

The Quarterly BITSians: Dr. SP Kothari, Professor at MIT Sloan & Prithviraj Chavan, Minister of State

The BITSAA Edition

Sandpaper [2.0]

Fall 2004 Issue II

Birla Institute of Technology & Science Alumni Magazine

Mahatma Gandhi,
the missing Nobel
Laureate

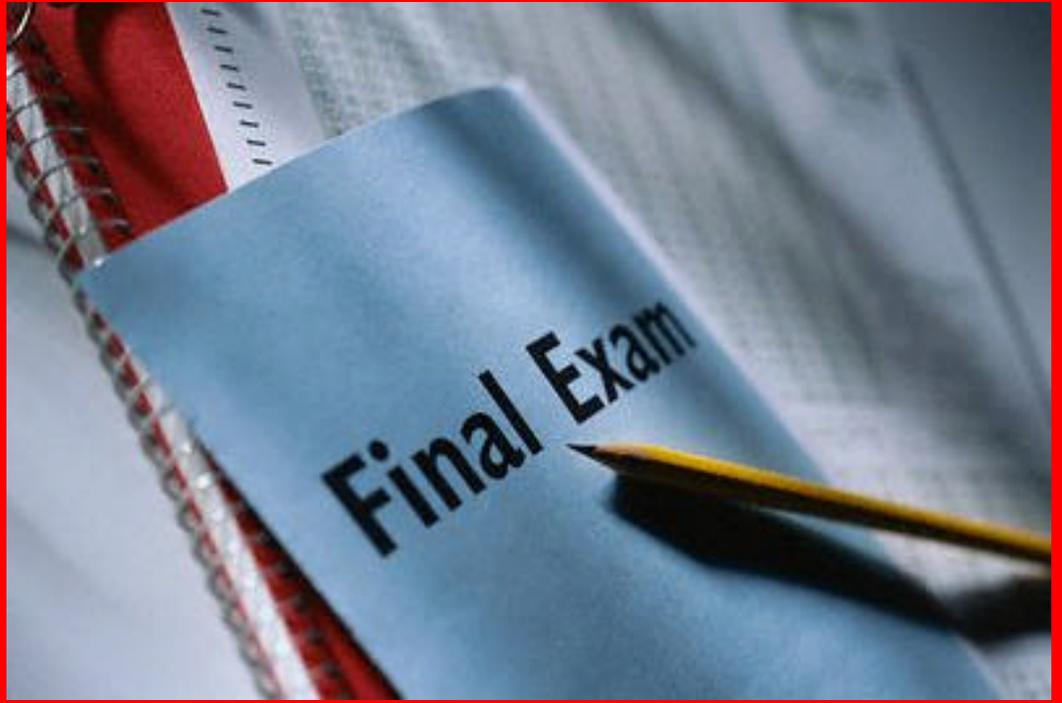
Rebel with a
cause: Tosh
Sheshabalaya

The Rule of Three
by Prof. Rajendra
Sisodia

IT in China: How
you can benefit

A conversation
with Dr. Meera
Bannerji

Bridle IT, BITS
Pilani's first
incubated
company



BITS Pilani Admissions

History, debates and a solution



How they did it:
Rajesh Hukku &
the i-flex Story

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Sandpaper [2.0]

Fall 2004 Issue

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If you don't know where you're going, any road will take you there...

It's a statement I think about often. In my life, I can count five times that I have been sure of what I wanted to do, and took the roads to those destinations. In between, it has been largely a process of discovery.

Five academic degrees, four companies, three continents, and one startup later, I find myself at the crossroads again. I've learnt a few things to date. That most roads don't lead anywhere, and most of the time, we don't think about where we are going. Life is a series of journeys to different destinations, with different passengers and changing scenery. I know where I want to get to, but I wonder how to begin the next one.

Yet it is an exciting time. I'm 35, and I've made a list of possible destinations, each with a different theme. Purpose, Entrepreneurship. Leadership. Achievement, Mission. These thoughts swirl around in my mind like snowflakes in Central Park in January. And somewhere in the snowdrift, hides a path that could show the way.

For most of us, our journey did truly begin at Pilani. BITS gave us the engine to power this trip. We bid our goodbyes in Vidya Vihar and went about our ways. Only recently we've chanced upon this global BITS community. We've realized that this community can give us with extra fuel and a new set of tires for our individual trips. Maybe even a tune-up or new directions.

BITSAA's mission is to inspire us to continue up the path. A number of initiatives shall help in the quest. The alumni directory (which is finally underway) will connect us to others in ways we did not even imagine. The bits2bschool initiative will ensure that you raise the bar on your MBA dream. We want you to think of Harvard, INSEAD, IIM-Ahmedabad, of the world's greatest schools. In research, dream of the Nobel, the Fields Medal, of the Lemelson-MIT Prize. In business, achieve the heights of Vivek, Rajesh and Mukesh. Desire no less than Padma Shri's and Knighthoods for your work. Choose your roads carefully.

As we speed along the highways of life, or navigate the treacherous turns, we may find other BITSians. Walking; stuck; lacchaing; waiting. Stop and talk to them. Help them. Give them a ride. Your paths may cross again.

In my personal journey through life, I am accompanied by my wife and son. Together as a family we see the tops of gleaming minarets in the

distance, hear sounds through the fog, and are thrilled by the images of these destinations near and far. I want to spend time figuring out how I can clear a path to these new possibilities. And when my son leaves to follow his own path, just like I did at 17 years of age, I want to bid him farewell with the confidence that he will be safe; but satisfied that I would have taught him well for the journey that lies before him.

This magazine was a journey of personal discovery. It reminded me how much I enjoy to write, to work with like-minded BITSians. In past editions I spoke of the vast greatness, of purpose or even a path paved with gold. I must admit that for Sandpaper, some of these thoughts may never have crossed my mind.

When we first started Sandpaper, there were a few stragglers. I look back and see so many following, stronger and fitter than I am. I have decided to hand over the wheel, to become a passenger. But I let others pass with mixed feelings. I am saddened because I will miss our creative process that has made these two years so much fun.

But I am also enthused, imagining the mornings I will wake up, check my email and find a new, unread edition. When I pick up my coffee and settle back with the smell of print still fresh from my ageing HP printer, I will turn the pages and remember the days that all this began.

I am entrusting Sandp in very good hands. Sandeep has the drive, the vision, the abilities and the support of a very energetic and talented team to continue our mission.

I am off on my journey. But before I go, I'd like to thank my team for all their hard work, thank those who emailed or called with words of encouragement, and thank especially all of you for reading what we had to say.

Chalta hoon. I'll be seeing you around.

Anupendra Sharma
('87 Eco Instru)
Chief Editor

Nov 26, 2004

Pic: With Rohan in Ithaca





Chitthi Aye Hai

ON THE SPRING 2004 EDITION OF SANDPAPER 2.0

It was good to learn about the activities of fellow BITSians through Sandpaper. We are having a reunion of our 69 batch in Washington from Aug 27 - 29. The effort is being led by a great BITSian by the name of Jasbir Saini. Please contact him at jssaini@yahoo.com. It may be too late to announce that in the Sandpaper but in the future he can keep you informed about our batch's upcoming activities. Thanks for doing a great job, as a BITSian you have acquired the rights to visit us in Houston and even get a meal or too that includes a sweet dish also.

Radhe Shyam Sharma, BITS '69 (Electrical)
rssharmaji@hotmail.com

I very much appreciate your efforts in bringing our Sandpaper in an excellent way. My interview has been reproduced quite correctly. Thanks for the reporting and I am happy that it has been received well. With best wishes to you and all others who have made this paper quite attractive,

Dr. L.K. Maheshwari, Director – BITS Pilani
lkm@bits-pilani.ac.in

Amazing write-up.....I am zapped with the dept.....you most positively were high when you wrote it weren't you ?...Exactly my thoughts about looking back at 50-60 and being able to say that life was fulfilling and I've had a good run.....Keep up the good work.

Sumit Misra mish_sumit@yahoo.com

I simply enjoy reading SandP - it gets me inspired, nostalgic and reconnects me with BITS a lot more than other things do. Keep up the great work!

Pushpa ('91 Comp Sci) apushpa@yahoo.com

Just managed to read the entire Sandpaper! It was wonderful reading and you guys have put in tremendous effort. I think it is a great job. I am now in the USA (Glen Rock, NJ) and can be reached on my cell phone 513-225-2749.

Dr. KRVS "Raja" Subramanian krvs@ascendum.com

Spectacular efforts. Kudos.

Aravind Ramachandran ar@ikigo.com

WHAT'S DELHI COMING TO ? - A HANDICAPPED PERSON INCIDENT

I would like to share one incident which has become very common for handicaps in Delhi. Even employees of reputed companies like LG India behave improperly. I was accompanying my brother, who cannot walk properly, for the office bus at District Center in West Delhi and crossed a crowd of few people standing on the footpath and waiting for bus. They insulted my brother for his disability. He cried and could not say anything. It gave me shock that highly educated, well mannered guys, people from elite group also behave in such a bad manner that it hurts very much to handicaps. I also could not say anything.

Vikas Sarin

ART BY BITSIANS

I came across the bitsaa.org website, I am a BITSian (1994 C5), thought I should share some of the stuff I do. I am an artist and I do paintings, sketches and also these days' electronic sketches (MS Paint). I am sending you a sketch to share with BITSians – an electronic sketch (MS Paint) of Ganesha with geometric figures for Ganesh Chaturthi. (*see below or go to "Art by BITSians" in Photo Galleries on the BITSAA Sandpaper website*)

Praveen Rachakulla rpraveen24@yahoo.com



ON THE THREAT OF SONIA BECOMING PM – AND INDIA EMBRACING RAHUL'S GIRLFRIEND

Wake up people. Or be ready for Rahul Gandhi's girl friend to be the next PM!!!!

I guess the problem should be not with her foreignness...I would not mind having any of these guys (as PM):

- **Mark Tully** (BBC's voice of India for over 30 years)
- **David Frawley** (aka Pandit Vamadeva Sastri, pioneered Ayurveda and a way of living called Hinduism)
- **Robert D. Blackwill** (former US ambassador for India)
- **Kenneth Keniston** (Director of MIT India program)
- **Geoffrey Boycott** (May be he knows more than Sonia about our cricket craziness) or
- **Michael Witzell** (who strongly supports Aryan invasion theory)
- Or even **VS Naipaul** (who called India a huge area of darkness.)

Because they all embraced India because they chose to. Not because they had to. (Embracing the son of PM of a country is all together different from embracing a country).

Kesava Mallela

ADMISSIONS TO PILANI (Hundreds of alums have written about this)

There should be a cut-throat hard examination to get into BITS. Let all students from all over India compete for getting the best. Like they do for IIT's, preparing 1-2 years

to get there. I think this will bring more visibility and quality to college admissions.

Saurabh Kumar

A YAHOOGROUP FOR BITSIANS PREPARING FOR MBA ADMISSIONS

We've started a new yahoo group ("bits2bschool") for BITSians who are aspiring for a professional management career and have set their sights on an MBA degree from leading bschools in the world. The group welcomes all BITSians who would want to master the bschool admissions process and get that coveted seat in their dream schools.

Here, we'll discuss the applications, the essays, the options, the rankings, the financing; in short, everything that happens after your GMAT and before your first day at bschool. Not just this, BITSians who have already gone through this process will be sharing their experiences with all of us. So if you are planning to do an MBA and have a dream of making it to Harvard/Stanford/Wharton, this is surely the place to be. I'll appreciate your co-operation in restricting this group to BITSians only.

Abhinav Gattani ♦

The New Main Library Building at BITS Pilani



SandpaperOnline

www.bitsaa.org/sandpaper/sandpaper.html

FIND PAST STORIES YOU FORGOT TO READ

This published version appears twice a year, accompanied by online newsletters. To access our archived stories, cartoons, humor, class notes stories, visit our website.

BITSAA Newsletter

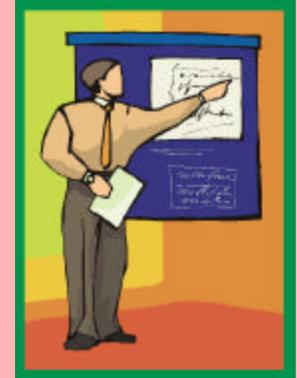
Every month we bring you a newsletter with stories about BITS and BITSAA through the Yahoogroups. In case you miss an edition, you can visit the Newsletter archives online and go through any issues and news that you may have missed out on.

Photo Galleries

Click on "Photo Galleries" on 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!



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The Sandpaper team is a global team in the United States, India, Canada and China. Join us !

Send your nominations, letters, comments, suggestions, articles and requests to join the team by emailing anupendra@bitsaa.org

Visit our website at: www.bitsaa.org/sandpaper/sandpaper.html

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BY THE SANDPAPER NEWS TEAM

BITS & BITSAA NEWS

October 2004: Pavan Kumar Hanumolu ('93 Eco EEE) has been selected as a recipient of a 2004-05 Intel Foundation PhD Fellowship Award. Intel



Fellows, leaders of Intel research and technology, personally recommend the candidates for this award. He can be reached on pavankumarhv@yahoo.com

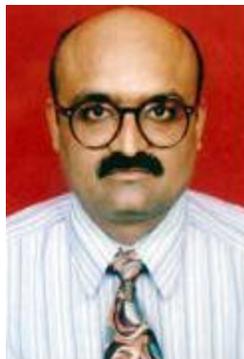
Pavan is one of the 35 people to receive this award that is given out each year by Intel to students they deem "The Best of the Best" from select US universities. The \$42,000 award covers one year of full tuition, required fees, and a twelve-month stipend. The fellowship award includes the assignment of an Intel mentor, who will be available to offer Hanumolu support and advice.

October 2004: Kumar Rajaram ('86 Math EEE) was awarded



tenureship at UCLA's Anderson School of Management. Kumar received his MA and PhD in Operations Management from The Wharton School, University of Pennsylvania. His current research interests include industrial process management, retail operations management, and operations management in the theme parks & entertainment industry.

October 2004: Prof PN. Chowdhury (former head of the MMS Dept.) and Professor of Economics and management at BITS died this month of a heart attack following complications of diabetes at his home in Salt Lake City, Kolkata. Prof. Chowdhury retired from BITS a few years ago. He had been the Director of a government-sponsored organization prior to BITS and had been an active consultant to the government sector (especially for promoting processed-leather exports from India) since his retirement. His son Prasun is a BITSian from the '84 batch. BITSians may email their condolences to Prasun at praschow@hotmail.com



Caps) as Vice-President and Group Head, Research. Prior to

October 2004: Sanjay Chawla (MMS) has joined SBI Capital Markets Limited (SBI

this appointment, he was a senior analyst at Motilal Oswal Securities and brings with him over 15 years experience in tracking diverse sectors like pharmaceuticals, automobiles, FMCG, oil and gas, petrochemicals, among others. A management graduate from BITS, Pilani, he was ranked in AsiaMoney's brokers' poll and in the overall best analyst category for the pharmaceutical sector.

September 3, 2004: Reena Aggarwal ('79 MMS) has been appointed the interim Dean at Georgetown University's McDonough School of Business (MSB). Reena, who has an MMS from BITS and a PhD. from Univ of Maryland, has worked as a professor at the MSB since 1986 and currently teaches



corporate finance and investment banking. She will serve as dean for the 2004-05 school year, while the search for a

permanent MSB dean continues. Dr Aggarwal specializes in international stock markets and initial public offerings. As a Fulbright Scholar, she visited Brazil and Chile to research their stock markets and privatization plans. She was a Visiting Research Scholar at the International Monetary Fund in 2003, and has also worked on major consulting projects sponsored by the IMF.



September 2004: Pratap G. Pawar ('67 BE) was profiled recently in the media. He is the Managing Director and Managing Editor of Sakal Papers Ltd. and Chairman of Ajay Metachem group of Industries. He is also Director of various companies in India and overseas including Finolex Cables Ltd., Kirloskar Oil Engines Ltd, Lucknow and Pan Gulf Group Ltd., UK Baramati Grapes Ltd., etc. Pratap Pawar's Sakal Group owns a Marathi daily and weekly which has a readership of an astounding 4.5 million readers across all corners of Maharashtra and Goa. He is also former President of The Mahratta Chamber of Commerce, Industries and Agriculture and was the president of The Indian Newspaper Society for the year 2001-2002. He is also a senate member of the University of Pune. His brother is the three time Maharashtra CM, Sharad Pawar.

September 2004: RVS Ramakrishna ('78 Chemical), Managing Director of ITW Signode Ltd. was named the Manager of the Year



by the Hyderabad Management Association. ITW Signode is a

subsidiary of Illinois Tool Works - a \$10 billion, Fortune 500 company. In India, the company is the leading industrial packaging solutions provider with a product offering that includes strapping, wrapping, protective packaging, etc.

September 2004: Shyam Vai ('91) released his CD titled "Chicago" on June 5th in Chicago. "Chicago" is a Tamil album of contemporary melodies. The CD, launched on his private label, has quickly become a big hit among BITSian and Tamil audiences worldwide. The number



'Beethoven Issai' has already achieved cult status. Familiar to most BITSians as Studsu, Shyam was the Best Keyboardist during Roctaves for three years in succession!

August 2004: Ashok Luhadia ('68 Pharm) was presented with the award, "Businessman of the Year" in New Delhi. Ashok did both his undergraduate and graduate studies in Pharmacy from BITS. He has been an entrepreneur ever since he came to the US in the early 80's.

August 2004: A. Arumugam ('88 Chemistry EEE) was appointed as Associate Director at Merlion India. Arumugam did his MBA from IIM Ahmedabad. He is one of two people in the team based in Mumbai. The firm has a

US\$ 100 mn fund, which is owned 50:50 between Standard Chartered Private Equity (SCPE) and Temasek Holdings of Singapore, a \$500 million private equity firm. Merlion is a high-profile private equity firm investing in India, across sectors, in strategic minority and buyout deals, in unlisted and listed companies. The firm invests US\$20 million or more in any single deal. Merlion has invested in Aurobindo Pharma.

July 2004: G Ravindra Kumar ('77 Phy Mech) (Munna) has been awarded the Shanti Swarup Bhatnagar Award for 2003. Ravi did his Physics & Mech from BITS and went on to IIT Kanpur for a PhD and then joined TIFR. The Shanti Swarup Bhatnagar (SSB) Prizes are awarded annually by the Council of Scientific & Industrial Research (CSIR) to outstanding Indian research workers in seven disciplines of science and technology. The SSB Prizes are awarded to scientists for their outstanding scientific contributions made primarily in India during last 5 years preceding the year of the award. The Advisory Committees selected 13 scientists for the Award. Ravi was one of two scientists awarded in the Physical Sciences category. Ravi's email is GRK@tifr.res.in Tel in Mumbai is +91 22 2280 4545.

July 1, 2004: Suraj Srinivasan ('86 Math EEE) became the first ever BITSian to graduate with a PhD from the Harvard Business School (HBS).



Suraj was appointed as an Associate Professor in Accounting at U Chicago Graduate School of Business. Suraj has an MBA from IIM Calcutta. He was the BITS Student Union President in his third year.

June 2004: Raj Kumar ('91 Engineering Technology) was part of the successful Indian Navy Expedition that scaled Mt.



Everest. Raj, the first sailor to complete a BS in Engineering Technology from BITS Pilani, is a Technical sailor from the submarine arm (INS Shankul). He was part of the 14-member team that successfully put a submariner, Commander Satyabrata Dam on the summit of Mt. Everest from the more difficult North Face. The team, which did not use supplementary oxygen - the first Indian team to do so, is also the world's first all-navy team to reach the summit. Raj did a basic mountaineering course from NIM, Uttarkashi and an advanced program from DMAS, Manali. He is the first submariner to qualify as a Sky Diver. He has taken part in all the Naval expeditions and climbed Sujtilla, Kamet and Saser Kangri IV. He enjoys collecting information on the diverse cultures of India. An ardent sportsman, he has represented Southern Naval Command in boxing, athletics and cross-country.

June 2004: Anu Hasan ('88 Phy MMS) has won the Tamil Nadu State Award for the Best Character Artist in 2002 for the movie "Run".

June 2004: Paddy Sinha ('89 Computer Science) left ICICI Ventures and joined as an Associate Director at Temasek,

looking at investments across diverse industries in India. Temasek Holdings of Singapore is a \$50 billion investing powerhouse in Singapore with investments in airlines, banking, real estate, ports, power, media and hotels. Listed companies in the Temasek group represent over 20% of Singapore's market cap. In India, Temasek has made significant investments in Matrix Labs and ICICI Bank, and is considered the "big 3 in India alongside Warburg Pincus and ChrysCap.

May 2004: Abani Patra ('87 Mech) and his team have developed a screw pump that can be used in a device to decontaminate and purify juices,



photo: KC Kratt, M.F.A. '84

water and other liquids. Abani Patra is currently an Associate Professor at the Mechanical and Aerospace Engineering department at SUNY Buffalo. Abani wrapped up a MS in Mechanical Engineering at University of Missouri-Rolla in 1990 and then a PhD. in Computational & Applied Mathematics from the University of Texas at Austin. Patra is also

credited with doing some trail-blazing work on engineering analysis and modeling of the shaken-baby syndrome, which causes over 1,400 infant deaths in the US every year. By developing advanced computational techniques for modeling of injuries caused by shaken baby syndrome, Patra's team is contributing to the development of better diagnoses of the syndrome that may one day lead to improved treatment for survivors. About half of the survivors experience significant lifelong problems, including blindness, eye damage, seizures, developmental delays and paralysis.

April 3, 2004: Baba Kalyani (BE Mech) led his company Bharat Forge (BFL) to become the second largest forging company in the world. Baba Kalyani has an MS degree from MIT and he is the Chairman and Managing Director of Pune-based BFL, the flagship company of the Rs 3,000-crore Kalyani group. On April 3, 2004, Bharat Forge signed a MoU with BITS-Pilani for a synergistic relationship in Human Resource Development. BITS will conduct a program at BFL which will primarily enable BITS to offer a degree course equivalent to BE to Kalyani Group employees.



Babasaheb Kalyani has set a goal of making BFL the world's largest forging company by 2008. According to him the MoU with BITS Pilani would help equip BFL with the necessary human resources to achieve this ambitious goal. ♦

Announcing Sandpaper's New Chief Editor (2005-2007): Sandeep Mukherjee ('95 Phy Mech)



Dear BITSian:

We are pleased to announce that **Sandeep Mukherjee ('95 Phy Mech)** has been unanimously selected to take over the post of Editor for the next two years. He has been closely associated with the magazine since its inception, and is passionate about building a vision for Sandpaper.

Sandeep works at Nationwide Insurance & Financial Services in Columbus, Ohio, as their Manager for Business Process Solutions. As a volunteer with the Columbus Literacy Council he teaches English Language Skills to immigrants from South Vietnam. At BITS,

Sandeep was Joint Secretary of the English Press Club and on the Editorial Teams of Cactus Flower and Sandpaper. He also worked in the Department of Publications and Correspondence for OASIS '96-97. He holds an MS in Industrial and Systems Engineering from The Ohio State University and dual degrees in MSc (Hons) Physics and BE (Hons) Mechanical Engineering from BITS. He enjoys the occasional hiking or skiing trip. Sandeep grew up in Calcutta, but is not doing the Bong clan proud since he is yet to read Arundhati Roy, Bharathi Mukherjee or Jhumpa Lahiri. But he promised us he would get started this winter. He is planning on an MBA, believes his future lies in climbing the corporate ladder. On behalf of the entire Sandpaper 2.0 team, we wish him luck in his new role!

Anuradha Gupta, Dilip D'Souza, Divya Divakaran & Anupendra Sharma

Sandpaper 2.0 Editorial Board

Sandpaper's raison d'etre: Communicate. Collaborate. Succeed.

“In order to build and sustain an active, effective global alumni network our goal is to increase communication in the BITSian community and encourage alumni to leverage the resulting exchange of information and ideas, develop collaborative relationships and spawn success stories.

Over the last several months working with the team has helped me build close personal friendships, identify mentors who provide valuable career guidance and feedback and in the process we've created a magazine we can call our very own. Our writers span 4 continents, bring to light ex-BITSians' social, academic and business achievements and know a thing or two about prose, poetry and graphic design. Alumni from few schools in the world are capable of demonstrating diversity in its broadest sense as we do. As we hurtle through our busy lives, we don't often stop to think about BITS Pilani Pride. Yet reading about and working with current and ex-BITSians as part of the BITSAA-Sandpaper Team has, without a shadow of doubt, helped me better appreciate the value of a BITS Pilani education.

I look forward to hearing from you.”

Sandeep Mukherjee
smukherjee@bitsaa.org



Arvind Shankar ('91) scores again!

Arvind Shankar ('91) who wrote the score for one song in *Aye Nee Romba Azhaga Rukkey* is back with the score for the Tamil movie *Kadhal FM*. The movie is about a young radio jockey who falls in love with a girl. But his family prohibits him from expressing his love for her. However, wouldn't you guess, the couple finally ties the knot! The story, screenplay, dialogues and direction are by Jayaprakash and Arvind produced the score for the movie. The audio of *Kadhal FM* has been received well by movie buffs and music critics alike.

Masala & Spice



Anu Hassan ('88) wins best character artiste for *Run*

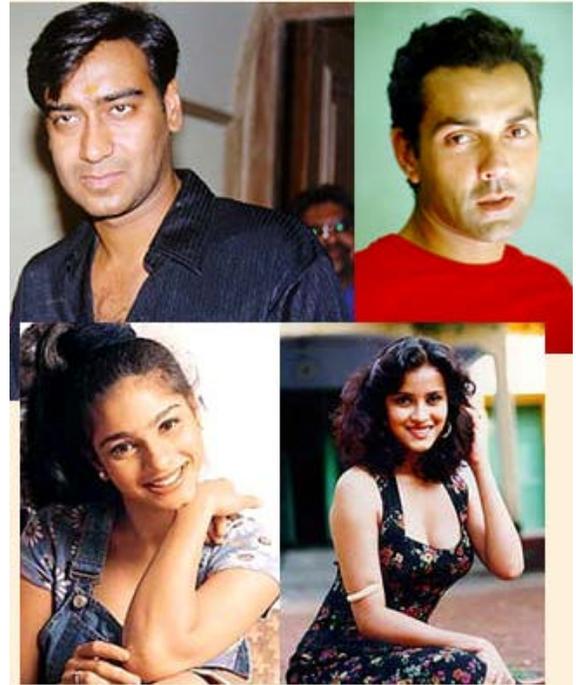
Anu Hassan ('88 Phy MMS) won the Tamil Nadu Government's Best Character Artiste (Female) award for year 2002 for her role in *Run* – a story of a bold young man who faces and deals with adversity that is

a consequence of his love for a ruffian's sister! Anu Hassan plays the role of Madhavan, the protagonist's, sister. The TN government announced a backlog of film awards for the years 2001 through 2003 this year.

Mani Shankar ('78) does a tango!

Ajay Devgan plays a paramilitary trooper in **Mani Shankar's ('78 Chemical)** *Tango Charlie*.

Accompanying him are Bobby Deol, Tanisha and Nobel Laureate Amartya Sen's daughter Nandana



Sen.

Mani says the film generous dollops of comedy, romance and drama too.

"People think action is just people firing at each other," says Mani Shankar. "But it is more than that. I had to do a lot of research, learn the tactics of the Bodos (rebels in Assam) and the PWG (the Naxalite People's War Group). I had to know more about the people who constantly fight them. We think terrorism (in India) is restricted to Kashmir, but it is really not."

The movie will be completed in September and is scheduled for a December release. It is the second action film from Mani after an outstanding Hindi action film, *December 16* which was a hit last year. ♦

BY THE SANDPAPER 2.0 TEAM

THE HISTORY OF BITS ADMISSIONS

*This article traces the history of normalization, a corruption-free, decades-old method of admitting students that has stirred a raging debate in the entire BITSian community about its relevance. The controversy has arisen largely due to the admission of very large number of students starting in 1985, from only one or two states in India. The last government wrongly interfered to change the system, but it resulted in intense discussion about the pros and cons of the alternatives. **Since we have not verified the figures, any facts should be taken to be directional at best, rather than a completely accurate reflection of the reality. The article cites the opinions of alumni who volunteered to share their views on this theme. The Sandpaper Team did not pre-select people or endorse specific opinions in this regard.***

BITS, Pilani since its inception as a Deemed University in 1964 has admitted students purely on merit. Till 1972, merit was based on the total marks obtained in the qualifying examination; the subjects considered being Physics, Chemistry and Mathematics (PCM) for engineering. This system was also followed by Delhi College of Engineering and most Regional Engineering Colleges.

From 1970 to 1980, several changes were introduced including the integrated curriculum, Practice School and the Dual Degree Programs. Indian schooling also changed to the 10+2+4 system. BITS moved to four year degree programs instead of five years.

In 1972, BITS introduced a new admissions policy, admitting its students on the basis of normalized percentage of marks. This was also the time when the "Unassigned System of Admissions" was introduced. This was immensely unpopular and was discontinued partially in 1978 and completely in 1979.

From 1979 onwards, programs were classified as Groups A, B and C programs, which was significant since it assured all group B programs a dual degree from one of the programs of Group A.

Dr. G Raghurama, Dean of Admissions at BITS Pilani, says "The Institute decided on the scheme of normalized percentages of marks in order to remove the disparity in the evaluation systems of different boards in the country.

This method worked well over the years. It was a new and unique system which was highly appreciated."

A COMMENT ON BITS DIVERSITY

Prior to 1970's, BITS predominantly had students from one state – Rajasthan. Then students began coming from places closer, Delhi, UP etc. There were a few persons from the South, and even then those were the persons who were living in Delhi, etc. By the mid-to-late 70s, geographical distribution of students does not appear to be an issue, although the majority of the students were from North India, since there was a good dispersion of students amongst all regions including excellent Southern representation.

Chandra Bhople ('74 Maharashtra-resident) remembers his days. "Even though BITS was really popular in the South especially Tamil Nadu and people would sometimes consider going to BITS instead of IIT, still we used to have substantial people from other boards as well. The diversity was as good as it can get." The geographic diversity of BITS probably peaked during the early 80s.

THE RISE OF THE SOUTH

Dr. Raghurama says "Starting in 1985, large numbers of students from the southern parts of India started applying to BITS. Many regions in South India had the concept of seat reservations for the backward classes, following which the so-called 'forward classes' had

reduced opportunities in Institutes present in these areas."

Venu Palaparthi ('87 CBSE Board and Hyderabad resident) says "In 1987, out of the 500-odd students, approx. 150 were from AP, which was less than the 200-odd TN contingent. Barring a year or two, I have seen a gradual increase in the numbers of AP students, who equaled TN in numbers by the time I graduated." He goes on to add that "On a recent trip to Pilani, I was struck by the overwhelming number of Andhra students I met. The percentages are clearly much higher now."

Ganesh Venkatraman (Phy EEE '95 and a Chennai resident) concurs: "Through the '95-'99 batches at BITS the percentage of students from AP and TN were approximately 60-70%. While I don't know this for a fact or have verifiable numbers on it, I do believe this is the general perception and is reasonably accurate." Ganesh adds that "At least until 2000, most students from CBSE were from TN."

Over the last two decades, students from TN and AP appear to have kept an even grip on Pilani seats. **Abhijit Pethe** ('97 EEE) agrees that during the time he was in Pilani, 80% of the seats used to go to students from the South with those percentages becoming higher and higher closer to 2001.

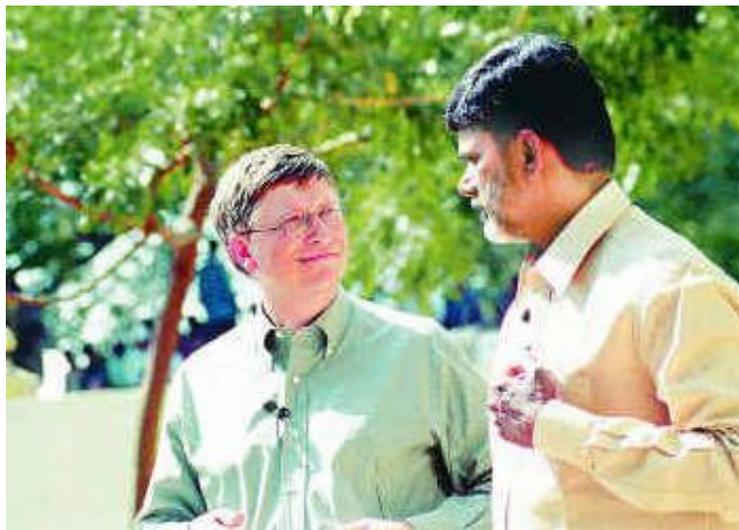
The strong showing of AP students has been responsible for much of these increases. Unverified numbers suggest that substantially

more than 50% students at BITS Pilani campus came from AP in 2003. In 2004, we understand that this percentage on the Pilani campus fell due to some changes made by BITS with respect to AP Board results. But, in its first year of admissions, a very significant majority of the 560 students entering Goa in 2004 came from AP, according to a student at BITS Pilani-Goa.

As awareness increased about the BITS Pilani policy of admitting students on merit, and greater numbers were admitted, it created a cycle of even greater applications from the South. Today, 80% of the 10,000 applications received by BITS Pilani every year are from the five Southern states.

THE SUCCESS OF ANDHRA PRADESH

Chandrababu Naidu was a big supporter of higher education, and his efforts have reaped rich dividends for the state's aspiring students. His government paid Rs 20,000 per year to every AP student who got admitted into BITS or IIT, effectively providing them with a free education. AP students have done well, thanks in part to the incentives, and the popularity of engineering as a career in the state.



AP has several schools that are "factories" fine tuned to producing

high marks in Class XII exams, such as Vignan, that (according to their own website), contributes 30-60 students to BITS every year. This is similar to the coaching institutes for JEE in Kota, a topic we will touch on in the next article. AP students do well at IITs, although the percentages are significantly lower. **Nagendar Bandi** ('98 IIT Guwahati) says "Approx. 16% of all IIT JEE seats were filled by AP students in 1998". A significant number come through the Ramaiah, Nalanda and Gowtham IIT coaching institutes.

Andhra students reportedly do significantly better on the AIEEE. One student reported that they have taken more than 50% of the available AIEEE seats last year.

This clearly shows the outstanding performance, ambition and determination of the AP student, especially when it comes to AIEEE and Board exams.

However, the enormous percentages of AP students in Pilani resulted in rumblings amongst the alumni when an alum visiting Pilani in 2003 observed in an email on a BITSAA yahogroup that he saw and heard that over 70% of the students admitted to BITS were from AP in 2003.

Venu explains the popularity of BITS. "In 1987, students were

generally coming from urban areas such as Hyderabad, and were generally split between the CBSE and AP Board." He adds that "As awareness about BITS Pilani increased in other areas of AP, and amongst AP Board students, with their advantage of being allowed to write improvement exams for the 11th grades, the numbers just exploded, which reflects the current population."

THE BATTLE BEGINS: THANKS TO MURALI MANOHAR JOSHI

In a separate an unrelated action, in October 2001, according to Dr. Raghurama "The Government of India passed a resolution stating that all



engineering, architecture and pharmacy seats in the country will have to be filled only by IIT -JEE, AIEEE or State Level Entrance examinations. While the IITs were allowed to carry on with their exams, it was made compulsory for all other universities having other modes of admissions to join the AIEEE. The reason given by the government was that it would help reduce multiplicity of exams, ease the financial burden and tension on students. The AIEEE exams would be based on the common minimum syllabus, which students, irrespective of the board they come from would be able to attempt uniformly. "

Dr. Raghurama says "It is important to note that the normalization method was not being challenged by anyone, including the government. The issues involved were much bigger, including the autonomy of a university, the role of government and UGC on university affairs etc."

Dr. Raghurama indicates that BITS immediately expressed its unwillingness to join the AIEEE citing three reasons. Firstly, the government resolution violates Article 19 of the constitution of India, which says that the admission procedure is the prerogative of the Institute. Secondly, the current method is a fair, transparent purely merit-based system with no quota or reservations. Lastly, the planned system was discriminatory - JEE for IITs, AIEEE for everyone else.

BITS offered alternatives to its current system that should be followed for all schools in India. The government ignored its wishes, and BITS went to court.

BITS GOES TO COURT

BITS filed a case in the Rajasthan High Court regarding the enforcement of this Central Government policy to dictate the admission procedure.

An interim order was passed by the Rajasthan High court allowing BITS to carry on admissions in its own way. Later in April 2004, BITS got a permanent judgment in the case.

On this basis the Admissions Office went ahead with the advertisement for the admissions process.

But the Government moved the division bench of the Rajasthan High Court against BITS, and the case was heard all over again. The division bench reversed the earlier decision, and ruled that BITS should join AIEEE. By that time, AIEEE exam had already been conducted for 2004 and there was no way BITS aspirants could take it if they had not done so already.

BITS had already received more than 10,000 applications based on its advertisement. It was a trying time; the court was on vacation till July, which meant BITS was in danger of not being able to conduct an admissions process at all that year. The HRD Ministry was not sympathetic.

BITS management notified the applicants of the switch to AIEEE, which enraged many students who were sure of getting into BITS. Some of these affected students moved the Supreme Court. The Supreme Court then 'stayed' the Rajasthan High Court order and decided to allow BITS to conduct

admissions using their original criteria.

MM JOSHI DEPARTS!

With the change in government, on Oct 1st, 2004 the new ministry passed a notification stating that autonomy would be given back to all universities and that it was no longer necessary for deemed universities to join the AIEEE. This supports the stand taken by BITS all along.

IN CONCLUSION

Although the court case had nothing to do with the normalization process or the rise in AP students at BITS, the timing of the case resulted in significant discussions and deliberations at BITS to start working towards a new admissions process. The case should never have gone to court, but it had an unexpected outcome generating healthy debate and a proposal for a unique new examination by BITS

Pilani. ♦



BY THE SANDPAPER 2.0 TEAM

ADMISSIONS – THE ISSUES & THE ALTERNATIVES

Much has been discussed about the modality of admission to BITS, Pilani – a top choice for many of India’s brightest engineers. Though the current system clearly has problems, we commend the genuine efforts, constant soul searching and sense of urgency amongst BITS management to find a better alternative. This article also tries to clear up many misconceptions which are circulating on the Internet. The BITS proposal under review internally is to conduct a GRE-type exam which will likely help the system. We thank many current and former students, faculty and alumni for their valuable input. Since we are unable to verify the figures, any facts should be taken to be directional at best, rather than 100% accurate reflection of the reality. The article cites the opinions of alumni who volunteered to share their views on this theme. The Sandpaper Team did not pre-select people or endorse specific opinions in this regard.

A NOTE ON NORMALIZATION

We’d like to make a point about the normalization system before we examine the issues. It is a purely merit based, transparent system that has been appreciated by many, including the honorable Supreme Court. Dr. Raghurama says “Many institutions wanted to follow the normalization procedure abandoning their existing entrance tests since they found many problems with the tests. In fact, some institutions have started following the normalization procedure”.

The system clearly aims at fairness. This means that all Board toppers in India, irrespective of their actual marks, are admitted to Pilani every year. It is quite interesting that BITS gets 16-17 Board toppers every year, clearly to its advantage in attracting the best student from every state in India.

However, the problem is that the system works in theory, but no longer in practice. Here’s why.

THE ISSUE OF BRAND

BITS has a significant branding issue in many states in India. According to the Vice Chancellor (at a meeting in the Silicon Valley recently) he observed that students from certain southern states are willing to come to BITS irrespective of what degree is offered to them, because the value of the BITS brand is so high. **Ashish Garg** ('97 Instru), an alum from UP mentioned that in his hometown, Dehradun, BITS is not well known. Students from his class preferred to go to lesser-ranked schools if they did not obtain the degrees of choice at BITS (which generally are EEE and Computer Science).

Dr KRVS “Raja” Subramanian, KRVS) former Former Head of Computer Science



Department & Dean of Distance Learning, adds “If an applicant needs to improve his/her chances of getting admitted, he/she must not “cross out” any option. There

are so many times I have seen guys with huge percentages just apply for EEE, CS and Mech, (or a select few disciplines) and crossing out all other options. Based on the competition, if he does not get the above 3, he has kicked himself out of reckoning from all others.” He adds that a significant proportion of students do this.

KRVS then goes on to compare the pattern of filling applications from AP, TN and Maharashtra, “In this category, the number of persons crossing out options at all is very insignificant. These guys appear to be ready to go to BITS and do anything” he says.

We risk making a “chicken and the egg” argument if we look at only a snapshot of this data. We believe there is a lack of role models in many Indian states which reduces the brand awareness of BITS so significantly. If admissions began creeping up in these regions, the awareness would result in more champions for BITS Pilani, and may gradually drive up applications in under-represented states.

WHAT'S WRONG WITH THE BOARDS ?

What about the actual numbers coming from various Boards? According to KRVS, approx. 35% students came from the CBSE Board (till 2001), followed by Boards of two primary states in India. This changed when the AP Board students became the largest group in the last two years, causing the current uproar.

PROBLEM #1: TIMING OF DECLARING EXAM RESULTS

KRVS admits that the application date presents a problem for key Northern states. He says "The last date for receiving applications at Pilani is 30 June 2003. There are a number of boards which have almost never released the results of Class XII exams before this date. Examples of these are UP, Rajasthan, Punjab (and oh, there are others too). During those few occasions when these results were released on time, we found that the number of applicants from these boards were relatively smaller."

This is likely due to the lack of role models; although we have seen that a significant percentage of second semester admits seem to come from the Northern States, although these total numbers are quite small, since only a few seats are offered in the second semester.

PROBLEM #2: THE LANGUAGE ISSUE. OR THE "SCOURGE OF ENGLISH" IN THE CBSE BOARD

One issue is the BITS decision to have a broader focus – Language plus PCM instead of PCM alone. This is good for Boards where it is easy to get high marks in the Language. For city dwellers, who generally take the CBSE Board and choose English, it means that there is very little chance of them getting into BITS. CBSE Board students entering BITS generally choose Hindi, French or some regional language where one can get 95-100% in the exams. Those who took English will know how hard it is to get more than 70% - 80% in these exams. With the normalization cutoff hovering around 98%, CBSE students who take English or a difficult-to-score regional language are always at a disadvantage. Ganesh says "In the TN board it is not uncommon to get close to 100% in French and Sanskrit."

According to an ISC Board student "The same is true for the ISC board where it is tough to score good marks in English. A lot of students who have high PCM marks but low marks in English lose out due to the normalization based on EPCM."

Santhana Satagopan ('90, TN Board) says "Language should not be part of any admission criteria. Look at all the Chinese/Taiwanese students in Grad schools here [in US]. Not great in spoken and/or written English, but fairly intelligent and hard working students."

PROBLEM #3: SKEWED MARKING

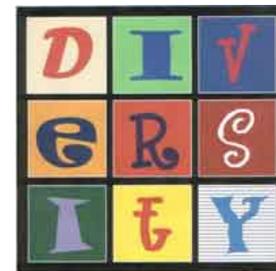
Normalization works if all Boards allot scores on a similar, say bell curve. If there is a major skew near the top, with concentration of a number of people in the same area, it would result in very high normalization results. The skew is the reason why normalization fails in the AP case.

Bhavana Thudi ('97 EEE) from the AP Board says, "In addition to the hard working, seat-deserving AP student, there are many students who take advantage of the easy scoring exams." Another student noted that the AP system is not controversy-free. We agree with Bhavana's view about the AP Board that "Currently, the remarkable concentration of high percentages" requires a careful review of their (AP Board's) system.

WHAT'S THE FALLOUT OF ALL THIS ?

There are two problems both of which may have a long-term detrimental impact on the BITS brand.

PROBLEM #1: THE IMPORTANCE OF DIVERSITY



Diversity can be defined in many ways – religion, geography, gender, income levels etc. We don't want to be drawn into an academic debate on diversity, so we'll

quote from The Office of Diversity at the Rensselaer Polytechnic Institute. The Office says “Students graduating today will live and work in a global community of myriad geographies and cultures. We should provide them the opportunity to learn in one as well.”

We agree with this emphasis on creating diversity at universities based on geography and cultures, and add a third – gender, since we believe it is important.

Our conclusion – Only by living and learning in a diverse environment representative of the outside world will we be trained to work and live in it.

Sandeep Mukherjee ('95 ISC Board) says “In the Indian context there's a definite relationship between the region an applicant is from and his/her style of thinking, working, goals so a predominantly single, dual-state applicant pool is certainly not diverse.” BITS Pilani has gender diversity, but lacks geographic and cultural diversity found in the Indian workplace. The current system of admissions does not address it.

If you speak to successful BITSians, they will say that BITS created well-rounded students, which was due to a combination of the curriculum and the peer group that consisted of Marwaris, Oriyas, Mallus, Gulis and Illar men and women, working side by side with Punjabis, Bhaiyas and Choms to solve problems ranging from a difficult integration exercise in

Complex Equations to figuring out how to land a chopper on stage. This experience was invaluable. Almost every BITSian CEO, entrepreneur and corporate leader, in fact every BITSian who has experienced diversity will tell you this.

Gender diversity makes BITS unique too, and we'll discuss this later.

BITS does not have diversity as a stated goal, but it is important enough to merit consideration in designing an admissions process.

PROBLEM #2: THE QUESTION OF STUDENT QUALITY

We cannot run IQ tests on every BITSian applicant. So it is difficult to know whether the student quality is going down academically. BITS has gained in prestige in the last two decades, as the demand for brand-name engineering degrees has grown substantially. So it is difficult to say whether there is a marked deterioration of quality when we accept the top 400 students from AP and say, the top 40 from Maharashtra. But fundamentally it is difficult to accept that so many students from one state are better than a fraction of students from another state.

BITS MAKES CHANGES TO THE CURRENT SYSTEM

Dr Raghurama says that it is not possible for BITS to grade different boards differently for the purpose of admissions or try and establish create quotas. Any such attempts go against the

BITS philosophy of being transparent, distort the well understood, albeit controversial current system, and be subject to legal challenges.

Dr. Raghurama adds “So in 2004, BITS made a few tweaks to its normalization method to improve it. Though the procedure adopted was still normalization of marks, the provision the AP Board had of writing improvement exams for class 11 was not considered for admissions to the Institute. This resulted in a significant reduction in AP students on the Pilani campus in 2004”.

We believe the seats went to TN.

The Central Board of Secondary Education (CBSE) operationally has five regions throughout India. The toppers of these five zones were considered separately and their marks normalized separately. State Boards like the Maharashtra State Board, J&K Board which had more than one division in the state were also considered for separate normalization.”

But although the same numbers of AP Board students could not make it to Pilani campus, which typically was the first choice, large numbers fell into the bottom half of the cutoff, and they ended up getting admitted to the Goa campus, which has 560 seats this year. According to a comment made by a BITS Goa student, a significant majority percentage of the Goa students are from AP. Approx. 35 students are from

Maharashtra and Goa and approx. 75 are from the rest of India. The struggle to find a solution continues.

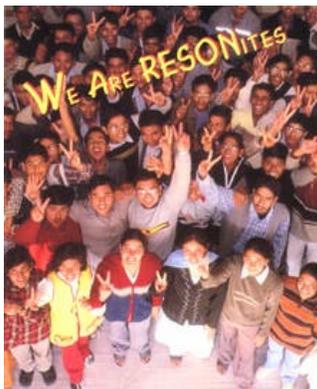
KRVS emphatically states that “The only system that can be designed to provide [a desired] uniformity of geographical distribution would be some form of a “quota system”. In my opinion, BITS has rightly rejected the quota system!”

So what other options are available to BITS ?

OPTION 1: SHOULD BITS JOIN THE IIT JEE SYSTEM ?

BITS suggested that it be allowed to join the IIT-JEE system. However, this was not approved by the government. The IITs, being an autonomous body themselves, possibly wanted their system to be independent of others.

Even if BITS were allowed to join the IIT-JEE system, it would be no reason to celebrate.



An ad for an IIT JEE preparation school in Kota, Rajasthan

There are a number of weaknesses with the IIT JEE system. Firstly, the system

suffers from a lack of class and gender diversity. “The typical IIT student is male, hails from an urban middle class family” says Frontline Magazine in an article in 2003, and then points out that “The IITs have an even more dismal record in admitting women.”

Let us discuss the IIT JEE Exam preparation. Preparation for IIT JEE begins as early as the 9th standard, and a very high percentage of entrants are taking the exam for the second or the third time. Typical IIT entrants come from urban cities where the coaching standards are quite high. The one exception is the small town of Kota, Rajasthan which accounts for a startling one third entrants to the IITs. (2002 figures, Indian Express).

There are 90 institutes in Kota, of which Bansal stands head and shoulders above the rest (484 IITans in 2002!). The centers are huge money-spinners, with annual fees of Rs 40,000 per student, and salaries of Rs 10 to 15 lakh to faculty members, 40 per cent of whom are ex-IITians.

Kota students focus on preparations for the IITs, and their attendance to coaching classes is accepted in lieu of classroom study for 11th and 12th standard Board exams in the city. Board exams are an unwanted distraction for IIT aspirants. This is an important reason why people who get into IITs typically don't get into BITS Pilani either. You either study for the Boards or the IITs.

The IIT preparation is grueling, expensive and has barriers to entry. The top JEE coaching institutes in India have entrance exams to enter the coaching classes !

Coaching for Board exams, on the other hand, is clearly not as expensive, nor does one need to physically relocate oneself. This makes the BITS system equitable from a cost standpoint.

We do not argue that the IIT JEE system, (if we could join), would give BITSians access to a similar pool of hard-working, intelligent, male, mostly urban, students that IITs have today. It will leave out the poor, those from semi-urban and rural areas and almost all women.

OPTION 2: SHOULD BITS JOIN AIEEE?

BITS fought so hard to avoid being put into the AIEEE system, which is used to admit students to 42 colleges in India. (Source: AIEEE website) Why is this not in BITS' interest ?

Before we undertake an analysis there are two interesting bits of information. Firstly, 50% of all AIEEE seats are filled by Andhra students, due to their strong showing in these exams. Secondly, if BITS were to go to the AIEEE exam, simulations have shown that the geographic distribution will look no different than it does today – with a tremendous skew to one or at most two states. These are not the reasons why BITS does not want to join AIEEE, but it is

important to know this. We can only speculate.

Firstly, most of these colleges are second and third tier schools. Secondly, under AIEEE, the students are allotted their engineering seats centrally. Thirdly, as some members of the BITSAA Delhi chapter pointed out, the AIEEE exam is only for Engineering and not for Science and other subjects. This would complicate admissions to dual degree programs at BITS, which uses the same exam for all admissions. Fourthly, the examinations are administered by the government, and there are bound to be potential delays, and even the possibility of the system being manipulated or cheated. For these reasons, AIEEE is considered unacceptable to BITS.

OPTION 3: SHOULD BITS CONDUCT ITS OWN EXAM?

KRVS says "Let me tell you that there is no emotional attachment to the existing system at BITS. There is a constant debate regarding nearly all aspects of education. Too

many things change at BITS, but admission seem to have fewer changes. That does not mean there is a lack of debate on that. Far from it, I have participated in some many such discussions that have gone for such long hours that I have hardly spent any time with my daughter at home."

We believe that BITS is not wedded to the normalization process. But having examined the existing alternatives, there are three pressing problems that would occur if BITS implemented any entrance system, be it JEE, AIEEE or something similar.

PROBLEM #1: WOMEN WILL DISAPPEAR AT BITS

One of the reasons for continuing with the normalized system of admission was the increasing number of the girl students that are admitted to BITS every year (in the year 2003, a student said 42 percent of the students admitted were girls). Girls are rare at other engineering schools, especially IITs where students are required to take an entrance examination, although they do better on the board exams. It is quite well documented that girls do

system does not favor them to attend coaching classes which are critical to getting in. Classes are held early morning or late at night, which is a disadvantage for girls. Ganesh agrees. "In the most popular coaching classes in Madras, you might just find about 5-10 girls in a class of 100-150 !" he says.

Many parents with scarce resources would also choose to invest the coaching class money on boys rather than girls.

We have also heard the comment often that many girls don't think about applying to engineering schools, so they do not prepare for the JEE/AIEEE exams in large numbers. But when they obtain high marks in the Board exams, it requires little additional effort to send in an application to colleges like BITS that accepts these results.

PROBLEM #2: BITS WILL LOSE ITS 22-ODD BOARD TOPPERS

Another issue was that BITS attracts more than 15 board toppers every year and it is sad that such bright students are denied education in good Institutes simply because they concentrated on 12th exams rather than entrance tests. As a fact, in the year 2004, 23 board toppers have joined BITS (22 at Pilani and the Goa topper for very obvious reasons joined Goa campus!). Any option which totally ignored the performance of the students at the 12th boards



exceedingly well in the boards, but don't fare as well in entrance exams.

The reasons are easily explained. According to Prof. Raghurama, girl students have a disadvantage in competing for entrance exams since the societal

therefore did not seem to be a satisfactory solution.

PROBLEM #3: STUDENTS WILL BE BURDENED WITH MORE EXAMS AND COSTS

We discussed the tremendous cost of IIT coaching. Another entrance exam will add to the already existing multitude of exams and will be considered as additional burden. While BITS management always believed in critical analysis of existing systems and open to procedures for improvement, it did not favor the idea of abandoning the normalization scheme in a hurry and taking up admissions purely on the basis of entrance examinations.



GRE-TYPE EXAM: A SERIOUSLY UNIQUE PROPOSAL FROM BITS

BITS has proposed to conduct a computer-based entrance examination (something along the lines of GRE but with a focus on Physics, Chemistry and Mathematics). Although this would mean another new exam, it has many inherent advantages. It is really a test of aptitude, so it is not something that students have to prepare for 3-4 years (like JEE) although there will be advantages in being coached. It will be affordable, since students can study at home; and even if they take coaching classes, it would not be as expensive and could be done in the neighborhood. Girls will appear for this exam in greater numbers than

do for IIT JEE, since it will be an extension of their Board-exam preparations.

We believe that BITS should continue to place importance on the XIth and XIIth standard education. The all-round development of the child is provided by being in a collegial high-school environment with a diverse range of activities rather than a residential coaching institute. It is a pity that school education is becoming irrelevant to students in India, especially for entrance exam takers. BITS could implement a system that may give students another chance to return to the classrooms at school. BITS could also require students to score at least 80% in the Boards to qualify for the BITS GRE-type exam.

Dr. Raghurama says “The Institute has suggested this exam to the UGC and the government as a model for all universities. This would be technically a ‘first of its kind’ in India and BITS could take leadership in making it a reality. The admissions office and core teams are preparing details “

IN CONCLUSION

We believe the end of the debate on the BITS admission procedure is near, since we are confident that BITS will replace its current system shortly. It is willing to foot the entire bill for creating the infrastructure around this exam.

The GRE-type exam is the only solution that will reduce, but not eliminate the inherent problems with an entrance

exam – it will mean that less women will get in, but not drastically so, and the students will be burdened with some additional coaching costs.

We also propose that BITS give automatic admission to the 20-odd Board toppers that we get every year. But their disciplines could be determined by their performance on the GRE-type entrance exam.

It must be noted that changing the current system will not guarantee diversity. But it will certainly be a bold attempt to regain it, and potentially create the “gold standard” for entrance to engineering schools in India, similar to the much-respected exams in the US.

Dr. Raghurama says “BITS management will announce the admission procedure for the next academic year soon and announce it to BITS aspirants well in time. “

We are confident that BITS management will proactively make the changes that will continue to shoulder BITS to new heights. If you have any suggestions about this GRE-type, BITS and especially Prof. Raghurama welcomes them. ♦



WITH MADHURJA BANERJEE ('01 INSTRU)

REMINISCENCES BY DR. MEERA BANNERJI

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Dr. Meera Bannerji, a native of UP has worked at Pilani for 23 years. She holds an MA from Agra University, B.Ed from Rajasthan University and a PhD from BITS Pilani. She taught M.Phil level courses, CDCs for Science and Technology, Communications and Technical Report Writing. She was a Member of the Senate, as well as Scholarships, Fellowships and Library committees, and most famously, the Warden of Meera Bhavan. She wrote the book, "Developing Communication Skills" with Professor K. Mohan in 1990.



I almost didn't come to Pilani

More than 35 years, ago, after going through a harrowing set of physical endurance tests and other examinations for the post of the NCC officer of the Women's Wing of NCC cadets at the University, I finally tasted the bitter-sweet fruit of success. Bitter because the experience was physically challenging especially for a person leading a quiet, sedate life. And sweet because I was selected as the only candidate out of 200 aspirants. I was faced with a difficult choice. Go to Gwalior for the NCC training and plunge into new profession. Or to go to Pilani to join my husband!!

I finally decided on Pilani. I had simply, irrevocably fallen in love with the place, with its big and small inconveniences and inaccessibility, a new way of life, new surroundings, the velvety, lush green lawns and the bountiful earth. It is difficult to believe that in this Oasis, one needed to plant any vegetable and just water the patch regularly. And lo and behold! It turned out the largest radishes and onions, the biggest sizes I had ever seen. Of course, the menace of peacocks was not so pronounced at that time so we

could actually taste the fruits of our labor.

Gossip sessions and the Akhand Paath

With few telephones in those days, information exchanges were exciting. Need I say, the juiciest pieces, nay, the choicest items of information were obtained at weekly meetings of the Womens Club, or in the Chit-Chat sessions of the housewives after their husbands had left for the Institute. The weekly Akhanda Paath sessions were also lively for catching up on the Pilani stories. Vidhya Vihar campus residents had to create their own entertainment and this made us quite creative individuals.

There were only 30-35 girls and they did lead a very sheltered and protected hostel life with high boundary walls all around

Movies & the MB curfew

I think it was in the late 1960s that we had the opportunity to witness Hindi films in the open-

air QT of FD II. Days when the movies were to be screened were neither fixed nor announced. But everyone used to come to know about it through word of mouth. No seating arrangements were made. We had to sit on the grass or take a seat on the stone steps. Incidentally, only one set of steps existed at the time. It was much later that the three other sets of symmetrical steps were added.

Color films did not arrive till the mid-70s, and the movies that were screened were neither new nor the stories always interesting. Nonetheless, all of us enjoyed watching the memorable black and white films from those days. It used to be a special occasion to complete all routine jobs at home quickly and be there at the Q.T. at 7.30 pm. It was later in the 1970s and 1980s such movie shows became a regular feature of BITS campus life. Two separate shows were arranged in the Central auditorium. The students got the top priority and the staff the next. Seats were reserved for the MB girls on the balcony with a watchman guarding the seats as assiduously and meticulously as a cat ferociously looks over her newborn kittens! No one dared to occupy the so-called reserved seats.

Often one noticed lines of giggling, talking girls walking to and from the auditorium on Sundays when movies were screened. The girls were guarded by one matron in front and another one at the rear! The girls hostel comprised just one block of eighty rooms or so. There were only 30-35 girls and they did lead a very sheltered and protected hostel life with high boundary walls all around; one main gate in front and a small gate at the back. Every girl was expected to be in the hostel by 7 pm. Both these gates had a watchman; each on guard round the clock.

Theater meant hooters, boys playing women and Professors in-charge

Back in those days, enterprising male students put up English and Hindi plays with an all-male cast, a feature not too different from the Ramayan plays put up by the locals in our towns today ! The boys enacted the female roles quite superbly. Each club had a Professor-in-charge who was a theatre-enthusiast himself. Only in the early seventies did girls venture to act in these plays. The duties of the Prof-in-charge included supervision of all rehearsals, especially during late nights and the responsibility of escorting the girls back to the hostel after practice.

In 1973, the English Drama Club was staging an American one-act play called Cancer in which my elder daughter was one of two girls playing an important role. My daughter was the only day-scholar; the other girl lived in the hostel. After a few days, my husband who was the Professor-in-charge of EDC decided to do away with supervisory duty of the girls. He

had implicit faith in the integrity of the students. He also believed that students were mature adults who would undertake all aspects of the staging the play – including direction, stage setting, costume designing and acoustics with great responsibility. He decided to make them wholly in-charge of the job. And how correct he proved to be !

It is sad that the untiring efforts of these dedicated students were often marred in the old days by miscreants or professional hooters. Their sole job was to hoot and jeer throughout any play being put up. It was very difficult to hear the dialogues properly unless one sat in the first or the second row in the auditorium. No one understood why they acted in this obnoxious manner.

Once Prof. Madhusudan Singh of the Languages Group, a real theatre lover, had put in a lot of efforts to produce a Greek Classic Antigone by Sophocles. A decision was taken to stage this play for exclusively theatre enthusiasts in the Engineering Theatre instead of the auditorium. Invitations were issued selectively to both staff and students. The iron-grill shutter for entry into FD II was locked. The play began and we were all engrossed as the play started. But this was not to be! Hooters gathered in large numbers near the closed shutter and started shouting slogans. They demanded to be let in. Since the capacity for seating students in the ET was limited, it meant that if the miscreants were let in, there would be complete chaos. Prof. Singh was naturally very upset and so were the actors and actresses. They all wound up their stage

materials and quietly left for their respective hostels without completing the play. Many of us were shocked and sat there dumbfounded. Only two scenes had been enacted. An exquisite portrayal of an age gone by was lost forever.

Thankfully, the hooters attitude improved over time and eventually they disappeared. I don't know what made the hooting fade away, but the Pilani crowd turned into avid and sincere play-watchers. We had a gala time putting up plays with a mixed cast consisting of teachers and students. Several Hindi and English plays were staged in this manner.

Every girl was expected to be in the hostel by 7 pm then. Both these gates had a watchman; each on guard round the clock.

Once the Staff Association decided to put up a Hindi play, with as many members of the staff participating as possible. There were a number of one-line dialogues too in the play. The Director of the play (a very senior faculty member) was very strict, and he demanded perfection in every sense. Some staff members had agreed to be on the stage for the very first time, and were naturally very stage-conscious and very shy. The rehearsals were great fun, but I had a lot of trouble controlling my giggling during the rehearsals. The Director even seriously threatened to tape

my mouth ! I found a way to stop it only on the final day. Instead of making eye contact with the characters, I looked somewhere else when delivering all my dialogues. No eye contact, no shyness, no giggles. The play was a hit !

The one constant – to climb the MB wall

I've talked already of many changes. Movies, theater, curfew for girls, even the sheer numbers of women in Pilani. Life in Pilani has gradually

changed from the 1960s to today, although we have some pleasant constants that make this place so unique. Most change has been for the good. The proliferation of options – be it the many transportation options to take you out of Pilani at any time (versus the 2-bus option that was available to us), the innumerable brands of toilet items, food and beverages, clothing shops keeping pace with the latest fashion trends – and even the tailors and their significantly lower charges. These changes are welcome and

many more would take place in future too I believe, that will continue to make Pilani a fun place to spend a lifetime.

One constant ! One interesting topic among the male students through the years has been the constant desire to scale the high boundary walls of Meera Bhavan. No one has ever tried to meet to this challenge, let alone succeed, of course (I think!), but doesn't stop them from talking about it. I am no longer Warden, but I will be watching to see if anyone ever will. ♦

BITS Pilani screensaver by KM Vivek (87' Eco MMS)

For more art by BITSians, visit photogalleries on www.bitsaa.org or send us your art





Building bridges over the sands of time.

SILVER JUBILEE REUNION OF THE 1974 BATCH

BY K JOSEPH ANTONY ('74) IN CHENNAI AND MANY MORE

*O Batchwalon
Three Days from now
You will be more disappointed
By the things that you did not do
Than by the ones you did do
So throw off the bow lines
Sail away from your safe harbour
Catch the desert winds in your sails
Explore, Dream, Discover, Get Together
Meet for the Silver Jubilee Celebs
During Oct 1 to 3, 2004 at Pilani*

Thus spake Nattu, now Dean Sir, B.R. Natarajan, as he gave a last and final call. It began almost three years ago, with a Yahoo groups called BITS7475, which drew our batchmates now dispersed all over the world, together, over the Internet. Its objective - the Silver Jubilee Get-Together in 2004!! That set the stage and over these three years, it built up our appetite for a long-awaited reunion.

CSG (Chandrashekhar Goel) for whom 'organizing' breeds



Our batch mate Dean Dr B Natrajan

genetically moved a motley Delhi crowd into the challenging task of mobilizing. It was easy. Along came Chaw (Chawla), Mukesh Asija, Ujjesh Sinha, Atul Jain,

Satish Bansal, Ramkaran Goel, CK Agarwal – could anything go wrong? Even Murphy decided, it was vacation-time.

For weeks, we searched each other out, on email, on telephones. Spouses watched helplessly as we hurled expletives across the planet, re-connecting. "Batchwalon" (fashioned from the sholayesque "gaonwalon") we called each other. Roop (E. Roop Bhaskar Raj), Rajiva Agarwal, Deepak Marwah, Sudipto Dasgupta, R.K. Vaish, Nagendra Venkaswami and so many, many others, alternately cajoled and threatened, till a hundred of us agreed, and willingly



Delhi Junta - The Organisers

submitted to Chawla's extortionist methods, and paid up for the trip. (It is believed that he charged extra to some, promising an item number on the bus.

Even the aftermath has been delightful. We have a humungous collection of quality photographs, and some wonderful writing. Winston Churchill might have said – Never before has so much been said by so many ... about so little!

So the compilation has been agonizing - what to include, what to leave out – varying styles, diverse views, the Bresson's, Kafka's and the Ghalib's of our batch - and in the end (back to GB Thomas!) have a "piece-wise continuous polynomial". Read on...

kuch beete hue lamho se mulakat hogi
kuch adhoori rah gayi baton ki shuruat hogi
yaad aeinege ve kisse ve fasane phir sab
jab pacchis saal bad hamari aur tumhari mulakat hogi

kuch to badal gaye hain hum bhi tum bhi
rago main vo furti khoon main vo ubal to na hoga
lekin is baat ka yakin hai ai dost
ki hamari dosti main itne saalo ke baad
purani sharab ka khumar to hoga

Poet - Aniruddh Srivastava

Article I. A log of the Silver Jubilee Reunion of the 1974-79 batch

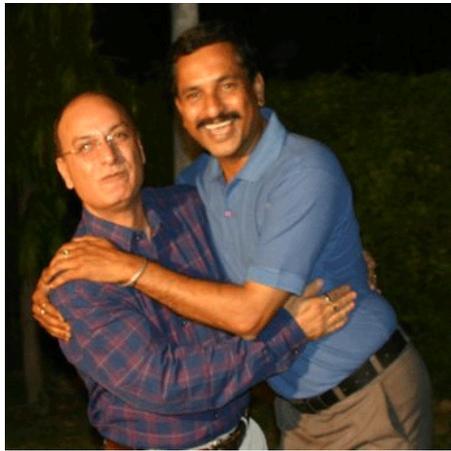
BY SOUMITRA CHAKRAVORTY ('74) IN NEW ZEALAND

30th September – The Beginning

The reunion began in New Delhi with a fabulous dinner, hosted by our Delhi batch-mates, on the eve of our Pilani departure.

We were welcomed at the venue on Janpath by our dear friend, Chander Shekhar Goel, one of the main organisers. It was rather useful net practice for him. He has a son-in-law and a baraat to welcome, for his daughter's forthcoming marriage in December 2004!

Seeing so many mates after 25-26 years, handshakes, hugs and backslaps, was the most contenting hors-d'oeuvre anyone could have desired and this was followed by a decent supply of drinks and a mouth-watering, sumptuous meal.



Razdan and Mishra

The absentees would be



30th Dinner hosted by Delhi junta

envious of the convivial company, the refreshing and encouraging liquids, the delicious food, a few PJs and the lachchhas we have had on that delightful evening. Everything flowed like a finely matured wine until the last group among us left the venue at 1 am.

1st October - A Nostalgic Journey Begins

We began to assemble at Sri Aurobindo Place from 9.30am onward. Many batch-mates, who could not come on the previous day, arrived in New Delhi by planes and trains that morning. More handshakes, hugs and backslapping followed.

Each of us wore a collarless T-shirt designed by our illustrious Tapan Desai (Tubby) and it was a sight to behold. Almost all of us have grown physically over the last quarter of a century and in some cases the growth has been quite substantial. We now have the bodies that can indeed bring out the full potential of a well-designed T-shirt!



Getting ready to go

Our caravan finally left Sri Aurobindo Place at around 11.30am resembling a north Indian baraat minus the bridegroom, comprising two air-conditioned buses and several cars. Bus no.1 had a few die-hard bridge players (Sudipto Dasgupta, K Joseph (Jose) Antony, E Roop Bhaskar Raj and a few others) who promptly occupied the rear seats and started to play without delay.

We had with us, a cassette of old gems sung by Dinesh Sharma, Azhar Kazmi, Shanti Vaidyanathan, Soumitro Ghosh and a few others at Saigal Nite 1977 during which the singers were most ably accompanied on accordion by our very own Moif (SN Mahapatra). We enjoyed listening



The gabbing in the bus never stopped

to this tape on our nostalgic journey.

We picked up a few more mates in Gurgaon and continued on to Rewari where we stopped for lunch. Lunch was no mean feast at all.



Lunch Break at Mahendragarh

Compared to the bus no.1, the entertainment in bus no.2 was a lot more boisterous. Everyone (including the spouses and children) was enthusiastically participating first in the Dumb Charades and later in Antakshari. Among the chief entertainers were Anirudh Shrivastava and Sunil Marda who really stole the show although the rest were not too far behind.

There was a short stop between Mahendragarh and Satnali to enable emptying of the gradually weakening bladders and to fill in some empty lungs with carcinogen. There was another long wait at the Haryana - Rajasthan border to pay taxes but we soon reached Loharu, and were on to the home stretch - the last 25 km nostalgic Loharu-Pilani road.



A break for air and carcinogens

arrived in Pilani in no time and were treated to a running commentary on the bus' PA system by Sunil Marda who had studied in Birla Public School prior to entering BITS. Nutan market has changed with modas replaced by moulded plastic chairs, a greater number of shops with

shutters, a lot more vehicles around and a much bigger bus stand.

It felt great as we entered the campus main gate beneath the welcoming banner and our onward journey came to an end at VFAST hostel some 100-150 m to the left from the main gate.

As we alighted from the bus, we were greeted first by our very own good mate Dean Nattu or Professor BR Natarajan (who was perhaps awaiting our arrival as eagerly as we waited to see him), Prof. RK Mittal and Dr KC Chandoke (the then Gandhi Bhawan warden). More handshakes, hugs and backslaps followed as we met our other mates who had arrived earlier from Jaipur and other places.



The Padia School Band welcoming us

Then it was time for welcome by a girls' band of the nearby Padia School. The girls were at their best and we were indeed privileged to be welcomed like this. Dean Nattu thanked them on our behalf and then it was the time for a 2-minute silence to remember our mates who had moved on before

this reunion.

As the girls played the first two notes of the Beating Retreat, we fell silent. This was a poignant moment for us and a few tears were shed as we remembered our good mates who moved on before the reunion. The silence ended with the girls playing the last two notes and then we made our way to enter VFAST Hostel and register.



Welcoming us with a tilak

Next, came the welcoming tilak on forehead by the volunteer students of present generation, registration, filling of a few forms, receiving our welcome packs and room keys. A quick trip to the room to offload the bags and we

We

were in the VFAST quadrangle for refreshments of Pilani delicacies and entertainment by local artists.

Playing of the ektara and other instruments, folk dancing and singing of the old Rajasthani folk songs such as, 'Gori ko pallo latke...' reminded us of the good old times we had 25-30 years ago. Hemant Daga had carted loads of raj-bhog all the way from Bikaner for the occasion.



It was then time to



The same old rooms !

The local balladeers at High Tea

clean up and make our way to Shiv Ganga for rest of the evening. Needless to say, the evening was rather agreeable and upon completion of the proceedings, we staggered back to VFAST via Connaught at around 11-11.30 pm.

During this time, a few absentees were contacted on mobile phones and subjected to collective earful at various times as the evening wore on. The sensible ones relented and promised to show up the following day whilst others who still could not make it were missed.

2nd October - A Magic Day

Many of us got up early and went for a walk around the campus – generally visiting the places we wished to, particularly Saraswati Temple and our old hostels.

We also watched school children celebrating Gandhi Jayanti at the Gandhi Statue.



Early morning at Saraswati Temple

The hostel rooms and furnishings do not seem to have changed much except for the addition of a high speed communication link, a personal computer and steel doors for the wardrobe. The bogs have tiled walls and hot water supply from a solar heater mounted on the roof.

The breakfast was at RPA mess. From there, the BITSAA Secretary Shivali and her team of volunteers led us for an Institute visit. Some of us borrowed bicycles from the inmates of Ashok Bhawan and made good use of them on campus roads.

We went from RPA mess to the UCO Bank, PO and stopped at the Workshop. It appears that not much has changed from the days of Prof Raghunath, the Workshop Superintendent of our times. Then on to the Faculty Division No. 1 which used (and even now continues) to accommodate the Arts, Computer Science (Information Processing Centre), Civil and Chemical Engineering departments of our times.



Prof Raghunath's domain - unchanged

The most noticeable change was the absence of those monstrous card punching machines, the gross IBM 1130 processor, IBM 2501 reader, the IBM 1403 printer and the associated paraphernalia that used to occupy so much space. Whilst the glass windows appeared to be the same from our times, the Centre has been remodelled to accommodate a large number of computer terminals.

Next, was a visit to the spanking new library whose architecture seems to have resulted in many accolades for BITS. From there, it was to the new lecture complex where everyone piled in to a lecture hall and listened to Dean Nattu delivering an impromptu lecture to the lot of Munnabhai MBBS (Mian, Bibi aur Bacche Samet) who had descended to Pilani that weekend!

We then made our way to the steps of the Audi where a few



The central foyer in the library

informal photos were shot before proceeding to the Central Lawn to plant saplings in memory of our mates who moved on before this reunion.

Whilst the holes were being dug for the saplings, few of our batchmates joined in a BITS style cricket game with the present generation of students and showed to the youngsters that '*samay ka deemak hamare hatho ko major nahin kar paya*'!

Nevertheless, it is a pity that the present lot, use proper stumps instead of the room chairs we used as wickets. Some might see this as a sign of progress!



Planting saplings in memory of those who have passed on.

tall with the passage of time.

It was then to the Museum steps for the formal photo sessions. Around this time, Nitin Pandit (Pondy) and Vinay

Gupta arrived. More handshakes, hugs and dhaps on the back, and we finally got on with the photos.

It was now time for the legendary Saturday lunch at RPA mess and then a few hours' quiet time for some whilst gyan-daan (career counselling) sessions for others such as,



Dining at RP Mess

SP Kothari, Raja, Debashish Ghosh, Deepak Marwah, Sanjay Dharwadker (Dharu) and a few other learned batchmates.

It rained a little that afternoon bringing in a cooling respite from the heat. The day marched on and soon it was time to



go to the Audi for an evening we ought to remember for the rest of our lives.

Shivali, the BITSAA Secretary, welcomed us and then handed over the proceedings to our own Dharu who took over as the Master of Ceremony for rest of the evening.

Needless to say, good humour, wit and albeit a few PJs, flowed from thereon. Dean Nattu projected and read out messages received from some of our illustrious batchmates who could not make it to the reunion. The director Dr L K Maheshwari addressed us. The General Secretary of the Student Union and Raja (representing us) proposed a vote of thanks.



The very talented youngsters

which was a hard act to follow. Nevertheless, Moif, Mrs Surabhi Mishra, Miss Milind, Hemant Daga, Miss Pooja Natarajan (8 years old and the star of the evening), plus Mr and Mrs Sunil Marda made us look good.

When the cultural programme ended, it was time to go to the cafeteria for dinner with the faculty. We returned to VFAST at around 11.30 pm, carried on with lachchhas among various groups of mates and at various locations.

Some of us returned to VFAST around 1.30-2.00 am but were re-directed to the All Night Canteen (ANC) for more chais where Dean Nattu was presiding over the proceedings. At that time of the night, the NC had some 30-40 batch-mates and spouses. When it finally closed around 2.30 am, we returned to VFAST carried on with lachchhas until 3 am when most of us called it a day!

3rd October - All Good Things Come to an End

Once again many batch-mates got up early and went for a walk around the campus to enjoy the beautiful morning one last time. After having the last breakfast at RPA mess, we



The grilled hostels !

A highlight of the evening was the honouring of 26 teachers of our times by various batch-mates, which was the least we could do for those who had taught us then.

The cultural part of the evening was a smashing hit. The present BITS Music Club has a depth and width of talent, which was certainly lacking in our times. They put up a very entertaining evening,



Honouring our teachers

farewelled some of our mates in the first bus who needed to return to Delhi early to catch their flights and trains.

A few of us who remained went to the Museum and established that it had not changed significantly since our times. The lunch was a Sunday Special at the RPA mess.

We then bought a few souvenirs from BITSAA, ordered few photos of the reunion, bade our farewells to the hardworking and wonderful team of volunteers of the present generation students, Dr Chandoke and Dean Nattu before boarding our bus. We were farewelled with a BITSAA souvenir and a boxful of delicious Pilani pedas.

We left BITS Pilani at around 2 pm. A truly remarkable event had come to an end!

Article II. Some of the things I observed that are symbolic

BY C.M. RAMESH ('74) (UNCLE TOM) IN GOA

The junior Bhawans (Vyas, Shankar, Krishna, Gandhi, Budh, Ram) are now all grilled, and the E-shape is now closed up to form internal quads. (The Bhawans now have a squarish 8 shape). The entrance and exit from these Bhawans are through central doors that are also grilled and the gates shut at some time during the nights. No exit/entrance from any part of the Bhawan's downstairs wings, as used to be the case during our sojourn there!. Thankfully this is still to apply to the "senior" bhawans (RP, Ashok, et al. Malviya of course is now a fortress due to it having become an MB for girls.)

The Sharada idol in the temple used to be visible from the Audi entrance looking out. This is now obscured by the tall statue of GD Birla erected right

in front of the temple, so what one sees from the Audi entrance is the back of GDB's head!

The library building is an 'aalishaan' modern structure (quite incongruent with the architecture of the rest of the campus), but two things struck me as quaint. It is pretty far from the main academic buildings, and the murals on the ceilings are all paintings of Krishna freaking out with gopis! Strange I thought for the entrance of a library. But that is what is shown in movies like 'Main hoon na' I suppose.

One sees a lot more sentries around and the main gates to the institute appear guarded and half shut. Since now the Institute has a big supermarket within, the need for students to go elsewhere (esp. Nutan) for anything has reduced and I am given to understand by locals at Nutan (we had jalebis, kachoris, and chai there on the morn of the 2nd), some of whom remember the Sardar Gujral as Student Union Pres days, that it is rare for a student to be seen there now.

As Parakram says, there is the ubiquitous Undy visible in the front of most rooms in most wings of most Bhawans when one winds one's way through the roads beside each Bhawan. (Can't see them at the MB's as the wings are shielded from outsiders, and as a consequence the world outside is shielded from insiders looking out!)

Arz karna chahata hun, lekin alwafz nahi
Teri dosti aur purani yadon mein
kho jane ko jee chahta hai.
Door baithe ho pass fir bhi ho tum kitne
Phir Pilani tere paas aa jane ko jee chahta hai

Poet: Harish Khullar in New York

Article III. Reminiscences deep...

BY SANJAY DHARWADKER ('74) (DHARU) IN NEW DELHI

Thanks, we already have wonderful descriptions of our reunion – the write-ups and the pix. After the return, anticipated total silence for a few days if not weeks, but here we were clamoring for the story to be told, almost immediately. For Nattu and the Organizers – a sigh of relief that it was over? No...a loud lament of emptiness. A Single write-up? Impossible. One hundred souls ...500 man-years of Pilani, 2500 man-years of memories...and 300 man-days of reunion (not counting families). Would have to be James Joyce and Ved Vyas in one...

But I try. Since the event narrations are done and still



The spanking new library



The ever compere-ing author

coming, maybe I omit the details. I try to discover - What is it about Pilani and us?

For months we waited in anticipation for the reunion. We traveled, across the globe, by airplanes, trains, buses and cars and, past Nutan reach the portals of our most cherished memories. As the evening fell, we set out on the streets we knew, looking for the familiar sights – bhawans, bank, PO, workshop, insti...

So much looks the same. But like elsewhere in the world, grills and walls have come up, somehow taking away the openness that was our Pilani. It is now boys 'and' girls all over the streets, together at the rehris, bhawan gates and elsewhere. In the hostel rooms, you are not an existential castaway any more, cut off from the rest of the big world, but are connected now. The Internet feeds you, I am told, your assignments, your knowledge and of course, whatever after-hours stuff that you want. The student is now more business-like – cycling to lectures, cycling to Connaught (for 'pesarattu' not 'samosa'), and the endless lachha session seems to be rare now.

We ate at the messes, and could swear that it was the same where we left it 25 years ago, even the coolers and washbasins outside. Perhaps, what has remained most unchanged of all - the dimly lit corridors and the dimly lit streets. The evening and the night has the same basic feel. Many of you might remember a souvenir that Tubby sketched, Jose pixed and we wrote a few poetic lines, which ended with "...and the pavement stretch dissolves in the dark" – it still does. Only that time, we wandered on foot, in our little groups, like lost souls in our own purgatory. Now the more singular souls flit about on cycles.

One evening, during the reunion, it came back to me. For 5 years, we walked the little grid of our Pilani streets, taking turns that led us to our friendships, knowledge, romance, rejuvenation and retribution. I remembered reading the Marquez' classic 'One Hundred Years of Solitude' and writing a letter to a beautiful Meera Bhawan girl, of how

we live our life in cycles – in one instant, in an evening, in a day. Our 5 years in Pilani were as though we lived our entire life, end-to-end. The letter had two objectives – to impress the girl and perhaps enlighten her a bit. Still don't know, if either happened.

And now 25 years later, it seemed as though we did another full cycle. We took the turns and walked the streets again. Ironically, the 'chaurahas' now have sign-posts, to where the roads would lead – the post-modernists would be delighted that their metaphor is now a physical reality. For a moment it seemed eternal, and I dare to say, we seek and almost find, our little version of immortality.

In the darkness, round the corner, I hear Salve's inimitable laughter, punctuated by his asthma thing. When the e-mails start flowing, I dream there was one from Mundkur, wanting to know about a bridge game in the night...

I stand in the audi and say my pj's one last time. You all laugh, perhaps out of charity, and the young ones, under duress from Nattu's supari (yeh mota kuch bhi bole to hans dalna kya, sochne ka nahi), my happiest moments, then and now, I must admit.

At breakfast and lunch in the mess, we stand in line for our French toast, Dosa and Aloo Parantha. We drink the tea (or



Malviya now a fortress within Meera !!

was it coffee) from the steel tumblers, as though it was theertham and prasadam. As the pix show, we were a solemn lot - pilgrims, (among the sambar chawal – there was even a somber Chawla!), believe me.

We did our Maha Kumbh, took our dips, drink a few drops of the elixir of life, and move on. But the magic is in the telling of the stories, and each of us must tell it our own way, a la salim javed – kabhi comedy, kabhi tragedy, kabhi action, kabhi halka sa romance.

Article IV. The Angst of the Absentees

BY ANUPAM BOSE ('74) (BABUJI)

Received a call from revellers at Reunion a little while ago. Salle log ka vocabulary sudrega nahin ! To try ginger a support group for absentees - sure, we deserve some vigorous investigation - but they are in Pilani, and we are not - rubbing salt and mirchi hamara parampara kabhi raha kya ? Jor se bolo, nahi chalega, nahi chalega.

Dharu, devoted some unnecessary time discussing my sexual proclivities with close relatives ... but what of the others ? Are these our representatives to instruct the brightest and finest of our youth in the desert, on the values which carry you through life? I was expecting Roop to be reeling from seeing his descendant in Budh actually studying Econometrics, instead of composing creative make-ups. And Toy, since Class 3 a voice of conscience turned harami, to check out a room in RP and advise them in masterful fashion how to take a double finesse. Or Sudipto's Rajesh Khanna swagger - can these kids' namby pamby hero Saif Ali Khan even come close. No. NO. Absentees join me in a resounding No.

But ... but ... always thought drinking to avoid sadness was too filmi ... this Friday night its not.

Article V. Wonderful it was... A trip down memory lane.

BY PARAKRAM MISHRA ('74) IN CHANDIGARH

Its going to be a week since we gathered at the Free Mason Lodge and the emotional hangover persists. I had tears in my eyes... The journey back started in silence but Jacob had this great idea of Beer...

The morning walks in Pilani were great. Bazmi, surprisingly was up early with his camera and I found him lurking dangerously near Malviya Bhawan (part of the 4MB cache!). Some of us visited the bhawan rooms we stayed in, and almost ragged the inmates. I woke up the inhabitant of 274 Ram where I landed up as a fresher and was tempted to ask him "what the hell are you doing in my room?" ♦

THE BRIDLE TEAM WITH ANUPENDRA SHARMA ('87 E CO INSTRU)

BRIDLE IT: MADE IN PILANI LABS!

BITS PILANI'S FIRST INCUBATED COMPANY TAKES AIM AT INDIA'S GROWING MOBILE MARKET



© Bridle

2004 marked a strategic milestone for the mobile industry. The number of mobile subscribers surpassed the total cable and satellite television subscribers in India, which number 40 million today. With 46 million mobile users, a number that is expected to double next year, the phenomenal mobile revolution in India has given rise to Bridle's idea.

A PURE BITS START-UP!

Bridle management is pure Pilani. **Rama Krishna** ("Ramki, right") ('02 MMS, '05 ME Software Systems), a 10-pointer from BITS has won many international programming contests and national software development competitions. **Suneel Blewett** (left) ('00 BE (Hons) Comp Sci), and has worked in mobile networks, mobile handset designing and integration at Hughes Software Systems and Skyworks Inc. **Hari Krishnan** (center) ('02 MMS) has gained domain expertise at Hughes Software and Patni. He is a winner of several awards.

Bridle is a software company focused on creating mobile applications for the Indian market. Their ambitious mission is "**To touch every mobile subscriber in India, at least once a day**" by offering software applications initially in education, and later in healthcare and home appliances through the mobile phone.

Bridle's target segments touch everyone's lives, and its management team has been busy developing and launching a product for the education segment. The first product, **SchoolMATE (School Mobile Assisted TEacher)**, enables schools to communicate with parents through a communication suite that integrates into a full-fledged school management system. In urban India, it is very common these days for both parents to be working. Both parents typically have cell phones, and most likely don't use the internet at home. SMS via mobile phones is a well understood method of communicating in India. In a country where answering phones are not common and the home internet connection is rare, the cell phone has become the most important communication tool. Messaging



has become the cost-efficient and very effective alternative to email.

The SchoolMATE system is user-friendly and very easy to use. It allows parents to send messages to the school server, pulling down all the information about the child. Parents can request absence reports, fee payment reports, grades, illness, and truancy reports from the school. The number of students playing truant in movie theaters during school time gives parents a tempting reason to try and keep an eye on them.

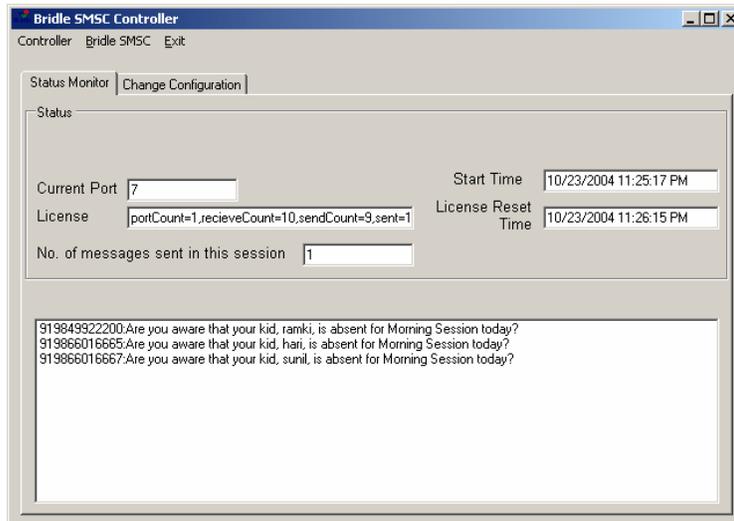
SchoolMATE is an instant hit in the early stages, with excellent reviews from pilot test customers. The system has a high level of security built into the software to ensure the software is not stolen. Piracy concerns remain the biggest threat to innovation in the Indian software industry.

SchoolMATE has focused its initial efforts on 6 states— AP, Maharashtra, MP, TN, Delhi and Karnataka at the moment, which offers a target market of 430,000 schools. AP is leading the market

with a plan to have computerized systems in 30,000 schools. The literacy rates and growth in IT usage in these states are outstanding. Since computerization in schools is a

as marketing. Bridle is confident that it is ahead of the market. International companies targeting the same space are **EduTxt**, **FastSMS** and **CSoft**. However, none of these companies have

on which SchoolMATE is running using the standard data-cable for that mobile (A data cable costs just Rs. 400-800 (\$10-20), depending on the model). Bridle's SchoolMATE automatically detects the phone on restart (just the app/service), and uses it for sending messages. The partnership with cell phone companies such as Airtel allows these messages to be sent out for less than 1 cent to each mobile user. So Bridle's SchoolMATE needs no internet and no extra hardware. There are no integration problems either since schools don't have full-fledged systems yet, except for simple billing systems at the moment which are easy to integrate.



new concept, take-up will be slow. Bridle management is forecasting revenues of Rs. 20 crores (\$4 million) in two years. Bridle has already partnered with India's largest mobile service provider, branded 'AirTel', where Bridle beat out a Middle Eastern international competitor. It is in conversations with other partners in India.



There are a few competitors in both spaces, and Bridle's management has spent considerable time analyzing their strategies and sizing up these companies. Competitors such as **Globals Inc.**, **Mobile Mantra** and **IMIMobile** are mimicking what some international companies have done. However, the competition has problems both in terms of their fundamental offering, as well

focused on India, and don't have the resources to enter India at the moment. If they don't move now, they will not pose a threat since moving first is critical in this space.

One problem the competition has is that their solutions need Internet connectivity, which is a big drawback at getting traction due to the low penetration rates of Internet in Indian schools. Bridle's solution uses the mobile phone attached to the PC for connectivity. In India, where mobile is well penetrated in the cities, no other medium gives instant connectivity and instant reach like the wireless network. This makes SchoolMATE a clearly superior product because it is does not dependent on the unavailable internet, or an expensive, dedicated network.

Plus the market loves the ease of installation and usage. The software can be used by clicking setup from the CD, on any Windows NT, XP or 2000 machine. The school can connect a mobile phone to the PC/Server

Bridle is working on a number of other exciting products PilPal, Air2Blog and Voggi, which will be announced in the coming months.

The **BITS Technology Business Incubator** which is supporting Bridle's activities is proving to be an excellent foundation for Bridle. But it is not going to be sufficient. Money and expert management are both critical to taking Bridle to the next level. To accelerate the marketing efforts and to reach the target markets faster, Bridle is looking for an investment of approx. \$400,000. The money will be used to create entry barriers and widen the first mover advantages in the school management software segment through marketing and product development. Bridle is also looking for an able mentor with expertise in technology marketing, retailing and telecommunications who can guide them through the early phases.

For more information visit www.bridleit.com or email the team at ramki@bridleit.com. You can also call Ramki on his cell at +91 98 499 22200 ♦

BY HIMABINDU CHITTA ('02)

A WOMAN OF SUBSTANCE

DR. MEERA BANNERJI – MB WARDEN



Capturing the essence of a conversation with Meera Banerji in mere words is an arduous task. She is a master storyteller and the “interviewer” is usually lost in a maze of anecdotes. Here we’ve tried our best to sum it up without leaving out any interesting tidbits.

“Saurav, Neha – aa gaye tum log? Apni copy nikalo... Badmaash Saurav – page phadna nahin! Aaj tum handwriting practice karoge. Apni pencil sharpen karo aur shuru ho jao. Neha yeh page yaad karna. Aur Deepak tum bhi.”

Dr. Mrs. Meera Banerji is back in form. Having ended her thirty-eight year long career in BITS, she has now begun to teach primary school children at home. Kids of various ages

come to her modest home on Loharu Road to learn the basics of spoken and written English. We suspect, however, that they learn a lot more than that.

“This one is a brat,” she says, looking at skinny six-year old Saurav seated strategically close to her. “His mother cannot control him at all. But as long as he is here, he’s a mouse.” We’re not surprised. The three kids around her quietly complete the tasks assigned to each of them.

We ask her if she is enjoying retirement. “Life is cool!” she exclaims happily. “I keep myself busy.”

Busy is an understatement. On alternate days, she travels to Mandelia Home Science College on the outskirts of Pilani to teach English literature to Hindi-

medium Arts students. “It’s a challenge,” she admits, “I’ve managed to convince my students that they can understand English in English, without translating everything to Hindi. And the motivation to take up this challenge came from the girls themselves. Some of them travel more than fifteen kilometers from their distant villages to attend college. Their urge to educate themselves is inspiring.”

Her evenings are occupied by the primary school kids. (Even getting an appointment for this interview was difficult.) Is it a bigger challenge to teach little kids? “It takes more patience, but the results are immediately visible. And anyway, I’ve faced bigger challenges,” she adds with a wink.

“Some [girls] travel more than fifteen kilometers from their distant villages to attend college. Their urge to educate themselves is inspiring.”

What might they be? “I was a student from a pure arts background. When I first came to Pilani and enrolled for a PhD at BITS, they made me do a basic undergraduate level science course called “Impact of Science and Technology” along

with the same kids whom I was teaching General English 3. My “fellow students” were always much more interested in my marks than their own! That kept me on my toes and I did well in the course.”

“When I saw couples sitting outside the MB gate in the shadows, I would tell them “I am merely telling you to sit in the light!” The guy often claims he is teaching the girl. Sometimes they say they are looking at photographs. How can anyone do these things in the dark? It beats me!”

We ask her about her most high-profile role in BITS – that of MB warden. She laughs. “Life must be easier for you girls, now that I’m gone!” Most BITSians – both male and female – are much too familiar with the legend of M Bans, as she was affectionately called. Although she is no longer on campus, stories are still told in hushed tones about how strict she used to be and how terrifying it was to try and take special permissions from her. How did it all start?

“To begin with, the administration never thought of me as a warden. I had to

convince them that I could understand the psychology of younger people and that I was approachable and fair. At that time I was the only warden and I insisted on moving into the house next to Meera Bhavan. My idea of being a good warden was to always be accessible.”

What of her no-nonsense image? “That is truly how I am. For example, when I saw couples sitting outside the Meera Bhavan gate in the shadows, I always went out and spoke to them. “We’ve done nothing wrong,” they would say, and I would retort back, “When did I say you’ve done anything wrong? I am merely telling you to sit in the light!” I have heard the strangest of stories from these couples. The guy often claims he is teaching the girl. Sometimes they say they are looking at photographs. How can anyone do these things in the dark? It beats me!”

Have the MB girls ever tried to play a prank on her? “Once or twice, yes... but I was such a mischievous child myself that I could always see it coming. The look in the girls’ eyes usually gave them away. And I much prefer to think of all the times that the girls have shown their love for me.”

Does she miss all the action? “Of course. Getting over a routine that is thirty-eight years old is certainly not easy. I still sleep at eleven, although my daughter reminds me that I no longer have to stay up that late. But I don’t believe in lamentations and I think that women are genetically adaptable. The only thing I miss is the noise of the MB girls. It’s too quiet out here.”

She has enjoyed the academic freedom available in BITS to the fullest and engaged in a wide range of activities including taking an active part in English Drama productions and being a member of the BITSAA



executive committee. But all that is in the past and she is now beginning to enjoy her new, relatively relaxed lifestyle. And so we bid goodbye to a legend who has, in her own words, always lived life on her own terms, shocking quite a few along the way (“I don’t care!”) but never compromising on her values.

BITS Pilani and Meera Bhavan in particular will miss you dearly. ♦

BY THE SPICMACAY TEAM

SPICMACAY: THE BITS CHAPTER

One of BITS' most popular clubs, SPICMACAY has 8 shows a year which are attended by anywhere from 500 to 3,000 students. These spectacular shows are aimed at introducing BITSians to the Indian arts, and helps in a small way to sustain India's rich heritage. The team talks about the history of the club, its past and planned activities, and makes an appeal to alumni to assist in supporting 8 annual events. With an annual budget of Rs 240,000 (US\$5,000), which works out to approx. Rs 30,000 (\$600) per show for 8 memorable performances, it is a fairly inexpensive way to support declining arts and teach BITSians to appreciate India's rich heritage. The team is contemplating a fund, since lack of available funds means a constant scramble, and a fragile existence dependent on SPICMACAY Delhi for financial support.

About SPICMACAY

SPICMACAY or the **Society for Promotion of Indian Classical Music and Culture Amongst Youth** is a non-profit, voluntary, apolitical and participatory student movement. Founded in 1977, it has grown from strength to strength and has caught the very imagination of the youth across the length and breadth of the country. The fundamental aim of SPICMACAY is to create an awareness of and an appreciation for the many facets of our rich cultural heritage. The educational system of our country has zero inputs when it comes to making our students aware of their rich heritage. This is where SPICMACAY steps in. Through concerts, lecture-demonstrations, informal Baithaks in classical music, dance, folk arts, literature, theater, cinema, painting, Yoga and spirituality by eminent artists and thinkers—it exposes the students to the cultural tapestry of this land that they seem to be slowly, yet steadily, losing touch of. SPICMACAY has nearly 200 chapters in schools and colleges across India and some 70 chapters abroad.

The BITS-Pilani Chapter

The BITS chapter of SPICMACAY has been an active member of this family as early as the 1980's under the guidance of **Dr.G Sundar**. Many eminent artists like **Pt. Hariprasad Chaurasia, Pt. Jasraj, Pt. Shiv Kumar Sharma, Smt. Sonal Mansingh, Vidwan Chitti**



Babu, Smt. Sanjukta Panigrahi and others had graced the campus during the early years of the chapter. After a brief interlude of inaction the chapter was revived by a group of motivated students in 1999, with **Dr. Suresh Ramaswamy** (also the Chief Warden) and **Prof. Geetha Raghurama** (Languages Faculty) at the helm.

Within a span of 5 years, the chapter has

grown to nearly 40 registered volunteers, and a track record of having organized nearly 40 programs till date. The noble spirit of SPICMACAY has been inculcated among the local schools of Pilani- namely Birla Balika Vidyapeeth, Birla Higher Secondary School and Birla Public School. It has also released a magazine of its own called 'Jyotsna' with thought-provoking and insightful articles

on matters of art and culture. In its new avatar, the chapter organized concerts and lecture-demonstrations by such eminent people as **Pt Vishwa Mohan Bhatt, Smt. Shubha Mudgal, Shri T.N. Krishnan, Shri T.V. Sankaranarayanan, Smt Bombay Jayashri Ramnath, Shri Raja and Smt. Radha Reddy, Smt. Uma Sharma, Smt. Shovana Narayan, Smt. Anjolie Ela Menon, Aman and Ayan Ali Bangash** to name a few. The programs have



Notes from Pilani

received overwhelming response and support from the student community and the faculty members. On an average 450-500 students attend these programs; with a record high of nearly 3000 students who thronged the Auditorium during Smt. Shubha Mudgal's concert!



The road ahead

The Chapter wishes to continue with the good work that it has been doing in this direction and has chalked out a number of programs for the future. The coming semester (January-May 2005) promises to be an exciting one as the Chapter has planned a series of events under the banner of the FEST 2005 series. Eminent artists like **Pt Hariprasad Chaurasia**, **Shashank**, **Mysore Brothers**, **Yakshagana folk art of Karnataka**, **Rama Vaidyanathan** and a **Yoga Shibir** are in the offing. A second edition of the Chapter magazine titled 'Drishti' is



planned to be released during Pt Chaurasia's concert.

How can you help?

Events as high profile as the ones mentioned above obviously entail financial burdens on the chapter. Hitherto, it has been dependent on the grants issued by the SPICMACAY center at Delhi and alumni of the institute. To become a more self-sufficient chapter with greater autonomy and freedom to conduct its programs in a regular manner, the chapter needs a funds corpus for its upkeep. Typically each concert costs the chapter around Rs.30,000 taking into account the airfare for the artists up to Delhi, the road travel to Pilani, a token honorarium, local hospitality, boarding and lodging facilities. The chapter organizes an average of 8 programs in a year. Hence the cost incurred on the chapter is roughly Rs. 240,000 a year.

The Chapter would be extremely grateful to alumni of the Institute if they could help in creating a Corpus fund for the chapter to ensure a regular and steady flow of funds for its varied programs. All help rendered would be duly

acknowledged in the invites and souvenir for the event, as also in the chapter website that we plan to host very soon. The publicity pamphlets that the chapter distributes before each event would also gratefully acknowledge the contributions made by the sponsors.

Help us in bequeathing to the younger generation, the glorious traditions of this famed land—which are unfortunately getting depleted at an alarming rate!

CONTACT SPICMACAY

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Lakshmi Raj, Student Coordinator, lakshmiraj83@yahoo.co.in

Guruprasad A, Student coordinator, f2001662@bits-pilani.ac.in

*Photos above (in order) are: Folk performance by **Langas and Mandaniyaars** (attendance 1,500), Hindustan Vocal Recital by **Smt. Shuba Mudgal** (attendance 3,000), Sarod recital by **Amaan and Ayaan Ali Bangash** (attendance 1,000) and Kuchipudi maestros **Raja and Radha Reddy** ♦*



BY DIVYA DIVAKARAN ('01 INSTRU), SANDEEP MUKHERJEE ('95 PHY MECH) & AKASH NATH ('04 GOA)

BITS, PILANI-GOA!

You've all heard about the new BITS-Pilani, at Goa. Sandpaper profiles the new campus with information about campus life, academic quality and infrastructure. For those of you who have family and friends considering applying to engineering schools, this article gives insights into the "student life" aspects of BITS, Pilani-Goa.

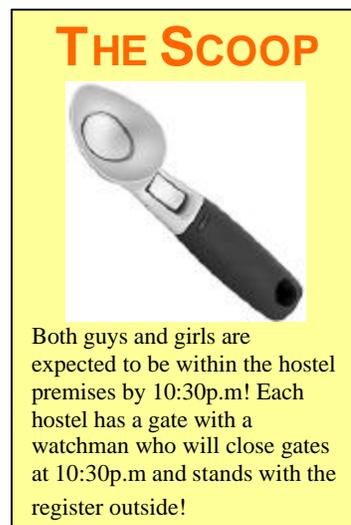
The spanking new state-of-the-art campus at Goa is being built on 180 acres of land and overlooks the Zuari River located on the National Highway NH17B connecting Marmugao Port to the National highway NH17. The campus is easily accessible being only 5.5 km from the airport, 22 km from Madgaon Railway station and 9.5 km from Vasco Railway station.

The new campus is being positioned as **BITS, Pilani-Goa**, to leverage the "Pilani" brand value proposition. In the following sections, we attempt to communicate the various infrastructure and campus life aspects of the Institute to help you better understand the state of the affairs.

FACILITIES

The main building, much like the Pilani campus, comprises of

administrative offices, classrooms, and laboratories and is nearing completion. Separate hostels for boys, girls and faculty residences are ready for occupation.



Other infrastructure including a shopping complex, a bank, a post

office, medical and recreational facilities for students and staff is also in the works.

Two boys' hostels and two girls' hostels are in place and are without any identity of their own with names like BH1 BH2 etc. A hostel naming contest was recently conducted so we speculate that this nomenclature nightmare will soon be over for the Bhavans!

No more dhobis as they've been replaced by a laundry system, akin to western laundromats, is in place. 'Messes' are efficiently run and there are separate messes for girls and boys. Pilani-Goa lore has it that originally they had a common mess, but it was located far from the girls' hostel and since it rains a lot in Goa, this policy was done away with to prevent the girls from being inconvenienced.



As for those of you who are wondering about RAF movies – an auditorium is under construction and movies are screened at the Lecture theatre instead. We did not discover any evidence of laser pointers being used at these movie screenings!

ACADEMIC

Attendance is compulsory – that alone must have a lot of the alumni gasping for breath! Also, at this year's registration students did not have the opportunity to make their own timetables as the appropriate systems and facilities were not in place. Thus they were given 6 ready-made timetables and had to choose one of them – certainly inconsistent, and far easier, than registration rioting in Pilani! Ordinarily it wouldn't matter in your first year, but the rules make it mandatory to attend your 'registered

professors'.

Goa students face three test series, so life is all about studying all the time, especially with the minimal opportunities to get involved in extra-curricular activities (Akash, one of the students there we spoke to, thinks the "standard of papers set" there is marginally higher than that at Pilani. They had looked up previous papers from Pilani, which are pretty tough themselves, and finds ones set there to be tougher! Given that their first Physics test average was 7/60, we are inclined not to disagree!

CAMPUS LIFE

As of now they have no fests – i.e. No OASIS, no BOSM, no APOGEE – which, in turn, means no clubs or departments. Akash and a classmate recently started a Dramatics Club – the first extra-curricular association the

campus has. Given the rich history of BITS Pilani activities, this is going to be very temporary. Goa is likely to be no different than Pilani.

Sports activities are currently limited to table tennis, carrom, chess and cricket, but both the faculty and student communities are active participants and competitions are frequently organized between the two groups. Plans of starting an official Sports Club are also in the offing; however the sports facilities are still under construction. As of now, there is also no Student's Union!

Thus the non-academic environment is clearly in need of improvement for the students to enjoy broad based development that the parent campus offers.

They do, however, have a hangout spot, *a la* C'not., again 'nameless' yet. It's the place they spend their evenings at. With little to no infrastructure for extra-curricular activities - life isn't quite as exciting as Pilani – hard as that may be to believe! However, the nearest town, Vasco, about 5km from the campus allows more off-campus entertainment than downtown Pilani.

A beach trip on weekends is a regular feature and a source of lots of fun for all on campus! ♦

FACT, NOT FICTION!

- Every student has his own room with furnishings and even mirrors !
- Attendance is compulsory!
- No dhobis. But there is a state-of-the-art laundry system.
- Girls & Guys need to back in to their hostels by 10:30 pm.
- No Students Union.
- The first Physics test average was 7/60!

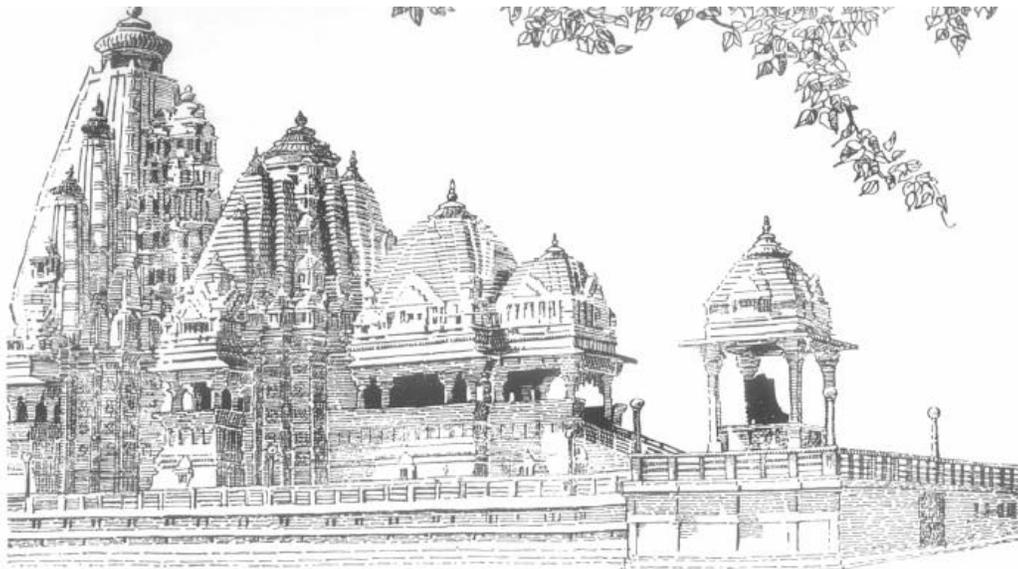


<<Cartoons from Cactus Flower Archives>>





TP-1 after Holi...



Poetry by Anuradha ('86 MMS) & Sagari ka ('93 Bio)

The Hawker

BY ANU GUPTA



They came in a jeep,
Demolished the little shop,
At the corner of the road –
They didn't even stop,
To see the havoc they wrecked;
It didn't affect
Them in anyway -
Justice is here to stay!
But is this justice really?
I loved the shop dearly;
Tiny and homely,
It was her life's earnings,
Invested in the shop.
That is why I stop,
To ponder,
Should it be done,
Doesn't the road belong to everyone?
(I understand the 'law')
So if it does not,
Is there a better way -
Than people left bereft?
Left to rot?
What alternative did we provide?
What else did we help them decide?
Is it worth it?
Where is it writ,
That this is justice;
Whose justice is it? ♦

Separation

BY SAGARIKA JAGANATHAN

The pain and sting of it
Like a thousand needles
Piercing the heart
All at once
The fangs of a viper
In an icy grip
Spewing sweet poison...

Every vein
A candle-wick
Lit brightly
By love's undying flame

Blood coursing madly
Fueling every living cell
With the breath of desire...

Raw heat
Burning passions
Stifled sensations
Muffled heartbeats
Stretched moments
Of abject nothingness
An infinite extension...

Time...
It chafes the heart
A painful erosion.
Bittersweet
Lingering
Cruel
Separation... ♦



The Little Vendor

BY ANU GUPTA

The little girl in tattered clothes,
Was a tiny vendor-
She was the municipal's
Little offender!
But if we snatch her livelihood,
Have we even understood,
We will push her to beggary-
We definitely would!
Replace it
Provide her with an alternative-
education, vocation
Teach her to be assertive,
About her rights;
So that she doesn't get into
Beggary, prostitution and fights.
She yells loudly, "Rs. 4 per pao"
Her salesmanship,
Leaves me saying, "Wow!"
I buy vegetables from her
It is a small gesture,
(To provide her just her next meal)
In return for her overture.
But it will not help her,
It is only my whim,
She needs a long term solution,
A resolution-

She needs to find a way.
Is it really beyond us,
Can we just walk away?
Ask yourself what you would do-
If it was one of your children up there
Facing that despair? ♦

Who needs words...??

BY SAGARIKA JAGANATHAN

The talking eyes
Darting
Spewing volumes
Of love-lore
In one fleeting glance
Leaflets inscribed
In quill
Ancient pens
Old as renaissance
The age of romance
Da Vinci, Michelangelo
Older...
Predating evolution
Even the big bang
When the entire universe
Was just a pair
Of darting
Talking eyes
Spewing love... ♦



Life goes on

BY ANU GUPTA

Her child lies dead.
Outside her hut
A blot on the resplendent landscape.
Just yesterday,
He was playing and laughing.
A high fever,
No medicine-
Was a potent combination.
Inviting Yama*
Her heart aches-
For her dead son,
There are others to be fed.
So today she must work,
There is work to be done. ♦

*Yama - God of death

From a poem read at the 74 batch Silver Jubilee
Reunion; BITS Pilani, Oct 2004

Yaad ne Jaye

BY SRINIVAS KULKARNI ('74)

Yaad na jaye, beete dino ki
Ja kar na aye jo din, dil kyon bulaye unhe.

Din jo pakheru hote, pinjarey me main rakh leta
Palta unko jatan se, moti key daney deta
Seene se rehta lagaye.

Aye the ghar se nikal kar, dil mein sanjose sapne
Hum bhi baney engineer, shayad banenge triple
E
Lekin bun gaye triple X.

Mess mein jo khana khaya, humko kabhi na
bhaya
Bahar jo ja kar dekha, bahar jo kha kar dekha
Yaad parathe aaye, humne jo mess mein khaye.

Nutan connaught mein ja kar, masti kari thi
jamaakar
Compre jo sir par aye, ghote lagaye raat bhar
Phir bhi na CGPA aaye.

Class-en bhi bunk ki humne, make-up bhi mil na
paye
Phir bhi tha kuch is jagah mein, kuch to sikhaya
in-hone
Hum bhi kuch ban kar aye, kaise samajh na
paye.

Kuch yaar aise mere, jo aaj aa na paye
Maan mein basi jo moorat, lekin mite na mitaye,
Na the kabhi woh paraye.

Yaad na jaye, beete dino ki
Ja kar na aye jo din, dil kyon bulaye unhe. ♦



BY ANUPENDRA SHARMA ('87 ECO INSTRU)

THE BATTLE OF THE PILANI MASTERS AT BUNKER HILL

The aroma of fresh warm idlis mingled with the smell of newly cut grass in Princeton, New Jersey and added an exotic excitement to the famed Bunker Hill golf course. Over two hundred years ago, the battleground of the same name had witnessed a bloody battle that the British won. But it was a historic battle. For at Bunker Hill, the American soldiers discovered their own prowess, courage and almost beat back the regulars. Bunker Hill became a rallying cry of the patriots throughout the war. Today, on a warm, grey day, the tone was set for the third year of the acclaimed Pilani Masters Golf Tournament.

Battle scarred legends from years past quietly gathered around the coffee and tea bins in preparation for another battle to come. Armed with weapons of graphite, nerves of steel and a single-mindedness of purpose, they made their way to the hot vadas and chilled beers that awaited. The **Bagarias, Gokhrus, Mynenis, Nalgundwars, Padmanabhans and Paladugus** stood shoulder to shoulder, weapons by their side, their broad chests and huge biceps foretelling a grim tale of the bloodshed to come.

The last fleck of sambar wiped away, the last gulp of Corona light and Gatorade swallowed and it was time. Bob the Ranger raised his conch and beckoned the giants to battle. A grizzled three-time warrior, KC, the oldest and most active BITSian, put his ammo to the tee, took careful aim and let loose with a might roar into the winds.

It was another outstanding day. The cloudy haze and intermittent showers ensured that the closest to pin didn't come close. A 25.5 feet effort by the runner-up was narrowly pipped by **Rahul Banerjee** with a 24-footer. The greens held their ground.

With adrenaline pumping after tough negotiations with the vendor for extra chutney, **Sandeep Arora and Rahoul Mehra** shared honors for the best score on the front 9. **Renchy Thomas**, taking tips from Sandeep who rode in the same chariot, routed the enemy on the back 9, sharing honors with Rahul Banerjee.

Satish Paul came with weapons of mass destruction but dud



scuds they were ! With a score of 176, he won the trophy for having fought the longest, the divots at Princeton bleeding from the massacre that he wreaked on the tall blades (of grass) that stood in his way.

In the end we raised \$1,000 thanks to three great NJ companies. Radiant Systems (thanks to CEO - **Venu Myneni**), Wissen (thanks to CEO - **Satish Paul**), and DreamCricket's PavilionShop.com contributed to the BITS cause by sponsoring the arms race at Princeton.

In the villages of India, the saying went "Jitney haath, utni lathi". Venk brought Chetan, Kailash brought Ashish and Ravi brought Rahoul. Young, handsome, fearless warriors,



"I threw that one 135 yards, that one 140 yards, and the one I'm most proud of is that one-- 187 yards."



they stood by their fathers like Arjun's Abhimanyu, to chide, ride, goad and support each other to victory. And victorious they were. Ravi won. **Venk Sharma** came 3rd. Ashish came 2nd. Blood they say is thicker than water...that stood in their way.

Ah water ! Across the swollen rivers and on the sandy dunes, the battle raged for hours. The rivers rose to overwhelm the riders, the waves crashing into the bridges. But the steeds rode fast and steady, the wheels of



the chariots clattering like the rolling thunder in the hills.

Ravi Mehra came for a third time to meet his challengers. Two time champion, a

witness of heavy fighting on the 5th, 17th and 18th holes year after year, this time was no different. The passage of time has not lowered his sights, but the victories are becoming narrower and the runners-up are getting younger. With an outstanding 83, he staved off a challenge from **Ashish Sharma**, a Pilani son (of **Kailash Sharma**) who came in second with a best-ever 85. Ashish's two memorable birdies on the front nine were replaced by the two lost balls on the back 9. Ashish, the early leader, fell a notch and Ravi rode back victorious.

War is about teamwork. The Mehra-Sharma battalion (**Ravi, Rahoul, Venk & Chetan**) with an average of 96 were way ahead of the Sharma-Myneni (**KC, Ashish, Anupendra and Venu**) battalion that came second with an average of 106.

In the end there were no casualties, just battle scarred,

happy survivors with gleaming gold and crystal trophies for everyone, all winners for having come to stand their ground.

As the participants swung out of the lot, their low slung red Ferraris, Maseratis and Jaguars jostling with the Hondas, Toyotas and Fords to get out of the car park, the raft of trophies in the back windows added some more glitter to a sparkling parking lot and an already memorable day.

And suddenly it was over. As the sun set on the Battle for Bunker Hill, the only reminder of those famed warriors was the gentle whiff of Cuban cigars, the lingering aroma of the afternoon samosas and alu tikkis, and a half empty bottle of Gatorade, swaying in the wind.

But they'll be back next year. In even larger numbers. For though the Battle is over, the War of the Masters will last a lifetime. ♦

BY ANURADHA GUPTA ('86 MMS)

THE CGPA STRATEGY

They say never ask a woman her age and a BITSian her/his CGPA. The first adage has changed ever so slightly - It is just as true for men nowadays. And some women (at least yours faithfully) proudly talk of their mid-life crisis.

Back in the younger days when I joined BITS, more due to societal expectations (gotta be doctor or an engineer; didn't matter what I really wanted), the first issue that confronted me on day 2 in Pilani was: "Ok, I'm here. What's next?"

Now I have friends who knew that this was their chosen vocation from Day 1 and I envy their focus and their choices. Things were a little different for me, so I had to devise a strategy for survival. Sure, I was very happy with MMS. But what about the first two crucial years where we all did the same courses and competed with one another for academic acclaim? For all of us high achievers, the proof of the pudding was in the eating and nothing other than our CGPA was expected to reveal our intellect to our peers, our parents, prospective employers and potentially directors of admissions at far-flung universities.

Most students sincerely attended classes. Some had a quest for knowledge. A few had a desire for fun. A minority did extremely well, the majority was average, and a few messed up, I suspect, for a multiplicity of reasons.

I rue my lack of sincerity that caused me to sidestep the opportunity of plunging myself into "a sea of learning", and instead began scheming on a strategy to "get by" instead. My goals were razor focused. I would enjoy BITS thoroughly and focus my learning only on my D-courses. I would get a great CGPA in those courses, and showcase it to employers to land a fantastic job.

What about the noble quest for knowledge? That certainly wasn't for me!

The funny part is I have been asked by a school in India to develop a course as a visiting faculty on Corporate Strategy. As you will see, it is a subject after my own heart. For Strategy was a critical component of my CGPA plan.

I made a decision that touching a CGPA of 8.5 sounded good to me. I carefully analyzed the shortest possible route to get there at the beginning of each semester. I worked out how much I needed for an A, a B or even that dreaded C towards the end of the semester and calculated accordingly for the last test or compre. I extended that model to the entire semester and all the courses. I worked out the not-so-complex math (even for MMS graduates), multiplying x A's, y B's and z C's with the various weightings to arrive at a final CGPA. With a rudimentary idea about the content and level of difficulty of the courses, I allocated the grades! I was in business.

My strategy was religion to me, and it was critical that I did not stray from my carefully crafted plan. It wasn't all smooth sailing. One time I was very embarrassed when I entered the compre for an exam where I had already made my targeted 'B' grade. I didn't spend any time studying for the compre (boo hoo!), and instead had decided to focus on the 'A' I needed to get on the exam the next day.

My plan of action was straightforward. I would just write my name and depart. The Professor, who really liked me, and thought I very was good at his subject (which I was) unfortunately came to invigilate his exam. Now there was no way I could leave without him noticing!

What could I do? Well, I wrote my name, peered at him and then fiddled with my pen. I decorated my name. What now? How much can I decorate my name - I was no calligraphy expert. About twenty minutes into the 3-hour exam, I turned in an answer sheet with hardly anything in it, except for my rather well-decorated name. He looked puzzled as I gathered my things and walked up to him and stuck out my answer sheet. He grabbed the paper, and his face fell as he flipped through the blank pages. "You should reconsider" he said firmly. I gave him a sheepish smile, apologized and crept out of the classroom feeling like a worm, one of the lower strata worms at that. The look of deep disappointment in his eyes seared a hole forever into my

mortal soul that day. Even though I was the young and carefree type, who could easily shrug off these things, I was affected. On some grey, depressing mornings, I think about that day.

And now even more deviousness creeps in...

How do you combine all these grades with extreme fun? I rely on a learning technique called short-term memory or working memory – an active system for temporarily storing and manipulating information needed in the execution of complex cognitive tasks (e.g., quizzes, tests, comprees, learning, reasoning, and comprehension where the first and last three were, to me, mutually exclusive).

It is generally considered that some or all memories pass from a short-term to a long-term store after a small period of time. This is referred to as the "modal model" detailed coincidentally, in 1968, the year of my birth, by Atkinson and Shiffrin. Little did they know that it would become the cornerstone of learning for millions of students around the world. The exact mechanism by which this transfer takes place from short term to permanent is a controversial study in cognitive psychology.

But for me, it was a simple solution – no transfers! I would retain nothing. Unless it happened unwittingly. Or in the rather rare instance when the subject matter was fascinating. Like – good grief, Optimization Techniques!

So, I would just study through the night before the exam with extreme concentration, take the test, and then come back and sleep. And when I would wake up, bingo! I would have forgotten a great deal of what I had learnt the night before. For what remained, it was like the decline on a bell shaped curve, almost like sliding down to nothing. I may have hardly attended a class but the night before, I would enjoy every bit of the course. Till the day after! And my fresh, empty mind was ready like a dry sponge to take on the next exam, the next all-nighter.

Of course some glimmerings of knowledge remain. If somebody says Electronics Lab, I will immediately say, "And", "Or", "Nand", "Nor". I might even say "Gates". I will look bright behind my spectacles and try to hide my grin.

Aging and amnesia is supposed to destroy short term memory in any case. And I can prove that theory. I am a living, breathing example. I don't even remember how many things I have forgotten.

Except for my MMS D-courses and other relevant subjects. There I was like any other fiercely committed individual, inclined to fraudulent activity – but never with D-courses. And my strategy sure reflects that I was fit for MMS (!)

Friends, BITSians and fellow countrypeople, I am happy to say that I met my CGPA goal. It amazes me today that these naïve techniques actually worked.

During my ruminations about what I learnt (or didn't) in the four years at BITS, my sister often comforts me. She teaches Math, and is one of those brighter ones who actually learnt something. She says that some part of education is not meant to be retained but rather is required to modify our brain patterns, skills and some such hogwash! She says, "Maybe, you learnt to be street smart!" Or she puts forward the other great argument – you go to school to learn the ability to learn.

But I know that my deviousness came at a cost. When I talk to my daughter now about the importance of gaining knowledge over grades, I feel that I am talking out of the lack of experience of this noble feeling. When I faced my class at SP Jain (where I taught briefly) and held forth on the same, my insincerity was reflected in their blank stares. If I had my BITSian life to live again, I would be more sincere about learning something – and more importantly, retaining it. BITS was a great experience that I enjoyed tremendously. I just know that I could have made the classroom portion of it more meaningful.

Disclaimer: When criminals write novels, they allegedly give ideas to people. I don't mean to and the analogy may be reasonably apt but the intention is merely to share my extensive experience in the field. And by the grace of the Lord Almighty, no profound Professor of mine will ever set eyes on this article. Gulp! ♦

BY ASHISH GARG ('97 INSTRU) AND ANUPENDRA SHARMA ('87 INSTRU)

HOW THEY DID IT: RAJESH HUKKU ('74 EEE) & I-FLEX

THE FIRST IN A SERIES

The company had all the elements of a startup story. An idea for a product, \$400,000 in venture financing, zero revenues, one client, a threadbare office, and three passionate founders. The \$400,000 in VC money is now worth over \$400 million, and the entire company is valued at a billion dollars. Much has been written about i-flex's success as the world's #1 selling core banking software company. But this article talks about the lesser known Rajesh Hukku, the person and the early beginnings of i-flex Solutions.

It is 8am on a winter morning in Manhattan. i-flex's team is making a decision on whether to accept a key negotiating point from a high profile client. It has taken the marketing team a lot of work to get the client to negotiate. At the head of the table in the Park Avenue office of i-flex is Rajesh Hukku, the Chairman and Managing director. Rajesh listens to the animated discussion for a while and then asks a lot of questions. Finally he says firmly that he is not going to concede the point, even if he loses the contract. He argues persuasively that it would send the wrong message to the market. The meeting breaks, and the sales person, a junior



employee, is visibly disappointed. Rajesh takes him out for a smoke, and encouragingly talks to him, smoothening his frayed nerves. The sales person leaves happy.

This is pure-Rajesh. His incredibly people-oriented management style has led him to

create India's most visible technology brand, a company with an almost cult-ish loyalty, high retention rate in a industry where two years is a long time, and a brand that gets visibility far and above its size would dictate. It comes down to Rajesh's uncanny abilities to connect to and care for each and every rank and file employee in the organization, and the outside world connected to it.

i-flex's flagship product, FLEXCUBE has been ranked the top-selling core banking-software package by the British International Banking System for the past two years in a row. In FY2004, its revenues were \$185 million and profits were \$40 million. Its market share is a rich \$1 billion.

i-flex: The truly global company

A look at Rajesh's calendar will boggle the mind. He logs 150,000 airmiles a year, tirelessly crisscrossing the world from his home in New Jersey where he has lived for the past eight years with his wife Smriti and two daughters, Manisha and Manasi. He is a gold or platinum member on almost every airline. This isn't surprising. i-flex has 512 customers in 105 countries, which include little islands such as Vanuatu, Malta and Cyprus, to nations such as Ireland, Iceland, Poland, UK, Germany

Japan, Russia and the US. Even the IMF is a client.

His Pilani Days

Rajesh credits much of his success to the drive instilled by his parents. His parents were Professors from Kashmir lived in Jaipur where Rajesh was born, before raising him in Jodhpur. His father inspired him to rise to the top.

After graduating from high school in 1974, he left for BITS Pilani. A few weeks later, he got a call from his father in Jodhpur. "You've gotten into IIT Kanpur," he said. "Come home right away". Rajesh thought about it for a while. But he was already settled into Pilani, he loved the place, he had made new friends. Much to his father's surprise, he refused to come back to join IIT.

Rajesh loves the rivalry and constantly takes joking pot-shots at the IITs. "The engineers from lesser known institutes like IITs are all over the place" he joked at the BITS Mumbai reunion. "Its time we BITSians show them what we are made of".

A EEE graduate from BITS, he was the bronze medalist of his batch at Pilani. His name is still painted on the S-Block winner board.

Rajesh believes that his formative years in Pilani

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equipped him with the people skills that guide him today.

The Road to Entrepreneurship

After graduating from BITS, Rajesh joined TCS in their Bombay office in 1979. TCS was a small company writing code for US companies long before IT outsourcing became fashionable. Rajesh observed that the code TCS was writing for American firms were being sold for substantially large profits. He realized that though Indians were excellent software developers, they were weak in two areas i.e. understanding the customer's businesses and managing large turnkey projects.

Rajesh's moment of truth came in late 1980s. Rajesh wrote software that integrated the work done by multiple workstations at the US stock exchange into a single box. This system was an instant hit and the company was sold to Reuters for \$150 million. TCS, which had built the product, collected a few thousand dollars. That is when Rajesh decided that someday he would build a product instead of selling his innovative skills to others for much less.

i-flex gets started

Rajesh was getting dissatisfied with his TCS experience. He worked on projects in different fields and verticals, which did not allow him to build domain knowledge, a critical step towards a building a product. He decided to move to Citicorp Overseas Software Ltd. (COSL) in 1989 to focus on the financial market vertical.

At the time, COSL was a 500-employee Citibank subsidiary containing one product, Microbanker. But most of its revenues were from providing IT services to Citibank. Microbanker was mostly ignored by COSL. It fascinated Rajesh, because it was a core system with capabilities to run the guts of the bank. It wasn't very good, but he thought it held tremendous potential.

In 1992, Rajesh discovered that COSL was converting itself into an internal IT

shop, and had no interest in investing or selling Microbanker to other customers. Rajesh, along with co-founder R Ravisankar (also called Shanx) decided they would attempt to separate the company by spinning-off the product. After a number of discussions within COSL, the firm agreed. Citibank saw a lot of promise in this young group of professionals and clearly was impressed by the passion of Rajesh Hukku. As part of the deal, all employees of COSL were offered the opportunity to go to the new firm, CITIL. 150 employees accepted the offer.

Rajesh negotiated \$400,000 (Rs. 1 crore at the time) in seed funding from Citicorp Venture Capital (CVC), and named the startup CITIL. Rajesh was named CEO. Today the employees own a 20% stake in the company.

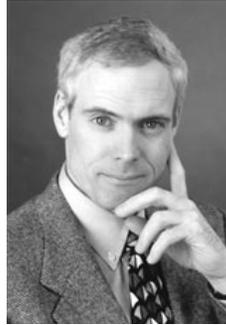
CITIL focused on selling Microbanker to banks in emerging market countries and did not get any business from Citicorp in the initial years to bootstrap itself, as COSL was doing all the work. But after a few years as CITIL started winning Citicorp business, the stage was set for a rivalry with the larger, better established COSL. COSL was eventually sold to Polaris.



CITIL built a product that had global applications yet it didn't have the resources to brand itself. Rajesh solved this problem by focusing his energy at the less expensive Middle Eastern and African markets. He made an interesting realization that even though the economies in Africa were in shambles, the banks in Africa had money. He leveraged the Citibank name to open doors, and the small, relatively unknown banks sat up and listened. As the product generated revenues, it was gradually introduced all around the world and is firmly established today. In 2000, the company changed its name to i-flex, giving up the Citi prefix.

What is little known is that Citibank wasn't the first customer for i-flex's products, although Citibank did buy its services. It was actually the 47th, client, the culmination of a three-year sales effort spearheaded by Rajesh. Eventually Citibank was to give the company a contract to replace their legacy system in 100 countries. This system will standardize 59 systems owned by Citibank into a single FLEXCUBE system. The savings for Citibank will far outweigh the investment.

The venture capitalists benefited hugely from this deal. The \$400,000 investment by CVC is now worth more than \$400 million. It is certainly the largest return for any VC in India, and probably the largest ever for CVC. CVC currently owns 43.5% of i-flex.



Jim Collins. Photo credit: Businessweek

His Management Style

Rajesh is a "Level 5 manager," a reference to management guru Jim Collins' depiction. He has a very democratic style of working and he relies heavily of building consensus in the boardroom. He also has a disarming sense of humor and an uncanny ability to crack a joke and connect with people. This style of functioning has given him an almost cult following in i-flex and given rise to many stories about him.

Five years ago, a newly minted MBA had just joined i-flex. The first day, he bumped into Rajesh in the elevator leaving the office. Rajesh promptly extended his hand and said, "Hi! I am Rajesh. What is your name?" The startled rookie said, "Sir my name is ----. I recently joined i-flex and it's great to work for your company". Rajesh smiled, "i-flex is not only my company. It's your company as well. We are all building this company together". The employee remembers that day vividly, and is currently part of i-flex's Singapore operations.

Rajesh's wit and deft handling of situations has many legendary stories. One story told often is when he was trying to convince a large European bank to replace its crazy quilt of back-office computer software with i-flex's product. An executive gave him the brush-off, telling him their

company's system was so complicated, only God could figure it out. Rajesh, in his inimitable style, made a deft save. "Sir, we are Indians," he said. "We are very religious, and very close to God." Hukku won the deal.

The Branding challenge

By leveraging the Citibank name and by giving outstanding products and services to customers ignored by the larger competitors, i-flex built its marketshare. When it became big enough, it leveraged its size into building the brand. It wasn't easy. When i-flex started in 1992, there was not a single globally recognized Indian brand in any industry, and i-flex went through some tough times convincing its clients about its Made-in-India products. Rajesh still reminisces, "On many occasions, the CIO of a bank would tell me ours was the ideal product. But the CEO would not agree to buy it because he didn't want to take a risk."



All that is history. i-flex is one of the most widely dispersed Indian brands. Only recently that have the likes of Vijay

Mallaya of Kingfisher, Titan and Indian pharmaceutical companies begun to follow in his footsteps, giving their brands a global face.

The next challenge for i-flex is to crack the US market, a nation with more banks than fast food restaurants. (We're only joking,

but the US has over 8,000 different banks). The market potential is staggering. Rajesh wants to utilize brand equity as the single most effective tool for market penetration.

The Awards

Rajesh says that the awards were missing when they needed it the most, but as they have been successful, the awards have flown fast. Rajesh has been awarded India's highest award for Innovation, the Dewang Mehta Award in 2003. Rajesh donated the entire sum of Rs. 5 lakhs to the "i-flex for child" charity program.

He was named Star of Asia by BusinessWeek. i-flex was one of the 15 survivors of the dotcom crash profiled by the Time



Magazine. Rajesh has been named one of India's top 10 movers and shakers in the IT Industry, received the Entrepreneur of the Year for the ICE category, and won the Emerging Company of the Year award from ET, amongst many others in India. And in October 2004, Forbes ranked i-flex amongst the best 100 companies 'under a billion' in Asia Pacific adding to the long list of accolades received by the firm.

i-flex: An amazing work place

Rajesh lives and breathes i-flex. It is his mission to make i-flex the role model for innovation coming out of India. His personal mission means he is on the road 15 days in a month. 'When he is not traveling, he is applying for visas "says Head of Media Relations, Sunil Robert in London. Employee turnover till recently had been minimal, in part due to personal interactions of employees with Rajesh. He has an amazing memory and can recollect little details about his workers many years later.

But of late it has been hard to hold onto i-flex employees. Known for their technical abilities and knowledge of building products, they are targets for companies willing to pay

significantly higher wages.

It has been reported recently that SAP and Infosys, amongst others have been trying to poach

the product champions. But the company refutes this. "On the base of more than 3,000 employees, a handful of people leaving was noted and a straw case was made out of that incident", says Sunil Robert.

Employees return often, after they realize the culture at i-flex is unique, they see the lack of empowerment at other firms, and most importantly, they don't find employees at other firms with the same passion and missionary zeal as their counterparts at the firm they left. Rajesh always welcomes them back.

Rajesh, BITSAA and relaxation

Rajesh has spoken in Mumbai and New Jersey, and is happy to show up at BITSAA events



around the globe. When he's not selling software, getting visas or inspiring students and alums, he entertains friends and

family. Rajesh is a great mimic



and fan of Raj Kapoor.

Employees say that the early days of NASSCOM were memorable evenings, with Dewang Mehta, a close friend of Rajesh, an who had the same sense of humor and idea of fun as Rajesh did, laughing, joking and partying with other leaders of India's IT industry. .

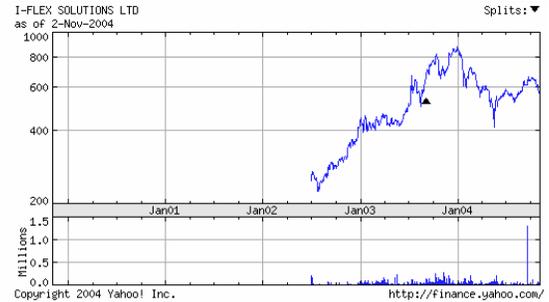
Rajesh tries to spend every free moment with his family. He is not too concerned about improving his golf game, "I don't have to learn golf because

if I become good at golf, the CEOs I work with will feel threatened. So long as I am bad at golf, they will thrash me at it but still give me their business." he jokes, half seriously.

Miles to go

i-flex shares have risen 107% since their IPO in June 2002. But of late, while the coding giants are on a tear, i-flex is down 35% from its peak in January this year.

Rajesh dismisses this as short-term myopia, and is seldom distracted by the share price. He's building i-flex in the US and Europe, spending money on acquisitions, and broadening his product offerings and company



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into a diversified provider of banking and financial solutions for the long term.

i-flex is growing rapidly. And will hire about 1,000 professionals in the next 5 months by March 2005. In his view, this is only the beginning.

We believe him and are assured that Rajesh will be collecting his 150,000 miles next year as well.



SECRETS OF FLEXCUBE'S SUCCESS: WHY HAS IT BEEN SO POPULAR ?

Instead of first designing a product and then trying to peddle it, Rajesh and his team spent an enormous amount of time researching the banks in their target group to understand the problems that confronted them on a day-to-day basis. As a result of that research, three fundamental design principles emerged for the FLEXCUBE suite emerged.

Customer-centric software: In contrast to the general ledger based software, FLEXCUBE was the first software which had a customer view at its core. This customer-centric approach allowed banks to view customers as entities.

No requirement to change source code: Customers were used to changing volumes of code to launch new banking products. Now without doing any such laborious changes, FLEXCUBE allows them to define new banking products on the fly by changing business rule sets.

Scalability: FLEXCUBE was designed to grow as the banks size and volumes grew. No other product allowed such growth and flexibility.

BY RAJENDRA SISODIA (WITH JAGDISH SHETH)

THE RULE OF THREE IN INDIA

Prof. Rajendra Sisodia ('74 EEE) of Bentley College, and Prof. Jagdish Sheth of Emory University came up with a startling theory that may shape the future of how business leaders evaluate future strategy and visions for their companies, and also how governments look at anti-trust policy. Their view – that there can be no more than three major players in any market – has borne true in the US. Here they examine the impact of the fascinating rule of three in India. CNBC carried a mini-series based on their book.

OVER the past several years, the world economy has witnessed a unique combination of economic phenomena: mergers as well as demergers at record levels. As a result, the landscape of just about every major industry has changed in a significant way. Industries are in the midst of rationalization and consolidation, moving inexorably toward what we call the Rule of Three.

Through competitive market forces, markets that are largely free of regulatory constraints and major entry barriers (such as very restrictive patent rights or government-controlled capacity licenses) eventually get organized into two kinds of competitors: **full-line generalists** and **product/market specialists**.

Full line generalists compete

across a range of products and markets, and are volume-driven players for whom financial performance improves with gains in market share.

Specialists tend to be margin-driven players, who actually suffer deterioration in financial performance by increasing their share of the broad market. Contrary to traditional economic theory, then, evolved markets tend to be simultaneously oligopolistic as well as monopolistic.

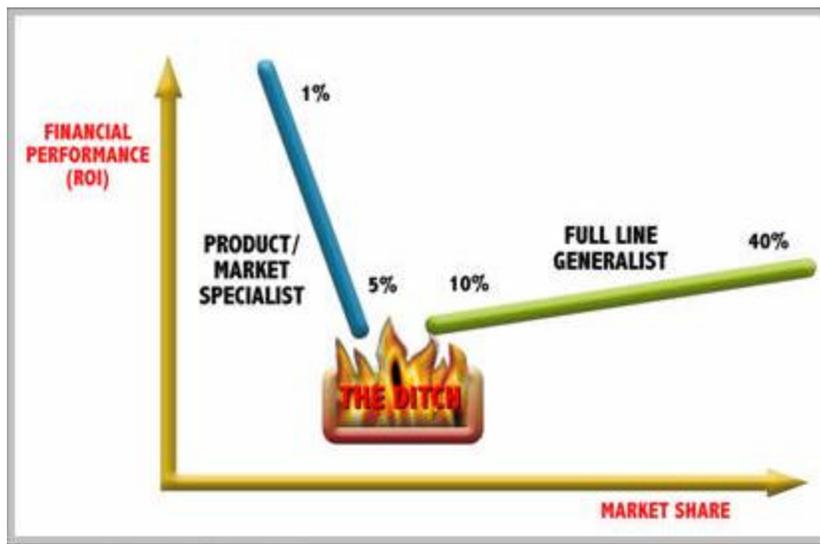
The graph shows financial performance versus market share, illustrating the central paradigm of the Rule of Three: In competitive mature markets there is only room for three full-line generalists, along with several, in some markets, numerous, product or market specialists. Together, the three competitors typically control,

between 70% and 90% of the market. To be viable as volume-driven players, companies must have a critical-mass market share of at least 10%. As the illustration shows, the financial performance of full-line generalists gradually improves with greater market share, while the performance of specialists drops off rapidly as their market share increases.

SOME OBSERVATIONS IN THE MARKET EVOLUTION

By analyzing the evolution of about 200 sectors, we have arrived at the following generalizations:

1. A typical competitive market starts out in an unorganized way, with only small players serving it. As markets expand, they get organized through a process of consolidation and standardization. This process eventually results in the emergence of a small handful of “full-line generalists” surrounded by a number of “product specialists” and “market specialists.” Contrary to popular belief, such shakeouts often take place during market expansion (witness the cellular telephony industry in recent years).
2. With uncanny regularity, the number of full-line generalists that survive this transition is three. In the typical market, the market shares of the three eventually hover around



40%, 20% and 10%, respectively. Together, they generally serve between 70% and 90% of the market, with the balance going to product/market specialists. The extent of market share concentration among the big three depends on the extent to which fixed costs dominate the cost structure.

3. The financial performance of the three large players improves with increased market share – up to a point (typically 40%). Beyond that point, diseconomies of scale set in, along with regulatory problems related to heightened anti-monopoly scrutiny.



Credit: Bentley College

4. The big three companies are valued at a premium (price-earnings ratio) compared with smaller companies, especially those in the ditch. The oil industry is a recent example; the “Big Three” (Exxon-Mobil, BP and Royal Dutch) have P/E ratios of 15, 18 and 13 respectively, while mid-sized players Texaco, Chevron, Philips and Conoco have P/E ratios of 12, 9, 6 and 7 respectively.

5. If the top player commands 70% or more of the market (usually because of a proprietary technology or strong patent rights), there is often no room for even a second full-line generalist. When IBM dominated the mainframe business many years ago, all of its competitors had to become niche players to survive. When the market leader has a share between 50 and 70%, there is often only room for two full-line generalists. Similarly, if the market leader enjoys considerably less than 40%, there may (temporarily) be room for a fourth generalist player.

6. A market share of 10% is the minimum level necessary for a player to be viable as a full-line generalist. Companies that dip below this level are not viable as full-line players, and must make the transition to specialist status to survive; alternatively, they must consider a merger with another company to regain a market share above 10%. In the US airline industry, US Airways, Northwest and America West are all in the ditch; each will eventually have to shrink into specialty status or merge with one of the Big Three (American, United and Delta) in order to survive. Previous ditch players, such as Eastern, Braniff, PanAm and TWA, have already perished.

7. In a market suffering through a downturn in growth, the fight for market share between Nos. 1 and 2 often sends the No. 3 company into the ditch. For example, this happened in soft drinks (RC Cola wound up in the ditch),

beer (Schlitz), aircraft manufacturing (Lockheed first, then McDonnell Douglas), and automobiles (previous battles between GM and Ford drove Chrysler perilously close to extinction).

8. Nevertheless, in the long run, a new No. 3 full-line player always emerges. In the globalized soft drink market currently, the combination of Cadbury-Schweppes, Dr. Pepper and 7-Up has resulted in the



creation of a viable new No. 3 player behind Coke and Pepsi, with approximately 17% market share.

9. The number one company is usually the least innovative, though it may have the largest R&D budget. Such companies tend to adopt a “fast follower” strategic posture when it comes to innovation.

10. The number three company is usually the most innovative. However, its innovations are usually “stolen” by the number one company unless it can protect them. Such protection is becoming more difficult to attain over time.

11. The extent to which the third ranked player enjoys a comfortable or precarious

existence depends on how far away that player is from the “ditch.”

12. The performance of specialist companies deteriorates as they grow market share within the overall market, but improves as they grow their share of a specialty niche.

13. Successful niche players (product-market specialists) are, in essence, monopolists in their niches, commanding 80-90% market share.

14. Successful market growth (finding new markets for existing products) requires product strength, and successful product growth (developing new products for existing markets) requires market strength.

15. Ditch players can emerge as big players by merging with one another, but only if there is no viable third ranked player to block them. A better strategy is to seek a merger with a successful full line generalist. The ditch can be a very attractive source of bargains for full line generalists looking to rapidly boost market share.

EVIDENCE FOR THE RULE OF THREE IN INDIA

The application of the Rule of Three to the Indian market is moderated by two significant and persistent factors: the presence of a large unorganized and unbranded sector in many industries, and the presence of many regional players. While we believe that both of these

factors will gradually wane in coming years (as they have elsewhere in the world), they



continue to be significant for now. Below, we highlight a few sectors in which the Rule of Three is imminent or already here.

Cement

The Indian cement market, the fourth largest in the world, has become a key battleground for the world’s leading cement makers: Lafarge of France, Holderbank of Switzerland and Cemex of Mexico. Of the three, Lafarge has been especially aggressive in India, acquiring the cement businesses of Raymond and Tata Steel, and is in the running (along with Holderbank and Cemex) to acquire a stake in L&T’s cement business as well. Already the largest player in the eastern part of the country, Lafarge is clearly not done with acquisitions in India.

L&T and **ACC** lead the Indian market with a capacity of

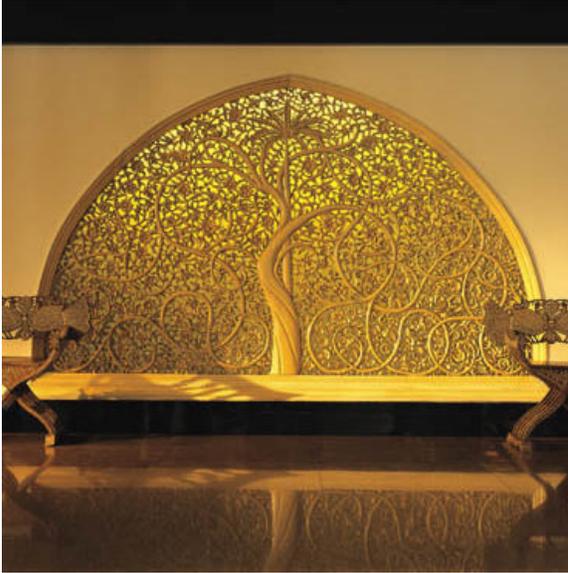
approximately 15 million tonnes per year each, followed by **Grasim** with approximately

10.5 million tonnes. The total capacity in the market is approximately 110 million tonnes; the current Big Three thus control only 37%. The industry remains fragmented, and many more mergers and acquisitions lie ahead.

Those domestic players that have not been selling to the global Big Three have been making rapid-fire acquisitions; Gujarat Ambuja (with plant capacity of about 8 million tonnes per year) has bought DLF Cement and Tata’s stake in ACC.

Likely market specialists, focusing on regional markets, include India Cements, which is the largest producer of cement in South India, with a production capacity of 3.5 million tonnes per year.

Aluminum



The aluminum and copper industries have seen the emergence of a handful of dominant players following a remarkable phase of national and global consolidation and expansion within the industry. Aluminum manufacturing is largely an oligopolistic market with **Bharat Aluminum Company Limited (BALCO)**, **NALCO** and **Hindalco** accounting for 88% of production. **Sterlite Industries Ltd.** - also a major player in copper - recently bought 51% of BALCO from the Government of India and a 55% piece of India Foils, the largest manufacturer of aluminum foils. Additionally, Hindalco acquired Alcan's 54.6% stake Indian Aluminum Company (IAC) in March 2000.

Hospitality

Even though the hotel industry in India is struggling, construction is booming, consolidation is looming and global players are looking for room in the struggle for control of the market. For survival, hotels in India are linking up

with international chains, many of which are actively looking to acquire properties in India. Joint ventures are sprouting as those with global ties seem likelier to become one of three in this competitive field.

The Indian hotel industry is an oligopoly with few key players grappling for control. They include **The Indian Hotels Company, Ltd. (IHCL or Taj Group)**, the largest hotel operator in India with a 20% market share and almost twice as many properties under management as its closest rival, the **India Tourism Development Corporation (ITDC or the Ashok Group)** with a 15% market share; and **EIH (East India Hotels)** with a 12% market share. Other players include **ITC hotels** (linked with the Sheraton chain), followed by smaller entities such as **Hotel Leelaventure, Asian Hotels** and **Jaypee Hotels**. Recent acquisitions include IHCL's purchase of the Blue Diamond Hotel and its signing of a joint venture with GVK Hotels for three hotels in Hyderabad.

Copper

Aluminum's sister industry, copper, is quickly boiling down to the Rule of Three, following a spate of consolidations. Three major players in the organized sector

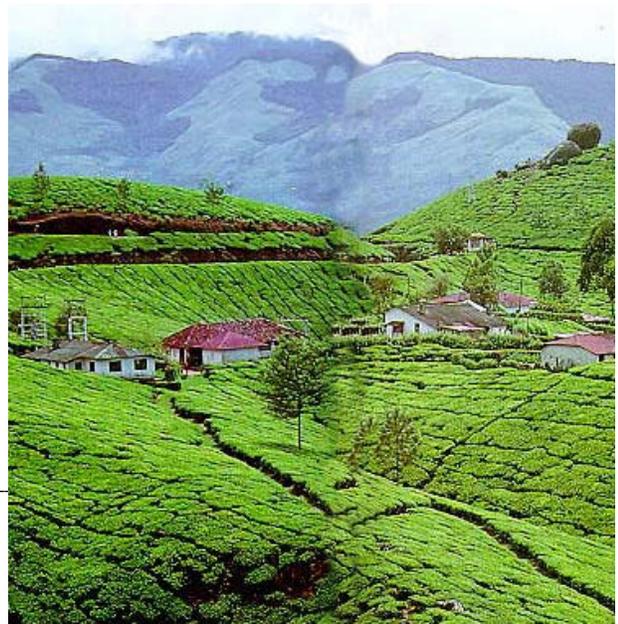
currently control the copper industry: **Hindustan Copper, Birla Copper, and Sterlite Industries**. There are a large number of small manufacturers as well. Recently, Sterlite Industries Ltd. acquired two mines in Australia, which makes it easy to source the raw materials.

Tea

The Indian tea industry is facing a crisis in terms of consumption. This struggle is expected to end up weeding out many of the 125 small and medium-sized tea companies that exist.

There are several main companies in the industry, many of which have recently participated in mergers on both national and global levels.

Tata Tea is the leading tea plantation company in India and the largest integrated tea producer in the world. During 2000, the company acquired entire shareholding of world's second largest branded tea company, Tetley Group Limited of the United Kingdom. The Tata Tea/Tetley combination now ranks as the world's number two tea company in the world, with about 5% of sales. The purchase of the Tetley



business, which is twice the size of Tata Tea, represents the largest cross-border takeover of an international brand by an Indian firm. **Tata Tea** faces competition from **Hindustan Lever's** Brooke Bond and Lipton brands, which command a 34% market share to Tata Tea's 20%. The **Goodricke Group** and the **Assam Company** are the other major players.



Tobacco

India's cigarette market of 105 billion sticks a year is relatively small compared to China; 82% of India's tobacco is consumed in the form of beedis. However, the market is still attractive to multinationals, given its size (200 million smokers) and growth potential. The Big Three in India are **ITC** (65% of the market), **Vizir Sultan Tobacco** and **Godfrey Philips**. Philip Morris already owns 36% of

Godfrey Philips, while BAT has 33% of ITC.

Luggage Industry

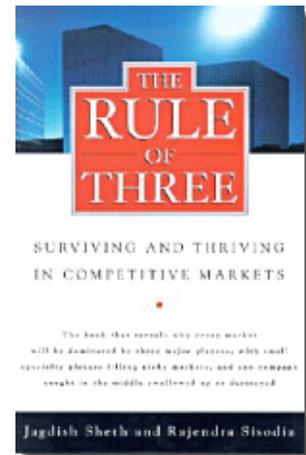
The Indian total luggage market is approximately Rs 1,200 crore annually, of which Rs 700 crore comes from the unbranded unorganized sector. Within the Rs 500 crore branded luggage market, VIP has a lion's share of 64.7%, Aristocrat (a corporate sibling of VIPs) has 16%, Safari has 12.7% and Samsonite has 6.6%. Samsonite has positioned itself as a specialist targeting the premium end of the market. Samsonite arrived in India in 1997 (CEO & Promoter with 40% market share—**Dr Ramesh Tainwala** is a BITSian) and has since captured 60% of the premium segment, with sales growing at 40% per year.

IN CONCLUSION

The Rule of Three applies wherever competitive market forces are allowed to determine market structure with only minor regulatory and technological impediments. It would, therefore, not apply in markets where Regulation, Exclusive rights (where patents and trademarks reign); Licensed economy and where major

barriers to trade and foreign ownership of assets have been erected.

Ultimately, the Rule of Three is about the search for the highest level of operating efficiency in a competitive market. Industries with four or more major players, as well as those with two or fewer, tend to be less efficient than those with three major players. The role of the government is to ensure that free market conditions do indeed prevail, to allow industry rationalization and consolidation to occur naturally, and to step in when an industry seeks to consolidate too far, i.e., to a level where fewer than three players control the lion's share. ♦



ABOUT RAJ SISODIA

Dr. Sisodia is one of the first of three teacher-scholars at Bentley College. Dr. Sisodia joined Bentley from George Mason University, where he served as associate professor of marketing and director of executive programs at the School of Management. His teaching, curriculum development and scholarly activities focus on digital commerce; technology management; technology as a change agent; the telecommunications and information industries; services; marketing productivity; and the impact of information technology on marketing strategy. His work has been featured in professional journals such as the Harvard Business Review, Wall Street Journal, New York Times, Washington Post and American Public Radio's Marketplace. He co-hosted a monthly talk show on business and management issues broadcast on National Public Radio. Dr. Sisodia received a BE (Hons) Engineering degree from BITS Pilani (1979), MMS from Bajaj Institute of Management (1981) and MPhil PhD in Marketing from Columbia University (1988).



BY ANUPENDRA SHARMA ('87 E CO INSTRU)

MAHATMA GANDHI, THE MISSING NOBEL LAUREATE & 5-TIME NOMINEE

Much credit for the research goes to Øyvind Tønnesson and Thomas Weber for this article.

Most people don't know that Gandhiji was nominated for the Nobel five times. This article explains the history, examines the reasons why he never won, writes about the deliberations after his assassination to overturn the principle of awarding the Prize only to the living, and the honors showered by the Committee and many of the winners of the Prize.

Indians have won five Nobel Prizes to date. It should have been six. Yet the most famous Indian, Mohandas Karamchand Gandhi (1869-1948) never received a Nobel Prize, though he was nominated five times from 1937-1939 and 1947-1948.

Alfred Nobel, in his will dated 27 November 1895, left the bulk of his considerable fortune to the Nobel Foundation. The peace prize was to go to the person "who had worked the most or the best for the fraternity among peoples and the abolition or reduction of permanent armies, as well as the establishment and promotion of peace congresses." The Peace Prize is given by a small Norwegian Nobel Committee in consultation with an appointed advisor.

Mahatma Gandhi was a known figure in Europe due to his struggles in South Africa, even before he returned to India in 1915, due to the twenty years he spent in the apartheid struggle. Gandhiji invented the use of non-violent struggle, a method so successful it was exported around the world and used time and again. The non-violence he preached was a deeply rooted belief. Many Nobel Prize winners have given

homage to Mahatma Gandhi and credited him for teaching them. This august list includes **Albert Einstein, Aung San Suu Kyi, George Marshall, The current Dalai Lama, Martin Luther King Jr. and Nelson Mandela**

The Christian Century, a US magazine suggested nominating Gandhiji for the Nobel Peace Prize in a 1934 editorial, when he was already well known in the United States for the Salt March of 1930. The editorial read: "*Why not award the Nobel peace prize to Gandhi? It would be no personal favor to him and he probably does not want it. The honor would not greatly impress him and he would not know what to do with so much money except give it away. These are all high qualifications for such a prize.*"

The editorial went on to criticize the 1933 Committee for finding no deserving recipients. It lamented that "*of the twenty-five awards, too many went to presidents, ministers and other high officials and too few to working friends of peace or to really radical proponents of peace and disarmament.*"

The 1937-39 Nominations

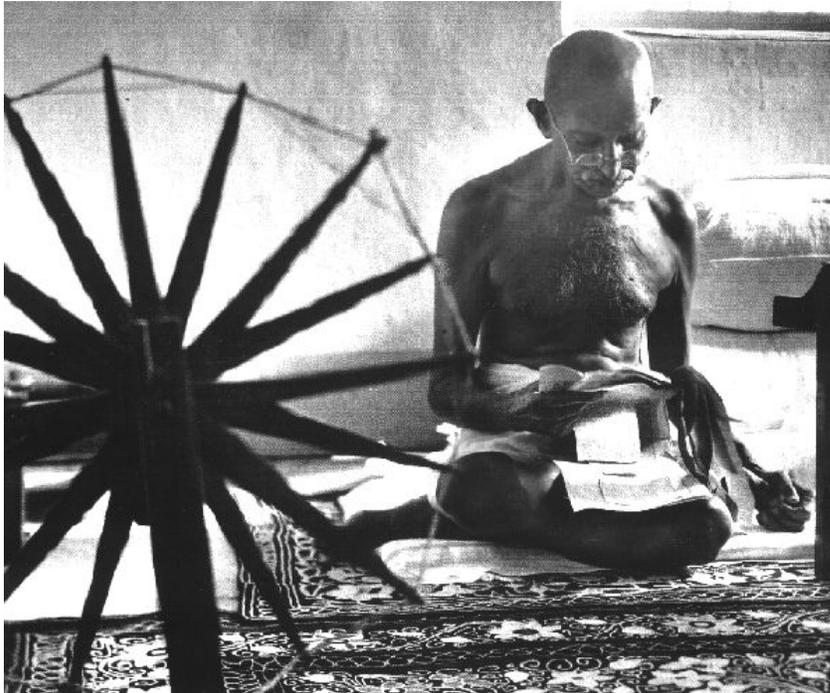
Ole Colbjørnsen, a well known and influential Labour Party MP, nominated Gandhi for the first time in 1937. The Norwegian branch of "Friends of India" wrote the note supporting the candidacy. The Committee's adviser, Professor Jacob Worm-Müller praised Gandhiji, saying he was noble, ascetic, prominent, and much loved man. However he criticized him for not being consistently pacifist in his political actions. He argued that Gandhiji should have known that some of his non-violent campaigns towards the British would degenerate into violence and terror. He also labeled Gandhiji as an "Indian nationalist", criticizing him for helping Indians and not the worse off Blacks in South Africa. At this time no Nobel had been given for a nationalistic freedom struggle.



The Prizes had been awarded for international actions, or actions taken outside ones' own country for the betterment of the masses. Gandhiji's focus on the plight of the Indians in South Africa and India did not fit well. The Prize instead went to Lord Cecil of Chelwood, UK.

support India's participation in the Second World War; and, finally, his efforts to resolve the conflict between Hindu and Moslem communities. In all these matters, Jens said, Gandhiji had consistently followed his own principles of non-violence. Unfortunately, Jens was not explicitly supportive of the Nobel

second strong argument against Gandhiji was his statement made in September 1947, that although he had always opposed warfare, he would support it if it was the only way to secure justice from Pakistan. The Committee took a negative view of this stance, and decided to give the award to the Quakers.



Ole Colbjørnsen renominated Mahatma Gandhi again in 1938 and in 1939, but the arguments made by Prof Worm in 1937 ensured that Gandhiji did not get on the shortlist in either year.

The 1947 Nomination

In 1947, shortly after India's independence, Gandhiji was nominated again, and ended up as one of six names on the Nobel Committee's short list.

The Nobel Committee's adviser Jens Arup Seip was a historian. Jens was full of praise for Gandhiji for his efforts in three different, but mutually related conflicts: the struggle for Independence against the British; the stance taken to

going to Gandhiji. Jens also hinted that the partition of India and the resulting violence had reduced the impact of Gandhiji to some extent.

At the time of the Nobel discussions, there was considerable unrest due to the violence and war between India and Pakistan. When the deliberations began on October 30, 1947, two Committee members spoke in favor of Gandhiji's nomination. However they were not able to convince the three other members. Øyvind Tønnesson speculates that Committee members must have had to consider the political fallout and signals that would be sent if they had awarded the Peace Prize to India's leader in a time of war. A

The 1948 Nomination

Two days before he was assassinated, six nominations were received by the Nobel Committee. The Quakers who pipped Mahatma Gandhi in the previous year, nominated him, and he was included in the final short list of three names. Alas, when Gandhiji died, so did his chances for a Nobel. The award only went to the living.

Till 1948, no one had ever been awarded the Nobel Peace Prize posthumously. But the Nobel Foundation could make this award under certain exceptional circumstances. Unfortunately, the organization chose to focus on some rather irrelevant details regarding the practical consequences of the money distribution if the Prize were awarded posthumously. Although Gandhiji had no will or succession plan, this was a weak excuse; his sons were living, and Navjivan Publishing House publishing Gandhiji's writings could have inherited the award. The Swedish Committees that award all other Nobels were consulted. They did not support a posthumous award, stating that it could only have been made if the laureate died after the Committee's decision had been made.

After much deliberation, the Committee opposed 4-1 to make a posthumous award to Mahatma Gandhi. The announcement was made on November 18, 1948, that

"there was no suitable living candidate" and therefore the prize would remain unawarded that year. This gesture certainly was intended as a show of respect for Mahatma Gandhi.

It is unfortunate that the Committee lacked the courage to create a precedent. What we do know is that this is a decision that the Nobel Foundation regrets to this day, as evidenced quite openly in their actions.

Nobel Organization regrets

The Nobel Foundation website talks about the Mahatma's life and work at great length in an aptly titled write-up, "*The Missing Nobel*". When the Dalai Lama received the Peace Prize in 1989, the chairman of the Nobel Committee said "*It would be natural to compare him with Mahatma Gandhi, one of this century's greatest protagonists of peace, and the Dalai Lama likes to consider himself one of Gandhi's successors. People have occasionally wondered why Gandhi himself was never awarded the Nobel Peace Prize, and the present Nobel Committee can with impunity share this*



surprise, while regarding this year's award of the prize as in part a tribute to the memory of Mahatma Gandhi." The Secretary of the Norwegian Nobel Committee, Geir Lundestad said that no prize could establish a perfect record, indicating their omission of Mahatma Gandhi.

At Chicagopex 2001, the Chicago Philately Association recognized this omission as well. The organization celebrated the 100th anniversary of the Nobel Prize by releasing a number of first day covers. All covers bore the title "*One Nobel prize was not awarded – Mohandas Karamchand Gandhi*", and had stamps honoring Mahatma Gandhi, Albert Einstein, Desmond Tutu, Martin Luther King Jr., Aung San Suu Kyi, Desmond Tutu, George Marshall and Nelson Mandela, figures who always supported and honored this man.

Why?

Were the Nobel Committees in the 1930s and 1940s too short sighted? Politically motivated? Did it fly in the face of the imperial designs of Europe, and send wrong signals to the struggling non-Europeans who were trying to overcome European tyranny around the world. Or was it due to Norway's connections to Britain. Little is recorded of those Committee's debates, and no evidence suggests that Britain tried to block the awards.

We can only speculate that Mahatma Gandhi did not fit the stereotype of an international political and humanitarian figure. Neither was he European or American, in a time when the Nobel typically went to Westerners with such

backgrounds. He was a "nationalist" seeking to free Indians from the British in India and South Africa, thus unable to fit into the narrow definitions that made the Nobel Committees comfortable assessing for such awards.

Thankfully in today's times, such nationalistic struggles would surely be rewarded by the Nobel, as is evidenced in their awards to **Martin Luther King Jr., the Dalai Lama and Aung San Suu Kyui**. In fact, some argue that the principles of Alfred Nobel of "*the abolition or reduction of permanent armies, as well as the establishment and promotion of peace congresses*" have not been considered in some awards to controversial supporters of war and violence, including **Menachem Begin, Henry Kissinger, Yasser Arafat and Yitzhak Rabin**.



No wonder the Nobel Organization has tried to make amends for its omission of Mahatma Gandhi. They've done less to honor Leo Tolstoy, another historical figure that was never awarded the Nobel, but that's another story.

It is believed that Gandhiji would have been invited to Oslo to receive the Nobel Peace Prize in 1948, had he not died tragically that year. He would certainly have been the brightest light in six instead of our five winners ♦

BY TIRUMALA RAO TALASILA ('84 COMP SCI)

IT SERVICES IN CHINA – OPPORTUNITIES & CHALLENGES.

BRIEFINGS FROM THE LAND OF THE DRAGON: THE SECOND IN THE SERIES

In this article the author presents some excellent opportunities and challenges in the Chinese Information Technology (IT) market. The information is intended to help BITSians develop an understanding of the key issues as well as an appreciation of the associated risks and rewards, so that you can plan a forward looking China strategy.

China. China. China. We can't seem to go through a single day without hearing about the new economic frontier in the East. From giant multi-billion dollar corporations to entrepreneurial outfits in Silicon Valley, they all want a slice of the profit pie. China's put the "C" back in the big proverbial Cheese!

BACKGROUND

The world's greatest industrial revolution is taking place in the shortest possible time in our lifetimes, and will never be repeated. McKinsey & Co.'s worldwide managing director Ian Davis, in a conversation with Fortune Magazine, says that for Fortune 500 CEOs China is "Absolutely center stage." Goldman Sachs predicts that China's economy will overtake the US by 2039. A staggering amount of wealth is being created in every sphere, and it is key for Indian entrepreneurs to recognize this gold rush and try to exploit it.

IT companies should ignore this at their own peril.

China is however a very different marketplace, and plays by different sets of rules that require keen understanding and appreciation of local business and cultural issues. The next five years will provide tremendous opportunities for committed firms to build the

market share, profit from local ventures, and acquire skills required to face the expected onslaught of competition in the global marketplace from China-bred firms.

INDIA'S OPPORTUNITY: PLAY IN THE WORLD'S SECOND LARGEST IT MARKET IS THE OPPORTUNITY

The size of the domestic IT market in China in 2001 was US\$30 billion. The hardware sector takes the lion share of 80% and the rest 20% is made up of software and services. According to the Tenth Five-Year plan, the Chinese Government will invest Rmb 500 billion (US\$60 billion) in IT sector. It is hoped that the contribution of IT sector to GDP will reach 7% in 2005. This is in line with government forecasts that China will become the second largest IT market after the United States in 5 years.

The Chinese appear to be first targeting local markets, gaining the experience and confidence in developing and servicing markets, and then using this as a springboard to compete in the world market. It is to be noted that there is already some groundswell of activity wherein Chinese returnees from United States and Europe are getting into the act of bringing offshore work to China. Their attempts are aimed explicitly at

mimicking Indian firms' models for success in IT offshoring. As an inducement to promote IT, local and central governments in



China provide preferential policies that provide office space, facilities, tax incentives and reduced paperwork specifically for overseas Chinese who can bring technology to China.

WHY IT WILL EXPLODE IN CHINA

The Chinese IT market is growing by leaps and bounds prodded on by market forces combined with active encouragement and inducements by central and local governments.

With its dominance in manufacturing assured China

now realizes that expertise in IT is critical in order to sustain the current growth levels. Without self-sufficiency in IT markets, China realizes it is going to be far more difficult to compete or be taken seriously in world markets. This appears to be the unstated driver of Beijing's technocrats.

There are of course barriers to implementing this vision. Western companies don't think China has proven its mettle in software development. It is primitive compared to the West and India. There is also a lack of world-class level mid-to-high level IT professionals, a fear about IP being stolen, and the regular linguistic / cultural barriers. The Chinese government recognizes that these issues exist, and if the past is any indication, they will effectively address this quickly.



There is also substantial spending in IT for the Beijing Olympics in 2008, as well as significant development in the financial services industry. The Chinese government is also focused on a major initiative to promote Linux and other open source technologies.

The rich and vast manufacturing sector of China has realized that IT is going to become a competitive advantage in the years to come.

The Japanese IT Services market is estimated to grow to US\$15 billion by 2005. Even though the Japanese are latecomers to the Offshoring bandwagon, they are determined to make up for lost time. Many of the Japanese IT firms such as NEC and Hitachi already have significant presence in China. The CIO of a prestigious Japanese Consumer Electronics and IT company opined that in five years time China is going to narrow the software process maturity gap with India. The Japanese clients have already made up their mind that their offshoring destination is going to be China.

SHOULD INDIA WORRY?

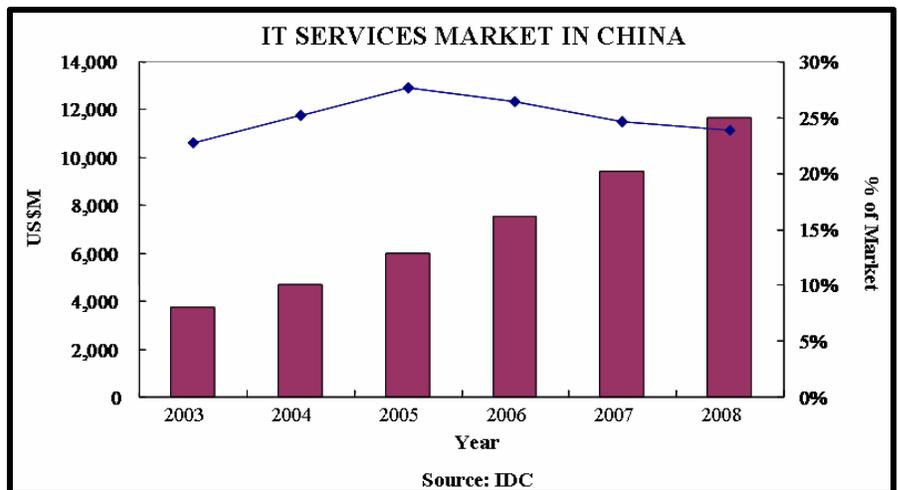
India continues to believe that the language barrier will make it harder for China to work with English-speaking customers. The biggest barrier is language which is being effectively addressed. English has become mandatory learning in Chinese schools. Students in high schools and universities are being told to put their energies to learn English skills rather than Chinese. Even while traveling in the interior provinces, this commitment can be seen in action. Most places now boast both Chinese and English billboards. In four visits

to China since 1997, I noticed a gradual improvement in the English speaking and understanding level in Chinese people.

The other thing that Indian companies say is that Chinese companies don't have the same adherence to international



software standards. The Chinese are excellent students, and have demonstrated the ability to take complex processes in manufacturing, copy them, refine them and then to improve on them, in a very short span of time. The Chinese will quickly master software development processes such as CMM, and provide leadership and innovation in that space. In my role of managing the subsidiary of a major IT multinational in China, I have experienced first-hand an all-Chinese workforce in China. A Fortune 50 Client recently confided to me that my Chinese Team has outdone the equivalent Indian Team with



their dedication, hard work and promptness in spite of the language weakness in English. Chinese are fast learners with regard to processes and technologies. India should be worried.

China may end up leading the charge in creation of real products as well. If the innovations coming out of the Chinese-run Microsoft R&D Center in Beijing are any indication, China will rapidly surpass India in being recognized as world-leading, innovative software research center.

By its sheer size, China is going to be a breeding ground for



some world-class local players. It is therefore very critical for an aspiring global player to play in this competitive market. An Indian company who hasn't learnt to live and thrive in this cut-throat environment will soon see its core-advantages vanish pretty quickly amidst the onslaught of the Dragons.

Currently, the local and central governments are throwing a welcome mat for foreign IT firms, especially for Indian IT firms. It is quid-pro-quo arrangement. China wants to

give access to its local markets for Indian IT firms, but it also wants to learn from Indian firms. A few years from now it is quite conceivable that the Indian IT firms will have to compete with the same firms/people they trained. It is to be noted that with or without the help of Indian IT firms, China is certain to develop a robust IT industry that can challenge the built-in cost advantages and service efficiencies that Indian IT firms currently enjoy. To learn to compete against these players inside and outside China, Indian companies need to be in China now.

STRATEGIES FOR INDIAN COMPANIES

The question is – should one set up in China today to focus on the domestic business, or should one set up a center to focus on Japan. It's going to be difficult to do both at least initially. We examine both options.

Establish a full-scale solutions delivery center in China for competing for domestic business in Greater China (China / Hong Kong / Taiwan)

There are tremendous amount of business opportunities in Greater China region in the next few years, which can only be exploited through a full-scale delivery center in China. Make acquisitions or meaningful alliances as needed to fill gaps in solutions delivery or market expertise. This clearly will put the firm in the "thick of things", giving a greater understanding

of the way business operates in China. Due to the first mover advantage, firms with world-class capabilities will win a greater share of the contracts, and be able to pick and choose the local firms to enter into JVs/partnerships with. Clearly there is a risk too. Doing business in China means being patient with the returns on investment. The choice of a local partner is critical to success in China as well, especially when bidding for the large government or state-owned enterprise contracts.

Set up a development center in China for attracting Japanese & Southeast Asian business

Japan is going to be a \$15 billion IT offshoring next year. Setting up a center focused on the better-understood Japanese customer base presents a less risky option. By setting up in China, it allows Indian companies to take advantage of the cost advantage with Chinese software developers. The Japanese are certainly going to be easier to do business with, and understand and appreciate the Indian brand name. They are also not likely to require difficult-to-run JVs with Chinese companies. The threat of knowledge transfers and the creation of domestic Chinese companies diminish as a result. Due to the heavy investments in China by Japan and the resulting business flows, having a Chinese center will be seen favorably. Japan and China have a shared, albeit difficult history, and a more similar cultural heritage than India.

This strategy is not without risks. The Indian companies could get blindsided by the local competitors. Secondly, it is a case of risk versus return. The Chinese market is going to be

many times larger than the Japanese offshoring opportunity.

The alternative is to wait now for consolidation to begin

One can believe that the markets in China are not developed. Therefore it might make sense to let it develop, and when it is ready, enter the market with a big-bang approach combined with flawless execution of plans. This is the lowest risk strategy, but is fraught with risk. An Indian company may risk being left out of a growing and very important market. Plus, China may set the standards for pricing in IT. A foreign company may need to have the infrastructure that China presents to compete in a new pricing environment. Lastly, China makes it quite difficult for international companies to acquire domestic firms, especially the market leaders. This option may end up being a complex and expensive one.

RISKS EXIST

The IT market in China has to be understood in the context of Chinese economy, history and political climate. The growth opportunities of the Chinese market are certainly tempting. There are however political, economical and regulatory challenges and risks that one should be aware of. There is the

usual litany of issues such as lack of legal framework, Intellectual Property protection and others. But they are manageable with proper insight and localization.

Due to the increasing income disparities China might face growing social unrest in the coming years, which can destabilize the growth trajectory of the economy. It is recognized that China has the widest disparity in the world today between the rich and the poor. The economic liberalization policies in China have lifted hundreds of millions of Chinese out of poverty since the 1980s.

There are also cultural risks to be considered. Most of business relationships in China occur through the informal “Guanxi” network. A foreign company will find it daunting to operate in China if it is expecting a familiar business and legal framework that it is used to operate in. There is quite a danger that foreign firms that seek to set up business operations in China, instead of taking the longer term picture, get bogged down trying to resolve issues such as branch Vs subsidiary dilemma, repatriation of profits and Visa issues within a legal framework. Workarounds for such issues

can easily be found with the proper connections within the Chinese society and business circles. The roads in Beijing and Shanghai are littered with the remnants of foreign firms that failed to understand this fact. One should also understand that the local administration has significant leeway in interpreting the legal framework and very often they can set their own rules overriding the ones set by Beijing.

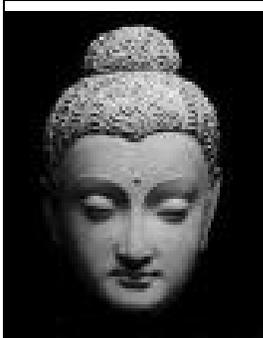
Lastly, the Chinese favor their own over foreign companies which implies that it will be difficult to dominate the local markets.

IN CONCLUSION

China offers incredible opportunities for entrepreneurs and large corporations alike in the IT space. It is akin to the gold rush of IT that Indian companies had in entering the US in the 1980s. To continue its dominance, Indian companies need to enter this market, and not ignore it.

A clear long-term commitment and strategy aligned with Chinese cultural preferences and executed by a driven, dynamic team with local know how is however a prerequisite for success. ♦

INDIA'S FIRST EXPORTS TO CHINA: BUDDHISM & KUNG-FU



Two important foreign concepts from India have been accepted, adapted and made to thrive in China. The first is Buddhism, which thrived in the Tang Dynasty and still has considerable influence in the philosophy and daily lives of Chinese. Second is Kung-fu. The first person who introduced this to China was an Indian monk named Bodhi-Dharma who founded the famed Shaolin Temple. He is reputed to have meditated in front of a bare wall for 9 years and developed the martial art using just bare hands



DILIP D'SOUZA ('76 EEE)

FROM DILIP'S CORNER



Dilip D'Souza is a prolific writer for Rediff and India Together, but apparently he has more to say than they have to publish. When he is not risking his life in Kashmir, he is immersed in his new found passion – blogging. In this section we present to you two interesting blogs where he talks about Srinagar and Adopting a child, both issues on which he shares his personal experiences and thoughts. For many more musings visit <http://dcubed.blogspot.com/>

SRINAGAR

September 26, 2004: Careful (or maybe not) in Srinagar

Being in Srinagar is a strange feeling, or perhaps I should say a strange mix of feelings.

On the one hand, there's the very visible presence of the Army, or the alphabet of armed forces (CRPF, BSF, RR, whatever). You see soldiers everywhere, all with guns, you see barbed wire and bunkers with tiny slits (check the one on Court Road



off Lal Chowk) and you see something I've not seen elsewhere -- armored cars right out of Damnation Alley ('70s movie; you young sprouts, never mind), all with interesting names painted on the side. On the road out of the airport you pass a Maruti Gypsy rigged up as a machine-gun vehicle, with three or four men sitting on its ides and one standing, manning the gun. There do seem to be fewer soldiers about than I remember

seeing on my last (and first) visit, last April; perhaps that has something to do with elections that were on at that time. But still, there are enough visible even now that you wonder two things: one, what is it like to live under this constant armed presence? And two, what is it like to be a soldier in these circumstances?

You can puzzle out answers to those.

On the other hand, everyday life carries on. Buses run, their operators shouting the same unintelligible syllables I think I heard them

shouting when I used to wait for buses to Pilani. Different destinations, same incomprehensible shouts. The football tournament at the U of Kashmir is on, with teams from Nainital, Delhi, Patiala, Chandigarh, Lucknow and elsewhere. Lal Chowk is buzzing. Blue darting kingfishers flit along the Dal, as do ponderous herons and elegant egrets.

Before everyone who hears I'm

going to Srinagar raises an eyebrow, as if to say, 'you sure it's safe?' a friend I called in Delhi says to find out if it's possible and safe, to make a trip here with a bunch of academic friends, as they did to Lahore. Yet if they went to Lahore and loved it, why should they worry about Srinagar? I feel no different here than I have done in Alang, or Jammu, or Bhopal, or anywhere, despite the armed men. And maybe that's the key. Come here and find out how much the same this place is to everywhere else you might go, and that's the key to normalcy.

Aside: trip to Madagascar in 1991, in the middle of a nationwide uprising against Dictator Didier Ratsiraka. Same thing: raised eyebrows, you sure it's safe? But once there, I felt fine, never a moment to worry about. I did run into an American woman who had a hunted look in her eyes, clutched her bag to her chest, and kept gesturing to all around to stay away. Nothing had happened to her, but she behaved this way as she roamed the country, which only fed her fears some more.

You could be such a clutching, hunted person here in Srinagar too, and I'm pretty sure you'd go back home and tell all, Srinagar is a frightening place. You also could just roam around like anyone else, anywhere else, and go home to report that it's no more frightening than anywhere else.

Yet I did mention a mix of feelings. The last time I was here, my host Amir had another guest, Kamal, visiting from Delhi. Kamal is a short, wiry dude with long hair. Seems this was enough for someone among the

neighbors to report to the authorities that Amir had a suspicious guest. You know, perhaps a militant or something. (This happened after I left, while Kamal stayed on, so we're pretty sure that it wasn't me who was reported suspicious. Not that I'm crowing about it). Late one night, some of these authorities showed up at Amir's door, asking loud and rude questions, issuing threats. It all died down, but not before leaving Amir's already fragile temperament somewhat more frayed. So when I arrived yesterday, Amir said simply, be careful. How, he left to me.

So I'm careful as I stroll the city. As I watch the kingfishers. As I stop at the little dhaba I used to frequent the last time ("How's Bombay?" asks the owner as he recognizes me and flashes a huge smile). As I stop to watch Patiala knock Delhi out of the tournament, 5-3 in a penalty shootout. As I write a postcard to my son.

I'm careful. I have no idea how, really. Is that a key too?

ADOPTION

October 9, 2004: The Nose and the Toes

There's something just slightly bizarre about it. The other day, we walked into a building at one end of the suburb of Chembur, signed four different cheques, and walked out half an hour later with a tiny human being. Just like that.

OK, it wasn't "just like that". The process has been grinding away for nearly a year. The tiny thing first made our

acquaintance about two months ago, and subsequent visits got her used to our faces. And then we walked in, last Tuesday, chequebook at the ready. But still... to think the actual exchange amounted to cheques handed over, tiny one handed over, is something to get used to.

Adoption, of course. We're now three days into the experience, and we already have tales to tell, the oddity of the cheques being just one.

There's the neighbor from the building. We've just driven home from the orphanage, brought home the little girl for the first time and finally, and we're walking into the lobby downstairs. The neighbor, a still-young mother of two college-age boys, stops and asks about the baby. "She's ours", we say (hey, those cheques...) "we adopted her." "You're joking, right?" says the woman. "Not at all, we really have adopted her!"

Whereupon she wrinkles her nose -- really -- and asks "Why?". Almost as if we've brought home a tarantula.

There's the orphanage itself. On one of our visits, we meet a few of the over 50 kids in here. One 8-year-old is all long legs and awkwardness, walking around in panties and a T-shirt. Another bright boy has just returned from some kind of party, so he's in fancy clothes and bubbling over with smiling stories of the evening. Smiles and cheeks everywhere.

We want to take the whole lot

home. All 50 plus. Wouldn't you?

When we first signed up at the adoption agency, the woman there told us about a little girl they were trying to place. The man who brought her in had found her as a newborn, abandoned. In a garbage dump. She didn't have two of her toes. They had been chewed off by rats.



I've met this girl -- she has since been adopted by a couple who also adopted their first daughter -- and as pretty and bright-eyed as she is, those missing toes are never far from my mind.

And you know, I write this here, and at some level I know there's a world out there I will never experience, and it is filled both with rats munching on little abandoned garbage dump girls' toes and with stylish women who wrinkle pert noses at the idea of adopting a child ... and nevertheless I wonder. What would drive a woman - - or a man, who knows? -- To fling her newborn onto a pile of trash?

Whatever the answer, I know this much: it has a lot to do with the thoughts we think when people ask why we adopted. Pert wrinkled noses be damned. ♦

Photo credits: www.vkashmir.com & www.mukund.org

BY ANURADHA GUPTA ('86 MMS) WITH THANKS TO RAJ GILDA

MAKING A DIFFERENCE

Despite our considerable progress in commerce, technology and the liberal arts, key socio-economic challenges continue to plague our world. Poverty, lack of basic health care services and education are but a few of the day to day challenges that we rarely stop to think about, yet they form the very essence of so many people's lives. In this article, Anu and Raj discuss the issues and also highlight the noble work being undertaken by Lend-A-Hand India, an institute that aspires to empower students through vocational training leading to jobs, self-employment and broad based community enhancement.

PHILOSOPHERS (many of who are scientists too) muse over the purpose of life, we live from day to day often, enjoying our personal ambitions, chugging along, getting through life. Some of us ask the question, "What is my purpose?" and some of us want to know, "What can I give back to my community, to society..." If life were equal and socialist, it may have been dull but when it is so unequal that the GDP of 48 countries is less than the assets of 3 of the richest people in the world, it is no wonder that some of us are moved into thinking beyond our daily, mundane existence.



At least one child below the age of 5 has died in the world while you read this – of malnourishment – hunger, or diseases that could have been prevented by immunization.

One third of the world is near starvation, there are over 300 million malnourished children; can we just stop in our tracks and ask ourselves some soul-searching questions.

At primary school, in Gwalior when I was just 10 years old, there was a boy who wore slippers and tattered clothes and everybody laughed at him. He was married (!), he could barely speak English and therefore the door to higher education and eventually, employment, was slowly shutting. It made me cry. I thank my father for showing me poor people on the streets (and there are enough), talking of deprivation and my Mother for doing the rounds of hospitals with my scared housemaid who wanted to get a tubectomy done but was frightened of doctors and the lack of after care facilities that might have killed her and left her kids bereft of the sole earner in the family.

Many of us have seen our parents deprive themselves of something or the other for us to be where we are. When my mother asked me in an awed voice about whether the hotel I stayed in during my trip to Grand Canyon had bedding and towels, I was moved to tears. To ensure that we afford this quality of life, our parents have made so many sacrifices. But not all parents are as lucky, parents in slums and villages who are prepared to spend around 40 % of their income on educating their

children – education that does not assure employment despite their dreams, hopes and aspirations. Thousands join the pool of 'educated unemployed' and are left to their own devices. Often the disconnect between education and job skills required implies that the degree or diploma obtained proves useless in getting a job. These energetic and aspiring youth take longer and longer to achieve their expectations of leading a life of dignity and self-esteem. They are prone to becoming their own victims and are likely fall through the cracks of hopelessness and short cuts. This predicament and its outcome confront not only their immediate family members, but also the community, nations and the world as a whole. 44% people in India will sleep tonight having earned less than a dollar. Think about that.

When my mother asked me in an awed voice about whether the hotel I stayed in during my trip to Grand Canyon had bedding and towels, I was moved to tears.

My personal journey after studying involved observing suffering, feeling miserable and wondering whether I could do anything about it. At



Hindustan Lever, when they sent us for the IRD (integrated rural development) program, it was a real eye-opener for me. Our chairman then was Mr. S M Dutta, a very good man, a real visionary who believed that to sell soap (and end of the day that's what all of us are doing) we also have to think about how people will become capable of buying it. At Etah, I felt it is amazing to see how many blessings we have that we don't count and how much we take for granted, from water to electricity, to basic necessities, forget luxuries.

Corporate Strategy is an interesting subject, if we were to write one for ourselves, we might not feel like robots living from day to day and it could give us some direction. Drop everything else, ever pondered about your mission? As long as one felt in Levers that one was selling soap and detergents, it was not that great a feeling till we were apprised of our mission, "Meeting the everyday needs of people everywhere." It absolutely revolutionizes how you define your business or your life. A frustrated housewife could redefine herself as House proud, involved in nutrition, social security, and psychological comfort and make her feel more valued by herself to start with.

Even if we go by the Gita philosophy of us as evolving human beings, (over lifetimes if there is some such thing), a strategic vision helps. And if one were to put things in perspective and redefine our values and our mission, (rather than seek affirmation outside which often breeds discontent), respecting work ethics, believing in the dignity of labor and enhancing our lives through a social purpose are all options available to us.

My personal journey meant that the annual donation to CRY was not sufficient and today, I have left the corporate world to find meaning. It started with my sister's drawing room has a corner called the recycling corner – a different bin for plastics, one for cardboard, one for magazines and so on...which her son very proudly points out. She inspired my research and subsequent book on the environment to improve awareness amongst children in India and when I studied the subject, I was aghast at the implications – sustainable development sounds good in theory but to think that we could destroy future civilizations, jeopardize the lives of our children, it is scary. And to feel empowered by taking little steps, the journey of a thousand miles begins with a step – mine started with my book, "The Green Dragon".

Most donations that Indians make go to temples and as little as 10-15% goes to social projects. Can you imagine, at the cost of the poor, ill,

illiterate and hungry, funding RSS, Hindutva and pundits who scare people into submission with superstitions and feed themselves.

I think of my child and whether she will ever experience the pain of seeing the homeless or the poor in USA. And at the risk of sounding strange, part of my children's education will involve being sensitized to this. I see materialism



and I feel that if only one were to give up a few indulgences, one might be able to fund a child's education or immunization.

My journey has led me to **Sunanda Mane** and **Raj Gilda** and that was the turning point in my life. Sunanda was Regional Director with CARE in India and her simplicity and vision are moving. She set up Lend a Hand India (www.lend-a-hand-india.org) where I now work which deals with issues of empowering students

through vocational training that will lead to jobs, self-employment and community enhancement projects.

Working with them has been an eye opener. Sunanda for instance told me about a recent research on Indian philanthropy, the glaring findings of which are that most donations that Indians make go to temples and as little as 10-15% goes to social projects. Can you imagine, at the cost of the poor, ill, illiterate and hungry, funding RSS, Hindutva and pundits who scare people into submission with superstitions and feed themselves.

One wonders whether and when there will be a critical mass of people involved in these activities. But I believe there will. I believe if each one of us tries to make a difference to one program or even person, it snowballs.

I feel that for each of us, whether we are in the corporate sector, or academics, or anywhere, there are options to make a difference. I would welcome you viewing my NGO's mission and programs but everybody has a different agenda, something that moves them. Whether they are related to technology or gender issues or poverty or education or

employment or the environment or health or what have you. It could involve research, getting involved with an NGO that one is convinced about - and there are many doing a commendable job, and doing anything from volunteering time to skills to writing for them to donating, whatever. When I was involved in the team writing about how one could contribute to LAHI, we thought of number of different ideas – a fund raising team, people involved in creative, website design and development etc. (see http://www.lend-a-hand-india.org/Getting_Involved.htm). There are many overlaps amongst NGO's. This is bound to exist, just like it does in the private sector. And competition is always good for the consumer – providing choices and improving efficiency, keeping us on our toes.

One wonders whether and when there will be a critical mass of people involved in these activities. But I believe there will. I believe if each one of us tries to make a difference to one program or even person, it snowballs. One of our partner organizations in Pune was involved in implementing Project

Swadheen to provide vocational and life-skills training to rural students and a Doctor who was their beneficiary left everything and went back to his village to implement the Project. Four other alumni have joined him. There are enough examples of inspiring people from Manmohan Singh, moved by poverty into becoming an economist, MS Swaminathan (Green Revolution and now, 'Every village a knowledge center'), **Ela Bhatt** (SEWA) and so many of our BITSians who are engaged in social activities.

There are people who consider this a second career option, some a feel good factor, some feel that they are giving something back to their parents, their community, whatever the motive might be, a person somewhere could benefit, or an animal, somebody hungry, dying or destitute. Let's make the world a better place.

As a girl involved in one of our programs said, very simply and eloquently, "I feel like I am flying a kite and I want to touch the sky." ♦

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BY VIKAS CHANDRA ('94 INSTRU)

WHEN ACADEMICIANS BECOME ENTREPRENEURS: PROF VIJAY JOG ('69 CHEMICAL)

THE FOURTH IN A SERIES OF PROFILES

Vijay Jog is a Chancellor Professor at Carleton University in Ottawa, Canada, where he teaches Corporate Finance and Value Based Management at the Sprott School of Business since 1982. In 1989, Vijay founded Corporate Renaissance Group (CRG) – now a global firm that specializes in improving enterprise performance through innovative solutions and software applications. CRG is based in Ottawa with subsidiaries in US, South Africa, and India and alliance partners in the Caribbean, U.K. and the Middle East.

Vijay has provided consulting services to companies around the world aimed at achieving breakthrough performance. He is also a driving force behind CRG's many patented software applications that are used by over 2,000 companies globally. Vijay is a recipient of many national and international awards including the Moulton Gold Medal and has been recognized by National Post as a "Leader in Management Education" in Canada. He has received over \$1 million in research grants and has published over 100 research papers, books and monographs.



Name: Dr. Vijay Jog

Academic Position: Chancellor Professor, Carleton University, Ottawa, Canada.

Entrepreneurial Venture: Founded Corporate Renaissance Group (CRG).

Achievements: Numerous international awards including Moulton Gold medal. Recognized by National Post as a *leader in management education* in Canada.

Education: PhD (1983). MBA. (1977), M.Eng. (1975) from McGill University, Montreal, Canada and B.E. (Hons) in Chemical Engineering (1974) from BITS Pilani.

How do you remember your BITSian days?

I do not even know where to start. The five years I spent in BITS were most definitely the best five years of my life so far, each one of them full of good memories. I suppose one should not start from the experience of being ragged in Shankar Bhawan in the first month. I have no idea what happens now (I do not believe that it is even considered as a politically correct term) but it really was a worthwhile experience.

I made many friends that I would not have made otherwise during my first month in Pilani. Then of course are the memories of the Saturday evening movies in the auditorium, playing cricket almost every day and going to Connaught Circle after the cricket practice, occasional English movies at CEERI, drinking "Shikanji" in the summer from the carts, eating Ras malai in the only restaurant in the campus, "chai and Samasos" at the Post office, going to Nutan for "tittars" at Panditji's with "fulke's from the mess, trying to get (and finally succeeding) a non-veg mess going, playing TT at night and talking endlessly about issues from cricket to Ayn Rand to Vietnam. And yes, let us not forget occasional visits to the class rooms to make sure that others are attending classes and all is well with the world. We had a group of 30 or so

from all branches who have become friends for life. What a phenomenal experience. I owe my entire success to the five years I spent in Pilani.

Do you have any special nostalgic memory from Pilani days?

Two special memories: My first memory is that of playing "Kali Rani" on the road during the strike in 1974 where we actually thought that we can stop traffic in and out of the campus. The second memory is of my final night in Pilani where 30 of us visited every Bhavan and walked every road including two back to back walks around Meera Bhavan.

You have a chemical engineering degree from Pilani. Did that engineering degree help in your current profession?

My current profession revolves around creating innovative solutions to solve improve corporate performance using quantitative metrics and tools. We have designed our own software applications to assist us in doing that. So what I do on a day-to-day basis really has very little to do with Chemical engineering but what I learned in the engineering program has shaped how we approach the challenge and be pragmatic about our applications. I

do not think any other degree would have helped me as much to do what I do now.

What were the reasons you decided to choose corporate finance as a career?

I would like to say that the choice was made after careful planning and great deliberations about careers. I almost started my PhD. in engineering. I think what attracted me to finance was its proximity to engineering. Finance is all about numbers, lots of uncertainty about interpretation, dealing with complex inter-linkage between past actions and future performance, and a requirement to understand and build valuation models that require thought processes and analytical judgements similar to solving an engineering problem. The more I studied finance, the easier and more interesting it became.

What prompted you to foray into the commercial world?

If you talk to any one of my friends they will tell you that the last person they thought would go into academia would be me. I always knew that I need to be in the application world. I have never been very attracted to esoteric theories and models that do not meet real world challenges. Also, the computer technology came at the right time for me (we did our entire engineering program using slide rules) and it provided the possibility of putting the knowledge and business rules in a box. In addition, the more people I met, the more they asked me to work with them to meet their challenges. It sort of just happened.

Tell us more about Corporate Renaissance group (CRG). How did it all start?

CRG started really as a hobby and as an experiment. In the late 80s, Canada was in a recession and some of my good students were finding it hard to find jobs after graduation. My consulting practice was growing

and I saw that the businesses were not using the technology effectively. So I thought why not match my clients' needs with my students desire to excel and my knowledge about business and technology and see if it works. And to my surprise, we are now a global firm with global client base.

You are currently both a professor and an entrepreneur. Which role do you enjoy more?

Actually I enjoy both roles. Being a professor allows me to explore new ideas, new avenues, and new thoughts that probably have no immediate practical relevance but they provide me with an intellectual challenge. It also allows me to work with some young eager minds who want to think out of the box. I, also enjoy my entrepreneurial hat. This hat allows me to practice what I preach, fly around the world, meet interesting clients, work with world class people and be on a continuous learning journey. At this stage in my life, I would not trade one with the other.

What are your opinions about the M.Sc. Finance curriculum at BITS? Do you think it prepares students for the real world challenges?

I must confess that I do not know anything about the M.Sc. finance program at BITS. If it is structured in the context of applied M.Sc. that is focussed on real problems, I think it would be a very enriching experience for students. I am a bit of a skeptic of theoretical finance; I think we have solutions to explain the aggregate but not the 'particular' – the challenge is to know the first principles (for example efficient markets) and then to apply to the 'particular' by appreciating the context.

Have you been to Pilani after you graduated from BITS?

Actually I came to Pilani only once in 1974 just before I came to McGill. I had joined IIM A'bad but did not like the food (believe it – that was the primary reason for leaving) and decided to take up the offer from McGill. I still had some friends who

were doing their 11th semester, so I thought I would better drop in and see how they were doing. However, I am planning to visit Pilani this December and hope to find a place in the Alumni house and looking forward to finally showing Emi, my wife, the place I have been telling her about for so many years.

What's your mantra for succeeding in a management and finance career?

I think if one has an engineering degree, a career in management/finance after some experience is a very good career. One could almost (I am kidding) get away with minimal people skills. Kidding aside, for those who like to solve challenges where there is rarely a correct answer and want to see the impact of their decision on organizations and on strategy, this is an excellent career. Two words of caution for succeeding in this career: one must have excellent presentation skills and one must know how to deal with diverse opinions from equally smart (or smarter) people.

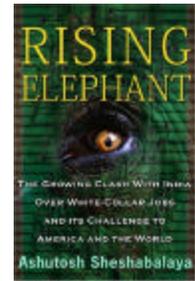
What advice would you give to BITSians who are at the crossroads and are choosing a career between engineering and management?

The only comment I would like to make to those who are currently studying at BITS is that this is an absolutely phenomenal time for creative and smart minds to make a difference in this world. The technology is exploding, world is becoming global, there are no boundaries and there are no limits of resources. No one today cares about where you are born, what you look like or where you come from. Around the world, organizations are looking for individuals with imagination, excellent work ethics, a desire to succeed, those who can sacrifice the short term for the long term. For the first time in the history of the world, the opportunities are truly global; all one has to do is to have the audacity to grab them before someone else. ♦

BY SANDEEP MUKHERJEE ('95 PHY MECH)

BOOKS BY BITSIANS: REBEL WITH A CAUSE

Ashutosh Sheshabalaya (Tosh) joined BITS in 1976, left in 1979, and is currently based in Belgium where he runs Allilon, an IT services company. He is a regular hard-hitting commentator on Indian issues at conferences in Europe and to the media. One of his recent responses to French anti-offshore measures - 'Last stand against the 21st century' – was published by Yale University's Center for Globalization. Other examples of his typically assertive pieces about India, on topics ranging from the IT boom to space and military, can be found on www.allilon.com. His batch mates remember Tosh vividly as a guy who tried to take a Yezdi up the stairs of Meera Bhavan in 1979.



TOSH recently authored 'Rising Elephant', a Book which links the current outsourcing phenomenon to India's inevitable emergence as an economic, geopolitical, perhaps even cultural challenger to the West. 'Rising Elephant' was written while on a trip around Europe on his BMW R1100. The 300-page book was released

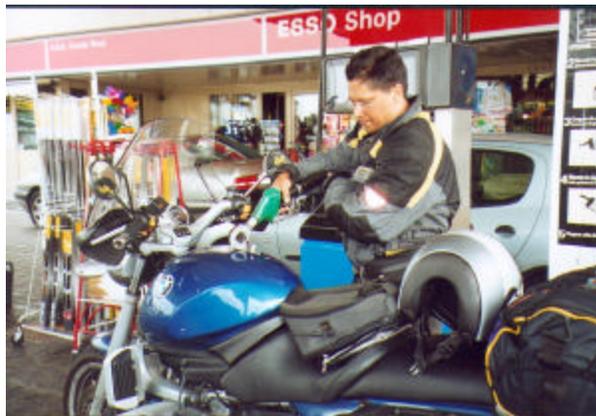
common complaint across the United States. In "Rising Elephant", BITSian author **Tosh Sheshabalaya ('76)** elaborates on the theme and makes the case that the drivers behind this trend are far more profound than is generally accepted.

economic and geopolitical equations. As a result, moves to cap the process will be short-lived, especially with higher-value technology jobs. This structural shift is being masked by new, low-wage jobs and under-employment in the West—at least for now.

Tosh contends that amidst the rhetoric about globalization and sweatshops lies the real

challenge to American white-collar jobs, and to America. This force, which is altering the world, will inevitably pose economic and even geopolitical challenges for the US. For

His batch mates remember Tosh as a guy who tried to take a Yezdi up the stairs of Meera Bhavan in 1979.



in September by American publisher Common Courage Press (which puts him in the company of writers like Noam Chomsky and Edward Said, though seemingly at the opposite end of the political spectrum).

Mark Gottfredson of Bain & Company "There has never been an economic discontinuity of this magnitude in the history of the world." As more and more US firms turn to India, outsourcing has begun to shake the foundations of the American upper middle-class.

In spite of some consolation from today's on-off hiring blips, a New York Times headline on September 7 poses a disturbing question, "Is Weak Job Growth Normal Now?" According to Lawrence Katz of Harvard University, the truth is harsher still: "The dirty little secret is that no one is really looking at the quality of new jobs created."

In an election year in the United States and a time of economic doubt, outsourcing has made headlines both in the US as well as in India although in fairly different contexts. "Indians are taking our jobs!" is today a

Rising Elephant demonstrates that the roots of job relocation date back to the 1980s and early 1990s, and have over the years become entangled within a complex set of new, fast-moving

Tosh has an inimitable hard-hitting style, and to read his book in the US or Europe may be a wake up call to the west.

Excellent excerpts from the book can be obtained on www.allilon.com Contact Tosh at tosh@allilon.com. ♦



EXCERPTED FROM THE BOOK: "RISING ELEPHANT"

OUTSOURCING

Charlie Cortese, Lehman's IT Chief, was quoted as saying that despite moving the 26 helpdesk jobs back to the US, by 2005 Lehman may double to 900 the number of people working on its software design and support projects at its Indian IT partners, Wipro and Tata Consultancy Services.

PHARMA

For international pharmaceutical companies, perhaps the most ominous long-term development is the growing (and potentially sophisticated) assault by Indian drug firms on Western markets. After the success of the AIDS drugs-for-Africa campaign, few doubt any longer that Indian firms have the political savvy for playing hardball.

QUALITY Equally important...is the massive effort paid by pure Indian IT firms to gain an astounding global lead in terms of software quality processes. More than anything else, there is an undeniable analogy here with the impact of the quality focus of the Japanese automotive industry in the 1980s.

SILICON VALLEY

In the year 2000, Indian IT firms associated with the Silicon Valley-based TiE (The Indus Entrepreneurs) forum created business with market value estimated at \$235 billion, in other words more than Switzerland's GDP.



MILITARY

Few 'experts' understand that though smaller in numbers, the Indian military is technologically more advanced than China's. One of the rare exceptions was Jim Rohwer, correspondent for British Weekly, the Economist. China itself has few illusions.



RUSSIA Alongside three Russian-built Krivak-class stealth frigates in service, all these vessels are being equipped with the PJ-10 Brahmos, the

world's first and so far, only supersonic air and sea-launched cruise missile. The hardware in Brahmos is Russian; reflecting Indian IT skills, its guidance system is Indian.

THE NEW INDIA

So this too is Indian – an Elephant finally on the move: sitting atop a hundred billion dollars in foreign reserves, debts begun to be prepaid, a lender to other developing countries, businesses reaching out worldwide, granaries 'overflowing' with food surpluses, its Navy guarding African seas, producing stealth warships, warplanes and supersonic cruise missiles, allied with both Iran and Israel, and now possessing its first overseas base.

JOBS FOR

the first time in history, a 'poor' country like India is acquiring some of the best-paying jobs from the 'rich' world.



USA

...like Britain in 1931, America's fundamental challenge is simple. The country has been living beyond its means, and has become heavily dependent on the outside world, to both build and pay for its success. ♦

BY SAGARIKA JAGANATHAN ('93 BIO)

BACK TO ROOTS – A SABBATICAL IN PILANI

Professor Aditya P. Mathur ('70 EE) teaches Computer Science at Purdue University, one of America's top schools. He has taught in the US for 18 years—but most recently this year, he returned from a much-cherished sabbatical at his alma mater, BITS Pilani.

“ALTHOUGH I’ve practically been visiting Pilani every year since 1990, this time I was there for a different reason,” says APM, as he is fondly referred to in BITS circles. “I’ve wanted to go back to BITS for a long time. I love the place,” he adds. “The BITS campus is, to me, the most beautiful campus I’ve seen anywhere.”

APM has strong educational ties to Pilani. In a seven-year stint from 1970 to 1977, he completed his bachelors, masters, and doctoral degrees—all in Electrical Engineering! And not only that, he taught at BITS for 14 years, starting in 1972 and continuing till he eventually left in 1985. APM’s position at the helm of India’s first Computer Science department is just one of his many distinctions during the teaching tenure at BITS. With the help of some friends among the faculty, APM established the graduate and subsequently undergraduate CS programs at BITS.

“I wanted to make use of my



sabbatical opportunity to also

meet the hundreds of people I’ve come to know at BITS and in Pilani,” says APM. With his family staying back in the US, APM had the excellent VFAST guest house facility all to himself, enjoying overwhelming hospitality and courtesy from students and staff.

“Everyone I’d met made me feel welcome and important throughout my stay at Pilani,” says APM. “The facilities that were provided—both academic and non-academic—were excellent.”

I’m amazed at how some things in Pilani have withstood the test of time,” says APM. “The lovely Saraswati temple I visited twice each day during my student days at BITS; peacocks all over the campus; well dressed little children going to school early in the morning—what a wonderful sight; the tea and samosas in the cafeteria (IC); the sight of some classes overflowing and some

remaining mostly empty—all due to the popularity or unpopularity of the respective professors; and the rickshaw-wallahs, the redi-wallahs, the dhobis, and many other people who have managed to retain their simplicity and affection over the years.”

“I must admit a few things have changed,” he says.

According to APM, the positive



changes include enhanced computing facilities; new buildings (e.g., the library, more hostels); good social atmosphere among the faculty and staff—most seemed upbeat about the progress BITS has made under the leadership of Dr. Venkateswaran, and about the future; salaries are at par with the IITs; the greenery on campus—“It’s like a flower garden; bougainvillea plants are all over the place and in full bloom! Lots of vegetable and fruits available for purchase, unlike in the 60’s and 70’s”—and the supermarket on campus for students, staff, and faculty.

A few negative aspects to the modern day Pilani campus also caught APM’s eye. “The campus is dirtier than it used to be in my days,” he says. “This is especially pronounced when you go towards Connaught. Vehicular traffic has increased on campus to the extent that I never felt comfortable taking my usual evening walks; too much noise pollution from religious

organizations right outside the campus—the loudspeakers come on as early as 4am; and the number of bicycles on campus has increased dramatically,” he adds. “Not that I’m against it but parking is most haphazard.”

APM did get a chance to make one trip to the US and back, in the middle of his sabbatical. The quick transitions caused him to mull over the stark differences in both environments. “During a brief stopover in Amsterdam, I noticed the huge number of neatly parked bicycles in many places around the city...all in a neat fashion. But not in Pilani! I tried my bit but did not succeed,” he admits, ruefully. “I asked myself, why can’t we be as clean and disciplined in Pilani and in India?” But his heart is still with the small town in his native country.

BITS management went out of its way to ensure he had an incredible experience. He had a light course load, teaching classes only on Tuesday and Wednesday. BITS also provided him with financial support so that he could make the most of his time in India by touring the places he’d always wanted to visit. A car was at his disposal whenever he wanted to go to Delhi. “I traveled a lot in India” he says. “My colleagues in CS even offered to cover any classes I may miss during my travels.”

APM taught one seminar for PhD students and one regular course during this time. He also initiated and organized a conference in Pilani for various companies and Indian universities to convene and share ideas. The Ranjit Singh Chauhan Award for Undergraduate Research, which

APM instituted, will be given to one or two undergraduate students at BITS, whose research is judged as superlative by a committee of BITS faculty and chaired by the dean, R&C. The award amount will vary depending on the interest earned from the endowment.

During his stay, APM had an opportunity to gauge the depth of knowledge among the PhD level students in Electrical and Electronics engineering as well as in CS. He attended talks by six PhD students—“Some of them were pretty outstanding,” he says. APM was also invited to talk to 75+ students and



faculty members at the IITs in Delhi and Kanpur.

APM admits the sabbatical validated his opinion that undergraduate education at BITS is simply outstanding. “The quality of students and the popularity of the BITS name and image, in India and abroad, are at par with that of the IITs,” he observes. “I immensely enjoyed working with the students. In fact, I had such a great time at BITS that in the thick of the sabbatical, I did not feel like returning to the US!”

Although he did not get to do much research except with students in the US. (Via email

and the one vis it in the middle of his sabbatical), APM initiated two research projects which have now resulted in two M.S. theses. He did continue to advise BITS students—via email and phone conversations—after returning to the US.

According to APM, a sabbatical at BITS is a wonderful opportunity for all ex-BITSians—who are teaching in the U.S as well as across the world—to relive their BITSian experiences. “You’re taken care of as if you’re family,” he says. “BITS paid a lump sum for my travel to India as well as for my work there. Besides covering my accommodation and food for all

six months, the administration, upon request, provided me with a brand new Mercedes—Yes, a bicycle of my choice! This served me very well during my stay,” APM adds.

APM counts himself lucky to be able return to BITS at a time of incredible change. “I had the opportunity to experience some profound changes in India and at BITS, firsthand,” he says. “The facilities at BITS are excellent, the staff is congenial, and the students are brilliant and very enthusiastic—what more could a professor aspire for?” APM concludes.

If you're considering a sabbatical at BITS Pilani, or know of professors who may be interested in spending a semester in India, please feel free to contact APM directly for feedback: apm@cs.purdue.edu





Photo Credit: MIT Sloan

INTERVIEW BY MANI SUNDARAM ('93 INFO SYSTEMS)

THE QUARTERLY BITSIAN: PROF S P KOTHARI ('74)

He is one of the world's leading academicians in the field of Accounting and Finance and for the past two decades his research has consistently been featured at prominent academic forums. His research areas include the Valuation of Financial Information (and Misinformation), the Role of Behavioral Psychology on Stock Prices and how Corporations Manage Risk. SP, as he is popularly known, currently holds the Gordon Y Billard Professorship at the Sloan School of Management at the Massachusetts Institute of Technology (MIT) and is also the Head of the Department of Economics, Finance, and Accounting at the Sloan School. SP Kothari also serves on the Board of Trustees of BITSAA International.

Please share with us something about the time you spent at BITS Pilani

Being from small town in Karnataka, I had experienced little competition or cultural diversity prior to BITS. The BITS environment was my first exposure to a large group of extremely talented individuals who knew how to work hard and play hard.

I have the fondest memories of my time at BITS. BITS gave me two great gifts. The greatest gift was confidence. For the first time in life, I thought I could attempt to accomplish something and actually stood a chance of succeeding. And secondly, it gave me wonderful, lifelong friendships.



We'd love to hear about your activities, particularly any special, memorable moments.

In many ways I (and to a large extent the entire group that I hung out with) was academically motivated. That being said, we were certainly consumers of all the activities that went on at BITS – movies, plays, cultural nights, Oasis, elections, and sports. Being a native Marathi speaker, I was also active in the Maharashtra Mandal.

A lot of current students as well as alumni grapple with the idea of making a transition from the US to India. Could you please tell us a little about your experience with the transition you made from India to the US?

My move from India to the US came about three years after I left BITS. I worked for a year at DCM as a Management Trainee, spent two years at the Indian Institute of Management, Ahmedabad (IIMA), for an MBA and then came to the University of Iowa for a PhD in accounting.





Settling in at the University of Iowa turned out to be remarkably easy and truly enjoyable! I found student life in a campus town like Iowa City quite similar to that in India. Iowa City being a small town, financially it was quite comfortable to live on a fellowship income. More importantly, my classmates and other students – Americans, other nationalities, and, of course, Indians – were all extremely helpful, which made life very easy. I was also impressed by the keen interest and concern the faculty showed in PhD students. I really benefited from the experience.

What made you choose teaching as a career after your PhD? And more specifically, why Accounting?

Once I joined the PhD program, which is almost all about research, simply put, I got hooked to it! I found it truly challenging and extremely satisfying to work on research. The thought of getting paid to read, write, and think with few constraints on what you work on and when you work was too good to pass up. I became more or less a workaholic because how much I enjoyed thinking of interesting research problems,

Accounting or in Finance.

Why Accounting? In retrospect it seems a trifle accidental. There used to be limited distinction between Accounting and Finance in India and I thoroughly enjoyed my exposure to Accounting while I was at IIMA, so I decided to apply to Accounting programs.

Accounting is not a subject completely understood by the average person, but certainly a subject that's been in the news lately due to Enron and the other similar scandals. How does Accounting play a role in our lives?

Accounting plays a huge role in an economy, but mostly indirectly in our lives. Accounting is all about information that is used in making all sorts of decisions – investment decisions, buying and selling of stocks, pricing of bonds, hiring, firing, and compensating management, and so on.

Lately, the role of accounting in international context has become of great import to politicians, macroeconomists, and of course to accountants. This is all about what kind of accounting information should be disseminated on an ongoing basis so that people nationally and internationally would feel comfortable investing in a company's stock. This issue is

be it in

extremely important because every developing country is seeking foreign direct investment into its own country.

MIT is at the forefront of global technical and business education. What sets MIT apart? What makes the institute so successful?

MIT is a very, very special place. It has a long tradition of rewarding excellence and only excellence. Naturally, it attracts the very best minds from all over the world.

MIT is also a very special place because of its mission to make the world a better place. My own interactions with many faculty and students time and again leave me impressed with the selfless desire of so many to help the world through technology, management, sciences, architecture, and the arts. There is a fire in the belly of so many on this campus that it seems only natural that it does so well.

How does BITS start down the path of becoming an MIT? What role do you see the alumni playing?

A school's reputation is built on that of its faculty, which attracts the brightest students, who in turn do well, and it becomes the self-fulfilling process. BITS has built an excellent



brand name for itself over the years. The more it works on building a more research oriented faculty, the more it will benefit. Young faculty are attracted to a place that helps them build their human capital. For a faculty, research reputation is human capital. If you want to attract the best

faculty, offer them an opportunity to do research and REWARD their research. Building a meritocracy is crucial.

You were involved in OpenCourseWare, the project by MIT to put all coursework on the web. Please share with us how you are involved and how you have seen your department benefit from the initiative?

In the heyday of the Internet bubble, MIT put together a group of faculty and staff to look into whether MIT should offer distance learning programs. We looked at the issue and thought that perhaps MIT could make some money by offering distance learning. However, this did not appeal to the imagination of anyone on or outside the committee. We were primarily interested in finding out whether technology can help people all over the world get a better education. This led us down the path of recommending that MIT should make its educational content available to everyone free of charge. What a revolutionary idea. It was welcomed by everyone, especially philanthropic organizations. Soon OpenCourseware became a reality and now almost half of MIT's courses are accessible on the net by anyone in the world.

Most of the benefit of OpenCourseware for MIT and for my department is through brand recognition. Once again MIT has established itself as a leader in furthering the mission of making the world a better place. What better advertising would one wish for?

Who is Gordon Y Billard?

Gordon Y Billard is extremely generous MIT Sloan alum. He

has donated so much money that there are at least three Sloan faculty who hold the Billard Chair.



Name: Dr. S P Kothari

Position: Gordon Y Billard Professor at the MIT Sloan School of Management, the Head of the Department of Economics, Finance, and Accounting at MIT Sloan.

Education: PhD University of Iowa ('86), MBA IIM Ahmedabad ('82) and B E Chemical BITS Pilani ('79).

Other Interests: Traveling, fine dining, and occasional gourmet cooking.

What are the biggest hurdles facing US academics today particularly in your field? How can they be fixed?

We routinely compete for good talent, but face stiff competition from industry jobs that are quite lucrative. So, the biggest challenge is to figure out a way to make academic jobs sufficiently financially attractive for the successful academics so that we would be able to attract many excellent students applying for the PhD programs.

Have you ever worked with an engineering student from Pilani or even India? What are your impressions of them versus American-educated students?

Holding the raw intelligence constant, American-educated students tend to have a broad-based education and tend to have a better perspective. When we were there, BITS was a wild place. My BITS life is full of such memories and in terms of bonding

with friends, it was a phenomenal experience.

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

The scarcity of resources is certainly an issue.

And the admissions process seems to have broken down in the past couple of years with disproportionate students from a few states being represented in the student body. Regardless of the facts, the perception that the process is unfair has the potential to seriously harm the BITS brand.

SP TRIVIUM



Why is it called a baseball World Series if there is no international participant (except a Canadian team)?

The name 'World Series' has its origins in the first sponsor – New York World, a publication.

Should BITS teach accounting alongside Finance as part of the MMS program at BITS?

Absolutely! I cannot imagine an MMS program without accounting.

BITS has a serious branding problem when it comes to its MMS degree. I don't believe many see it as a serious alternative to the IIMs or even to schools like the newly-started ISB or other places like the Symbiosis Institute in Pune.

What advice would you give BITSians based on your experiences?

You must enjoy what you do. Unless your heart is in it, an activity that takes majority of your time in a day cannot be fruitful.



There is no substitute for hard work. You compete with other very talented, hardworking individuals. Your odds of beating the competition without working hard are practically zero.

Surround yourself with smart individuals. There's so much to learn from others. However, smart individuals will be willing to spend time with you only if you contribute meaningfully to them in return. Think about what and how you can add to their human capital.

Did I mention hard work?

What are your best memories of your time in Academia?

My best memories are all about the colleagues – fellow faculty and PhD students – I have met over the past two decades. I have been fortunate to be around some of the very best minds in Accounting and Finance. It has been a privilege to have had about 25 phenomenal doctoral students. Both these groups of individuals have made academic life enjoyable and memorable.

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

BITSians do very well. So, anything more would only add further shine. I would suggest that they take some risks and introspect. What do you really enjoy and what's your aptitude? It's hard for me to imagine that every BITSian is only interested in an engineering job. Widening the horizons, attempting more creativity with some attendant risks might result in a greater blossoming of BITSians.

How was your Pilani visit personally and professionally?

I have difficulty finding words that can adequately express my joy, a sense of gratitude, and satisfaction from visiting Pilani after 25 years for the reunion. I was overcome with emotion by the hospitality and warmth of everyone there, the faculty, students, and staff. Seeing old friends and reminiscing about the old times and the juvenile activities, that was priceless.

Tell us about your family?

My wife, Dafni, and I have two daughters – Kavita (19) and Monica (12). Kavita is a sophomore at MIT and Monica is a huge fan of Boston Red Sox. She started following the Red Sox for the first time this year, and they won the World Series! (See photo) ♦

The Quarterly BITSian

This segment honors those BITSians gives an honor who have achievements in fields as diverse as social causes, politics, business, research, entertainment and academics. Past profiles include:

Vinod Agarwal (2003), Chairman & Founder of LogicVision, most successful tech IPO (2001) in the USA

Dilip D'Souza (2003), Author of two books, winner of the Wiscomp fellowship, prolific writer and champion of social causes in India

Aditi Pany (2003), First woman President of BITS Pilani Student Union and founding President of the Center for Entrepreneurial Leadership

Kanna Rajan (2004), NASA's team leader for software for the Mars Rover project that reached Mars in 2004

Prof. GP Avasthi (2004), Legendary Economics Professor at BITS Pilani

If you know of someone who deserves to be nominated, please send a short note to anupendra@bitsaa.org letting us know why this person should be nominated.

BYANUPENDRA SHARMA ('87 E CO INSTRU) & ASHISH GARG ('97 INSTRU)

THE QUARTERLY BITSIAN: PRITHVIRAJ CHAVAN, MINISTER OF STATE (PMO), GOVERNMENT OF INDIA

He has a EEE degree from BITS and a Master's from U C Berkeley and is one of the youngest members of Prime Minister Manmohan Singh's office. Mr. Chavan has been an active participant in BITS Alumni Association's Delhi Chapter activities and is an active proponent of technology based economic growth in India.

PRITHVIRAJ Chavan is one the youngest and most important ministers in the current Manmohan Singh government at the Centre. At 8pm on Monday he has just returned after installing the Congress government in Maharashtra, on Tuesday he's on a flight to Abu Dhabi along with the President of India to pay homage to the erstwhile UAE President, Sheikh Zayed bin Sultan al Nahyan, he sure is a busy man.



He was tipped to be the next Chief Minister of the richest state in India but left the decision to his party chief, Sonia Gandhi. Instead he was chosen to help run the United Progressive Alliance government at the centre.

As a Minister of State in the Prime Minister's Office, Mr. Chavan's task is to ensure smooth functioning of the UPA coalition government by ensuring that the entire cabinet

is focused on the common minimum program and all the ministers speak a common language in front of the media. Apart from that is also part of the standing committee on finance.

Mr. Chavan graduated from BITS with an EEE in 1967 and headed to UC Berkeley for an MS degree. At that time Berkeley was the hotbed of student politics in the US. For Prithviraj Chavan politics was what he grew up in Karad, Maharashtra.

Mr. Chavan's father Dajisaheb Chavan became an MP after winning the election from Karad, as a Peasants and Workers Party candidate in 1962. His next three terms as MP were as a Congress nominee. Succeeding him in 1977 until 1991 was Mr. Chavan's mother, Premilatai Chavan.

It was in early 90's when Prithviraj Chavan bumped into Rajiv Gandhi. "We have many technocrats in the country", said Rajiv Gandhi, "but we don't have many who can get elected and join politics. You have that potential!" That is when Mr. Chavan decided to join politics and was elected to the India parliament in 1996. He was re-elected as an MP in

1998. Mr. Chavan is currently a member of the Rajya Sabha. During his decade-long career as a parliamentarian he has also served as the Congress parliamentary party's deputy whip, party general secretary and party spokesperson.

In 1999 when Sharad Pawar left Congress to form his own party due to differences with Sonia Gandhi, Mr. Chavan chose to stay with Congress. His loyalty and closeness to the Gandhi family paid off this year when he was appointed the Minister of State in the PMO making him one of the youngest ministers in the Indian government.

He's a big proponent of investments in technology for the advancement of the country. He has voiced strongly his views on de-licensing of the 2.4 GHz band for Bluetooth technology and formulation of guidelines on Foreign Direct Investment (FDI) in primary education.

He is different from the perception of the average politician by way of his humility and soft-spoken nature. Mr Chavan is known for his soft smile and a firm handshake that make him an instant hit with the electorate. ♦



BY LAXMAN MOHANTY ('81 EEE)

COUPLING MICROINDUSTRY WITH RURAL SCHOOLS: AN INTERESTING POSSIBILITY

Rural India suffers from a problem of having poor or irrelevant education for our children. The author has worked and researched the possibility of combining micro-industry with rural schools to create vibrant, sustainable schools that do not need the help of the Government in the long term but could transform the nation

SEVENTY percent of India lives in rural areas. For India to join the legion of developed countries, we need to focus on development that caters to these seven hundred million people. Thankfully, this fact is not going unrecognized at least in some sectors. Many concerned groups and individuals are pushing for better infrastructure for rural India. President, Dr Abdul Kalam is pushing the concept of PURA (providing urban facilities in rural areas) for this purpose. Rajesh Jain of Indiaworld fame, Atanu Dey and Vinod Khosla, the greatest venture capitalist on the planet are propagating the concept of RISC (Rural Infrastructure & Services Common).

The rest of the world is today taking India seriously because of its enviable growth in the knowledge economy, especially in IT, Software and Pharmaceuticals. IITs are recognized around the world for their ability to instill a world class education in one of the world's poorest nations. Rural India needs to join this knowledge economy. One of the primary enablers for them to do this is education.

However, a closer look at rural education today shows that it suffers on several counts. First, 90 percent of schools across the country are run by central, state and local governments. In rural

areas, there is no adequate infrastructure. If the infrastructure exists the teachers are missing. If both exist, the teachers are untrained, and the quality of teaching suffers. Curriculums are unsuited for training students for adulthood and this leads to high percentage of drop outs. There is no ownership from the community and hence no accountability from the people who are involved in delivering rural education. The facts speak for themselves. In four of the most populous and under-developed states of the country (Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh) 31% of primary schools don't have a pucca building, 20% are single-teacher schools, 56% don't offer potable water and 70% percent are without toilet facilities. Little wonder that of the 146 million children who enroll in primary schools nation-wide annually, 59 million drop out before they reach class VIII.

To sum it up, the school system in rural India is today in a pathetic situation.

Compare this to urban India. Apart from government schools there are now a large number of private schools. Though many of these promoters can be accused of profit motives still it can't be denied that many of the private schools provide a superior infrastructure, better trained teachers and well defined

system of conducting classes and examination etc.

Why don't we have such private initiatives in rural education? This is easy to answer. Rural schools are not economically attractive for the private sector. An urban school with a student population of two to three thousand in a second grade city in India can generate a surplus of Rs 50 lakhs to Rs 1 crore, while a rural school can't even manage its revenue expenses from the fee it can collect from students. This deters private



initiative in rural education. The responsibility falls on notoriously unreliable state governments, who are required to offer free education to its citizens at the primary level. But with millions of students with no schools, the government has not been able to fulfill its promises.

So can there be a private initiative to offer quality education to rural students at a fee that students can afford? One of the ways is to couple

micro industries with rural schools.



Gandhiji was involved in education on Tolstoy Farm (photo above) in South Africa. Students learnt subjects like mathematics, geography, and literature while working on farms producing crops and vegetables. Dayalbagh College in Agra also has similar arrangement. PSG Charitable Trust in Coimbatore runs an industry along with its engineering college and other institutions. This industry (PSG Industrial Institute- PSGII) produces motors, pumps, fans and many other tools. There is a symbiotic relationship between PSGTech and PSGII. The profits from PSGII go into building infrastructure for PSGTech and other institutions while students of PSGTech work as apprentices in PSGII and gain valuable work experience. The faculty of PSGTech acts as resources for PSGII and help in designing and developing new products.

There are more examples. Similar experiments have been carried out in some schools in

China. One school runs a popular restaurant where students have been working for

last few years. In India, similar experiment has been carried out in rural Karnataka, where one school prepares fresh flower garlands, and in Gujarat, where one school was set up so as to generate revenues from the farm and dairy it maintained through the efforts of its students. These are a few examples, but it offers significant potential.

Can inspirations be drawn from these examples for coupling

micro industries with rural schools? Yes.

The term “micro industries” needs to be defined first. Any income generation activity that suits the local context can be termed as micro industry. For example, a school can carry out mushroom farming and that can be treated as a micro industry. A news article in India Today informed that mushroom farming by village women in Assam has changed the economic status of many rural families in Assam. A big tailoring firm attached with a school that can produce shirts, pants and other clothes which can be sold in nearby rural areas can also be termed as a micro industry. In fact a school in a nice scenic setting can start eco-tourism facilities and generate resources.

The coupling of micro industries with schools can create many benefits. It can generate surpluses that can partially or completely fulfill the resource requirement of the school. It provides technical training to students and promotes the concepts of leadership,



teamwork and entrepreneurship.

It has also resulted in lowered drop-out rates. Students drop out from schools since they don't see any value from the education imparted. In Bhubhaneswar, poor parents are not willing to send their children to schools because each child can earn an extra income of rupees 100 a day if they work at the butchering shop instead.

A micro school could significantly change behavior. It could set up a unit to teach students to process the meat, and teach concepts that would allow them to export to other parts of the country or even overseas. Then surely parents would like to send their children to that school. The training in the attached micro industry may also encourage students to set up enterprises if they are not very academically inclined, or to continue to work there after graduation.

A state like Orissa with widespread poverty, illiteracy and unemployment needs more micro industries than big industries. Big industry employs high technology and few, highly skilled people. Experience has shown that not much downstream industry comes up in the immediate vicinity of these larger industries. On the other hand, small industries suited to available local

resources and local requirements can be viable, involve large numbers of people and initiate large scale economic activities.



A visit to villages in interior of Orissa revealed that people there had no clue regarding what kind of micro industries could be set up and they had no information from where the technology could be brought. Schools can help in this direction by being role models, extending the knowledge about possibilities and becoming sources for creating entrepreneurship in villages.

By putting these rural schools into a larger network, schools can have access to larger human resources and technology. The network can float a few rural technical schools that can impart necessary technological training

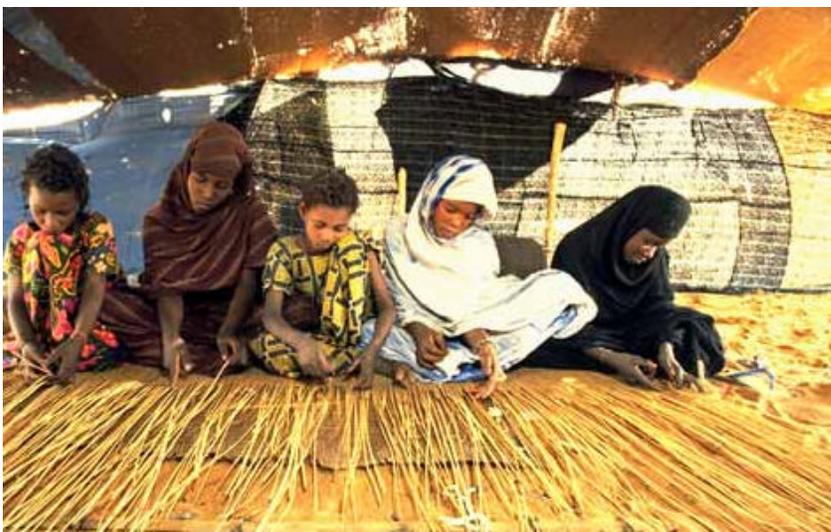
to people wishing to pursue

entrepreneurship. In fact the network can float a marketing arm and a common brand name that can help micro industries attached with schools to sell their produce easily and at a better price. The network can even collaborate with micro financing companies to provide much needed financial resources to entrepreneurs.

All this costs money. Government as well as private sponsorship could be better spent by providing the seed funds for sustainable schools in rural India, creating an employment and skill set revolution. If more minds give serious thoughts about this concept more creative solutions can be brainstormed. Only then can rural education be made more meaningful and vibrant, and the economic status of villages can be improved to a great extent.

Then truly a developed India can emerge!

To learn more, please email me: laxman_mohanty@yahoo.co.in
Photo credits: UN.org ♦



BY SANDHYA KRISHNAN ('99 INFO SYSTEMS)

BITS OF PILANI AT ISRO

CONVERSATIONS WITH DR AKS GOPALAN ('62), DIRECTOR ISRO & SPACE APPLICATIONS CENTER, AHMEDABAD



Name – Dr AKS Gopalan ('64)

Awards – Bhaskara Award for Lifetime achievement in Remote Sensing. (2002), Indian Society For Remote Sensing.

Education – BSc, Physics, Madras University (1959), MSc, Physics, Annamalai University (1962), M.Tech, Electronics, BITS (1964), PhD Oceanography, Andhra University (2001)

Resident – Hyderabad, India

Positions Held – Director - Advanced Data Processing Research Institute, Dept. of Space Secunderabad, Director - Space Application Centre, ISRO Ahmedabad, Program Director - National Resources Information System, President - Indian National Cartographic Association, President - Indian Geomatic Society, Chairman - Indian Meteorological society, Ahmedabad Chapter, Chairman - Indian society of Remote Sensing, Ahmedabad Chapter, Visiting Professor for Anna University, Gujarat University and ISRO

After four years of teaching at BITS, the young Gopalan had two choices, to leave to the US or to join ISRO. Luckily for us, he chose the latter and never

regretted it. We talked to Dr AKS Gopalan, winner of the Bhaskara award and '64 batch alumnus.

Originally from Tirunelveli, Dr AKS Gopalan joined the Birla College of Science for an M. Tech in Electronics. By the time he passed out in 1966, the Birla College of Science had become BITS Pilani. He then went on to teach in the EEE Department for four years.

It was in 1970 that Dr AKS Gopalan joined the Space Applications Centre, ISRO, in Ahmedabad as a System Engineer. His first project there was called Satellite Instructional Television Experiment or SITE. At an age when TV was not so common, this project dealt with receiving television signals at remote villages in India, via a Powerful Satellite loaned by NASA for a joint project between NASA and ISRO. He then moved to the Remote sensing group to work on Image Data Processing of Remote Sensing cameras. These cameras were also designed and fabricated there. Since most of the projects were aimed at the rural masses, there was a lot of interaction with the user community and their feedback was used to improve upon existing systems and to develop new ones. Application packages were developed and they were also demonstrated to the users.

According to Dr AKS Gopalan, this was a significant part of his time at ISRO. This interesting and engaging work kept him in Ahmedabad till 1989.

From there, his work took him to Hyderabad where he initiated Advanced Satellite Image Processing and Pattern Recognition / Expert systems. He worked at the Advanced Data Processing Research Institute till 1995 as the Director. He was then called back to Ahmedabad and was made the Director of the Space Application Center in 1998. Even if not directly involved with the building of the various launch vehicles, Dr AKS Gopalan considers it a big honor just being associated with them. After a service of thirty two long years, he retired in October 2002 and has since been Visiting Professor at ISRO.



On India's space ambitions, Dr AKS Gopalan says that with an average annual budget of about Rs 3,000 crores (\$600 million), India has a vibrant space program for civilian applications. India's Remote Sensing systems are globally acclaimed and we have even been selling/leasing

satellite communications and remote sensing facilities to a number of countries, including US and Germany, for a while now on a commercial basis. Newer and better satellites are being built here every year. However, the task ahead is to improve on the space communication system and make it as sophisticated as that of the best in the world.



Does India have a plan for commercial space travel? Not in the near future, says Dr AKS Gopalan. ISRO is more occupied with meeting the needs of Indian users of space based communication systems and systems for Earth Resources, apart from ensuring continued support to the global users of our satellites. However, ISRO is currently working for an ambitious project - a mission to the moon. Called Chandrayan, it aims at mapping the moon's surface through a stereo camera. Apart from this other scientific investigations using special payloads are also in the offing.

We also have a very strong and innovative program for a powerful and cost effective Launch Vehicle for placing advanced satellites in Geosynchronous and polar orbits. We can even envision a

manned space ship in a few years, if the need arises.

According to Dr AKS Gopalan, the lack of commercial ventures on a large scale is not because of a lack of entrepreneurs. There are a lot of them setting up facilities to interpret data and provide Decision Support Systems for Remote Sensing applications. In the communications field, there are quite a number of them working on VSAT Telecom and radio/TV relay systems. The only reason could be the cost and the fact that for a huge nation like ours, it is important for any big project to be socially relevant, which are by and large handled by Central and state government agencies

As for inspiration and role models, Dr AKS Gopalan looks up to **Prof Satish Dhawan, Prof U R Rao** and **Dr Kasthurirangan**, who were ex-Chairmen of ISRO and **Dr Madhavan Nair**, architect of many launch vehicles. He adds that when he joined, it was the excellent opportunities and responsibilities given that kept the engineers active. That was an era of development of new technology. Each employee had a lot of talent to show. Currently, making space infrastructure and its applications operational demands a lot of effort. Bureaucratic problems and frequent changes in the core teams at central and state government agencies, who have to implement activities based on information available from satellite systems affects the speedy implementation of developmental activities. But things are getting better - the infrastructure at ISRO is being improved upon and India is slowly but certainly becoming one of the top countries for space research and its applications.

The Bhaskara Award

The Indian Society of Remote Sensing was established in 1969 with the objective to advance and disseminate remote sensing technology and education. It is the premier professional body of about 1,800 members. This body awards the prestigious BHASKARA award, first instituted in 1999, the highest award of the Society to one outstanding individual for his contributions to the field of remote sensing in India.

The Bhaskara Award consists of a Citation, Rs. 50,000 and a Gold Plated Silver Medal (introduced in 2003). Bhaskara was a famous Hindu mathematician and astronomer and the head of the astronomical observatory at Ujjain, the leading mathematical centre in India at that time.

Past winners include:

Dr. Subba Rao Pavuluri (1999)

Dr. Baldev Sahai (2000)

Dr. LR Narayan (2001)

Engineers at ISRO from BITS or the IITs are few. It could be due to the not-so-attractive pay packages. But the perks are good comparing to other government agencies and the thrill of working for such a prestigious body is bound to leave you on a permanent high.

After a slump in recruitment due to the IT boom, things are now picking up. The various challenges, the excitement and the satisfaction gained from working for the development of

one's own country is certainly unmatched. And Dr AKS Gopalan is very glad to be a part of it all.

The BITS experience did help him a lot, he says, especially his teaching. In those days, teaching was taken very seriously and the new lecturers and established professors would attend each others' classes. That way the teaching fraternity became closely knit and the understanding of the subject was also very high.

College life wasn't very eventful, reminisces Dr AKS Gopalan. They were a bunch of serious, studious boys. Only about 10-15 of them were MTech students. Perhaps it was also because they had already finished their graduation elsewhere. But he fondly remembers one N. Natesan who was quite a terror to all the students back then. The same

person was really friendly though, once Dr AKS Gopalan became his colleague. During his stay at Pilani as a lecturer he shared the office room with a person he affectionately calls Lakshmikanth, better known to all of us as Dr L. K. Maheshwari.

Dr AKS Gopalan is married to **Mythili**, a Computer science teacher who also writes books for the ICSE curriculum. Their daughter works at the Environmental institute in Florida and their son is doing his dual degree in Agriculture and Water Resource Management at IIT Kharagpur. In his free time, Dr AKS Gopalan likes to read books and watch the television.

As a Visiting Professor at ISRO, he is currently working on an e-book titled 'Remote Sensing of Oceans', with special emphasis on global warming, climate change, coastal zone management & sustainable management of

fisheries. It is also the subject of his doctorate at the Andhra University.

He visited Pilani in 1992 during APOGEE for a lecture on Space Technology and its applications and also in 1998 for an IEEE seminar held at CEERI, where he gave the Keynote Address. He is looking forward to visit BITS again, this time along with his wife.

Contact Details: He can be contacted at 040 – 27781215 (O) or 040 – 27861660 (R). Email him at gopalanaks@rediffmail.com or gopalanaks@yahoo.co.in.

Dr AKS Gopalan was nominated by Mr VL Swaminathan, who was also a scientist at ISRO. Both of them were neighbours at Ahmedabad, colleagues at ISRO and room neighbours in Ashok Bhawan. Mr VL Swaminathan graduated from BITS Pilani with an M Tech and now lives in Bangalore.



CHANDRAYAN: INDIA'S RACE TO THE MOON

India has announced that it plans to explore the Moon and will send an unmanned probe there before 2008. The Indian Space Research Organisation (ISRO) calls the Moon flight project **Chandrayan Pratham** - First Journey to the Moon or Moonshot One. The 1,157-lb. Chandrayan-1 would be launched on one of India's own Polar Satellite Launch Vehicle (PSLV) space rockets. At first, the spacecraft would circle Earth in a geosynchronous transfer orbit (GTO). From there, it would fly on out into a polar orbit of the Moon some 60 miles above the surface. The Chandrayan-1 mission would carry X-ray and gamma-ray spectrometers and would send back data that scientists on Earth would use to produce a high-resolution digital map of the lunar surface. The project's main objectives are high-resolution photography of the lunar surface using remote-sensing instruments sensitive to visible light, near-infrared light, and low-energy and high-energy X-rays. Space aboard the satellite also will be available for instruments from scientists in other countries.

Prime Minister Atal Behari Vajpayee said a Moon flight would showcase India's scientific capabilities. A former science Minister in the Indian government, physicist M.G.K. Menon told news media that Chandrayan-1 "will excite the younger generation." Menon also said the Moon flight would have the effect of "enormously increasing the confidence of the nation".

ISRO said Chandrayan-1 is the first mission in "India's foray into a planetary exploration era in the coming decades." Chandrayan-1 will be the "forerunner of more ambitious planetary missions in the years to come, including landing robots on the Moon and visits by Indian spacecraft to other planets in the Solar System. (From [www. spaceage.org](http://www.spaceage.org))

COMPILED BY SANDEEP MUKHERJEE ('95 PHY MECH)

PARTYIN' AROUND THE WORLD

EVENTS TO COME!



CHENNAI

November 6, 2004, BITSAA Chennai Get-together

For those who have been eagerly awaiting the next BITSAA bash, here are contact details for the next alumni event.

Venue Chennai, India
Contact Srikanth Krishnamurthy
Email seethusri@yahoo.com



EAST COAST

November 6, 2004, Oasis 2004 - The Alumni Edition

Our annual events in the past years were a blast. We've had 200-300 people dancing and partying into the night. It has been a wonderful combination of Piloni music-nites and Roctaves all over again. Thanks to our generous alumni, we also met our fundraising goals and raised enough funds to continue our two endowments to BITS. This year Rajesh Hukku is the Chief Guest.

Venue Somerset Hilton, New Jersey, USA
Contact Nirav Shah
Email nrvsh@yahoo.com

PAST EVENTS!



NAGPUR

October 27, 2004, Nagpur Chapter

Venue Cafe Coffee day, VCA Complex,
Contact Sangeeta Patni ('85)
Email sangeeta_patni@yahoo.com

It was so much fun to meet up with everyone at 27th October at Cafe Coffee day. For people who could not come in, thought I would just send a brief informal mail out. From the minute that I walked in, I am sure this was going to be a great evening. While the place (CCD, I believe it's called) was noisy and evoked memories of our student days, especially with so many student milling around-the BITS gang was gung-ho! We did move out the cafe to have a quieter place (That was a great idea, Vipin!) and had fun lachchaing.

The members present were ranging from Mr. Kanoria who created the first Alumni association in Nagpur, a senior alumnus of 1970 batch - to a "fresher" alumnus Akbar M Kamal, of 2004 batch! There were 13 of us, and each of us was asked to share one memory of BITS that we remembered from our BITS days. From romantic memories to "Bhoot" memories to Student strikes, we had fun just listening to the others. Ajay Saraf who came back from BITS after a recent get together shared the stories from

recent visit. Vipin, who is visiting from US, shared the activities of the BITS Association in the Silicon Valley, USA. All in all, we all had fun. We all decided that we must meet again, maybe after Diwali, this time with our families, and plan out some fun and common interest activities - where we could have fun and do some serious networking - do business, collaborate, lobby with local agencies etc- and keep the BITS flag flying in this orange city.



SILICON VALLEY

October 24, 2004, Silicon Valley Chapter Golf Event

Venue Fremont Park Golf Course
Contact Ashish Garg ('01)
Email gargyboy@yahoo.com

Close on the heels of their East Coast counterparts, the Silicon Valley Chapter organized their first ever Golf Tournament on the 24th of October 2004. About 27 BITSians of batches ranging from 1972 to 1997 turned-up for the event at the lovely 9-hole Fremont Park Golf Course. The idea behind the event was to connect BITSians in the bay area via Golf and introduce Golf to people who have never played this great game before. **Vikram Pamarthi ('91)** and **Chandra Bhople ('74 EEE)** pitched in with free training classes for beginners before the event by helping new comers perfect their swing. The Golf Tournament was played in a "scramble" style by 6 teams and was finally won by the team of **Kinney, Juggy, Sanjay** and **Ashish**. Closest to Pin prizes were won by **Phalguni Nanda**, Kinney, and **Prem Talreja**. Vikram Pamarthi won the longest drive contest.

The best part of the event was the beer and jokes session at the end where all BITSians got together to do what they do best: party! Chandra Bhople describes his vision for the event, "We should have 100 BITSians playing golf in the bay area by this time next year. This would provide tremendous opportunity for BITSians to meet each other, network, and reminisce about their Pilani days far away from the day-to-day chores and challenges. Hopefully it will also help them in their career".

The grapevine has it that a BITS v/s IIT Golf Tournament might be on the cards next year. Now, how many BITSians would like to turn up for that!

SILICON VALLEY

September 19, 2004. Silicon Valley Chapter picnic!



Rain and associated inconvenience were no match for BITSian enthu and there were no damp spirits at this year's Silicon Valley chapter picnic held at Central Park, Lake Elizabeth in Fremont CA.

Venue Fremont, CA, USA

NEW DELHI

September 2004, BITSAA Delhi Annual Get-Together



The Delhi chapter held its annual get-together Dinner & General Meeting at the Indian National Science Academy Auditorium in New Delhi. It was an enthralling evening with Mr. Prithviraj Chavan as the Chief Guest for the evening – an ex-BITSian who has been Member of Parliament 4 times and is now Minister of State in Prime Minister's Office with the Government of

India. Dr. R K Mittal President BITSAA Pilani was the Guest of Honor. The evening included presentations to the guests and their spouses. The Minister was welcomed by the Senior Most Alumnus Mr. S P Sachar (Mechanical '50). Mr. A C Talwani (Electronics '53) read out the Welcome Address. A Citation to honor the Minister was read out by the Secretary of the Association, Pradeep Sethi

B.E. (Chemical '77). The Citation was presented to the Minister by Dr. Mittal on behalf of BITSAA.

Mr. Chavan released a CD of the BITSAA Online Directory by visiting the site live & opening his own page and a copy was presented to all BITSians present at the event. Vinod Puri (Electronics '64) and K K Sainani (Electronics '79) were instrumental in making this Directory a reality. The Hon'ble Minister then addressed the gathering of over 150 BITSians, including students between '50 to '04, their spouses & other guests.

After Mr. Prithviraj's speech that outlined his experiences and transition from Pilani to the PM's office, Dr. Mittal communicated recent BITS developments and BITSAA initiatives to the group. Mr. S K Kaila (Mechanical '54), President BITSAA Delhi Chapter, thanked the Hon'ble Minister & his wife for gracing the function. Special thanks were also extended to Dr. R K Mittal and his family, to Dr. Harivansh Chaturvedi and other guests from BIMTECH Alumni Association for joining on this occasion.

The special evening wound up around midnight with a few BITSians still reluctant to leave the premises!

Venue: Indian Science Academy Auditorium, New Delhi



LONDON

Sept. 17, 2004, BITSAA UK Get-together

Seven people turned up at the Fuel, in the order of batch - Sampath Jagannathan (92), Himani Gupta (94), Ramnish Kalsi (95), Priya Iyer (95), Ramprasad Torati "Ramp" (96), Prasanna Kumar (96) and I (96). Unfortunately Anupam Gupta (89 Batch) was stuck in the traffic and couldn't make it to the meeting. Anyways, thanks Anupam for choosing the venue. It was a very good choice.

Venue London, UK
Contact Sandeep Sharma
Email Sandeep.Sharma@samsung.com

EAST COAST

August 14, 2004, Pilani Masters Golf Tournament



The winning team with Venu Myneni (middle), a regular sponsor of East Coast events

The third Pilani Masters golf tournament was held at Princeton's famed Bunker Hill golf course. The final standings were as follows:

Winner: Ravi Mehra ('64)
 Runner Up: Ashish Sharma (son of BITSian)
 Third: Venk Sharma
 Closest to Pin: Rahul Banerjee
 Gamesmanship Award: Satish Paul
 Winning Team: Ravi & Rahoul Mehra with Venk & Chetan Sharma
 Runner-Up Team: KC and Ashish Sharma, Venu Myneni and Anupendra Sharma

EAST COAST

July 31, 2004, 1st International East Coast Wing Cricket Tournament



This first-ever BITSian-style Wing Cricket Tournament was a smash hit! Unfortunately as you can see above, we could not import a chair in time, so the trolley had to be substituted. The event was held at the John F. Kennedy Cricket Ground, in Sayreville, NJ. There were two female players, one of whom received the best batsmen award for her scintillating knock of sixes and fours! The winning team was headed by a BITSian woman as well.



Winners of the Wing Cricket Tournament

There were as usual, tons of awards and trophies for which were handed out as follows:

- DreamCricket Best Fielding: Gurdeep Chhabra (1978)
- DreamCricket Best Bowling: Srinivas Alladi (1982)
- NuWare Man of the Tournament: Vikram Datla (1990)
- DreamCricket Wing Cricket Best Batsman: Chandana (BITSian's spouse)
- NuWare Clash of the Titans Winner: Post-90
- Radiant WingCricket Winners: HCL Blitzkrieg!
- Radiant WingCricket Second Place: L, G and Night Cricket at ShivG!

The matches were umpired by Sarat Paladugu.
Venue Sayreville, NJ, USA

SYDNEY

October 17, 2004, BITSAA Sydney Picnic



Good food, great BITSian company, an inning or two of BITS style cricket, children's games and memories of Pilani days made for a cold yet fun-filled day at the BITSAA Picnic. Almost 40 people were at this event including alumni and family members.

Contact Ramaswamy Nagarajan
Email rnagarajan@hotmail.com
Venue Sydney, Australia

WASHINGTON DC

August 27-29, 2004, Batch of '64 Reunion in Washington DC

BITS, Pilani, graduates from the Batch of '64 (Class of '69)



in India have been keeping in touch for a long time with the help of Manohar Baheti, Deepak Khosla, Ashok Surekha, Om Gupta, and some of the others. But the North American graduates were fragmented so Anupam Sachdev and Jasbir Saini started the process of locating the folks and planning the meet. Everyone started pitching in the effort. Thanks to internet search engines, emails and BIT69 directories they located the folks all across the USA and Canada. It turns out that 2004 was the 35th year since we graduated in 1969, so we called the meet "Paintees Saal Baad" based upon the famous movie "Bees Saal Baad" which was popular during the college days.

The meet started with the '69 graduates meeting in the atrium lounge on Aug. 27 at the Marriott Crystal Gateway in Arlington Virginia across from the Washington Monument. There were warm hugs, surprises and excitement among old friends who were meeting after such a long time. This was followed by gift bags at the welcome desk. When everyone met for drinks in the suite in the evening the whole floor was buzz with excitement and non-stop conversations. Luckily, we had booked the whole floor except for some exceptions. Even though everyone was changed in looks over time it was quite clear that the 35



years had not changed anything. It was just a pause in the whole process. The evening was spent at a local Mediterranean restaurant called “Casablanca” with live entertainment to the delight of everyone.

Aug. 28 was spent with golf for some and meeting at breakfast. Then the rest of the day was spent mostly by touring the various sites, monuments and attractions in the Washington DC area. The evening started with folks getting together for drinks and group photographs. The finale was a dinner at “Bombay Palace”. The gathering started with more friends joining us for the dinner with families. This was followed by a DVD movie called “Paintees Saal Baad – The Lost memories of Pilani” created by Vinay Mehta specially for this event movie using photos and 8mm footage he took during his days in Pilani. We followed it up with a “Now and Then” slide show that included photos of each attendee from college days and then some taken more recently. Both movies were a great success since the peanut gallery was very active and everyone could identify with the photos.

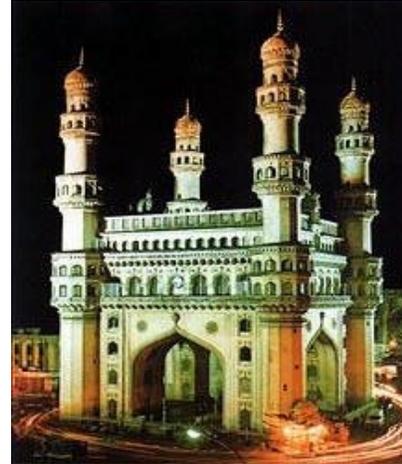
Our keynote speaker was Om Gupta, a BITS '69 colleague from New Delhi. This was followed by a presentation by BITSAA. Late night was spent with jokes, conversation into the early hours of the morning. It was hard to break them up.

Aug. 29 was early morning breakfast gatherings and then sweet goodbyes. It was quite apparent that those days in Pilani had created a bond that was hard to break. The group was more like a family after all these years than just friends. Even though everyone was quite successful in their line of work, the emphasis was on friendship and not business, status or money. It was a great reunion based upon the comments and thank you notes received from everyone. Plans are now already in works for the next reunion in Las Vegas in year 2005. See tons of photographs on www.bits69.com

Contact Jasbir Saini
Email jssaini@yahoo.com
Venue Washington DC

HYDERABAD

August 21, 2004, Hyderabad Monsoon Bash



One of our annual dinner events, postponed from its regular date of Aug 14 to Aug 21 2004, was held at Chiran Fort Club. Over 150 BITSians along with family members participated. There was good interaction among the olderPilanians (as some prefer to be called) and the younger BITSians. Prof TSKV Iyer & Mrs. Iyer attended the meeting and presented his latest book to the association. With many PS2 students in Hyderabad, some CDs of events at Pilani were played / projected. While the hint of rain remained through out the evening, the spirits as usual were high. A robust round of Tambola and dinner culminated the evening.

Organizers: Sanjay Khendry, 98480 14070,
Sanjay.Khendry@SierraAtlantic.com (and many others)

HYDERABAD

June 19, 2004, CEL Dinner Event

Saturday June 19 2004, the QutubShahi Hall of Country Club-Begumpet was packed to capacity with BITSians past and present as the BITS student team from the Center for Entrepreneurship Leadership (CEL) presented the CEL concept and provided updates on the activities and plans. CEL was set up to promote the spirit of entrepreneurial thinking among the BITSian community in March 2003. The presentation was followed by active interaction between the CEL team and the alumni. The CEL student team also met with many alumni individually during their summer break. BITSAA Hyderabad will continue to be actively involved with CEL activities. We had about 180 BITSians attending the event. ♦

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

BITSIAN 2 BITSIAN – A MORE POWERFUL B2B IDEA

The need for alumni leadership in the BITSian community has never been greater. Nor the opportunity to make a difference and contribute in significant ways with no financial commitments. We plan to launch a B2B initiative to help the BITSian community reach its professional and academic goals through Communication & Collaboration.

“I’D love to make a career change and am looking for the right opportunity but these darned job boards never seem to help. I’ve heard networking helps but how do I network?”

“I’d like to go to graduate school after BITS but can’t afford to do so without a scholarship. Wonder which schools I should apply to!”

“I think I’d like an MBA from a top tier school but I’d sure like some advice.”

“Everyone tells me I should stay on top of my field of expertise but how? I can’t read everything that comes my way. I simply don’t have the time.”

We’ve all been there. As students and as alumni we’d all like to know what opportunities are out there, how we can further our academic credentials, identify and proactively prepare for industry trends and so on. We’re also constantly reminded by our peers, organizational leaders and society in general about the need to develop ourselves as Leaders.

We, as BITSian alumni, have the opportunity to Communicate & Collaborate to Create success by teaching and learning from each other. This is the primary driver of the B2B initiative soon to be launched by the BITS Alumni Association.

Thanks to low cost electronic communication technologies such as email, egroups and progressively lower telecom rates our ability to communicate and collaborate across geographical borders has never been greater... but you’ve heard this before so what exactly is it that we’re planning?

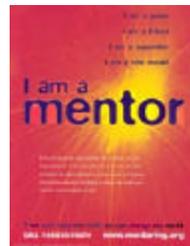
THE VISION

Communicate using the Alumni Directory: This would be a

database of alumni contact information, educational background, professional and other interests and would allow you to identify BITSians who would be able to serve as effective mentors for you.

Collaborate through Mentoring, Networking and Niche-Focused activities: If you think you can spare a few hours a month and are interested in sharing your experiences and providing coaching and career guidance for an alumnus or student you are invited to be a Mentor. The BITSAA MBA initiative is another example.

Create success stories for yourself: Succeed in the academic, professional and social sectors by working with mentors and peers who help and guide you.



MENTOR BENEFITS

- Development of coaching and mentorship skills that are an integral part of organizational Leadership skills that you can apply in your workplace.
- Make a significant contribution to BITS and help your alma mater without any financial commitments.
- Expand your network with the professional and academic realms by working with your mentor.
- This would be yet another way to ensure excellence for BITS, Pilani, to enhance its brand equity and You would be a part of it.

- Make friends, gain a sense of satisfaction and hey... you’ll probably learn a thing or two as well!

MENTEE BENEFITS

For students at Pilani

- An idea of what their alumni are doing several years after college, what their vocational options are.
- Receive career guidance from alumni.

For Professionals

- Opportunities to network for professional enhancement.
- Career guidance.
- Apprise junior professionals of industry trends.

WHAT NEXT?

We plan to launch a series of initiatives over the next few months and you will receive emails with more information requesting your participation in various mentoring programs, matching your interest and backgrounds to students at Pilani or junior professionals in industry.

WHAT CAN I DO?

Spare just a few hours of your time a month. Your mentor would be akin to your friend and share experiences being on a similar career path. A mentoring chain would also be set up as the mentored student becomes a mentor.

Respond enthusiastically. If you have any feedback or ideas, let us know, please! Pretty please!

To be a part of various B2B initiatives, email

smukherjee@gmail.com ♦

BY ABHINAV GATTANI ('98 COMP SCI)

GETTING INTO TOP MBA SCHOOLS: B2B AT WORK

A great new initiative to put BITSians into the world's top MBA schools begins.

As they say, all good ideas come with a glass of beer, so did the thought of such a group for BITSians. I'd like to thank Krishna (Tuck '06), Shobhit (Michigan '06) and Manish (Michigan '06) for this initiative. The greatest benefit of this group is to leverage the BITS connection for maximum benefit during the application process to business schools around the world.

It starts with the bits2bschool yahoo group. The aim of this online community is to keep an excellent roster of advice for BITSians applying to top schools. Succeed in the academic, professional and social sectors by working with mentors and peers who help and guide you.

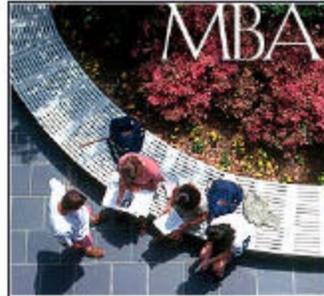


EXCELLENT ADVICE ONLINE

Here are excerpts from advice for BITSians applying to top US schools

“As long as you have the requisite breadth of leadership experiences, you will get in. Focus on developing yourself through leadership experiences.”

“Too many BITSians self-select themselves out of running at top schools which makes no sense. Have the courage and self-confidence to aim high.”



“It is always best to get recommendations from your current supervisor. Some schools require you to write a note or explain in the optional essay as to why you did not get a recommendation from your current supervisor. Almost everyone applying to business school has this problem. However, it is a hurdle you have to cross.”

“In my case, I asked my manager for his recommendation. I told him that I was telling him one year in advance about my plans. If I were admitted, I would let him know 6 months before I left giving him time to find a replacement. This worked well. He appreciated the advance notice and everything worked well.”

“The choice of country (for doing an MBA) is very subjective. Here are a few factors you might want to consider. “In terms of quality of education, there are several good schools in all parts of the world, so where u want to work is one factor which determines which region you want to choose. Because local schools have an advantage over foreign schools for a variety of reasons. To simplify things, doing an MBA from US or any foreign country would not give you an edge over IIM grads if you are looking for a job in India. So if you want to stay and work in India, IIM would be the best bet because of fees and other things. Likewise, if you want to work abroad, try to do MBA from the best school in that country. I think Harvard, Wharton, Stanford

are probably exceptions. They have exceptional brand recognition globally.”

DON'T MAKE OUR MISTAKES

You will find many gems in the databases, advice from BITSians who went to top schools. Here are a small cross-section of many that you will find online. Some excerpts follow:

“Terrible essays - Essays did not connect my past to my future.”

“Did not visit schools”

“Poor preparation for interview”

CONNECT TO B-SCHOOL CHAMPIONS

We are canvassing the entire BITS community to volunteer as business school champions for their MBA programs, both full-time and executive programs. To date, we have signed up the following full-time MBA champions. If you would like to be the champion for your program, please sign-up on the bits2bschool@yahoo.com website. Alternatively, email abhinav_fall2005@yahoo.com

- GSB- Chicago: Venkatesh Rangarajan
- Johnson-Cornell: Anupendra Sharma
- Kellogg-Northwestern: Ishmeet Singh
- Ross-Michigan: Shobhit Rana
- Simon-Rochester: Rajat Padhi
- Tepper-Carnegie Mellon: Nikhil Kolar
- Tuck-Dartmouth: Krishna Hegde
- Wharton- UPenn: Mukul Chawla

JOIN US

To be a part of this initiative, email abhinav_fall2005@yahoo.com, or better, sign up by searching for bits2bschool on

www.yahogroups.com. ♦

BY SANDHYA KRISHNAN ('99 INFO SYSTEMS)

OLAB: OF SAND, SILICON AND OYSTERS

OLAB is one of the first campus-based VLSI design facility in India. We find out how it has come to be, and what it will become...

IT was 2002 – and the 1977 batch alumni were gearing up for their silver reunion. Amidst all the hectic planning and excitement, a few members thought it would be a nice idea to give back something to the college they owed so much to. Ideas floated around, and the one that stuck was that of a world-class VLSI Laboratory. A year later, in July 2003, at the music night in Bangalore - BITSConnexion, in the melee of songs and handshakes, this idea took shape and form. Few more months later, with the efforts of some well-placed alumni in the VLSI industry in Bangalore, a presentation was given to current Vice Chancellor of BITS, Dr S. Venkateshwaran. OLAB was to be a world-class laboratory in terms of infrastructure, facilities and talent.



We spoke to **Vinod Agarwal** (68' EEE), Founder & Chairman of LogicVision (publicly traded embedded test company on NASDAQ) and **Rajendra Khare** ('77 EEE, pictured above), Managing Director of BroadCom India – doyens in the VLSI field and captains of the OLAB initiative.

“OLAB stands for Oyster Lab At BITS”, says Raj. The term oyster is

meant to indicate the environment and various processes that go into culturing pearls from sand. Which, in BITS terms, refers to converting the unrefined students' capabilities into unmatched intellectual property in the silicon world - all in good ol' Piloni.

VLSI and semiconductor design is a huge engine of growth for Silicon Valley. It also has strong links to Indians, since many have founded and worked in the Valley in this field. The chief architect of Intel's Pentium chip was an Indian. However, in India, where the focus has been Software and IT, VLSI and semiconductor design has been ignored by the mainstream of engineers and entrepreneurs.

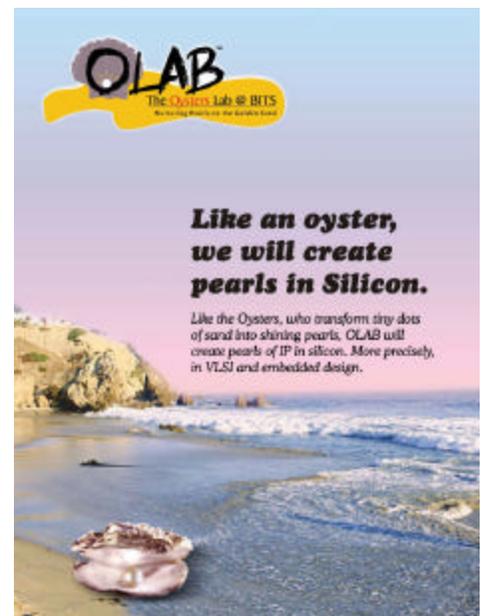
There are rational reasons for this. Firstly there are few specialized institutions in India to train people in this field. There is no fab (factory to manufacture chips) in India either. In countries like US, China, Malaysia and Taiwan, there are many fabs, which has created investment in training, research and more startups.

However, fables design is perfect for India, since it requires only investments in human capital and can easily follow the outsourcing model. India also has many successful VLSI/chip-design entrepreneurs and experts in the Valley. There is a deep pool of talent with ideas looking to do something with India. Vinod Khosla, India's best known VC has moved to India and is generating interest with investments in the field.

As VLSI becomes a mainstream field in India, there will be a tremendous need for world-class training facilities, which is what prompted Vinod and Raj to set

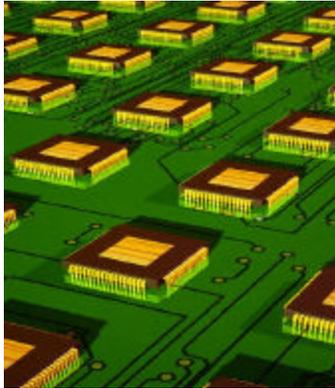
up a lab with world-class infrastructure. Partnering with BITS made sense with its faculty, alums, talent, resources, linkages to industry and most importantly, experience in training. Raj believes that with its world class infrastructure and with the proper guidance, students should be able to conduct cutting edge research, which would focus on real world problems and produce competitive, commercially viable solutions. Eventually trained professionals would go off to work for MNCs in India, domestic start-ups or create their own companies, putting India on the world silicon map.

Thanks to the excellent personal efforts of Raj and Vinod, BITS has received \$50 million worth of expensive tools from Mentor Graphics & Magma Design Automation and other high-priced workstations and servers from Sun Microsystems. The tools now in BITS are really up to the mark and comparable to any professional set up in the silicon industry. Now the Neuron Network also empowers you to connect to a centralized



facility which, along with OLAB, would be a very powerful combination.

Tons of alums have pitched in to help from Bangalore and Delhi. They are helping to fulfill the



requirement of design experts from the real world who can help BITS students get the full benefits of OLAB's world class infrastructure.

The key players, VLSI engineers with a rich experience of 5-6 yrs in the field include **Nagesh Chatekar** from BroadCom, **Deepa J** from Cypress, **Sriram R** from TI, **Karthik Kandaswamy** from Wipro, **Anurup Mitra** and **Kallol Chatterjee** from ST. **Dr. Anand Bariya** from Toshiba is also playing a major role in helping with cell libraries and other design needs. The building blocks required for the projects have been given by these key players, as we call them, and they have been very instrumental in creating and formulating the actual projects that the students have to work on. Presently there are also about 5 project assistants, ME students at BITS, who will help give the continuity that is required to carry forward the work for a significantly long time. There are even plans that the OLAB infrastructure may be used for PhD programs in BITS. The VLSI engineers and key players involved have also traveled to BITS, surveyed the lab and are now even having weekly conference calls.

The current projects are now small pieces of the big puzzle which is the ZigBee technology. ZigBee is considered as the next revolution in wireless technology by industry leaders. This technology is very new and has a lot of scope- dealing with wireless interaction between networks. In short, an implementation of what we have been projecting as non-working models in APOGEE for years now. The next major milestone for OLAB would be an integration of all the projects to give a successful solution to the ZigBee, which might even be commercially successful. BITS could collaborate with foreign universities like the **University of Berkley** who are currently working on ZigBee.



All this has not been easy. One of the main problems they faced in Pilani is that it has taken a while to get the relatively laid back students (like we were) used to the grilling timetables, schedules and demands of the Industry. But things have improved, says Raj, for once OLAB went live, people have begun to show enthusiasm and support for working demanding hours. One other problem is that faculty themselves are not as exposed to this field, in Pilani or even India since there are so few people exposed to field. **Prof Gurunaranan**, who heads this initiative and **Dr. L.K Maheshwari** have been extremely helpful on this initiative. They have extended their full support and cooperation to alums **Kallol Chatterjee** and **Anuroop Mitra** who have traveled

many times to Pilani to guide and help the students.

Vinod, who along with Raj will guide and nurture OLAB closely, says "There is a necessity of people, design experts and others with experience in the semiconductor industry". He adds that "People should visit BITS, get involved and to help in knowledge transfer. World-class tools will not be of much help without world class teachers"

Grand plans are underway. An extension center is being set up in Bangalore that will become India's leading training and research center for VLSI training for professionals in industry, with close linkages for commercialization of research. It will also be open to non-BITSians and utilized as a PS II center as well. Raj This emphasis on VLSI integrates well with the recent grant by the DoE to BITS for Rs. 2 crores to set up a Technology Business Incubator that will be a center of excellence in creating VLSI and embedded software start-ups.

When India becomes a superpower in the field of semiconductors, BITS, OLAB, Vinod, Raj and all those who are involved would have played an important role in creating that history.

For alumni who have crossed borders and shores to teach, study and work in the silicon industry, this might be a good chance to get involved with their alma matter in something of interest, and give back a little of what they got to BITS and to India. If you are interested, sign up at the yahoogroup which has over 80 alums. Search on www.yahoogroups.com for **bitsaa-olab** to volunteer for this initiative.



BY SURAJ SRINIVASAN ('86 PHY EEE) & ALL THE BATCH REPRESENTATIVES

SELECTED CLASS NOTES (BY ENTERING YEAR)

For a full listing go to the website

1963

Kirti Shekhar Chaturvedi (BE Electrical) was recently named an Air Marshal in Indian Air Force. This is the top most position in IAF for a technical officer. In all, there are about 25 Air Marshals (one level from Air Chief Marshal). He was till most recently the Senior Maintenance Staff Officer at IAF Headquarters Training Command. In that role, he was responsible for the maintenance of all fleets and associated ground support eqpt and infrastructure for operation and training.

1975

Ashok J Galgotia For some of us oldie BITSians, children are old enough now to proceed to the universities. My son, Aditya Galgotia, passed ISE exam this year and has now joined McGill Univ. at Montreal for Mechanical Engg. We hope he will get used to Minus 40 type of temp. As he was born in Dubai where he has been exposed to Plus 40 degrees.
galgotia@triveni.ae

1976



Dilip D'Souza and his wife Vibha Kamat, adopted an eight-month

old baby girl, Surabhi. She is sister to their five year old son Sahir and joins him as the lights of their lives. (Photo on page)

1977

G. Ravindra Kumar (1977-83) is the Associate Professor at Tata Institute of Fundamental Research, and winner of the Shanti Swarup Bhatnagar Award for his contributions to Science. Email: grk@mailhost.tifr.res.in Tel: Ph:+91-22-2 280 4545 X 2381

1981

Laxman Mohanty lives in Ahmedabad, and is an Adjunct Professor at IIM Ahmedabad. He focusses on his two startups plus the NGO for improving rural education in India. Email Laxman at laxman_mohanty@yahoo.co.in or call +91-79-26325010

1986

Suraj Srinivasan moved from Cambridge, MA to Chicago, IL on completion of his PhD. He became an Assistant Professor at University of Chicago's Graduate School of Business

Kumar Rajaram was offered tenurship at UCLA, where is is Associate Professor of Operations Management.

1987

Uday Sareen (Eco EEE) was promoted to Head of Marketing for Citibank Retail Bank India and has moved to New Delhi with his wife and children.

1995

Sriram Reddy Mandadi (B3A6) Graduated from University of North Texas with a Masters in Information Technology. Currently working as a Software Consultant in the US.

Ravi Kiran Yekula, I came to University of Missouri-Rolla after BITS to complete my masters. I have joined Cummins Inc. as a Design Engineer in April 2003. I got married to Poornima in May 2004 and have been enjoying married life since. Email: kongidon@gmail.com

1998

MARRIAGES COMING

Saumya Agarwal is getting married to **Amit Agarwal** (CS from BITS - '97) in November

ENTREPRENEURS

Sharadha Ramanathan megha@meghamedia.com She is currently freelancing in websites and multimedia projects. She is currently very busy with her project megamedia.com. If you need a multimedia presentation or develop a website click on <http://www.meghamedia.com/>

Harsh Jegadeesan Harsh.Jegadeesan@gmail.com and **Venkatesan V (Sci)** Venkatesan.V@gmail.com From CSD in BITS, Pilani these guys are trying to build a company 'i-Confluence', which will provide Business Process Optimization solutions.

Gerald Joseph (gjoseph@alsc.com) After resigning from C-DOT, has joined ALSC. He is back to B? lore after his visit to Santaclara branch in California

Venkatraman V (Alwa) (v.venkatraman@in.atlascopco.com) with Atlas Copco. Working in Chennai as a sales engineer

CORPORATE

Prabhakar (Soap) (prabhu_trichy@hotmail.com) As a Marketing Executive (Lubricants) in Sambalpur, he is currently in charge of the entire Western Orissa operations for Bharat Petroleum Corporation Ltd

Jeevan kumar Duggempudi (jeevand@gmail.com) After his Masters in Industrial Engg at University of Illinois at Chicago, he is all set to join as a Revenue Management Science Analyst in Carnival Cruise Lines.

Kesava Mallela (kesava@gmail.com) Right now in San Francisco working as a Usability Analyst for Cognizant Technology Solutions

Madhusudhan Devanathan (Mummy) (madhu249@yahoo.com) Presently working in Germany at Daimler Chrysler

Gopinath (Maram) (gopinath_c@dell.com) After completing ME (SS) in BITS, he has joined Dell, in B'lore

Gopalram (Gora) (gorafd449@yahoo.co.in) Working as a design engineer doing consulting for Industrial Buildings, mainly Power Plants with Development Consultants (P) Ltd., Vashi, Navi Mumabi

Aruna Ganesan (fd98419@yahoo.com) She has joined as a Technical Engineer in Chennai with Evalueserve, Gurgaon

Raghavan (Blacky)

(raghavan.ramaswamy@gabriel.co.in) After working with Steelage, he is presently working as a Senior Product engineer in Gabriel India Ltd, Nasik

Parveen (pari_vsd@yahoo.co.in) in Mumbai as Market research analyst with Indica research

Saumya Agarwal (saumya723@yahoo.com) Graduated from Purdue University with Masters in Computer Science in May, 2004. Worked at PeopleSoft, USA. and now at Network Appliance in Bangalore.

Vikas Thiruvalluru (vikas_126@yahoo.com) Previously worked in i-flex and had been in Japan to meet the client onsite

Saishankari (saishankari_27@yahoo.com) Business development manager in Chennai with Reliance Infocomm

Raghavan Damodaran (Rags) (RDamodaran@Sapient.com) Bangalore - Presently working as Senior Associate, Program Management. Previously he worked with i2 Bangalore for a year and then did Masters in Business at the University of Waterloo, Canada. Now he is back in Bangalore now to be with Sweta (who also works with Sapient).

Vignesh Kumar (Vennai) (vignesh.kumar@samsung.com) Worked in Steelage industries, Chennai for a year and moved on to Samsung. Presently in South Korea in Sales engg Team for Samsung Heavy Industries Co., Ltd

Rathish Balakrishnan (Rat) (on3rdjuly@yahoo.com) Starting his career at INSEAD, France, he is now working with SAP labs; presently in Germany

Chitra Venkatanarayanan (chitra.v@tcs.com) Chennai - Presently at Seattle, USA working on Boeing Project at TCS

Ranjith Kumar (Dog) (ranju_ar@yahoo.com)

Chennai. Now in Manchester, UK working on British Airway Project

Sundar Raghavan (Appy) (sund_rag@yahoo.com) Chennai. Presently working onsite in Green bay, Minnesota

BUSINESS SCHOOL

Aromal Amal (aromalamal@yahoo.com) MBA (International Business at Indian Institute of Foreign Trade, New Delhi majoring in Marketing & Trading

Bhagyalakshmi Rajagopal (Boiler) (fd98321@yahoo.com) MBA in Xaviers Institute of Management, Bangalore

Dhivya Venkatachalam (diyavenkat@yahoo.com) Bharathidasan Institute of Management, Trichy

Dias Joe (diasjoe275@yahoo.com) MBA in Narsee Monjee Institute of Management Studies (NMIMS), Mumbai

Karthik Srinivasan (rskarthik@hotmail.com) MBA in Institute of Management Technology, Ghaziabad

Krishna Ramani Sunderasan (Beedi) (krishnas04@iimb.ernet.in) After working in Oracle, Hyderabad has joined MBA in IIM - B

Nakaraj Sukumaran (nakaraj@spjimr.ernet.in) After being in Business Development at Cybernet Software Systems, Chennai, he is presently doing his MBA in SP Jain, Mumbai

Sairam Krishnamurthy (sairamk04@iimb.ernet.in) Has joined MBA in IIM - B after starting his career with i-flex solutions, B'lore. ♦