFIESTA 2k6 -an event conducted by the department of PEP was a strong testimony to this. Apart from the one-hour delay and a poor turnout, the audience did witness a few brilliant projects. The competition had 7 entries including an outstation one. First year enthu was very much evident from the fact that a few projects were entirely conceived by them. Take for instance the VIA VOICE-which would go a long way in helping visually impaired people control a computer. In fact this would also aid a person in controlling the computer while eating or driving. Another project worth mentioning is the MACINTOSH



The winning entry at Robosoccer, conducted by EEE Assoc, APOGEE 06

## CampusNotes

OS X TIGER ON AN X86 PC (oops that's what it's called!!!!) which runs faster than Windows on any hardware with only generic drivers. GARBAGE COLLECTOR for .NET was a novel attempt- can be used to implement garbage collection algorithm in the .net environment. The MAVERAK AV PLAYER was simply outstanding!! It boasts of in-built functions like lyrics synchronizer, mood mode recognizer and Hindi mode operation. CRYPT MAIL, SOURCE CODE PLAGIARIUM and HIDE N SEEK.JPG were other innovative projects. The event was judged by a panel of three judges. The results were on expected lines. Karthik Ramgopal-a first year compsciite (MACINTOSH OS X TIGER ON AN X86 PC) walked away with the first prize. The second place went to Yuvraj Patel (GARBAGE COLLECTOR FOR .NET.)

### BRAIN OF BITS

An amazing response from the junta left the organizer(ELAS) stunned- nearly 600 answer sheets were distributed, unprecedented in the history of the event. The previous BOB Jayendran Srinivasan was introduced with all his previously unknown credentials being revealed to an enthralled audience



OHT Winners with the Jedi Master, the event mascot

The stage had cartoon characters like Garfield, Tweety and Mickey Mouse – structures made by the department of backstage- and PAP put up an awesome, colourful backdrop having Winnie the Pooh and friends. As the Audi plunged into darkness, Jay walked in, to the tune of his favourite song “Hallowed be thy name”.

C.B.K maintained his lead. Aravind did not do enough.

The Trophy: This time around, ELAS had a few innovative ideas for going about their events, one of them being the revival of the acclaimed BOB trophy. The old plaster model of the clock tower (which was incidentally never returned by BOB '99, K.L. Arvind, after he won it) has been replaced by a glimmering 23" silver coated trophy. It has the words "In terminus, Illic est uno" inscribed on one of the faces of the octagonal base - meaning "In the end, there can be just one", rightfully so. Also inscribed is a list of BOB's starting from 1985 right up to 2005.

### Stimuli

Stimuli, the biology trivia conducted by B1, was a treat for all the bio enthusiasts. The quiz consisted of a written elims, followed by the finals for the selected six teams. The questions in the finals were well

set. The finals was spread over four rounds which included the typical finite bound round, audio visual

round, connect round and rapid fire round, which brought the proceedings to an end. A special round of applause goes to the quiz master Akshaya V L who was very professional in conducting the event. In the end Aashish Rao and Rahul Bharadwaj of MGR college, Chennai finished first, closely followed by Ashok Prasad and Ayshwarya Subramanyam of BITS.

### Gamophilic

“Stick together team!” rang the call on the headphones. The enthusiasm was high and the tension rang even higher during the latter phase of the gaming event, Gamophilic. Over 50 teams took part in the preliminary round, which were followed by pre-quarters, quarters, semis and a final round. The winners of the event were The Cannibals: Ishan (havoc) Bhanu, Tarun Michael Johnson (tnt), Vishwajit Gaikwad (aka serpent) and Vivek Krishnan, who shall be winning original Counter-Strike CDs along with the prize money.

### MyIndia Quiz

The much-feted India Quiz was hosted by final year students Renju John and Kavitha Karthikeyan, the event was sponsored by the BITSunami programme. The team named THE FINAL CUT comprising Rachit Parekh, R Vijay and Jayendran Srinivasan from BITS Pilani winning. The team WHO MOVED MY QUIZ? consisting of Arun Sethuraman, C B Krishna and Vernon Fernandez came second.



BY RISHI SINHA (95A7)

# THE IMPORTANCE OF A *CONSCIOUS* ACADEMIC CULTURE

In March 2006, the author visited BITS Pilani's Goa campus to present the material of this article to students and faculty members, urging the students to consciously mold the academic culture that is in the process of being born on that new campus.

**EVERY** college campus has a unique student culture of tackling the curriculum and approaching career prospects. Common wisdom, rules of thumb, and survival strategies are passed down through generations of students and alumni. This culture, though loosely defined, strongly influences every student's work ethic, approach to academia and career choices. (This academic culture is distinct from the culture of extra-curricular and social activities, though there are mutual interactions.)

Most culture is unconsciously developed. A high level of self-fulfillment among all students can be achieved when they consciously guide and cultivate the academic culture on their campus. When academic activities are guided by a culture rooted in a well-chosen philosophy, those activities will be well-informed and well-directed.

I suggest that each BITS campus adopt this conscious approach to its academic culture: realize that every bit of inter-student communication about education and careers constitutes the campus' academic culture, and

guide all of that communication with a few simple principles. Below, I propose these "few simple principles," but the all-important essence of my message has been stated above: consciously guide academic culture. This means when students talk amongst themselves about courses and careers, they ensure they say things that agree with the "few simple principles" they have chosen to adopt. Principles guide communication; communication creates culture; culture affects actions.

The three simple principles that I think BITSians' academic culture should be based on: context-awareness, retention of learning, and excellence.

## CONTEXT-AWARENESS

This is the principle that the student should seek answers to the following questions. Why am I doing this? What role(s) am I being prepared for? What can I do next? What are my predecessors doing? Following this principle means relentlessly seeking information from your predecessors—even those just one step ahead of you. If you wonder what people do after BITS, gather as many alumni profiles as you can find and note

the paths taken. If you wonder what electrical engineers really do, get in touch with a dozen of them at various stages in their careers. If you wonder what technological pursuits are currently important, visit the websites of journals and technology companies. Find publications in your discipline that are tailored for the Bachelor's level of knowledge. The idea is to seek context rather than just tips. Finding out what alumni have done and what they plan to do is more important than asking them how to do something. Ask open-ended questions rather than pointed tactical questions that limit the information you receive. Every graduating BISTian should have a good understanding of the technologist's role, and the only way to do this is by continuously absorbing details of what other technologists are doing.

## RETENTION OF LEARNING

This is the principle that the student should retain what he learnt in BITS at least till the end of BITS. I don't intend this to be the gargantuan task that it sounds like. The key is to imagine you are a plumber, an

assertion that no doubt requires some explanation.

An intensive, immersive education such that provided by BITS is chaotic, and I don't say that disparagingly. Most test preparation is a race against time, some tests are cleared by the skin of the teeth, and facts memorized for one test are soon lost in the jumble of other tests. That is the nature of a demanding professional education. It is no wonder that graduating BITSians often wonder how they could be regarded as trained and qualified engineers against the background of the extended chaos that they call their formal education: the 4 a.m. ghoting, purging the brain after each compre, all the randomness involved in getting test answers right. In contrast, our confidence in other tool-wielders like plumbers and mechanics is much higher, regardless of their level of experience. We believe in the clean mental equation Plumbing Problem + Plumber = Plumbing Solution. While we do not need this clarity of our own ability to succeed, it does make it easier for us to excel.

The key to successful retention of learning (and clarity of ability) is to extract order from the chaotic college experience. This changes a course from being a dim memory of many complicated little things to a clear list of a few essential skills. Furthermore, you don't even have to carry these few skills in your head. Successful retention consists of identifying the key concepts and techniques taught in a course, learning them in the classroom, documenting them in a cheat sheet, and retaining the books and notes pertaining to those particular topics. Books and your own

notes are important to retain, because they will recreate your mental context later if and when you need to apply those techniques. As it stands, there are many courses (mostly non-CDCs) that most of us don't consciously retain anything from. Therefore, consciously retaining even one non-trivial technique or concept from each such course would be an improvement. How much is retained from each course is entirely up to the individual. The essential idea is to change a course from a chaotic memory to an ordered checklist, and to be able to resurrect your mental context for the items on the checklist.

## EXCELLENCE

The pursuit of excellence is a well-understood principle in BITS. All students recognize that their CGPA is the externally visible sign of achievement and try hard to keep their numbers up. Nevertheless, there are three reasons it is necessary to consciously feed the principle of excellence into the academic culture. First, it emphasizes actual test marks. Too often, a course's reputation as a "low-average" course turns out to be a self-fulfilling prophecy. The ideal academic culture prevents such mental barriers from being reinforced. An emphasis on test marks automatically emphasizes CGPA, and certainly goes beyond it. Second, a conscious emphasis on excellence opens students' eyes to areas of excellence other than the CGPA—a useful effect, since large numbers of students who are unable to break through to the high end of the CGPA scale tend to unconsciously give up on the goal of excellence. Excellence can be achieved in a particular group of courses, a

particular semester or a single research project. Not every student will graduate with a high CGPA, but every student must achieve the goal of excellence in one or two target zones. Third, an emphasis on excellence is useful for the same reason that inspirational posters are useful—explicitly stating a goal helps the mind focus on it, though it may be an obvious goal.

The motivation for urging a conscious cultivation of academic culture based on these three principles goes beyond the desire to improve on what we are already doing. The deeper motivation is to do different things than we have done before, and, of course, to do them well. A BITS education enables us for diverse careers in natural and social sciences, technology and business. When we have enough context-awareness to fully realize our role as trained technologists, and we have absorbed our training methodically so that we retain it and confidently bring it to bear on a problem at a moment's notice, then we can apply ourselves to diverse fields that we previously did not consider. If, at the end of BITS, you can pull out a scroll with a simple and functional summary of the academic knowledge you have acquired, have a good understanding of what people outside BITS are doing with that knowledge, and have distinguished yourself in your chosen test of excellence, you will be ready to fulfill yourself as a true technologist. A conscious academic culture is essential to support this process. Incorporating such a culture into a student body and then perpetuating it is a challenging social exercise that I hope will

stimulate some eager BITSian students.



*Rishi Sinha is a doctoral student in computer science at the University of Southern California. Prior to this he was*

*a software engineer with IBM Global Services, Pune. He graduated with a B.E.(Hons) in Computer Science from BITS in 1999. At BITS, he was Chief Editor of Cactus Flower (1998) and a member of the English*

*Press Club and the Sandpaper team. In his spare time he explores sunny Southern California and obsesses over mid-20th-century Americana.*

## BY KRITHIKA KALYAN ('00) MORE ON BITS, PILANI, GOA.

A while back, when the threat of my impending quarter life crisis was not looming ever so closer, and when I was not one more trip shy of becoming a non-resident Goan, I along with my then-boss (also a BITSian) and his family managed to purposely got lost on our way back to the holiday resort, where the rest of the office folks were camped, and quickly found ourselves on NH-17. We had carefully planned and included a trip to the Goa campus in the itinerary, even though it meant we would have to endure a grim morning-after scenario. (In case I had not made myself clear yet, it was GOA! It was an all expenses paid trip and it was a Sunday morning!) The last day at Pilani having passed just a few months back for me, I could still distinctly remember the last nasty bump on the Pilani-Delhi road which made me and the rest of the bus exhibit some gravity defying stunts of our own. "I might have passed out a few years back, but I still know what you are talking about", my boss declared and both of us collectively sighed at the thought of the younglings having it nice and easy these days – I mean, come on, leave alone the smooth ride

and the fact Pilani is the best darn place on mother earth, but you gotta admit - Spending four or five of your impressionable years at Goa is a temptation for anyone!

After passing through a score of industrial plants and regional hubs of multinational electronic giants, we reached campus.

Being a Sunday, there were very few prowling the class rooms. I later dug up information to discover that the first set of students belonged to the 2004 batch. It is hence of little surprise now that there seemed to be so few in the main building and on campus as such, considering we had visited the campus in November 2004. I got across to a couple of students through email and they filled me up with some more tidbits This batch apparently has more than 550 students and what is heartening is that 40% of this number, are girls. (232 out of 564 to be exact). The number of girls in the 2005 batch has seen a dip with the ratio standing at 466:75.

The hostels which face the campus building houses the students based on the batch. The nomenclature followed for naming the hostels has not exactly been inspired by pre-historic god-men, The girls hostels are simply called GH1, GH2 and GH3. In fact, the walls of one of the hostels

are being shared by both the boys and the girls, a thought which was inconceivable at Pilani, much to the agony of some! While the 2004 batch girls occupy GH1 and GH2, all the girls in the 2005 batch stay in GH3, which has been partitioned in order to have the boys use the rest of the building. The curfew hours have now been set at 11 p.m, after a briefly being as 10 p.m initially. The hostels have their own separate wardens, hostel superintendents and assistants. One of the girls from the 2005 batch, Lita Das says that they share a wonderful rapport with their wardens, thanks to their frequent meetings in their common rooms. They also manage to have share an amazing bond amidst themselves, not only by virtue of the combined ghotting routines to cope with the academic rigor, but also due to enthu sessions such as the inter hostel events. They have their own cultural and sports representatives for their hostels who put together such fun events, which find very active participants! The girls just wanna have fun, I guess! They have not exactly being outdone by the boys when it comes to acads either. The girls have also been burning up the mercury on the CGPA scales too with a couple of them being 10 pointers (gulp!).

Aalap Tripathy, a 2004 batch student claims that not only

the girls, the entire legion of students at the Goa campus has been having a rollickin' good time. They recently hosted Waves 2006, the annual cultural event at the BITS-Pilani, Goa Campus, which attracted the energetic participation of several local colleges, in a host of events such as Dumbcharades, Debate, Antakshari, Quiz, several song and dance competitions and even Mr. & Miss WAVES 2006. Next year, the students intend to make it even bigger by inviting colleges from far and wide. Besides WAVES, the campus also comes together for Zephyr 2006 (the wind before the waves – an Intra College event) and intra hostel sports events. Occasions such as regional new years, Dussehera, Ganesh Chaturdhi etc also have a lot of festivities attached to them

There is a Council for Student Affairs, the elections for which were conducted online at the beginning of the academic year in August. The polling software was indigenously developed and implemented by Aalap and the other students themselves, which is quite a commendable achievement since the campus currently has only 1st and 2nd yearites! Besides the President of the Student Body, there are various posts catering to definite functions such as Vice President, General Secretary, Treasury etc. There are a host of hostel representative elected to posts like Mess, Sports, Cultural, maintenance and utilities. It is also interesting to note that there are students working on drafting and finalizing the functioning of a constitution called Constitution Making Body (CMB).

I recently read an article, which elaborated on another acronym doing the rounds to blatantly bracket people. Close on the heels of Yuppies (Young Urban Professionals) and Dinkies (Double Income No Kids Yet), there are the TIREDs (Thirty Something Independent Radical Educated Dropouts). It appears that there are quite a few who have turned their backs on a seven figure salary, taken the plunge into doing something on their own and retreated to Goa to fish or write or sell flowery shirts etc etc. My plan is much more workable, I think! I don't want to reveal all the details yet – but let me give you a hint – It involves the letters P-h-D and of course the BITS-Pilani, Goa, Campus!



Student participation in governance is also intense.



## VISHUB

### *The BITSian Start-up Focused on Wedding-Consulting*

Rajesh Butta ('86) and his wife, based in New Delhi, have started a wedding consulting firm. It might be of particular interest to other fellow BITSians who are eligible bachelors in or outside India or have children in that age group. Read on...

Matrimonial alliance is an issue that touches everyone's life. Atleast for us Indians, marriage is the 3rd most important event in life after birth and death. While birth and death is not under our control, marriage is a decision one needs to take in life. Most people would want it to be a once in a lifetime decision. But in today's times there are new and varied challenges that confront a family that is on the look out for a suitable life partner for a daughter or son. The pushes and pulls of modern living have resulted into families being unable to devote enough time to the planning of the search process for a suitable alliance. Society is getting fragmented with limited socialization within the communities. Globalization has resulted into high mobility, especially amongst the bachelors/spinsters. Individual aspirations have scaled up and finding a suitable life-partner is a complex requirement today.

**What is Vishubh all about?** We are a services organization, headed by a BITS-Pilani management graduate, providing services for a range of wedding management and matrimonial services. These are clearly two areas, one is finding suitable match and once the match is settled, organizing the whole wedding like any project would get executed....

For more information, please E-mail: [info@vishubh.com](mailto:info@vishubh.com). You could also contact Rajesh Butta at [rajesh.butta@gmail.com](mailto:rajesh.butta@gmail.com).

COMPILED BY ANURADHA GUPTA (86A6)

## BEHIND THE SCENES

Behind the Scenes is a serious look at how the dedicated, solemn *Sandpaper* team operates. The team that toils around the clock to put together the BITS Pilani alumni magazine...

**AND** this is the first of many exchanges that you will be privy to, issue after issue...that will bolster your confidence in the team and its functioning...

**It was a dark and stormy night.** This is what transpired in an exchange on a proposal to start a new series on successful BITSian women. If it is any consolation, the entire Editorial Team, Anupendra, Anuradha, Dilip D'Souza, the Chief editor, Sandeep, and one of the most creative writers, Sagarika were involved (in the discussion, that is. Please do not read b'tween the lines). And it all happened between the wee hours of April 20<sup>th</sup> and 25<sup>th</sup>...

**\*Anupendra:** I think it is time for a series called I am a BITSian Woman that talks about (successful/inspiring) women from different spheres.

*(somewhere in the discussion, the word 'coping' crept in and here's the very serious discussion that ensued on repositioning the article to eliminate it...)*

**\*Anuradha:** How do we position the article (away from coping) - the topic is simmering on the surface and does generate a lot of interest, it is controversial and has a number of issues associated with it, from the Summers controversy to role-expectations and definitions to gender-bias, to

positive affirmation to reverse discrimination to fair treatment to, well, the mind boggles. It can be thought-provoking, emotional, can even stimulate readership...and that makes it tempting but is it a Pandora's Box and can we make sure we keep it dignified and not sensationalize it in any manner, I don't know and would like to have more views, Let's brainstorm that...

*(Sandeep, of course took the most relevant extract from Anupendra's message, the beginning of the end, the fall of an empire, while Nero was playing chess...)*

**\*Sandeep :** Hi Anupendra, This is splendid news. Why didn't you tell us? Did you have surgery or was this some other more exotic medical procedure. In any case, I really am very happy for you.

What does your wife have to say about this? And, might I add, you would look simply stunning in a halter top!

**Anupendra Sharma** wrote:  
I AM A BITSIAN WOMAN

**\*Anupendra:** Hey Anu - you are rubbing off! Our usually serious chief editor is killing me with her (sic) funnies....

**\*Anuradha:** If I am inspiring this serious biz of humor in anyone (and of course we the-

women are definitely making womanhood inspirational, hahaha), I am delighted and honored... And you have the right to unsubscribe from the Sandpaper group. Click here... [www.what-a-mad-bunch.com](http://www.what-a-mad-bunch.com)

**\*Anupendra:** And I actually clicked on it.

**\*Dilip:** Might look better out of it. I don't know. Or the halter top might look better off Anupendra. I don't know.

**\*Dilip:** Reword the series to not make it sound like women coping...that's how I would prefer it if I were a BITSian woman and maybe I am...

**\*Anuradha:** Precisely, we could reword/reposition it...right now I am coping with all these new BITSian women, sigh...Dilip, et tu?

**\*Sagarika:** You guys are funny, funny!! I can't help but respond. Sandeep, you certainly opened a can of juicy worms here ;)

Personally, I too (like Anu) feel the same way Dilip says he'd feel if he were a Bitsian woman and someone posed that question to him (coping). I think its way more challenging coping with being a guy...Now that warrants a series! First, guys have to understand their own selves (they spend a good chunk of their teens and 20s doing exactly that; and soon after, they have this brobdingnagian task of understanding the women in

their lives (not that they don't have this issue pop up earlier in their lives, but they're supremely focused on the first-things-first mantra (read "it's all about me" - a school of thought that shockingly backfires later on in life)! So they go about spending their 30s and 40s soulfully engaged in this Catch-22 type endeavor (it's bad if you understand women and worse if you don't). My, my, now that's coping hell to me...Thoughts??

PS: Just my attempt at perpetuating this humor string, guys. Thanks chief!! ;)

**\*Sandeep:** Hey! Don't blame me. All I want to see is Anupendra in a halter top. And Dilip I gather wants to see him out of it. :-)). Anupendra's going to call HR for harassment... wait a minute! We don't have any HR! Yippee!

**\*Dilip:** Sagarika said:  
> So they go about spending their 30s and 40s  
> soulfully engaged in this Catch-22 type underwear ...

Hey, what's Catch-22 type underwear? And where can I get some, it sounds very intriguing, especially if guys are getting engaged wearing it. Question though, what about the guys who get engaged in their 20s?

**\*Anuradha:** People (I shall not say ladies or laddies lest there are those who wish to prove themselves in any manner)...the plot thickens... We all can barely wait ... with bated breath to see - what next...

There may be those of you (Sandpaper team) who might be hunting for an unsubscribe option or HR and it has been proved that there are none...:-). Blocking emails continues to be an option that Microsoft

currently provides but we are working on that. And Dilip, I am dying to quote just one sentence (half a sentence actually - Where can I get some) from your email, forward it to your wife, create some discord and pose this question, why do you ask this of the Sandp team...

**\*Sagarika:** Thanks for the rescue line, Anu. I owe you one. ;) And Dilip...You!!! You almost made my heart skip a beat...I mean, I frantically went back to my original email scrambling through it, sweaty-browed and all, wondering how on earth my built-in spell checker (grammar checker or sense checker, call it what you will), which never usually lets me down, fared so badly at this one instance -- "underwear" when I was intending "endeavor"...what was I thinking??? And when I actually read my email and saw "...Catch-22 endeavor..." I almost grew deaf (yeah, I did heave a deafening sigh of relief!). Yes, what were YOU thinking?!! In other words, you got me there for a second...**YOU!!** Wait till we get to meet someday...Some heavy strangulation is in order. :)

Aren't we at SandP a zany bunch or what?! And yeah, Anu, do remember to satiate the naughty word twister's wife's curiosity...Although women normally could care less about male underwear (contrary to the other way around factoid), this instance may in fact be the world's only exception ;) Let's stir up the D'Souza household..

The saga of mystique/intrigue/heavy plotting/warped thinking continues...Only at SandP Yahoogroups. (Hey, a great tagline to recruit new members, don't ya think???) ☺

**\*Dilip:** Anu, you said:

> We all can barely wait ... with bad breath to see - what next...  
My sympathies to you all then.  
Use Pepsodent, works well for me.

And Sagarika said:

> Although women normally could care less about male underwear

> ... Let's strip the D'Souza household.

Please don't do that! The underwear might give us away.

**\*Sagarika:** Dilip, you're such a crack up!! It sure is fun to see your **lighter side** (yeah, that's what you see when someone strips down to their underwear) having been **exposed** to your more serious side all along. SandP bunch, hope the rest of y'all are hanging in there enjoying the (virtual) strip show.

**\*Anuradha:** Sagarika, we shall have to conclude, put everything together, wrap up...

BITSian guys (we have a pretty extensive, representative sample) aspire to be BITSian women, wear Catch-22 Underwear and use Pepsodent.

This is definite material to start off the series, "On being a BITSian guy."

**\*Anupendra:** The final word  
Here is the photo for the article (its me and Dilip). And that's all I have to say about that. The End.

**\*Sandeep:** Sign me up!!

Any prudes lurking around this group are probably calling the Diro as we speak. By the time this thread is over, our team will be down to a few BITSian women and a few aspiring to this enlightened state. So what is Catch-22 underwear? (And the picture)...



Dilip & Anupendra – Key members of the *Sandpaper* Editorial Board. *Sandpaper's* in great hands folks!

Excellent! This is the picture we'll use on next issue's cover. "Mein BITSian woman banna chahtee hoon!"

**Dilip:** Anupendra, you silly fellow:  
> Here is the photo for the article (it's me and Dilip). Now everyone knows I have grey hair! However, I gotta say, you're wearing your halter top wrong. And how many times do

**\*Anuradha:** This photograph shall go down in history and you all must save it for posterity as the BITSAA/Sandpaper logo (Mktg directive) and this shall be thy wallpaper - and Sandeep, if it is not on the cover/part of the cover story you shall face a coup...  
Diro incidentally has issued the following directive...1. BITS is now BITS-M (M - maiden/mahilayen ke liye

I have to tell you not to clean out the wax in my ear in public, eh?

ONLY); 2. BITS now has a uniform (I need not elaborate on that, Sandeep, return to campus and thy questions shall be answered); 3. The only guys allowed on campus are ex-BITSians (so if you are a guy and catch yourself on campus you have PASSED OUT, remember that)  
Now the tech team has the following challenge - a team photograph...  
Good luck. :-)

**\*Dilip:** Anu pointed out:  
> if you are a guy and catch yourself on campus you have PASSED OUT, remember that)  
I seem to recall being in that state for most of my years on campus, actually...

*And luckily (for you), we passed on to the more mundane matters of the magazine.*



**ANTARA BHATTACHARYA (96A6)**

### Of Preferences In Vain

in my getaway with you, i even dream of rain . . .  
although i myself prefer a sunny day  
but prefer you over the sun  
even sunny california  
or fornicating in a bath tub  
tumbling down a snowy slope  
or mud-slinging, bitching sessions,  
over beer,  
girls, mobikes, magazines,  
and guns . . .  
rain over sun  
if only you came

I always prefer the rain  
mingled with the sense of soil  
trollish dark trees looming  
on a road I speed by.  
Coffee, smokes, poirot and snow  
a world shrouded in white  
late nights and later morns  
while the rats they scuttle aside



BY ARUN MAHARAJAN ('99 INSTRU)

# A DREAM TO TOUCH – A SHORT STORY

*Right now, the only thing separating the two was a couple of inches of sand...off the coast...the waves did not quite manage to reach their footprints left by their bare toes...*

**THE** wind in their faces... they could detect a faint trace of salt in the sea air...lovely in its flavour... especially at this time of the night. The stars were out... individually nothing but specks of dust among the infinite black. Yet, together a complex work of art capable of inspiring imagination personal to each as well as giving a chance to collectively ponder on certain things... and ponder they did.

Both of them... they were meeting after a while... quite a few years later to be vaguely precise. Old school mates... they shared the same bench... went to the same classes... they used to give each other company during their morning jog... the exercise did them good... as did each others company. They never used to speak much... but merely enjoyed each other's company. Both of them never needed to say much to talk to each other... unlike others, they could understand each other quite well without much to carry the message. Think it's called a semantic gap... what the hell was that?

Right now, the only thing separating the two was a couple of inches of sand... off the coast... the waves did not quite manage to reach their footprints

left by their bare toes... but then it was trying really hard imploring the moon to wax further... the waves, periodic in its voice...and yet abstract in its path. Not very much unlike the both of

them... they weaved their own paths along their lives... yet, they thought along the same wavelength... they resonated well together. They were... the best of friends.

The moon came out from behind a cloud at this moment... sudden dark shadows traced their way behind their backs and just managed to kiss their car... soft music playing...

"Hey...I think you should not worry about this too much!" said he...

"But how can I not? This is too tough a thing to endure... it's not happening for the first time too... what is wrong with me?"



Her hair was billowing about in the breeze... hiding her eyes... she sounded stable... he thought he heard a faint sob... he looked out into the horizon... nothing but an infinite slit among the darkness. He was thinking now... the horizon seemed to broaden his own thoughts...

"Hmmm...I think you should try harder...its not as easy as it sounds but you got to give it a decent shot. Think back now, from what happened between you two...do you think it happened out of chance or were you able to see it coming?"

"Well...I...I don't know!! The first time I was taken by surprise at the way he reacted...but the second time...hmmm...no, I was still surprised!"

*"That might mean that you are still the same person...now this might not be true but why is he seeing you in a different light now? Did you do anything which changed things between you two?"*

*"No...nothing which can't be classified as daily eccentricities. Infact, its one of the things that he likes about me...I really am lost now. I did not see us arguing like this...it was...horrible. I felt like killing myself after that..."*

He put an arm around her shivering shoulders...her hair brushed his face...

*"Hey...hey...relax. It's ok...how many years have you two been together...almost 3 years right! It's time which is the enemy here...for the 3 years, have you ever felt a need to change the plane of your relationship? Did you need that to carry on?"*

*"No...We pretty much have the same fire or whatever you call it between us...but there is something else now...is it caused due to our familiarity with each other? Damn...I don't feel any different towards him now than I felt that day when I told you about how I love him...I still remember that day so clearly...you had come to town for your final semester holidays and I called you as soon as you landed. Poor you...I am so sorry for not giving you much time to get settled...But I had to tell this to someone...and I could think of only you at that time!"*

His reply was slow... measured... supporting...  
"Of course...anytime..."

She turned to look at him now...his face still had its old

aura...blunt nose, slightly curved lips, long hair flopping over his eyes, dark skin...but he looked a little tired now. The lines around his eyes were a little deeper...of course, he had a job now...he always seemed to work least and yet achieve the most in school. No wonder he breezed through the exams and went on a scholarship for his studies to the best college in the country. She thought she was always the dumb one...how much he used to help her with her studies...all the times during which he patiently sat with her under that banyan tree in their school yard...all the times when he still managed to help her while he was back in town on holiday...it was almost like she did not need to ask him for his help...he just is there for her. She smiled in spite of her hurt...she inched a little closer and leaned onto his shoulder...

He continued staring out onto the ocean...he saw a single ship sailing west...the moon ducked back behind a cloud now throwing the entire beach into darkness.

*"I think this is part of the process of a relationship...there is little meaning in a relationship if you live in a dream world all the time. Sometimes we have to come down to earth and experience*

*life with our loved ones...that deepens the feeling and prepares you for the future. Its only a matter of time until you can realise this...I hope you can do so sooner than later..."*

She gripped his arm tighter now...a cold wind just ran across the empty beach...he did not flinch. Rock steady...as he has always been...she realised the meaning of his words...thought about it for a while...

*"You know what...it still amazes me how you say the right things at the right time. I...I have been living in a dream world all this while...I think I can see it now..."*

*"Do you love him?"*

*"Yes...yes..."*

*"Then just pack your bags, get back on that train and go back. Surprise him the way you surprised me by landing up without any announcement. Believe me, if he is anywhere close to having a level head on his shoulders, he would have realised what he just let go...Believe me, any guy...any guy...who has spent time with you would want you...would want you back!!....."*

She was expecting him to continue with what he was saying...but he did not...the ship in the horizon was almost beyond its edge now...the wind let down its enthusiasm...it was warmer...she felt warm inside. She looked up at the stars...then at his still profile...she thanked all the stars above thinking how lucky she is to have him as her friend. He is always a pillar of support during hard times and is always happy for her when good times pass by. She remembered the happiest day of her life. The same day she recalled a while





ago...she proposed to her lover the day before...and he accepted! After she told him about her new found love, he was so happy at hearing the news...although he couldn't stay for long...it was her fault for rushing him into the news before he was settled down...he had to run to meet an uncle of his! She remembered wishing that he stayed longer...

*"Thanks a lot!"*

He just nodded his head...as always...a man of few but valuable words.

*"Think we better get going now...your train back should be early next morning...you don't want to call him up at an unearthly hour. Maybe its better that you surprise him with something...a home cooked meal maybe..."*

*"Wow...what will I do without you!! This really means a lot to me...thanks!"*

*"I just want you to be happy! No need for any thanks and all that crap...I am here and you know it...C'mon, let's go!"*

They got up together...she started walking back to the

car...he went up to the shore to pick up their slippers which the waves managed to reach now...he picked them up and stood still for a second...breathing in the night air...he always liked this spot. He used to come here whenever he

needed to think...or reflect...or ponder...or just whenever he needed not to think about anything. The peace that this place afforded him was invaluable...especially considering that he has been visiting this spot quite often in the last 3 years...

The moon came out from behind the clouds...it was almost a full moon. The moon is quite intriguing...you think you know it well...after all, you have been seeing it since you were a kid. But there is always the dark side...which never reveals itself...mysterious...void...cold...brooding. He chuckled at the irony of it all...

How he dreamed that day when he landed in town...how he dreamed about how to tell her what he truly felt...how he dreamed about that moment for the last few months...how he bought a single red rose which he had tucked inside his coat...how he practiced for hours in front of the mirror on one knee...how, many years after being the best of friends, he realised something which he almost knew all along...how he never ever in his wildest thoughts expected what she told

him as soon as he met her...how he had to endure the pain inside and yet appear normal...how he managed to do one hell of a job acting like he was happy for her...how he muttered some reason and rushed off into the dark cold night...how he almost felt like killing himself...how much he cried...how he came to this exact spot and remained here throughout the night...how much he sacrificed... how much he cried...how much torture he had to go through to go back to being her friend...how well he did one hell of a job of that as well... how much he cried...how he is still acting in patches...how he is still unable to stop feeling for her...how he is still shedding a tear each day for her...how he is still in love with her.

He looked back...there she was...her dress tracing out her divine form in the moonlight...her hair shining like a silver cascade flowing along her back...her eyes shining now with glee at what's to come...her childlike enthusiasm...her elegance and composure...her eccentricities which makes her wonderfully unpredictable...she was his dream woman in his strained reality...unrealisable...a dream...yet a dream that can be touched, felt and held close to oneself.

He made a mental note of the new restaurant a while up road...he wouldn't mind a beer or two while he is here tomorrow night...he slowly started walking back...the waves won finally...but his footprints will be back to challenge them for a while...



BY SANDEEP MUKHERJEE ('95 PHY MECH) AND ANURADHA GUPTA ('86 MMS)

# IN CONVERSATION WITH VIVEK PAUL

Mr Paul is the Managing Director at the Texas Pacific Group Ventures. Here he shares his views on a broad range of business and social issues and on what the Alumni Association needs to be doing going forward.

**Sandpaper: How was the BITS experience for you? Were you an outstanding student? Could you please share with us some of your good, bad and more fun memories of BITS?**

**Vivek Paul:** So, you know, I really feel somewhat ancient at this point because BITS when I attended was quite different from the BITS I saw when I went back there when I was on the senate couple of years ago.

First, I'd say that the fondest memories that I have of BITS are the friendships that I made there that last till today and that are so strong that, literally, even today, I meet some of my fellow BITSians at least once a week that is something that has been a lasting legacy for me.

Second, I think that the rigor and discipline of the curriculum at BITS is something that really prepares you well for the world. I'm sure that I'm not the first one saying this but I think that the education that you get at BITS is incredibly valuable.

And, I'd say that probably the third and last thing in terms of what you take away from BITS is that BITS was one of the few places where not only did you learn a lot of the analytical concepts and tools but BITS was excellent for teaching you social skills as well. I mean here you were, locked away in the middle of desert and you pretty much

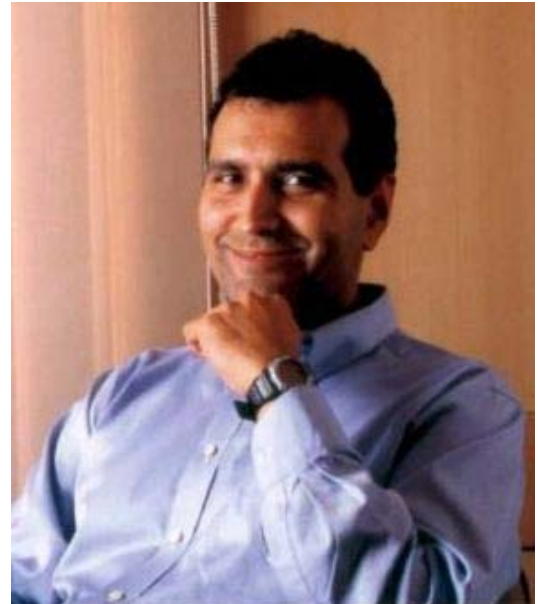
had only each other to keep yourselves occupied and entertained. These social skills were actually quite valuable. Not that you can draw to much of an extrapolation, but I see a lot of BITSians being successful in multiple walks of life, which is unusual for many universities, particularly engineering-oriented universities.

In terms of my own self, I did a little bit of everything. On the academic front, I was a proud Ten Pointer in the first year so I did really well on the grade side. I also partook in extracurricular activities – I was captain of the water polo team, acting captain of swimming team, took part of the drama club. So a lot of different activities, you know, we had a lot of time there.

**Sandpaper: You mentioned that one of your fondest memories was that of the people that you met and the friendships that you made. Now, has your rock-star status in the business world changed some of those relationships in anyway?**

**Vivek Paul:** You know I have been very fortunate that my

friends are such that they do not



**Image Source: The Wharton School, University of Pennsylvania**  
(<http://leadership.wharton.upenn.edu/>)

view me though any other lens except me as an individual. When you become externally well known there begins to creep a gap between the person and the persona and I think that they see right through the persona and see the person, which for me is very comforting.

**Sandpaper: When you went back to BITS, how different did you find it between then and now?**

**Vivek Paul:** I would say that physically it was somewhat depressing. First, it looked almost exactly the same. Secondly, actually, it looked

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somewhat worse because I remember it being more open and now I saw that everything was kind of barred in and it looked much more concentration-campish! It being very open earlier. Lastly, I was just stunned to see that the classrooms were the same old up-and-down chalkboards in today's world. On the infrastructure side, it was depressingly similar.

On the population side, it appeared to be much more co-ed that it had been in my time when there were practically no women and only guys.

And, at the same, I thought that when I was there I saw a pretty good cross section of people from all over India. In fact, that was one of the lessons that as a young student when you joined a college you were only used to the people that had grown up around you and here you could be exposed to everybody. I was quite surprised to find that the statistics are such that over 90% of the admissions into Pilani over the last few years have been from two states in India. That's not to say that there's any malfeasance or anything but just that that's the way it works out according to a well-defined admissions process. Still I was surprised to find that, on the plus side, you find a more co-ed community and, on the minus

side, it seemed to be too heavily skewed towards one part of India.

Lastly, the thing that I found really comforting is that it continued to retain the emphasis on educational excellence and there seemed to be an expansion in the curriculum in terms of the degrees and courses that students could study.

**Sandpaper: How are you personally planning to help BITS get even better as an institution? Would you consider returning to Pilani to teach etc?**

**Vivek Paul:** So, actually, my returning to Pilani to teach may actually not be a net plus for them! The best way to answer that is to point to the things that I've already done, which include BITSCoNECT. I was a part of the core team and was part of the initial conversations that kicked the project off when the Director of BITS visited Silicon Valley and met with a group of us. I helped both in terms of helping galvanizing people from Silicon Valley as well as from a Wipro side where we provided a lot of the system integration and ongoing maintenance and, as an individual, helping with some of the fundraising. For example, I went to Mumbai to meet with a lot of alumni to be able to raise funding for the program.

As for now, there is an effort to create an entrepreneurial theme in BITS Alumni Assoc and I have agreed to help with that as well.

**“...the alumni association is doing many things that are in the category of improvement but the alumni association ought to pick one or two things that with which they can really make a difference.”**

**Sandpaper: You have been quoted in the past as saying “All progress owes itself to the demands of the unreasonable man”. What unreasonable demands do you think the administration of BITS or the alumni association needs to make of itself to help BITS become even better?**

**Vivek Paul:** I think that the alumni association is doing many things that are in the category of improvement but the



**Vivek Paul is a Managing Director at the Texas Pacific Group. His sectors include Consumer, Information Technology and Life Sciences. Source: <http://www.tpgvc.com/>**

alumni association ought to pick one or two things that with which they can really make a difference. Whether that be on the infrastructure side, for example, if infrastructure's a really issue and if the problem is that BITS Pilani has insufficient funds then are there opportunities for BITS to raise more funds externally. So, for example, like we have in the United States – and that's not the say the model in the US is necessarily right – could we get one of the really successful BITS alumni to donate to the BITS Foundation to create a building, a library or a wing that's named after them. All those ideas have been shot down. As BITSAA, we have to think through where we can make a measurable, significant impact on the university.

Second, there's a lot of activity going on in the alumni association that is focused on making a difference for the group that we all represent – the alumni community. There I'm seeing some interesting moves such as entrepreneurship and mentorship programs. Still BITSAA is only scratching the surface of what we could do.

**Sandpaper: Vivek, our upcoming Sandpaper issue is going to feature outstanding BITSian women – you have worked in the technology industry and you have studied in an institute, in BITS with women in this field. Larry Summers of Harvard started this whole controversy about women in technology/math/science etc. and he has resigned as of yesterday, what are your views on the subject. We're certainly not trying to elicit**

**a resignation from you from TPG Ventures!**

**Vivek Paul:** Yeah, I was going to say that this sounds like a trap! About a year and half ago *DataQuest* launched their list of *Top 10 Most Powerful Women in Indian IT* and I was thrilled that at one point or another three of them had worked for me.

**Sandpaper: You were among CNN Time's 25 Global Business Influentials, among Business Week's World's Best Managers and have received several other accolades. Has any one of these been special to you?**

**Vivek Paul:** I have to admit that the accolades are appreciated but I don't think a lot about them. For two reasons. First, I've always believed that those accolades do not belong to me as an individual but to the whole team that I'm working with. After all, no man is an island and we all work as a team. Second, anytime that you spend too much time looking backwards you lose the ability to go forward. Anytime that I make a career move going from leading luminary in the Indian IT field to being a rookie in the VC space, those are things you can't do if you focus too much on accomplishments in the past. My view is that the journey is far from over.

**Sandpaper: You have re-invented yourself several times over the course of your career. If you were starting your career as a new graduate, what would you do differently?**

**“...about a year and half ago**

***DataQuest* launched their list of Top 10 Most Powerful Women in Indian IT and I was thrilled that at one point or another three of them had worked for me.”**

**Vivek Paul:** I'd say that when I graduated from BITS Pilani and applied to grad school. I had two options. I got into, except for one university, every school I applied to because, as I mentioned earlier I did very well in college academically as well as on my admission test. So, I could either go to a top tier business school and pay my way through or, I could attend what was not at the time a top tier school at the time, UMass Amherst, on a full scholarship. I opted for the latter because I didn't want to take a big loan particularly coming out of India and having no money. Having gone down that path, you realize that being in the company of people who challenge you more than others is of incredible value and the alumni network is really valuable as well. Other than that, I got a lot out of my education at UMass Amherst. Every job that I had I ended up working in the company of really smart people. They always bring out the best in you.

**Sandpaper: How do you manage a work-personal life balance?**

Not very well! I end up working a lot so I always feel like I wish I had more time to devote to pursuits outside work. But part of the effect of putting myself in a drivers seat in terms of my

own career and making the moves and shifts that I did has meant has been that I've always done stuff that I really enjoyed and when you enjoy it, it doesn't feel like work. With the limited time I get for leisure I enjoy spending time with my family, enjoy playing bridge and I love to read.

**Sandpaper: What do you like to read to keep yourself abreast of changes in the business world? What books, magazines, periodicals etc?**

**Vivek Paul:** I do read a lot. I read about a book every ten days. I do try to stay current with what's going. I read largely non-fiction but some fiction too. Everything from a comment at Davos on what Bill Gates said about drinking the bottomless well to a book a friend may recommend that was phenomenal on a particular topic. I also go to very focused industry conferences to learn about the latest thinking. I also flip through a lot of magazines. I guess flying a lot does give you the time to do that. But I'm not a big magazine or newspaper reader.

**Sandpaper: What about writing a book yourself? Have you considered going down this path – on the lines of Lou Gerstner's "Who says elephants can't dance" and Jack Welch's "Winning"?**

**Vivek Paul:** I actually received an offer from one of the publishing houses to write a book. I decided against it for two reasons. First, to me writing a book would again make me feel like my story is done and I don't feel that way. Second, on a

pure cost benefit analysis, in terms of the time it takes to write a good book and what you get in return is actually not commensurate with the effort entailed.

**Sandpaper: It sounds like we'll have to wait several more years to sample your reading then! On a different theme, what's your new role like – more venture or more buyouts?**

**Vivek Paul:** I now have a foot on each side. Part of the appeal of joining the Texas Pacific Group is that I could do both – venture capital as well as buyouts.

Today, 60% of my time is spent on venture capital and I do spend 40% on the buyouts side. On the buyouts side, I focus very specifically on either industries that I can contribute a lot to just or on India. If I could help one more Indian industry step out on to the world stage, I would feel quite fulfilled.

**Sandpaper: You have a broad brief at TPG that includes life sciences companies, technology companies etc. What do you enjoy most at TPG?**

**Vivek Paul:** I love the intellectual challenge of addressing multiple issues instead of going deep on the single thing I was doing at Wipro. Second is the ability to think through the whole notion of how do you scale and deal with the issues of success. Management teams often think of the issues of failure and not about those associated with success. Lastly, as I mentioned earlier, I continue to look at India through both a venture and

a private equity lens, and enjoy continuing to contribute.

**Sandpaper: How do you see the VCPE sectors and others evolving in the Indian economy?**

**Vivek Paul:** I think that Indian industry on every front is doing well. In some sense the Indian consumption engine was always bottled up and now we're seeing this engine kick into gear and it's creating all kinds of employment, business growth... sort of a nice virtuous cycle. I think that the Indian economy is on a secular, multi-decade rise.

**"If I could help one more Indian industry step out on to the world stage, I would feel quite fulfilled."**

Having said that, it's still highly regulated and it poses more risk for the country. For example, I look at the restriction from foreign capital in several sectors yet India is way behind China in terms of foreign capital.

I got an email from one of the newspapers asking me write on the budget. My standard line on this subject is that as long as the budget has any significance for the Indian economy that means that it's an over-regulated economy. So the day people stop asking me to write about the budget will be the day that we'll have a true deregulated economy.

We've made progress and that's comforting against where we were before. However, that doesn't mean we're where we need to be by far.

When India chose the path of socialism there was a lot of thought process and training that was grounded in and, frankly, the new generation is resisting. The new generation says Gandhi is not my idol. This may sound heretical, but that is what it is. This whole notion of austerity is yesterday's generation. I want and I want now. You meet kids who say that my parents wanted an apartment when they retired. These kids want an apartment the day they start work and that's why the Indian retail consumer finance sector is booming. With 55% of the population being less than 25 years old, the political might that this group will have is only going to rise. From that front, I think the politics will change and you will see people have different views on the importance of economic growth versus socialistic ideals, which haven't given much elsewhere in the world.

**Sandeep: You once wrote, "Always take your job seriously, but never take yourself seriously". We often hear of Vivek Paul the CEO, the venture capitalist etc. Tell us about some instances where you've found yourself laughing at yourself?**

**"I remember, one guy got up and said, 'I think that your idea is stupid, stupid, stupid!'"**

**Vivek Paul:** There have been many incidents... I'll give you one example. At Wipro, one of the things that I wanted to tackle upfront was the notion of scalability in the services sector.

I felt that this would otherwise kill us because we wanted to grow that business. So I wanted to do was remove multiple quality management systems and create a single, online quality management system that would scale dramatically. That sounds evident but it didn't turn out to be that way because people do certain things for a certain reason. Several systems had grown up in the company and everybody felt that their system was the best and the only one. I remember getting all the quality gurus in a conference room and telling them, OK people, we are going to kill all the quality management systems and merge them into one. I remember, one guy got up and said "I think that your idea is stupid, stupid stupid!" As the CEO, I could have reacted in many ways. But, I said, that if you feel so strongly, I'll take another look and see if I share the passion that you have about keeping the multiple systems but if not I'll go ahead anyways. I did go back, rethink, but decided to proceed with the single system option.

Today, that guy is one of the top quality gurus in Wipro. The fact that he was as outspoken as he was didn't in any way affect his career. And, to me, what that example brings out is the importance of creating a culture where they can speak up and not be in awe of you and, two, when people do speak up – even as tactlessly as he did, for there are certainly better ways to express the point – that it's not something that is career-limiting.

**Sandeep: Has it helped or hindered you in your career being an Indian? Especially given that, some of the sectors you have**

**worked in are reputed to be elitist.**

**Vivek Paul:** I have to say that being an Indian has hindered me in some instances but that hindrance turned out to be a great benefit in the end. Because there are instances where people did not do what was right, what they should have done, but that only made me stronger. It made me stronger in two ways. One is it made me more confident and I'll explain how. Second is that it got me away from situations where I shouldn't have been in.

One situation I can remember is when I was in consulting and the client was a complete bigot and ultimately he is still where is and I am gone and had I stayed on and continued fighting it I would have been limiting myself.

**"...being an Indian has hindered me in some instances but that hindrance turned out to be a great benefit in the end... However, today, being an Indian, people almost expect too much from you."**

Another example in terms of how you grow stronger... let me use another example from my consulting days. I am a vegetarian, have been since I was born. I remember that I used to sort of go out to lunch and dinner with a client and find out that there were very few options for me. There were some people who would say "Oh, I hope you don't mind" and I decided to be

very upfront and asked them to choose a restaurant where I could have some menu options. I would have my secretary call ahead of meetings to see if they had vegetarian options. If the restaurant didn't, I would simply ask for a different venue.

It's amazing that people do not have the confidence to do that and, done right, it's a source of strength, not a weakness.

I think that being an Indian for some time and in certain situations was a hurdle. However, today, being an Indian, people almost expect too much from you.

**Sandpaper: Many CEOs seem to be moving from publicly traded companies to privately held ones. Do you think that Sarbanes Oxley and the regulatory environment have had an inadvertent effect on the level of executive talent at public companies?**

**Vivek Paul:** I think it is more interesting if you are a successful, competent CEO to do the same work in a private setting than to do it in a public setting. This is so because in a public setting, you both lack the benefit on the upside with options expensing and with Sarbanes Oxley the risks you take in terms of venturing a few place well-placed bets are higher. Whereas in private equity we encourage people to be as successful as they can be and worry about economic outcomes and not about reported quarterly earnings. So if you're smart a CEO you ask yourself that if you have more risk and less return in a public than in a private setting and if you're confident about producing

results why should you not move to the private sector.

**“When things don't work out the way you want I think you get a higher degree of resilience as you go along in life.”**

**Sandpaper: How have you found yourself changing in terms of the person that you are?**

**Vivek Paul:** I would say that it's not just the school of hard knocks as well as the aging process that makes you realize, over time, that group success is more valuable than individual success. And sometimes you have to be a little bit patient but you never want to lose your ability to lose your impatience otherwise you tend to become complacent. So while your balanced shifts a little bit but you still need to retain this sense of balance.

When things don't work out the way you want I think you get a higher degree of resilience as you go along in life. So you know that it could be a temporary setback and things will get better as you go along or, that there are four or five things you could do to address the situation and so you take it calmly.

**Sandpaper: A lot of people take their career to a certain point and then follow their dreams – maybe in an entirely different direction – do you plan to do anything of this**

**sort or is your career itself your dream.**

**Vivek Paul:** I think that what I've tried to do my entire career is keep my eye on what I want to get out of a job for myself in the sense of how has this added to my capability set and made me stronger and what do I have to do to earn my right for that job/business. As a result, I feel like I have had the ability to be very dispassionate about where I am in any particular job, which is why I have been able to make moves that were not necessarily intuitive at that time but, over the course, have turned out to be the right ones. And I still think that one more career left in me and that's the advantage of living in today's world where working lives are very long and the next career not to be unfolded for the next decade, after that, I would like to be doing something on the social contribution side.

**Sandpaper: So we don't see you ever retiring.**

**Vivek Paul:** Retiring means one of two things. One, that you cease to do economic activity. In this sense, I will someday retire. Two, you cease to do any meaningful activity! I hope that the latter never applies to nobody.

**Sandpaper: Any closing thoughts for BITSians?**

**Vivek Paul:** To me BITSians can be an incredible force due to the combination of the right brain and the left brain and whatever we can do to make a material change to the campus we left behind and to the community of alumni, the better off we are. So the more the better.



BY MUKUL CHAWLA ('97 INFORMATION SYSTEMS)

# PRIVATE EQUITY AND VENTURE CAPITAL – A PRIMER

A short primer on the private equity and venture capital industries (and how to get in!)

**THE** private equity and venture capital industry has been getting much press recently – BusinessWeek, Forbes and The Economist have all carried articles on this sizzling industry in the past six months. And sizzling it is – the industry controls \$800B<sup>1</sup> in capital (5.5 times India's foreign reserves), raising \$174B in 2005 alone. So, what is the VCPE (as it is commonly called) industry?

Broadly, the term private equity refers to investing in a firm's equity privately – not via the public markets. A VCPE firm invests in the equity of a firm, owns it for a period of time, then sells the equity to another buyer or to the public (via an IPO), hopefully making good on its original investment.

A rough segmentation of the industry – venture capital, growth equity, “deep value” or late-stage investing and distressed investing – doesn't explain all its nuances, but is a starting point. Venture capital refers to investing in early-stage companies, think Kleiner Perkins and fabled investments like Amazon, Yahoo and Google. Growth equity refers to investing in growth, usually resulting from macroeconomic factors or changes in industry

structure – discontinuities of one type or the other. Recall the \$300M Bharti Telecom investment by Warburg Pincus. Deep value investing refers to investing in firms that are sold at prices below their “true value”, or, in other words firms whose operational value can be unlocked therefore creating equity value. These are often firms that could be run better; consider the \$5.1B buyout of Nieman Marcus by Texas Pacific Group (TPG) and Warburg Pincus. Finally, distressed investing refers to buying distressed (firms unable to pay up their debt obligations) on the cheap, and either turning them around or making money off their assets. Wilbur Ross may be the most notable recent example; he has made a fortune investing in left-for-dead business and industries in the US.

In recent times, hedge funds, which traditionally invest in the public markets and could have a fundamentally different set of investors, have also begun investing in private equity. An illustrative deal that has seen much press is ESL Investments purchase of 52% of Kmart. 2005 also saw the birth of funds that would be pursuing dual strategies (public and private equity), a marquee launch was that of Eton Park Capital Management founded by Eric Mindich, who had been the youngest partner at Goldman Sachs at age 27. Not to be outdone, top tier PE funds grew hedge fund subsidiaries,

Blackstone started a \$9.5B hedge fund arm and TPG launched TPG-Axon with \$2.8B in capital. This convergence between hedge funds and private equity is very real, and was one of the most talked-about industry trends in 2005.

Note that these segments form a continuum, essentially reflecting stages in the evolution of a firm from startup to (perhaps) distress. Historically, these segments of the industry began somewhat differently. Venture capital, some would say, began with Arthur Rock's investment in Fairchild Semiconductor in 1957. This is a fascinating tale of 8 scientists (dubbed the “traitorous eight”) walking out of the legendary Shockley Semiconductor, and seeking investment in their new venture. Rock, a visionary New York banker visiting the west coast, met with and invested in them, eventually helping create Silicon Valley. The invention of late-stage investing is less clear,



<sup>1</sup> BusinessWeek, 26<sup>th</sup> February, 2006

# Business & Strategy

but its popular techniques – including the leveraged buyout (LBO) were known on Wall Street in the 1960s, preceding the creation of well known speciality firms such as Kohlberg Kravis Roberts (KKR), Forstmann, Little & Clayton, Dubilier & Rice.

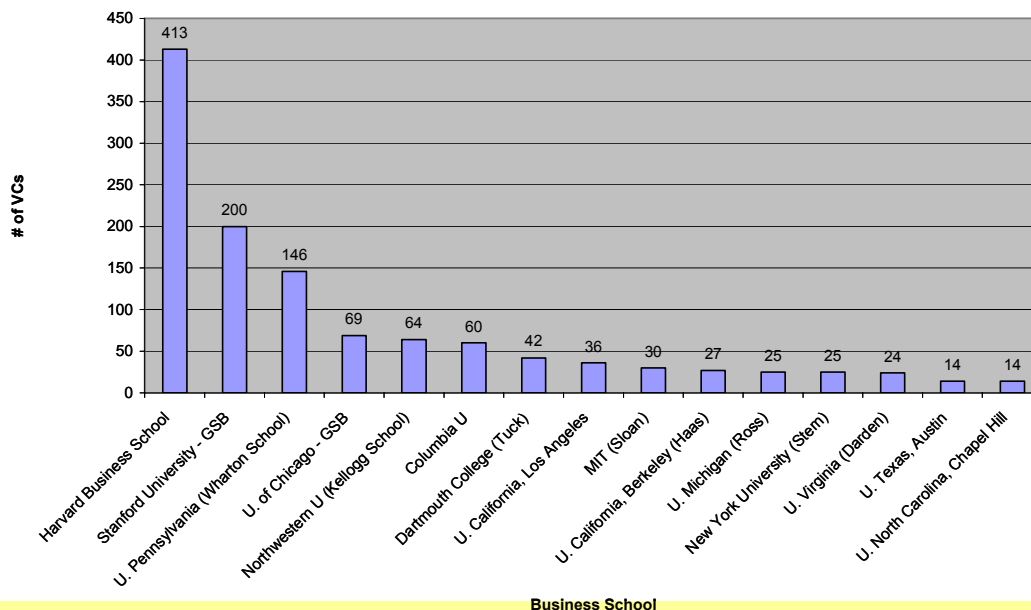
There are 3 ways for an investor to create value – growth, leverage and operational improvements. (For the finance-geeks, this would translate into revenue, WACC – Weighted Average Cost of Capital and ROA – return on assets respectively). Investments are made in one or more of these – VCs invest in growth for most part, while later-stage investors often create value via a combination of leverage and

operational improvements. Roughly speaking, that combination describes an LBO or “leveraged buyout”, where a private equity firm buys a firm for an amount equal to a sum of (a) capital from their own fund and (b) debt raised from the markets. The debt is carried on the balance sheet of the acquired firm, and is paid down through cash generated via operations.

Getting into private equity may interest BITS Pilani graduates. You’re not alone; this is a hot topic on most business school campuses. There is no single path to private equity (see interview with Vivek Paul), but knowledge of specific skills for the investing business that might help the more recent graduate. Refer again to the segments described earlier – skills

vary by segment. The VC industry is usually interested in operational experience (have you run anything?), so BITSians who are either entrepreneurs or product managers (better still, have significant P&L responsibility) could be well positioned. The VC industry also tends to focus mostly on IT and life sciences/healthcare, so experience in these industries helps. Growth equity requires both strategic (to identify discontinuities and for operational value-add) and financial acumen (to work with valuations), so firms tend to look for former consultants and bankers. Late-stage investing is similar to growth in its requirement, noting that banking experience is essential at junior levels, even when you have been a consultant. Finally, distressed investing tends to look for people who can combine financial savvy with law, no surprise

**Distribution of Venture Capitalists from Top US B-Schools**  
Source: Young Venture Capital Society, *Is an MBA really necessary?* (April 19, 2005)



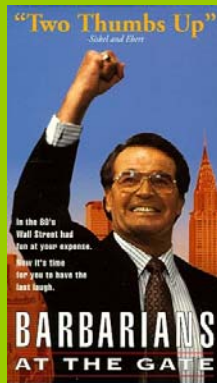
## Is an MBA necessary?

Is an MBA really necessary to break into venture Capital? While not a necessity, the list below demonstrates that a large constituency of current venture capitalists pursued an MBA. Moreover, the list highlights the power of going to a highly ranked school such as HBS, Stanford and Wharton.

To find out more information on where VCs worked or went to school (Undergrad, MBA, Masters in Engineering, Law or Ph.d), visit the YVCS website and check out the VC database ([www.yvcs.org](http://www.yvcs.org))

Source: Young Venture Capital Society, April 19 2005.

## The RJR-Nabisco LBO



Perhaps the most discussed private equity transaction ever is the \$25B 1989 leveraged buyout of RJR-Nabisco by Kohlberg, Kravis, Roberts & Co (KKR). There is a book ("Barbarians at the Gate") and a movie on that deal, which has never been surpassed in size.

The process began with a bid from Ross Johnson, then head of RJR-Nabisco, and the Shearson Group, a PE firm, to take the firm private. At the outset, this group was offering a 34% premium on the market price of the shares. The negotiation and counter-bidding that followed ended with shareholders getting a 97% premium on the market price at the start of the process!

Within four days of Ross Johnson's proposal, bidders started to appear on the scene. KKR and Ross Johnson also met to consider a joint deal, which didn't eventually work out. Next, the firm announced an open auction with a deadline for bids. Multiple extensions of the deadline followed, with bidders coming in and falling out at each step. At one point, KKR indicated they may walk away, but eventually returned with the highest bid.

This example illustrates how transactions could begin with management intent to sell all or part of a firm. The \$11B 2005 Sungard LBO began as an attempt to sell a division.

considering the legal wrangles in bankruptcy.

There are a few other things to consider when looking for a VCPE job. First, these firms are hugely selective, and hire very few people on an annual basis. Second, firms tend to hire when they close funds, which is something you can know of from trade publications. Third, the depth of a PE market could determine the type of people – for example, India is a relatively young PE market, so no one sector merits having specialist professionals dedicated to that sector. Consequently, most PE firms hire generalist consultants or bankers. In the US, where the market is mature enough to merit industry specialists, the profile of people at a firm tends to reflect more vertical specialization. Further, you almost always need a business or law degree, except for venture capital and at very senior positions, where degrees count for a lot less. Even if you are at business or law school, VCPE firms tend not to show up on campus for hiring, and you will need to network on your

own to find a job. Finally, some business schools have better alum networks in the PE world; Harvard Business School is clearly the leader when it comes to alumni in the private equity industry. Stanford and Wharton are the other two business schools that, together with HBS, have a large alum base in the VCPE community.

There are BITSians in all segments of the industry, and you should reach out to them if you are seeking a VCPE career. Many VCPE firms have very detailed websites, spend time looking through them to understand what they do and who they employ. Further, there are a vast variety of websites and trade publications that can help you keep up with current state of the industry. For an overview, there are many books you could read – consider reading "The New Financial Capitalists", which traces KKR history in detail and is a good primer on the buyout industry. On the venture side, try a subscription to Dow Jones' Venture Capital Analyst, which has different editions for technology and healthcare. On the web, use

[www.altassets.com](http://www.altassets.com) in general, and <http://ventureintelligence.blogspot.com/> for India related VC information. Finally, if you are at business school, you are likely to have access to paid databases and news-services focused on VCPE (for example, VentureXpert), use those extensively.

I will end with the same exhortation I have at the end of every message to BITSians on the bits2bschool list. Dare mighty things in whatever you do; stretch yourself beyond your limits, and the rest, VCPE jobs included, will follow. Good Luck !

♦  
*Mukul Chawla is a second year MBA candidate at The Wharton School, University of Pennsylvania and will join Warburg Pincus this fall. Earlier, Mukul was a consultant with McKinsey & Company and held marketing and engineering positions at Cisco Systems Inc. Mukul holds graduate and undergraduate degrees from the University of Illinois, Urbana-Champaign (CS'99) and BITS Pilani (IS'97) respectively. Read his blogs at [yodatma.blogspot.com](http://yodatma.blogspot.com). He can be reached at [mukul@bitsaa.org](mailto:mukul@bitsaa.org)*

## GENERAL INTEREST

BY SANDHYA KRISHNAN ('99 INFORMATION SYSTEMS)

### CROSSROADS

Some call it the beginning of adulthood, some call it the quarter life crisis. A girl's journey to become a woman is, more than anything, highly puzzling. What follows are the thoughts and travails of one such confused being.

**As** I looked at the mail that had just landed in my inbox a few million random thoughts crossed my mind. Attached were wedding pictures of my wingie from BITS and standing with the happy couple was another friend with her husband, visibly expecting their first child. As I regretted not being there, my eyes instinctively landed on the wall behind me. My old poster of a cozying couple with much torn edges and very visible creases stared back. I don't even know why I chose to hold on to the one relic my BITSian room was identified with. It had no place in my life and certainly none in a B-school. I told everyone it makes me feel at home. Frankly, I think it just makes me feel younger.

Is the honeymoon over, I wondered. Twenty four is a funny age to be. It's when your opinion has suddenly begun to matter and strangely, you don't seem to like it. It is the age when

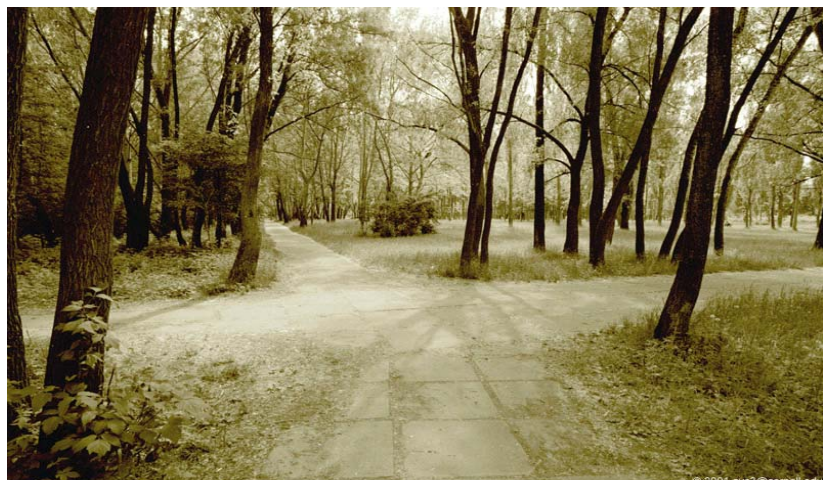
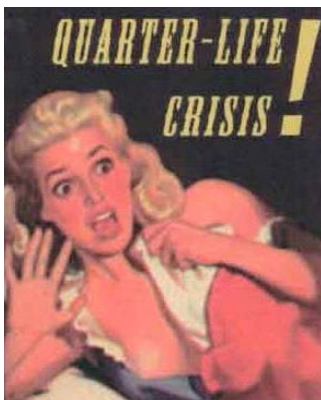
they stop forgiving you for acting like a kid and start expecting you to know how to handle one.

Friends of mine think they might still be a little too young to marry. But of course, you really cannot be taking competitive exams now-for when you graduate there might not be many eligible bachelors left. A corporate woman then? Maybe not, because for all the gorgeous women of this generation, three years is a long time to be working on the same job. For the thousands of women who joined the workforce three odd summers back, the crossroads of life are taking form.

Is there such a thing as too many choices? I thought about my close circle of friends. As independent young women with the freedom to step forward in time or back into domesticity, we are a lot pampered for choice. Gone are the days when working women were the toast of the day. Today it's

suddenly cool to stay at home, look after the kids and make aromatic candles. We can study at the best colleges, get the highest degrees, give up everything for the man we love and move to unknown lands. Who is to stop us? Hot shot careers could well be giving way to chocolate chip cookie baking lessons.

As we needle our way out of our protective environments, the comfort of being the new employee, the junior student, the blushing bride, there's an overwhelming amount of challenges and decisions thrown at us. We grapple with them, mostly alone, too independent and proud to ask for help. The truth is, we may not be as tough as we claim to be. We wax eloquent in public on how strong we are. And yet we crumble at the thought of calling a close friend to condole the death of his beloved. Today no one raises as much as an eyebrow when I tell them of my plans to start a restaurant and author a book. Another close friend just made a successful shift from a software techie



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to a well paid finance executive- with a one year MBA. Except for some student loans, there's nothing to stop her now. Just as I write this more and more women are changing lanes faster than we can imagine, all to pursue something unusual and more fulfilling. We are breaking stereotypes to form niches of our own. We want to be fashionable and comfortable, silly and suave

- all at the same time.

It is true. We now like to pay our own bills. But we aren't going to deny men the pleasure of opening our doors and pulling out chairs for us. After all, there can be nothing wrong in a little pampering and that's exactly how we like our lives too. Among all the generations of women on this earth we are probably the easiest

to live with. And the most difficult to understand. I thought of the bright and sunny days spent at BITS. When the next quiz and submission used to be the big obstacles to our carefree life. When girls would huddle around the night canteen at midnight to

discuss the next hot topic of discussion. When most of our plans for life ended with the campus job or a flight to the states. When the next best thing to look forward to would be the next movie, not the next wedding. And how much things have changed since then.

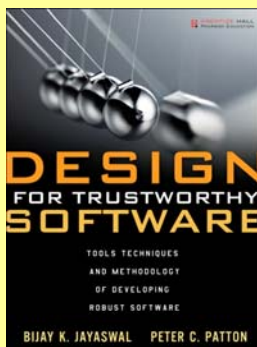
As we stand in the way, with the million others zooming past us, there is only one big question. What is life all about? Each of the paths we take may lead us to some kind of successes, but what is it that we are putting at stake? Our careers? Our families? Our capabilities? Or plain personal satisfaction?

I closed my laptop and reached out for a glass of milk. If this were 'Sex and the City', now would be when the camera pans out and the credits roll. Like many others, I wonder what the next episode holds in store.



### Book Announcement – BITS alum co-authors

#### Design for Trustworthy Software



This book presents an integrated technology, Design for Trustworthy Software (DFTS), to address software quality issues upstream such that the goal of software quality becomes that of preventing bugs in implementation rather than finding and eliminating them during and after implementation. The thrust of the technology is that major quality deployments take place before a single line of code is written!

**About the Authors:** Bijay Jayaswal holds a B.Eng. (Hons.) degree in Electrical Engineering from Birla Institute of Technology and Science, Pilani, India and an MBA and Master's Degree in electrical engineering from Aston University in England. He is the CEO of Agilenty Consulting Group, LLC. He has held senior executive positions and has consulted in quality and strategy for the last 20 years. His consulting and research interests include value engineering, process improvement and product development. He has helped introduce corporate-wide initiatives in reengineering, Six Sigma, and Design for Six Sigma and has worked with senior executive teams for effective implementation of such initiatives. [bijay.jayaswal@agilenty.com](mailto:bijay.jayaswal@agilenty.com)



The co-author, Dr. Peter C. Patton is a Professor of Quantitative Methods and Computer Science, at the University of St. Thomas, St Paul, Minnesota and Chairman of Agilenty Consulting Group.

## GENERAL INTEREST

SANGEETA PATNI (NEE SAMAR) ('90)

### PREJUDICES IN THE WORKPLACE

After being an engineer with two decades of professional experience behind me, and having been reasonably successful, I still find steeling myself for a fight with this unseen foe whenever I meet a new set of people...

**LAST** night my eight-year-old daughter was going through her schoolwork, where she was looking up genders of different animals/humans. Peacock/Peahen, Dog/bitch, King/Queen etc.

In the middle, she turned around and asked me, "Mom, what is the female of Doctor?" I was reading a book and without missing a beat, answered, "*Beta*, there is no gender for a profession. A doctor is a doctor, whether a male or female". She nodded sagely - "Yeah, right. Like you are an engineer. It is based on what you do, not whether you are a girl or a boy", and she went back to her schoolwork. I realized with a start - this is so simple

for her. She has seen me work all her life, it comes as no surprise to her that a profession has nothing feminine or masculine about it. That it is simply about skill and ability, and nothing to do with gender.

But that's not the way the entire world views it. Not the current one, anyway. There are people in the world who "feel" differently about a woman professional although they "know" that both genders have similar professional ability. However hard we try and gloss over it, gender prejudices are alive and kicking in the world. I know, I have experienced them first hand.



rearing its ugly head, every now and then. Showing up in the way men and women look past me in my company's booth at a technical event and engage with a male colleague for a technical discussion. Thrown in my face when a male colleague is chosen over me to head a project I have worked so hard on. Demonstrated by the involuntary closing-of-ranks by my peers at a beer bash session at an office party. It shows up when people hand out roles to me that they assume me to be good at – at nurturing people, at being good in handling irate customers and at soothing down a ruffled colleague, and in the same breath, I am passed over for roles that require handling new project situations, traveling to new geographies and breaking new ground and markets. It is

It is seldom voiced, nor is visible to a casual eye, not in the politically correct professional corridors I find myself in, but it is there. Lurking in board-rooms, in seminars, in meetings, in parent-teacher meetings, and even in homes,



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seldom, at least in the beginning that people seek to see what I am good at – I am just lumped with these “female” expectations. Awwrrrrgghh, it is frustrating!

After being an engineer with two decades of work behind me, and reasonably sound and successful decades at that, I still find steeling myself for a fight with this unseen foe whenever I meet a new set of people – whether male or female, a new set of buildings and new situations. I have to overcome this prejudice and forgive the people who have harbored it, before I get on with my work. No matter how many times I have killed it, no matter how many times I have proved myself to be equal, I have to do it again and again and again.

Why? Because I must. Because I know that despite what some people may assume me to be, I am an equal professional. This truth is known to me, but is hidden behind the fog of unconscious conditioning of the mind. And I must fight to bring this truth to light, sometimes even to myself.

How exactly do I fight prejudice? Ah, that’s not easy or even straight-forward. More because this is insidious and unseen, sometimes even the person with the prejudice does not know he/she has it. Unless it is a dogma, it typically is subconscious. To combat it, it, hence, needs different kind of weapons. I know of one that works. **Evidence to the contrary.** And I make it my business to create such

evidence. I ignore perceptions and just get on with my job, make sure I explain my role, my skills that got it done, generate visible, demonstrated evidence of my skills, and make sure I articulate my desired role before I find one dumped on me. I simply focus on sharpening my skills, meeting my deliverables, and keeping my faith in myself intact. Then, I dig my heels, and wait - for the respect moments to occur, when others, prejudiced or not, acknowledge and respect what I have done. When respect appears, prejudice simply melts away and disappears. All it needs is evidence and patience. Sometimes, lots and lots of it.

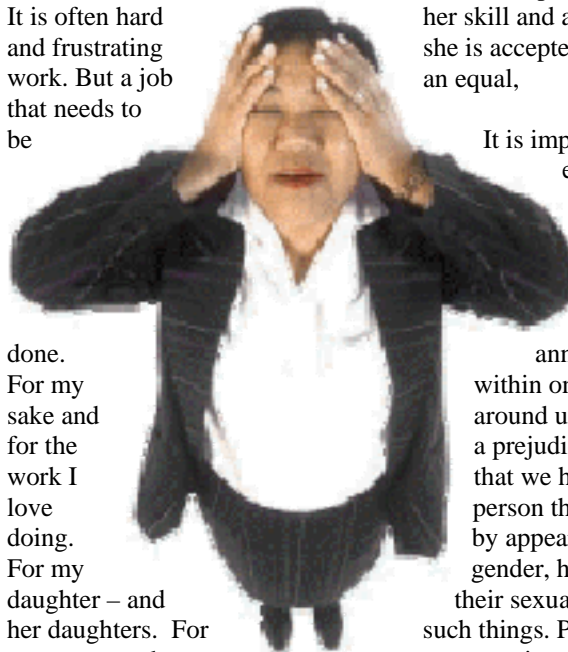
It is often hard and frustrating work. But a job that needs to be

done. For my sake and for the work I love doing. For my daughter – and her daughters. For my parents who thought me to be equal to my brothers. For the BITS education which equipped me to be equal – and for friends and colleagues who depend on me to be so. And I know I am not alone. I look around and see other women who have done the same. CEOs,

Scientists, Technology Officers, Police Cops, Design engineers, Mountaineers, IAS Officers, Pilots – all women who silently went about applying their ability and the skill to do a job, and just did it. When they kept at it, no matter what people thought or said, people could not but respect that they did, and considered them as equal professionals. Invariably. Inexorably. Irrevocably.

But this is only about the battle I wage and the weapons I use. I am able to work long, hard hours and grind away the prejudice - but about my daughter, and girls of her generation? It would indeed be sad, if she too would have to present evidence upon evidence of her skill and ability before she is accepted and treated as an equal,

It is important, then, to examine where this prejudice comes from, so that one is able to move towards it annihilation, within oneself and all around us. It is said that a prejudice is an attitude that we have about a person that is governed by appearances, color, gender, height, religion, their sexuality and other such things. Prejudices are not consciously learnt. They exist in the murky depths of the **unconscious mind**. Nobody teaches you prejudice. It is arrived at by our minds, sifting evidence that it finds, in experiences, daily interactions, stories, myths, legends, movies and stuff like that. We absorb



## GENERAL INTEREST

them in homes, work places and in social settings. It is prejudice which makes one select a male surgeon over a female one, even though the female surgeons' credentials may be factually better (but this is one area, which is fast changing everywhere).

Talking about prejudices, I have a confession to make. I hate to say it, but I have sometimes been prejudiced about female professionals too. I am not proud to admit it, but it was there. I couldn't help feeling a little nervous when I would see women striding towards an aircraft I was going to fly, wearing a pilot's uniform. I have no idea where that came from, considering that I "KNOW" a female pilot will be as good as male one. How could I think thus? I, as a professional woman faced my own prejudice and overcame them while I hoped for a world that has none. My prejudice about female pilots came from my growing up years. I never saw many women fly aircrafts when I was growing up. I never heard stories about women

pilots, only about male ones. Maybe if I had seen enough women pilots, and heard enough stories about companies fighting to hire women pilots, I would not have batted an eyelid when I saw a woman walk into the pilot's cabin.

We've come a long way! There are examples to the contrary everywhere. It is time for all of us to change!

It is said that the unconscious mind has 'a mind of its own'. No one can force it to behave. It needs to be trained and schooled, and then, it would change. To school the unconscious mind, it would need the same trick that I use to fight this attitude at work.

**Pile up evidence to the contrary.** Pile up images, thoughts, songs, stories, legends and news about women and their professional lives all around. Create a smorgasbord of professional success stories of women. Tell them to your daughter and to your son, tell them to the winds, tell them to the rooftops, tell them to newspapers, tell them to your friends – let all of them know

that women, too, lead successful professional lives. Celebrate them. Rejoice in their skill. Stories of this kind will jostle for space with all those other old stories about women being mothers, care givers, wives – but they would be there too. And they would be told and re-told and echoed back to our unconscious minds in many, many ways. Then, someday, when the unconscious mind is processing his or her experiences, stories and images, it would reach the final "Aha" moment! The conclusion that there is ample evidence of women doing design, software, space sky-walking, medicine, mountain biking – and that really, profession has nothing to do with being a woman, but only to do with skill and ability.

And then, when my daughter – and yours – grows up, she would be perceived as an engineer. Not a "female" engineer, but just an engineer. Period.



## GENDER PREJUDICES

An October 2004 report of the Indian National Science Academy (INSA), titled, "Science Careers for Indian Women", aimed at gaining a perspective of the Indian situation regarding women in Science and Technology. It concluded that there is no gender differentiation in the intrinsic abilities of women to pursue careers in the sciences – though subtle discrimination in many workplaces does exist. In the context of the current controversy caused by Lawrence Summers of ex-Harvard fame, the INSA report observed that selection of subjects for higher studies by Indian girls is guided more by social factors – certain perceptions that women are not really expected to pursue engineering fields (medical and biological sciences are more acceptable).



BY KAUSHIK MUKHERJEE ('00 EEE)

# MYTH-BUSTING THE INDIAN MBA ROULETTE

12 misconceptions about the selection process you would rather avoid

## The Indian MBA

graduate has never had it this good. However, today, with over a thousand b-schools in the country, we run the risk of selling the Indian MBA dream with the promise of money. This is exactly where we need to separate the wheat from the chaff. There are amongst the hundreds, a precious few institutes that have carved a niche for themselves in the world's management fraternity. Here, we take a look at 12 such misconceptions, any aspirants should steer clear of. After all, in a game of roulette – you ought to do better than trust someone else's hunch.

### 01. The brain reigns supreme

In the months that lead up to the aptitude tests, we come across a motley crew of aspiring candidates. From the lazy to the struggler to the gifted few who seem unnaturally brilliant at making a mockery of the different sections of the test, they are all a part of the same race. Over the years of schooling and graduation, it has been embossed in our minds that some students are more intelligent than the others and

more often than not, it is the same select few who walk away with the cake. Indeed, we hear cases of candidates managing sky-high scores with only a month's effort, if not lesser. The mistake we make is that we view such people as perhaps the only ones who are assured of a



safe berth in the second round of selections. It is then, the time to flip the coin. These tests are great levelers. Where some might possess superior intelligence, it is our duty to fish out the best in us and pit them against another's. What is it? Superior determination? Perseverance? Dedication? Finding one's strengths and drawing up a plan based on it explodes myths like these. For all we know, our intelligent

competitor might not have the endurance to last more than a month.

### 02. 1:100 is too high an odd

With numbers, the bigger they get, the more they allure us. When we read about a 153000 candidates appearing for an entrance test, we struggle with the odds. A simple division would scale down the ratio to 1:100. And this is exactly when panic begins to set in. Now, let's look at this figure a little closely. Firstly, out of the entire lot, at least 30% of the applicants take the test to apply for Tier-II and Tier-III b-schools. Another 20% take the test without any serious effort put into it whatsoever. This is when the figures start favouring us. How passionately do we really want this to work out? If we want it bad enough, we

will not have to bother about finding 99 others who might not be as motivated as us, to secure our seat. All we need to do is keep our end of the bargain – believe in our capabilities, without getting intimidated by daunting ratios. Think about it – the minute we count ourselves out, the person next to us has one less – 98 others to surpass.

### 03. There's never enough time

The other day I heard of a second-year student who had started on his preparation for these entrance tests. Now, here's an interesting thought. A student is willing to sacrifice over two of the best years of his life – his college days, to study for a test he plans to take after two-and-half years. This – is exactly what fear of failure does to aspirants. In fact, he is not the only one – quite a few 'coaching institutes' start their batches for a particular year even before the tests for the same year gets over. The solution then, is unique to the individual. We have to plan our preparatory schedule according to our profile. It would depend on the number of hours we might be able to put in everyday, our commitments and our work/study schedule. This is when we understanding the benefits of 'back-planning'. From the date of the test, we move back in time – all the while accounting for the practice tests, the analyses, the classes, the time spent in self-study. We have enough time. Once we accommodate our preparations in scheme of things, we come up with a time span. We arrive at a date. That is the date when we start running – and we don't stop till we've crossed the finishing line.

### 04. Classroom coaching is mandatory

Let's face it, coaching institutes don't work magic. They facilitate miracles, but it is us who have to be prepared to perform them when it matters most. It does depend on the individual and his ability to assess his need for a mentor. For some spirited individuals, correspondence material and practice home-tests prove to do the trick. But if we realize that

we perform best when there is someone to put us through the grind, then classes like these might just help in bringing out the best in you. This is when we bring up the topic of 'active learning'. Most of us are used to the damaging process of being spoon-fed each and every detail of a course. Well, that might have worked in school and in college, as well. In this case, it is up to us to take the initiative and engage the faculty in gleaning the most out of the curriculum. Class participation, discussions, doubt-clearing sessions – there will come a time when we will get more than every penny's worth and best of all, that will be the last of our concerns. Know yourself, and if you invest in this – for the sake of time, effort, dreams and money – go the whole hog.

### 05. Oh, for a 99

One very elusive figure for every aspirant is 99 – ninety nine percentile. To put it in layman's terms, this is when you break into the top 1% of all the students who appear for the test. For most candidates, this would translate to a confirmed seat in the second round of selections. Often, the mistake we make is that we benchmark ourselves on standards set by others. In spite of knowing that a perfect score is quite possible, we strive hard to achieve the average score at which a candidate secured an interview call. This is dangerous as it might end up shortchanging us of our potential. We perform, when the need of the hour is to outperform. A safer option would be to benchmark ourselves against deserving others till the time we break the barrier. Once that is done, we strive to surpass ourselves with each effort. This way, we give complacency the boot and at the

same time gain some semblance of consistency.

### 06. A simulation test is after all a mock-test

Amongst the many pit-falls of the commercialization of the coaching process, none could be possible more hazardous than the "simulation tests-wars". In their bid to attract maximum number of students by delivering more value for money, some institutes go to the lengths of conducting back-to-back tests for every week of the three months that lead up to the test. Although at first glance, the return-of-investment seems lucrative, there's more to what meets the eye. An average test is attempted for a period of two hours. Surprisingly, more important than how much we score, is the amount of time we spend analyzing our performance. This could stretch over days – where the solved and unsolved questions are revisited. It is a process which is drawn out over time and ingrains in our system some of the finer qualities of effective question selection, time management, solution approaches, etc. No, there cannot be a short-cut to this. Taking back-to-back tests, give very little time for analysis. Also, it builds a feeling where one is tempted to try scoring well in the test to come, instead of learning from the pitfalls of the present one. Practice tests – both, the home and the national ones – play an invaluable role in honing one's test-taking skills. Spare no effort – in fact, you might consider resetting your watch to 1100hrs every time you start attempting one.

### 07. To get ahead of the pack, stay away from it

Some of us have a habit of preparing in isolation. For most it's a compulsive habit, while for some it's decisive. One of the biggest misconceptions that we all come across in some phase of our study life, is that it works to our advantage if we keep away from the group, when it comes to matters of sharing information of knowledge. Knowledge restricted, is knowledge gained? Actually not, in fact it's just the reverse. That is the beauty of the manner in which the tests are structured. The oddball who decides to dispense with helping others, also stands a high risk of not getting help when he needs it most himself. In a test where you are rated against your peer, where the percentile matters more than the percentage – a cloak-and-dagger approach to studying would ring the death knell of any aspirant. If it's a melee, you have to be in it – in the thick of things to know your own strengths – apart from discovering the many weaknesses of others, of course.

### 08. Underrating yourself keeps the pressure off

Stars performers always attract attention – from well-wishers and others, alike. Times like these, expectations sky-rocket, complacency sets in, the pressure of performing increases – in short, it might not be an easy situation to handle. True, especially if all this is happening well-before when it actually should be. To counteravail this, most of us take a diametrically opposite approach. We discredit every success of ours as a stroke

of luck, and weigh heavily on every little setback. In short – we underrate ourselves.

Although this might seem like a pragmatic thing to do – of course, everybody loves an underdog – we need to be very careful in walking that thin line of modesty. Unchecked, it might breed dissatisfaction and infuse a latent sense of hopelessness in our minds. The next time someone asks you about your preparations or your performance, try this – instead of painting a sorry picture, tell them that you did your best and you have your fingers crossed for the results. Sometimes, being candid works wonders on both you and your party. You gain in confidence and the nosy parkers cease their taunts.

### 09. Sacrifices are imperative

This stems from the old maxim that in order to gain something, one must sacrifice another thing. While this might be true in cases, they are definitely not mandatory. But yes, if that is what it takes to make things work – it could be for the better. A sacrifice, however trivial it might be, stays in the mind for a while to come. Especially if we choose to forego something that is very close to our heart in order to accommodate our study routine, we tend to work doubly hard to make sure that the sacrifice was well worth it. In cases like these, it adds a dash of responsibility and character to our cause. It makes us sure that no matter what the compulsions, a course once planned is what we will stick to even if it requires the re-shuffling of a few priorities. Of course, at the very end of it all, in the event of things not working out in our favour – we would not want to have this one incident to blame.

### 10. Disadvantage – the fresh graduate

Quite a bunch of the applicants, predominantly those who apply as fresh university graduates fear the fact that they might be at a disadvantage when it comes to the selection rounds that follow the written test. Simply put, this would be a disadvantage only if we'd want it to be one. For starters, there are enough more things going our way. Unlike most of the working applicants, we would be in the habit of studying and ought to have our core graduating courses and projects right on the top of our minds. It is then up to us to allocate time from our final semester and do justice to the preparation plans. Secondly, it is important to know that although business schools do recruit fresh graduates in large numbers, it is important to distinguish yourself from the person right next to you. To make a start – read up about things outside your university curriculum – current affairs, the Indian economy, the Chinese manufacturing model, etc. Bottomline, the well-informed, mature freshman with a fair idea of the happenings of the world around him - Bingo!

### 11. Disadvantage – the working professional

The biggest challenge that working applicants face, is that of time-management. Based on your profile in the company, you might be in India... abroad, working twelve hours a day... or even longer. It's a slipstream you have to avoid at all costs – and if you are determined enough, it won't seem as Herculean as it sounds. The trick is to prioritize the tasks and

## EDUCATION & ACADEMICS

making sure that no matter which slots you juggle and reshuffle, the top spot remains untouched. Re-schedule work hours, take a day off to catch up, start early so as to accommodate unforeseen office night-outs – but fight tooth and nail to stay on course. Once the initial hurdle is through, your work experience promises to be a show-winner at almost all of your interviews. Undertaking initiatives in the workplace, assuming responsibilities within the team and having a crystal-clear idea of how your individual contribution fits in to the bigger picture – additives that will make sure you blaze through the final rounds.

### 12. The easier section must be done first

Rigid answers like this surprise me no end. True, it might hold good for one who wants to make sure he is off to a secure start. Another candidate might simply

not feel comfortable with the idea of leaving a difficult section till the end. This is where beginning early displays its merits. The home-tests offer numerous opportunities to experiment with different time-splits, order of sections and strategies. A time comes when we boot a high score and with new-found confidence in the winning combination, we teeter on the edge of aborting the trial-and-error process. This could simply be the first nail in our coffin, if we're not careful enough to try all the permutations and combinations possible. Over a period of time, we zero in on a particular strategy and then try it out in the national-level tests.

Well, there is no denying the fact that some of the world's top consulting firms and investments banks troop to the premier Indian business schools to pick the crème-de-la-crème of the graduating batch. With a predicted shift of the balance of global economy towards the

Asia-Pacific region, and an emergent India with a key role to play in it – pursuing your management course in this country would have obvious merits in the long run. Factor in the high return-on-investment and globally accepted teaching methods and you have a powerful case for the Indian MBA. What you might have to forego is the high networking value, the rich global perspective and all that comes with the much-talked about 'foreign b-school' tag. But given the way in which the Indian premier b-schools have come up over the years and are finally making efforts in expanding their reach beyond the national boundary, there is a good chance that things might just be on an upward spiral. If you are one to jump in to where all the action is, well – congratulations! You now know 12 ways not to derail your MBA entrance preparations.



### BITS Pilani, Hyderabad Bhoomi Pooja snaps!

Date: Ugadi Day (Thursday), 30th March, 2006

Venue: Campus Site, Jawahar Nagar, Shamirpet Mandal, RR District, Hyderabad

## EDUCATION & ACADEMICS

BY SARASWATHI & R. PITCHAI. SENT BY PRASHANT VISWANATHAN.

# PROF V LAKSHMINARAYANAN (1906 – 1983) – A BRIEF MEMOIR

2<sup>nd</sup> September '06 will mark the Birth Centenary of Professor. V. Lakshminarayanan, the founding Director of the Birla Institute of Technology & Science (BITS) Pilani, Rajasthan.

He made his mark on the higher technical education scene in India and brought thought leadership to it for a quarter of a century (1945 to 1970). With the active support and encouragement of the Birlas, he helped transform a remote, fledgling technical college in rural Rajasthan into a premier institution of higher learning in the country, internationally recognized for its world-class facilities, faculty and programmes. On this occasion, it is fitting to remember the man and his mission and how he went about creating a great temple of learning in the face of various physical, cultural and emotional odds.

Born in a traditional, middle-class Brahmin family of South India on 2nd Sept. 1906, Vaidyanathan Lakshminarayanan had his early education in Bangalore, Madurai and Tiruchirappalli. His educational proficiency and distinction were such that, in 1924, he secured admission to the engineering course at the Govt. Engineering College at Guindy, Madras (now Anna University) – this was at a time when the undivided country itself had only a few engineering colleges and getting a seat in the only full-fledged engineering college in the State was just a distant dream for many. Specialising in Mechanical

Engineering, he graduated with a B.E. Degree in 1928. His interests in sports and cultural activities were well developed by this time – he was the general captain for Tennis and his hobbies included acting in plays and photography.

Prof. Lakshminarayanan started his professional career as a mechanical supervisor in the then Madras P.W.D. After a three-year stint, his real professional vocation, teaching and training of engineers and management of higher technological institutions, beckoned him and he joined his Alma Mater, the College of Engineering, Guindy, Madras as a Jr. Asst. Instructor in Mechanical Engineering, at the entry level. Besides teaching, he took part in a wide range of curricular and extra-curricular activities such as Editor, College Magazine; Secretary, Old Boys Association; Founder, Co-operative credit society for staff; prominent tennis player, and others. These paved the way for his developing into a many-dimensional personality in later years.

From 1941 began his career with the Govt. of India – Technical Training Scheme in the Department of Labour in the Directorate General of Resettlement and Employment. He started as a Superintendent at

the Madras Technical Training Centre in Sept. 1941 and gradually rose through the ranks as Vice-Principal, and Principal. In 1943, he took over as Principal, Ajmer Mission School – Technical Training Centre and in 1945, he took charge as Regional Inspector, Central Circle at Nagpur and Delhi where he served with distinction till 1946.

Prof. Lakshminarayanan's Life-mission of setting up a premier Higher Technological Institution at Pilani, the ancestral home of the Birlas, began in a subdued note. In July 1946, Mr. G. D. Birla offered him the position of Vice-Principal and Head of the Mechanical Engineering Department (as also Acting Principal) at the proposed Birla Engineering College, just then on the anvil as a unit of the Birla Educational Trust at Pilani. Prof. Lakshminarayanan accepted the offer and challenge. The engineering college was to be located at a remote, rural area of Rajasthan not readily accessible by rail or air. Then existing Vidya Vihar campus was about 3 or 4 km from the Pilani village. The only infrastructure available to start the engineering college was a workshop building (which doubled up as the main administrative office of the college), a gymnasium, a dispensary, a few houses for the

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staff, some barracks (the campus was a military base during World War II!) to be used as class rooms, a guest house and a couple of basic hostel buildings for the boys. A girl's school (Birla Balika Vidyapeeth) was also located in the Campus. With these beginnings, between 1946 and 1960, Prof. V. Lakshminarayanan, by his professional stature, tremendous energy and will power, technical competence, human relations skills, and single-minded devotion to the cause, with full support and encouragement from the Birlas, the Birla Educational Trust of which Dr. S. D. Pande was the Secretary, and with the excellent cooperation from the faculty and students, helped establish, develop, and raise the Birla Engineering College, to the status of a National Higher Technological Institute – well known not only in the country but internationally too. From an initial strength of about 150 students in 1947, the Institute has grown many fold now to provide educational opportunity to thousands of budding engineers and scientists.

When Prof. Lakshminarayanan initiated activities for the Birla Engg. College in 1946-47, there was also a Science and Commerce College run by the Birlas in the Pilani village. During 1947, after Independence and partition, a large number of refugees were absorbed in the college. The land-mark new building of the college with the central tower was built in the early 1950's and it accommodated in one wing the colleges of Arts and Science, Commerce and Pharmacy and the other wing, the entire Engineering College. Several new laboratories, class rooms, library, hostel facilities for men and women, sports and recreation facilities were built, well qualified and motivated faculty recruited from all over India and the infrastructure needed to make the campus self-sufficient created such that, by late 1950's, the Birla Engineering College was a National Institute of repute much sought after by students from all over India. All these institutions in Pilani were affiliated to the University of

Rajaputana which later on came to be known as the University of Rajasthan. Prof. Lakshminarayanan also ensured from the very beginning that merit was the sole criterion for selection of students and faculty.

In the early 1960's, Mr. G.D. Birla and Prof. Lakshminarayanan evaluated the trends foreseen in technology and science education in the coming decades and decided to forge an advanced higher education institution integrating technology and sciences, building on the existing engineering, science, arts, commerce and pharmacy facilities. Several new engineering colleges in the country had already been setup under the post-war reconstruction scheme. The I.I.T's, with significant financial and technical inputs from countries such as USA, UK, USSR, and West Germany had already come into being and the higher technological education scenario in the country was poised for a rapid growth and transformation. Seizing the opportunity and sensing the demands likely to be made on first-rate institutions, a collaborating arrangement was worked out with the world-renowned Massachusetts Institute of Technology (M.I.T) at Cambridge, Mass, USA. Under this arrangement, M.I.T. would provide certain needed inputs and help transform and upgrade the Pilani Institution. Visiting faculty, assistance in curriculum development, equipment and exchange facilities had been envisaged in this scheme. The Ford Foundation, U.S.A., provided substantial financial assistance to establish the Institute in its

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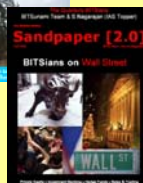
## Active

Some of our current initiatives for students...

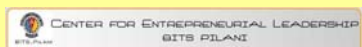


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early years. The British Council helped establish a strong school for teaching the English language. Assistance from USSR for identified programmes was also available. Prof. Lakshminarayanan led a Govt. of India Technical Education delegation to USSR in 1961 and visited a number of institutions. During this phase, Prof. Lakshminarayanan made several working trips to USA, Europe and other countries for discussions and hosted technical visits by several experts from these countries.

In March 1962, Mr.G.D.Birla announced the setting up of a higher Institute of Technology and Prof. Lakshminarayanan, along with visiting US Professors and Senior faculty from the college prepared a draft for an Integrated Institute incorporating all the engineering and science specialisations. Thus was born the integrated “Birla Institute of Technology and Science” (BITS), Pilani. It

was registered as a Society under Rajasthan Registration of Societies Act in 1964 and it was declared a ‘Deemed University’ under the UGC Act by the Govt. of India by a notification on 18-6-1964. These pioneers, in spite of some opposition, ensured the faculty pay scale was almost in par with those of the IIT's, so that the fledgling institution could attract scholars of distinction. Under the leadership of Mr.G.D.Birla and Mr.K.K.Birla and with active support from faculty and students, Prof.

Lakshminarayanan guided the Institute's fortunes in its formative years as the First Director. Some of the distinguished visitors to the Institute in the early years included Shri. Jawaharlal Nehru, Sardar Vallabhai Patel, Shri. Morarji Desai, Mrs.Indira Gandhi, Dr.Rajendra Prasad, Dr.S.Radhakrishnan, Dr.K.L.Shrimali, Dr.Triguna Sen, Dr.Humayun Kabir and others.

Several honours and professional recognitions came Prof. Lakshminarayanan's way during this period. He was elected the President of the Rajasthan Academy of Sciences in 1965. He was elected to membership in the Inter University Board in Dec.1964. He was offered appointment as a member of the Union Public Service Commission, which he declined. He was appointed as Hon. Colonel Commandant of the NCC at Pilani. He was President of a session of the Education Commission Seminar of the Association of Principals of Technical Institutions (APTI) of which he was the Hon. Treasurer. He later became President of the APTI which was the forerunner of the present ISTE (Indian Society for Technical Education) and perhaps the All India Council for Technical Education (AICTE). He was invited by the MIT in Boston to be a Visiting Professor at the Centre for Advanced Engineering Studies and, with the blessings of the Birlas, he took up the assignment and spent 1969 at Cambridge, Mass, USA. He retired in 1970 after serving the cause of Technical Education in India with distinction for over three decades. Even in retirement, his experience and counsel was much sought after. He was consulted by several technical institutions. He remained active as the Correspondent of the Gopalapuram Ganapathi Iyer High Schools at Chennai till his very end.



INTERVIEW BY DEEPTHA GANAPATHY ('95 PHY INSTRU) &amp; ASHISH GARG ('97 INSTRU)

# THE QUARTERLY BITSIAN: PUNITA PANDEY ('84 EEE)

Punita Pandey is the Chairman and CEO of netCustomer. Punita founded netCustomer in 1999 leveraging her experience in software development, management consulting, and IT services. Under her leadership, netCustomer has become a leading provider of advanced applications support services leveraging a 24x7 global delivery model. Punita finished EEE at BITS Pilani in 1984 and also holds a master's degree in Business Administration from the Haas School of Business, University of California, Berkeley. She currently resides in Silicon Valley in California and frequently travels to India where netCustomer has a support and services center in Noida.



## What are the three best memories of your time at Pilani?

Pilani was a very special place for me. One never forgets what one did in Pilani and I have so many memories of my Pilani days. In fact, I had to really wrack my brains to come up with the top three.

We used to have these late night *chai* sessions just before the *comprees* or the tests. One of our *wing mates* would make tea for the whole wing around mid night and then we will be *yapping* away for another hour before getting back to studying. I really miss those late night *chai* sessions.

Of course, the *Audi* was a big fixture for anyone at Pilani. Going to movies and creating a ruckus during the movies. I remember that we barely ever listened to any dialogue. Instead,

we listened to the extra commentary given by others.

I also used to enjoy hanging out at the Professors' houses. Especially during festivals like Diwali and Holi when it was tough to go home. We would go to Professors' houses to wish them Happy Holi or Diwali hoping to get some good food. This again was unique to Pilani because it was such a closed campus. The Professors were always welcoming to the students.

## We'd love to hear about your activities and some [any?] courses you liked at BITS?

In general, I liked the Math courses a lot. In addition, there were other courses like Social Engineering I and II, Economics courses that were not the classical *EEE* courses. I really liked these courses as well.

Activities wise it was mostly hanging around with friends, going to CP to have *Blue Moon Samosas* or trekking up *Pahadi* to the temple. Once we all got together as a group and parked out cycles at the base of *Pahadi*. From the top, we saw some guys messing with our bikes which, of course, were prized possessions at that time. I still remember vividly how a couple of us took it upon us to "save" our bikes. Therefore, we quickly trekked down at almost 100 miles per hour without worrying about falling down and hurting ourselves.

It was all about the "little pleasures" as you know that Pilani does not have too many luxurious things to offer. Overall, it added up to a great experience.

## Tell us a little about the transition you made from

## India to the US? What surprised you? What did you like the most and intensely dislike?

Growing up in India I moved around quite a bit as my dad was in a transferable job. So every three years we would be in a new city or a new state. I got a good exposure to varied cultures and lifestyles in India. I grew up with a strong belief that being different is OK and you have to be comfortable in your own skin. This was very helpful when I came to US. A lot of people ask me whether it was a culture shock but I don't think so.

Coming to US in a lot of ways has had a more grounding affect. I have been in the Bay Area for more than 5 years and this is the longest I have lived anywhere. Pilani was the longest I had lived at any place in India.

## Have you ever worked with business professionals from Pilani or even India? What are your impressions of them in terms of leadership skills or technical abilities?

I have worked with a number of BITSians in the Silicon Valley and in India as well. I may be biased in saying so but I think that BITSians are the smartest folks you can find any where in the world. My experience shows that Pilani not only attracts the smartest brains in the country but also grooms people to be the best. I don't think that BITSians lack anything per se in their basic foundation.

Of course, all of us continue to grow as time goes by. I have come across great leaders like

Vivek Paul who is a great brand not only for BITS, Pilani and for leadership in general. There are many more BITSians in the Bay Area like Prem Jain, Naveen Jain etc. I have met some great people from Pilani and I continue to do so as I travel around the world.

## How do you think we (BITSians/Indians) are distinguishing ourselves? What do we need to be doing better?

I don't know if I am fully qualified enough to comment on India as a whole but I will take a crack at it. I am very impressed with the work going on at building the "India" brand, especially at forums like the World Economic Forum at Davos. Going beyond being seen as a developing country with cheap labor it's really our education system and one-of-the-brightest human capital that stands us apart.

Our education system can be further strengthened by learning from the western counterparts by making education more broad based. Pilani did a much better job at providing this than most other engineering schools in India by really exposing people to many more things like business aspects. India has to do more in providing a well rounded education where people are more confident to handle different situations while still being great doctors and engineers.

I see all these things happening already with initiatives like the Centre of Entrepreneurial Learning (CEL) at BITS. I interacted with about twenty five students from CEL on my

recent Pilani trip and was amazed to listen to their ideas.

## What do you think are the biggest challenges facing BITS today?

I wouldn't call them challenges but there are definitely things Pilani could do better. One of the things is international brand building, something that requires concentrated efforts. IITians have done a great job at this. We need a grass roots initiative to make people understand what BITS is all about. The onus for this falls both on Alumni as well as on the BITS Pilani administration.

Road access to Pilani could be better where the government needs to get involved as well. Research facilities in BITS have improved since the time I was a student at BITS but substantial improvements can be made on this front as well by collaborating with other universities.

## What can BITSians do better/start doing to compete with the world's best?

There needs to be an effort to connect BITSians who are spread all around the world. There are already efforts in place by the BITSAA Silicon Valley Chapter to start distance learning lectures at BITS. This is what students at BITS need, a connection to the Alumni.

## As the Chairperson of the BITSAA Women's Council, what role do you think the BITSAA Women's Council can play in the life of BITSian women?



BITSian women are a strong bunch. We as a force could be even bigger in terms of some of the changes we are talking about. The council is a good initiative and as we go we will figure out more effective ways to build on the network to help each other out. Let us not short change ourselves by thinking only women can help each other out. There are guys out there who can help us and have helped us all along. I have a ton of respect for BITSian guys. The healthy (gender) mix and competition in Pilani was one of the best.

## **Has the BITSAA network been helpful to you with your Entrepreneurial venture?**

BITSAA (as an organization) is relatively new thing for me. I know a number of BITSians, in the valley as well as in India, and I have leveraged that informal network in different ways – as a sounding board, in business partnership, in friendship and all kinds of good stuff. Overall it has made me a better leader, a better person, and more confident knowing that there are all these people I can reach out to. Having BITSAA as a concerted effort, the reach out could be much bigger.

## **Even though the Indian software industry is on track to \$60 billion in revenue by 2010, most of it comes from software services. What do you think holds back Indian companies from launching successful products?**

Business is really about growth and margins and it really doesn't matter if it's a product, service, or widget. It could be anything that you may sell. It's not the product v/s service in itself. It's about building something that is sustainable, that grows and produces profits year over year. Now if you look at some of the services companies, like Infosys with over 30% margins directed growth year over year. It really doesn't matter what they offer.

What we need to think about is very strong fundamentals and scale which I believe is where some of the Indian companies may be falling short. I don't get too enamored by the product part of it. As long as there is an innovative offering that is different, can be scaled and can be profitable. Not that we are there yet. That is the key drive for me personally than how to build products. There are product companies that don't do well and service companies that do extremely well. Eventually what matters is who does a better business and not what they offer.

## **So it is the services "seed" that was sown x years ago and everybody is simply following that?**

Several companies that try to transform themselves from a services to a product company go from hugely profitable high growth companies to low margin non profitable companies. The important thing is to really figuring out distribution channels, cost of sales. Western companies have done a better job at building a better marketing of sales engines for products better than Indian companies have. I don't think it

is the technology of building a product v/s delivering a service.

## **Building a company as an entrepreneur is much tougher than working a nine to five job. What drives you to be an entrepreneur?**

I can't put a finger on it. One thing I can tell you is that I enjoy what I do everyday. Even with all the ups and downs and there have been too many to name them, it's really about enjoying the downs and much as you enjoy the ups. Entrepreneurship does give you some of the freedom to not find excuses. The buck stops at you and at times you really got to make it happen. Having that sense of responsibility, accountability and freedom, I think is the part that I have enjoyed the most.

## **Do you see a difference in the style of business between men and women?**

I do not see any such differences. When it comes to business there are certain intrinsic qualities that transcend gender, ethnicity, religion and race. Now that I have the experience of observing a number of different leaders around the world, I see so many things that are common and they do not belong to one section of the society. It's really being passionate about what you do and having empathy for people. It's about being decisive in difficult situations and taking responsibility for failures. I have observed these qualities in so many great leaders regardless of any affiliation.



INTERVIEW BY PUSHKALA VENKATARAMAN ('95 MMS)

# THE QUARTERLY BITSIAN

## REENA AGGARWAL ('74 MMS)

Dr. Aggarwal is a Visiting Professor of Finance, Sloan School of Management, MIT and Stallkamp Faculty Fellow and Professor of Finance, Georgetown University. She was named among the “Outstanding Faculty” in the Business Week Guide to the Best Business Schools. She has been a Visiting Research Scholar at the IMF (2004, 2003), Fulbright Scholar in Brazil and Chile, Academic Fellow at the US SEC (1997-1999), and consultant with the NASDAQ, UN, IMF, IFC, IDB and Credit Suisse. She has a PhD in Finance from the University of Maryland and an MMS degree from BITS Pilani.

**Do tell us a little about your life at Pilani. What are some of your best memories, your friends? Who are the people who influenced you a great deal? What courses did you like etc.?**

My experience at BITS was just absolutely wonderful both academically and socially. I was involved in lots of activities – plays – Hindi and English, Student Union and Meera Bhawan dining. I believe BITS had its first strike when I was in the Student Union; it was quite an event (very peaceful). We were very few girls, it was impossible to go from Meera Bhawan to our classes without the guys whistling at you from the balconies of the boys hostels. We had this *Chowkidar* of Meera Bhawan who was a “big” man with huge moustache and when someone came to meet you he would scream loudly so that the whole world could hear “*Reena bhainji apko koi meilen aiya hey*”. Just like

any hostel food, we complained, but I loved the Sunday morning *dosas*.

I can't forget the cold coffee at “Kapur jis” in CP, cutlets at Volga. The temple was such a landmark, just a real peaceful place. The friendships were amazing. Last year I tried to get in touch with about 10-12 girls from our times and we all exchanged a lot of emails.

**What are some philosophies of yours that have propelled your success at work and research?**

I try to be pretty disciplined about my work. I absolutely love what I do. The combination of teaching and research is perfect. In academia you are always in an environment surrounded with young people and we as educators have the opportunity to influence their life. I got into finance because I really liked the finance class that I took with J K Mittal whom we fondly called *Jackie*. I actually went to do EEE but in the



3<sup>rd</sup> year decided to switch to MMS. I have never regretted it. I think you have to be passionate about what you do. Only then you will enjoy it and be successful.

**What do you think are the biggest challenges facing BITS today?**

BITS has already established itself in India. I believe that for any reputed institution whether in India or in the US the next challenge is globalization. How do we reach outside the bounds of our own country? BITS has started taking steps with the Dubai campus and some IIMs are doing the same thing.



The trick is to expand while maintaining your brand.

## What can BITSians do better/start doing to compete with the world's best?

BITSians are extremely talented. I believe we have to network better. Again, I think BITS needs to get out its reputation more in the global marketplace. Under the directorship of Dr. Maheshwari and people like Dean Nattu a lot is happening. I have had an opportunity to meet Dr. Maheshwari a number of times and he has a very good vision for BITS.

## What role do you see the alumni playing in making BITS a world-class institution?

BITS alums are doing extremely well and have a lot to contribute. In the last 3-4 years BITSAA and Sandpaper have really helped to bring the BITS community together. These activities are extremely important to keep the alums engaged. I personally feel that BITS contributed a huge amount to my success and I know many others feel that way. We are ready to give back as mentors, as recruiters, whatever we can do.

## Have you been back to Pilani since? How was the visit personally and professionally?

I am absolutely embarrassed to say that I have not. Last year I was definitely planning to go the 25<sup>th</sup> union but last minute I could not go.

## What do you read to stay in touch with technology, business other fields that interest you?

In the last year I have read – Flat World, Travels of a T-Shirt, Tipping Point, Blink, Life of Pi among other books..., regularly read the Wall Street Journal, Business Week in addition to academic journals.

## What career/personal advice would you give the student community?

Get involved in activities outside the classroom. Be a positive contributor to your organization/your company.

## What is a typical day for you? How do you stay on top of things?

There is no typical day in academia. I take teaching very seriously; I believe I have only missed 2 classes in almost 20 years of teaching. I generally try to get back home at a decent time but then I go to the office over the weekends on a regular basis. I travel a lot but try to keep my trips as short as possible.

## Why there are not as many women in academics as men from Pilani?

This is a global challenge. In the US, there is the tenure system (publish or perish) and I have just seen a lot of women start in academia but then the demands of family and work become too much and they decide to drop out.

## What would help BITSian women enter the field of

## academics in greater numbers?

BITS has many more women now so that helps. I would encourage women to have role models and mentors and chat with them to see how they managed the work family balance.

## Your opinion about the Larry Summers' issues and its subsequent controversy.

Obviously, a lot of research has shown that his remarks don't have any basis. I think the challenge is to make the workplace more women-friendly and provide some flexibility.

## Have you mentored any students in particular?

I mentor students all the time. They call me to ask for advice on which business school to join, how to start a career with investment banks anything! I just love talking to young minds and Indian kids are so smart that it's a pleasure to guide them. I would be very interested in the BITSian Mentor program.

## Have you ever been prejudiced against because you were a woman?

On the contrary! I never felt uncomfortable on account of being a woman. I used the fact that I was a woman to my advantage.

## Any advice on how women can maintain a work life balance?

It is important they try not to do everything by themselves and that they use all the help they can. There are only so many hours in a day and they should use their support system. In my case my mother and the housekeeper helped me to the hilt. I also try to work weekend mornings so that I can take a few weekdays off if need be.



By Uday Kiran Medisetty

# CONQUEST 2006

a brief report on the CONQUEST 2006 Business Plan Contest conducted by CEL (BITS) that ran in Pilani from Nov '05 through Feb '06.



**It's** a unique business event that helps to transform ideas into reality. This business-plan competition includes intensive mentoring by industry champions and a rigorous simulation involving real-life start up conditions.

It was open to all students and corporations in the country. It received business plans from all industries – IT, Manufacturing, Pharmacy, Health Services, Rural Development, Infrastructure, Biotechnology. The event was organized in three phases: Conquest Camp, Conquest Focus and Conquest Finale

In Phase 1, students of recognized Indian universities and interested individuals with viable commercial ideas submitted the executive summaries of their business plans. The sixty eight entries received for Conquest 2006 were screened by a panel of prominent CEO's and VC's. The short listed teams after Phase 1 were:

1. Surgitailing – IIM Bangalore
2. Cynosure - BITS Pilani
3. Priyamvada – Corporates
4. iViZ Techno Solutions -IIT

## CONQUEST 2006 Winners

*First Prize:* ViZ Techno Solutions  
IIT Kharagpur

*Second Prize:* Piyamvada,  
Corporates

Kharagpur

5. Q Currency - IIM Bangalore  
The five short listed teams were put across to eminent entrepreneurs. Mentoring involved interacting with the team to refine their business plan, giving them a first-hand insight into the business processes in the domain of the plan and helping them plug loopholes.

In Phase 3, Conquest Finale, the short listed teams presented their business plan to a panel of Venture Capitalists and Judges. The teams then underwent a process of business simulation where their abilities to react to different hurdles, opportunities and obstacles at various points of time are tested. The Conquest finale was held at BITS Pilani from Feb 17<sup>th</sup> – 19<sup>th</sup>, 2006.

## DAY 1 - FEB 17<sup>TH</sup>

“Pitch it to VC”: Each team was given 15 minutes to pitch their idea to a prominent Venture Capitalist. “Scenario Simulation 1”: The teams were given two scenarios which they might encounter once they start off their venture. The judging was done based on their analysis and decision making. These scenarios were specific to each plan.

## DAY 2 - FEB 18<sup>TH</sup>

“Business Plan Presentation”: In this round, the teams explained

their business plan in detail to the judges for 45 minutes. “Scenario Discussion 1”: Teams made a presentation to the judges explaining their action to the scenarios given to them the on the previous day. “Scenario Simulation 2”: A scenario which is common to all the teams was given; this scenario was a potential 10X change in the business environment. The teams needed to identify new opportunities and threats and adopt new strategies.

## DAY 3 - FEB 19<sup>TH</sup>

“Scenario Discussion 2”: Teams discussed with the judges about the new strategies they have adopted to face a 10X change in the business environment, which was simulated the previous day. “Open Door Session”: This happened in the main auditorium of BITS Pilani. Here the participants were tested on their soft skills and their ability to manage a business. This is followed by Prize Distribution Ceremony and Valedictory Ceremony.

Judges and mentors included Ashmeet Sidana, Venture Capitalist, Foundation Capital, USA, Vivek Mansingh – Country Manager, DELL India and other distinguished venture capitalists and technology professionals.



BY VERNON FERNANDEZ ('04 EEE)

# STEP INTO THE FUTURE

Technology Business Incubator (TBI) and *InnoHub* at BITS Pilani



**THE** newly launched Technology Business Incubator has been set up by BITS in collaboration with the Department of Science and Technology. **TBI@BITS** is an initiative to encourage innovation and entrepreneurship in the field of VLSI and Embedded Systems. This is one of the only Technology Business Incubators set up around the country to offer the resources it has.

TBI is exactly what the name suggests, an incubator. It is a chance for fledgling businesses to grow. The basic aim of the TBI initiative is to encourage entrepreneurship in Pilani, and to allow a larger audience to make use of the facilities available at BITS.

Any startup seeded out of TBI will be provided with office space for 18 months. These offices are furnished with all the necessary facilities, including facilities for Broadband Internet and tele-conferencing. The

entrepreneurs would also be given access to the tools and resources of the Oyster Lab and the Embedded Systems lab. Obtaining access to tools like these will cut down on almost 60% of the hurdles that a start-up faces. Also available will be free access to the library and other facilities at BITS. These entrepreneurs could also approach the faculty for help from time to time.

Helping out at every stage will be the Center for Entrepreneurial Learning (CEL), BITS Pilani who will provide all the possible business support in the form of mentoring, access to seed funding and networking events. The entire program can be availed of by anyone, though preference may be given to BITSians. The entrepreneurs will only have to pay a nominal fee for all the services. Being on campus also gives them the opportunity to involve on-campus students in their work in the form of projects. Although the TBI has been set-up to incubate VLSI and embedded systems design companies, the initiative may also expand to other

disciplines, if the participants wish to use other labs of the institute. Prof. S Gurunarayanan, the co-coordinator of the project hopes that in 5 years, not only will TBI be self-sufficient and self-sustaining, but it will have fostered businesses which will in turn provide more

employment for the masses. CEL also kicked off another initiative this year titled *InnoHub*. The publicity material put-up by CEL proclaims “*We openly discriminate... between those who innovate and those who don’t.*” Not mincing words at all, *InnoHub* aims to create an ecosystem that guides BITSians interested in doing research in any field.

*InnoHub* will connect alumni, faculty and the students to backup new research ideas with technical know-how, mentoring, funding and other resources. In time, a few ideas from *InnoHub* might be realized using the TBI platform.

The last date for submitting project ideas for this year has just passed. After an initial screening, by a panel of distinguished members of the BITSian faculty, the best research ideas will be given all the necessary resources and support possible. Ideas ranging from artificial neural networks to new areas of research in bio-pharmacy have been received.

## ALUMNI INVOLVEMENT

Both TBI and *InnoHub* necessitate a network of minds outside academia, which have worked in the industry and know industry and market requirements. CEL is in the process of building a network of mentors from BITSian alumni, as well as through their referrals, in order to help the students and entrepreneurs get in touch with experts in their fields. This will allow the student or entrepreneur to gain valuable experience and know-how, besides real-world exposure.



### TBI contacts

Prof. S Gurunarayanan, Coordinator  
sguru@bits-pilani.ac.in

Anurup Mitra, Program Manager  
anurup@bits-pilani.ac.in

### InnoHub contacts

Chinmay Kulkarni, Project-lead  
www.celbits.org  
Abhilash Ravishankar, President, CEL.  
cel@bits-pilani.ac.in

# BITSIAN START-UPS: Telesto Infotech

Three BITSians from the 2000 batch set out to make it big in the Enterprise software world with *Telesto Infotech*

Telesto Infotech (<http://www.telesto.co.in>), headquartered in Chennai is an information technology startup founded by BITSian entrepreneurs, Raghavendra Prabhu, Saravana Raj and Najeed Ahmed Khan, from the 2000 batch. The company focuses on information management, extraction and retrieval, a critical need in this age of information explosion. The emphasis today is to provide a ready platform to extract, share and disseminate such information at the click of a button. This would in turn help increase organizational productivity by:

- Minimizing time spent searching
- Avoiding the cost of reworking existing information
- Drastically reducing opportunity costs

Telesto's core product is a highly flexible and customizable search solution that can be instantly deployed to interoperate with existing business processes and as a result provide seamless integration.

The company also specializes in providing high end search solutions which can meet the specific requirements of a corporate entity. This will address the unique needs of a customer and provide an

effective search and information retrieval tool which will address its security concerns and database integration needs. The company also plans to rapidly possess support for a cross-platform compatible metadata standard. This would enable taxonomy/folksonomy features based on metadata extraction and classification, which will weed out manual document categorization.

IDC (<http://www.idc.com>) estimates the market for UDM to be close to \$5.4 billion and growing at 30 percent, whereas Ovum (<http://www.ovum.com>) estimates an \$8.8 billion market growing at 33 percent. Another interesting statistic from IDC is that the top five hundred companies spend a whopping \$31 billion to search unstructured information. This, coupled with the ever-growing base of digital documents (unstructured or otherwise) and governmental laws requiring the persistence of business documents, makes the software search market a pretty sizable one with emphasis on data security and accuracy of results.

Within just five months of its inception, Telesto has performed extremely well and has come out with a product which flaunts user friendly features and state of the art technology comparable to the leading market players. This trial

version of the product is available for a Download from the company website ([www.telesto.co.in](http://www.telesto.co.in)).

The administration can be contacted at [contact@telesto.co.in](mailto:contact@telesto.co.in) for all business purposes.

## ABOUT THE ENTREPRENEURS

**Raghavendra Prabhu** is the CEO of Telesto Infotech. Prabhu holds a BE (Hons) EEE from BITS. Known to take calculated risks and spot opportunities of immense value, he has a whole bag of ideas to implement and execute.

**Saravana Raj** holds a dual degree (MSc Biological Sciences and BE Hons Mechanical Engineering) from BITS. The experience gained at the Centre for Software Development at BITS has honed his technical skills making him the technical beacon of the company.

**Najeed Ahmed Khan:** Najeed also holds a BE(Hons) EEE. With a profound interest in entrepreneurship, prior to Telesto, he had started up a venture along with his batch mates for developing software solutions for online educational testing.



BY SUKANYA AND A SHANKAR

## PS-II AT BITSUNAMI AND THE LATEST ON OUR PROUD INITIATIVE

What was PS-II at BITSunami like, on the eve of the first anniversary of the tsunami, the project takes stock

Practice School II – that famed system at BITS, Pilani, where in engineering and science students go out into the world to apply knowledge gathered on campus, to real-life problems. PS II at BITSunami, an NGO formed towards long term rehabilitation of the two tsunami hit villages two of Nagapattinam seemed a strange prospect.

All initial doubts about whether we'd be involved in social work and what 'projects' an NGO could possibly offer engineering students were dispelled during a splendid 4-day orientation, held by BITS alumni actively involved in tsunami rehabilitation.

BITSunami is not merely an NGO. It's the platform for the wedding of three systems – a university, the society and administrative organs – where technical knowledge can be applied to nascent and hitherto

unsolved problems of rural India to produce scalable and viable solutions. The thrust areas - GIS based technical mapping of resources of the villages of Naluvadapathy and Pushpavanam, bridging the urban-rural digital divide, creating viable sanitation plans for use in rural India – were exciting.

Desk research, preliminary tours of the villages, interaction with villagers and the women's self-help groups, scouring through huge records at the collectorate and meeting the 'village elders'... it was a field worker's delight, an engineer's ideal launch pad. But more than ever, even before the end of my first module, my role in the



The 2005 Record Guinness Plantation – 2,54,464 in 24 hours

big picture became clear.

I was doing my bit towards putting rural India on the road to technological development, I was convinced that my work was quite a big drop in the slowly growing pool of contributions and I was finally gaining the satisfaction of having worked on a project that could help change the lives of faceless people, rather than on a faceless project that could get tossed into the bin later.

Listening to the tales of BITSians who chose to steer from the beaten track and take roads less traveled always left me surprised and awed. Though I had heard of computer scientists who had turned wildlife photographers and chemical engineers who had chosen to grow orchids for a living, for the first time I had the opportunity to interact with such people in flesh and blood at BITSunami.



PS-II Students conducting GIS Mapping



Dr J Radhakrishnan, Collector Nagapattinam inaugurating a new Village Computer Centre

I proudly listened to the story of how well-networked alumni had reacted to the havoc wreaked by the tsunami and come together to help the tsunami-affected with whatever financial help, timely care and know-how they could share, despite hectic professional lives.

And all through PS, I kept meeting or hearing about BITSians, who had unhesitatingly shed corporate skins and their well-founded sense of security, to help marginalized and needy sections of the society.

My project was a conglomerate one. The status of development of the villages was to be identified. I collected and collated information obtained from the collectorate, the state statistics division and the local people. I moved on to the identifying of Development indicators, which are monitoring tools in developmental programs, and their adaptation to the rural Indian context. Further, indicators were narrowed

down to help in community-specific areas like the villages, to help monitor the growth of the villages over the period of BITSunami's Integrated Development Program. Later, I studied the potential of Village Knowledge Centers as an effective rural communication tool and a proposal for a VKC in the villages and its structure and content was made.

My Project Guide was Mr. Joseph Antony and BITS appointed the BITSunami Project Manager, Mr. K S Venkateswaran, the PS faculty.

Understandably, my work took me to and from Nagapattinam very often. I was always welcome anywhere, anytime – at the collector's office, the sub-collector's office, the BDO, etc. and I was instantly recognized there as the BITSunami girl!

And I made adventures out of every trip – whether it was trekking with my PSmates from Pondicherry till Rauf Ali's FERAL field office with my PSmates, taking the bone-rattler two-hour journey to the villages from central Nagapattinam, trying to gain access to government records or being temporarily grounded in Nagapattinam when the river was in spate and communication lines were zapped...

On one of my trips, I stayed an iron-willed woman, a professional non-commercial-film maker called Revathi. She had given up her career, to help in the rehabilitation of an extremely marginalized community called the 'nari-koravars'.

These people had scrambled away from their habitat during the tsunami and did not return for a week, failing to register themselves with the officers enumerating affected people. Revathi and some of her friends came to know of them. They ensured allocation of temporary shelters, are aiding their livelihood rehabilitation, and running a school for the surviving kids.

A tryst with the local women's self-help groups, to help out PS I students in their surveys [which were aimed at collecting information to help them establish small community businesses] revealed their zeal in





starting off cottage businesses, that empowered them and asserted their importance in society. The women were skilled in mat weaving, basket weaving, making coir products and in milk production and distribution.

Probably the biggest learning experience for me was the tree-

got to learn the customs and ideologies of the village people. The paper work, liaison with the government officials and charge of the control room on the two days of the event enhanced my leadership abilities! A very inspiring BITSian I met during the course of PS is **Chandra Anil** who has been profiled in our cover story.

plantation drive that BITSunami undertook in October, and which later became a world record for the highest number of trees planted in 24 hours. I was in Nagapattinam for a week. Other than interacting with the team there, I

I met Chandra at the AID-Chennai office to learn about the primary education scene in Tamil Nadu in general; she is a veteran in this area. Her observations about attrition in middle school levels and when girls drop out in the period of puberty, with the reasons thereof were revelations and helpful in BITSunami's fledgling education programs.

As I look back at my apprehensions about my PS-II, I am more than grateful that I had this unparalleled experience that has helped me grow, as an individual and enhanced a facet of mine that I did not know existed in such great measure.



## On Schedule

By A. Shankar

As this edition of *Sandpaper* goes online, BITSunami announces the completion of the first year of operations.

Taking rehabilitation well beyond ad hoc relief activities in *Pushpavanam* and *Naluvadapathy*, BITSunami has stuck to the schedule.

What started as an impromptu response by a few alumni to a call for rehabilitation rather than a mere "donation" for ad hoc relief efforts mounted by various entities in the country, has now transformed into a five-year, million-dollar project to address the rural-urban divide with a multi-disciplinary approach.

The commitment of BITSunami, along with the partner corporates, includes providing coastal defense mechanisms, reclaiming agricultural land, supplying boats and nets, establishing self-help groups, building a network of IT-enabled village knowledge centers and a host of other activities

## Initiatives in Education

Our Vice-Chancellor, Dr. Venkateswaran's advice to go for an integrated transformation of the two villages, sparked this initiative. Last year, our Practice School students conducted surveys and did a GIS (Geographical Information System)-based resource mapping for the village, designed sanitation and water resource plans and studied benchmarks for monitoring development. Both PS-1 and PS-2 students are taking an active part in the measures to accelerate the transformation efforts in the villages.

The Trust marked one year of its fruitful existence with a function in Naluvadapathy on February 9 when District Collector J. Radhakrishnan handed over three school buildings, launched a computer centre and distributed science kits and Tamil learning kits to all the schools.

APPEAL TO ALUMNI... BITSunami needs the support and guidance from everyone who feels the need to contribute - in any manner. Write to K. Srikanth, Trustee, email: [bitsaach@yahoo.com](mailto:bitsaach@yahoo.com) or get in touch with any of the local bitsaa chapter heads.

## BITSIAN WOMEN PARTYIN' AROUND THE WORLD

### Women's Council Meetings

*The BITSAA Women's Council now has on-board event organizers across a few major cities. They have volunteered to organize regular fun & networking meets for BITSian women.*

#### Hyderabad, October 2005

"Based on my experience, I encourage all of you to start doing one all women's get together in your respective cities and post the day that you are meeting. Those of us who are travelling and in that particular

city can also join." – **Anita Sakuru, ('87)**

#### Bangalore, November 2005

"It was kewl and we had real godd fun sharing our stories of the campus life at different eras..." – (Swarn, '99)



### BITSAA Women's Council Event Organizers

1	Vahini Argula	Event Organiser, Bangalore	Vahini graduated from BITS in 2001, with B.E. (Hons.) EE and MSc. (Hons.) Economics
2	Ruchi Tandon	Event Organiser, Bangalore	Ruchi graduated from BITS in 1993 with a B.E. (Hons.) Computer Science
3	Anuradha Muralidharan	Event Organiser, Hyderabad	Anuradha graduated from BITS in 2004 with a B.E. (Hons.) EE.
4	Monica Gupta	Event Organiser, Delhi	Monica graduated from BITS in 2002 with a B.E. (Hons.) Computer Science.
5	Priya Vattyam	Event Organiser, Bay Area	Priya graduated from BITS in 1997, with a B.E. (Hons.) EE.
6	Padmini Misra	Event Organiser, Bay area	Padmini graduated from BITS in 1996 with a B.E. (Hons.) Computer Science.
7	Krithika Kalyan	Event Organiser, Mumbai	Krithika graduated from BITS in 2004 with an MSc. Tech. Engineering Technology.
8	Deeptha Ganapathy	Event Organiser, New York city	Deeptha graduated from BITS in 2000 with MSc. (Hons.) Physics and BE (Hons.) E&I



BITSAA Women's Council – Bangalore.

BY BATCH BY BATCH REPRESENTATIVES

## Selected Class Notes

Notes listed by BITS batch (entering year). For a full listing, please visit the "Classnotes" section on the BITSAA Sandpaper website.

**1986**

**Rajesh Butta (86A6)**, along with my wife, am involved in something which is definitely different from any other profession being sought after. We are consulting in the wedding space and run a small but professional outfit in Delhi. It might be of particular interest to other fellow BITSians who are eligible bachelors in or outside India or have children in that age group. It's just been 2 years for us and now we are

working out funding for the next growth phase.

**1995**

**Sreeja B Asokan** (nee Padmanaban) (95 Phy Chemical), recently defended her doctoral thesis titled "Forces in Cytoskeletal Systems". After 5 years and 8 months, 13 physics courses, 2 qualifying exams, 1 oral exam, 6 conference publications, 3 journal publications, 1 undergraduate mentor grant, 4 trips to India, 3 years of marriage, 33 weeks of

pregnancy, she now holds a PhD in Physics and Astronomy from the University of North Carolina at Chapel Hill. Sreeja is married to a BITSian, Aravind Asokan, Ph.D.(94 Bio Pharm). The Dr. Asokans live in Chapel Hill, NC.

**2000**

**Kaushik Mukherjee** ('00 EEE) received calls from 6 IIMs and converted all 6. He will probably be joining IIM-A.

