

Newspaper Clips

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Alumni open purse to help IIT-D build research schools

NAVEED IQBAL
NEW DELHI | SEPTEMBER 22

THE highly successful alumni of IIT-Delhi have pumped in millions of dollars to the alma mater since it was established in 1961, helping the institute look beyond government funding for several ambitious research projects.

Currently, two complexes are being built in IIT-Delhi with 100 per cent alumni funding and the foundation for another one was laid recently to boost the institute's research prospects.

The first is Amarnath and Shashi Khosla School of Information Technology, named after parents of IIT-Delhi alumnus and US-based venture capitalist Vinod Khosla.

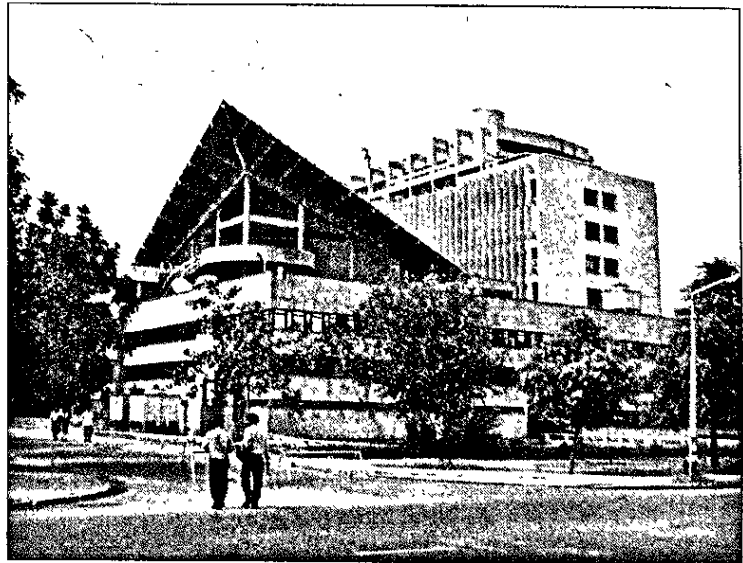
Khosla, a BTech in Electrical Engineering from IIT-Delhi, co-founded Sun Microsystems along with his Stanford classmates in 1982.

Dean of Alumni Affairs Ambuj Sagar said Khosla has provided \$5 million for construction of the building and for research work to be taken up there.

"The complex will be ready in the next six months," Dean of Infrastructure Ashok Gupta said.

It will be for inter-disciplinary, goal-oriented research, and also serve as an innovation centre for post-graduate education in information technology.

Kusuma School of Biological Sciences, funded by alumnus Anurag Dikshit through the UK-based Kusuma Trust, named after his



At present, two complexes are being built in IIT-Delhi with 100 per cent alumni funding. Another research school is in the pipeline.

mother, is another project coming up on the campus.

The trust has said to have contributed more than £5 million to build the school.

Dean of Infrastructure Gupta said Rs 10 crore has already been released for the building, while the rest would be utilised for setting up research laboratories within the facility.

The project mission is to promote research by "interfacing modern biology with applied engineering sciences to address problems affecting human health and welfare, and training scholars to be the next generation scientists".

Patanjali Keswani, managing director of Lemon Tree Hotels and an IIT-Delhi alumnus, recently announced Rs 20 crore for GH Keswani Research Centre at the institute. Union HRD Minister Kapil Sibal laid the foundation of the project, which will be built in an area of approximately 1.30 lakh square feet. It will reserved for research facilities for students.

IIT-Delhi has so far produced over 30,000 engineers, technologists, scientists, managers and entrepreneurs. Over the years, this rich roll-call has helped the institute financially and logistically take up several alumni-funded projects.

IIT Bombay-incubated firm gets ₹2.5 cr from VCs

Covacsis holds promise, say Blume Ventures, India Venture Partners

KALPANA PATHAK
Mumbai, 22 September

Covacsis, a three-year-old start-up, has secured venture capital funding of ₹2.5 crore from Blume Ventures, India Venture Partners (IVP) and a European fund.

Incubated in the Indian Institute of Technology, Bombay, it helps manufacturing companies measure floor economics in real time. Tarun Mishra, founder and promoter, said, "The bridge financing will give wings to our international plans." With manufacturing changing and companies looking at new ways of managing it, Covacsis' technology helps companies convert operational data into real-time financial numbers, he added.

Blume Ventures provides seed funding to the range of \$50K-\$250K to early-stage tech-focused/tech-enabled ventures. "We fundamentally believe input cost efficiencies, whether it translates into energy or productivity, is the key for the next 10 years in the global markets. Covacsis has got everything to become a leader in the space of transforming microeconomics of production floor," said Karthik Reddy, founder, Blume.

According to IVP Chief

Navneet Gosal, through its initial set of customers, Covacsis has generated traction via a proven use of its technology.

"Covacsis has developed unique and interesting technology in the shop floor intelligence space. We believe the capital investment in Covacsis can help the business scale across manufacturing and production industries in India."

Covacsis, which serves Sun Pharma, Ipca Labs, Cipla, Godrej Industries, Tata Chemicals, Welspun, Raymond and Ruby Mills in pharma, chemical and textile, plans to expand its bouquet of services to companies in the automobile, steel, oil and gas and FMCG segment too.

"Covacsis' solution makes the operator and chief executive talk in the financial language," said Pranay Godha, executive director, Ipca Labs.

Mishra, 38, started Covacsis with a seed capital of ₹20,00,000 in 2003. He gave up his job as the business head of financial product of a Canadian company, after working for four years, to give shape to his entrepreneurial dreams.

Covacsis built a solution called 'real time production measurement & diagnostics (RTPM), which helps organi-

sations avoid inevitable changes on the production floor. While shop-floor managers may miss the intermittent breakdowns and millions of reprocessing and utilities cost fluctuations, etc, which affects the product quality and plant efficiency on the floor, Covacsis' RTPD helps the management understand the impact of each and every incident on the top-line and bottom-line and respond to such incidents in the shortest possible time.

Mishra's company has been incubating at IIT Bombay's Society for Innovation and Entrepreneurship for the past three years. IIT-B takes a minority stake of four-five per cent in each of the firm that incubates on its campus. Once the company gets funding, IIT-B would liquidate part of its holding.

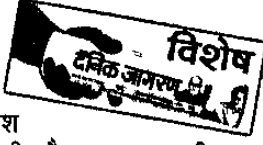
Mishra now plans to buy-back IIT-B's stake.

With a team of 33 executives, Covacsis aspires to become a 100-crore company in valuation in less than 36 months. Covacsis has aggressive non-linear growth strategy said Tarun.

The company plans to go in for second round of funding next year to the tune of \$5.5-6 million.

इंजीनियरिंग दाखिले में बोर्ड के अंकों का मिलेगा वेटेज

एस.के.गुप्ता, नई दिल्ली



वर्ष 2013 की मुख्य

ज्वाइंट इंजीनियरिंग प्रवेश

परीक्षा (जेईई) में एनआइटी और आइआइआइटी की सीटों पर दाखिले के लिए छात्रों को केंद्रीय माध्यमिक शिक्षा बोर्ड (सीबीएसई) के परीक्षा परिणाम का 40 फीसद वेटेज मिलेगा और जेईई मुख्य परीक्षा का 60 फीसद। यह निर्णय इंजीनियरिंग प्रवेश परीक्षा की तैयारी का दबाव

- ◆ एनआइटी और आइआइआइटी की सीटों पर 40 फीसद तक मिलेगा वेटेज
- ◆ कोचिंग सेंटरों की महंगी फीस से छात्रों को राहत देने के लिए लिया निर्णय

कोचिंग सेंटरों की महंगी फीस से छात्रों को राहत देने के लिए लिया गया है। सीबीएसई के चेयरमैन त्रिनीन जोशी ने बताया कि ग्रामीण परिवेश से बोर्ड कोर करने वाले उन छात्रों को

इसका फायदा होगा, जो संसाधनों के अभाव में प्रवेश परीक्षा परिणाम के आधार पर दाखिले में पिछड़ जाते हैं। इन छात्रों को बोर्ड परीक्षा का 40 फीसद वेटेज मिलने से दाखिले में मदद मिलेगी।

उन्होंने बताया कि वर्ष 2013 में बोर्ड द्वारा एअ-ईईईई (आल इंडिया इंजीनियरिंग प्रवेश परीक्षा) के स्थान पर देशभर में जेईई एडवांस परीक्षा का आयोजन किया जाएगा। इंजीनियरिंग शिक्षण संस्थानों में दाखिला पाने के लिए देशभर से करीब डेढ़ लाख छात्र प्रति

शेष पृष्ठ 4 कालम 1 पर

इंजीनियरिंग दाखिले में बोर्ड के अंकों का मिलेगा वेटेज

वर्ष इस परीक्षा में बैठते हैं। इस बार जेईई एडवांस परीक्षा 7 अप्रैल 2013 को होगी और उसके बाद ऑन लाइन परीक्षा का आयोजन विभिन्न परीक्षा केंद्रों पर 30 अप्रैल तक होगा। मई प्रथम सप्ताह तक प्रवेश परीक्षा परिणाम घोषित किया जाएगा। खास बात यह है कि जेईई एडवांस परीक्षा परिणाम में उत्तीर्ण होने वाले छात्र ही देशभर के आइआइटी द्वारा आयोजित की जाने वाली जेईई मुख्य परीक्षा में बैठ सकेंगे। आइआइटी द्वारा आयोजित इस परीक्षा का नाम पहले आइआइटी जेईई हुआ करता था, जिसका नाम वर्ष 2013 की प्रवेश परीक्षा के लिए बदलकर जेईई मुख्य कर दिया गया। इस परीक्षा में उत्तीर्ण होने वाले छात्र आइआइटी में तो मैरिट के हिसाब से दाखिला ले सकेंगे, लेकिन आइआइआइटी (भारतीय सूचना प्रौद्योगिकी संस्थान) और राष्ट्रीय प्रौद्योगिकी संस्थान (एनआइटी) में छात्रों को मुख्य परीक्षा के 60 फीसद और बोर्ड परीक्षा के 40 फीसद अंकों का वेटेज मिलेगा, जबकि जेईई एडवांस परीक्षा के परिणाम पर पहले की भांति डीटीयू (दिल्ली टेक्नोलॉजिकल यूनिवर्सिटी) और इंजीनियरिंग कॉलेजों में मैरिट के हिसाब से दाखिले होंगे। इसके लिए छात्रों को जेईई मुख्य परीक्षा देने की आवश्यकता नहीं होगी। जोशी बताते हैं कि इतना ही नहीं ग्रामीण व दूर-दराज के छात्रों को परीक्षा संबंधी मार्गदर्शन के लिए हमने सीबीएसई की वेबसाइट पर 'रजिस्ट्रेशन फॉर हेल्प सेंटर फॉर जेईई मैन्स-2013' लिंक जारी किया है। इस लिंक से स्कूलों को जोड़ा जा रहा है। यह स्कूल ऐसे छात्रों का मार्गदर्शन करेगा, जो इंटरनेट सर्फिंग की जानकारी नहीं रखते या जिनके पास संसाधनों का अभाव है।

विवाद की भेंट चढ़ा गुजरात आईआईटी का शिलान्यास

गांधीनगर . इंडियन इंस्टीट्यूट ऑफ टेक्नालॉजी, गांधीनगर (आईआईटी-जी) का शिलान्यास राजनीति की भेंट चढ़ गया है। पूर्व घोषित कार्यक्रम के अनुसार शनिवार को यह समारोह होना था। केन्द्रीय मंत्री कपिल सिब्बल और मुख्यमंत्री नरेन्द्र मोदी समारोह के लिए आमंत्रित थे। दोनों महानुभावों ने आयोजकों को समारोह में पहुंचने के लिए रजामंदी भी दे दी थी, किन्तु अंतिम समय में इनकार कर दिया। माना जा रहा है कि संभावित राजनीतिक विवाद बढ़ने के चलते ऐसा हुआ। हालांकि आधिकारिक रूप से कार्यक्रम स्थगित किए जाने की बात कही गई। कारण बताया गया आमंत्रित मेहमानों का व्यस्त होना। राजनीतिक हलकों में खुली चर्चा है कि वर्षात में प्रस्तावित गुजरात विधानसभा चुनावों से पहले नए विवाद को टालने के उद्देश्य से दोनों की ओर से 'सीजफायर' की नीति अपना कर शिलान्यास को लटका दिया गया।

Tribune ND 23/09/2012 P-24

UGC declares NET result first, posts qualifying criteria later

ADITI TANDON
TRIBUNE NEWS SERVICE

NEW DELHI, SEPTEMBER 22 . Lakhs of candidates who appeared for the refurbished, MCQ-based National Eligibility Test (NET) this year are asking the same question-why did the UGC declare the result first and post the final qualifying criteria later.

Close to 5.70lakh candidates appeared for NET conducted on June 24 this year to certify students' eligibility

for the posts of lecturer in colleges and universities; only around 7.26 pc passed. Courtesy objective format introduced for the first time this year for all three papers of NET, numbers of applicants doubled from 2.5 lakh in 2011 when the pass percentage was just 5.

However, none of these candidates knew until a day after their result had been declared on September 18 as to what formula the UGC followed to rule them out.

The NET notification issued around March this year stated two things clearly-the minimum cut-off marks which every candidate would have to score in each of the three NET papers separately to be considered for the preparation of final results and final qualifying criteria for NET to be intimated by the UGC before the declaration of results.

But the final criterion was uploaded by the UGC on its website only after the decla-

ration of the result. Consequently, candidates were clueless about their status until September 19 when the UGC suddenly disclosed new qualifying criterion saying every general category candidate would have to score aggregate 65 pc marks (out of 350 marks) in all three NET papers to be successful.

UGC officials say they introduced the concept of aggregate marks to sift meritorious students.

4-YR DEGREE ROADMAP NOT CLEAR

Studying as an undergraduate in Delhi University will be a different experience from next year when a 4-year degree course is introduced with exit options and credits. Teachers have, however, been left guessing about its structure

Manash Pratim Gohain | TNN

Reforms seems to be the buzzword everywhere and, at least in Delhi University, it's breaking news that has caught the academic community off-guard. Into the second year of implementation of the semester system at the undergraduate level, Delhi University is embarking on another round of radical reforms with a four-year-degree system. Expected to roll out from the 2013-14 academic session, provided it receives approval of the statutory bodies - academic and executive councils - this will be the first structural reforms of its kind in a university of the size of DU in the country. This will be followed by reforms at postgraduate level.

For such a giant step that will dramatically change the course content, the manner in which students approach a degree course and the number of students to be accommodated in the university, there has been very little debate or consultations with stakeholders it seems. Forget the Class XII students who will be appearing for their board examinations without any orientation to the new system.

The four-year course will have exit options in the second and third year, allow breaks and completion within 10 years, be less rigid about studying various disciplines and allow credits, even from sports and extra-curricular activities. The pros and cons can be debated but teachers are worried about the unseemly hurry to introduce the change without any consultations, preparations or roadmap. They say they have been kept completely in the dark with none of the statutory bodies being formally informed of the reforms.

The questions being raised reflect the academic community's anxiety. Are reforms like a four-year-degree course at the undergraduate level really necessary? Or is DU simply becoming a laboratory for the HRD ministry's agenda on higher education? Why are teachers not being consulted via staff councils? "In comparison to the semesters, this is a much bigger change being proposed. For semesters, the first proposal was placed in the academic council. Feedback was sought from the staff councils of various colleges. This time, teachers have no idea what it will be like. Even now, there is no communication on the proposed reforms," said Namdita Narain, senior mathematics



THE ONE-YR DEGREE OF DIFFERENCE

- > DU to shift to 4-yr-degree system at undergraduate level from 2013
- > The system will have two exit options - at the end of 2nd year and then 3rd year
- > At the end of 2nd year, a student can exit with an associate degree
- > At the end of 3rd year, a student can exit with a bachelor's (not honours) degree
- > A student will be allowed to return and complete the next level of course within 10 years
- > On successful completion of 4 years, a student will get an honours degree
- > Key feature of course structure: It will be 'transdisciplinary' (encouraging study in areas across disciplines)
- > It will follow the credit system (sections of the syllabus will bring credits)
- > A student has to collect a stipulated number credits to complete the course
- > A student may also earn extra credits through research projects and have them count for a post-graduate course
- > Co-curricular and extra-curricular activities like sports, NCC and NSS participation will also bring credits

teacher at St Stephen's College.

There are also allegations of a bigger and sinister plan of HRD Minister Kapil Sibal to push forward the 'higher education reforms' and make DU a centre for experimentation. "There are inherent strengths and weaknesses in all education systems. What we need to deliberate upon and debate is whether there is something wrong with the three-year system," asked Sanjaya Bohidar, an economics teacher of Sri Ram College of Commerce. "It is necessary to switch gears in such a hurry? These are proposals that only prime minister Manmohan Singh and HRD minister Sibal are talking about. We don't know about the pre-requisites

for such major structural changes and yet these are being imposed on us. This implies that the objective is not to improve quality but something else. Is this not an attempt to create a uniform model for credit transfer to private foreign institutions when they come? It is all about recasting higher education as a business model." Vice-chancellor Dinesh Singh defends the plan, saying it's not an imitation but has been developed for the benefit of society. "This is the need of the country and society. We can't be removed from it as we are a publicly-funded institution. Moreover, we have to give the students some degree of freedom and also its time teachers

THE ROADMAP

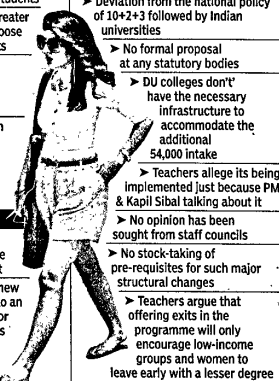
- > 700 teachers across colleges and departments working in groups to finalize structure
- > Inputs from the academic congress are being incorporated
- > The final blueprint will be placed in the next academic council meeting
- > If passed, committee of courses will be asked to prepare the syllabi

ADVANTAGES

- > It will present opportunities for internships
- > The multidisciplinary approach will enhance employability of students
- > The system allows for greater flexibility. Students can choose from wide range of subjects
- > Students can start earning credits for post-graduate courses at undergraduate level
- > A sportsperson can earn credits for participation in sports and can even be allowed to drop certain courses and still collect a degree

DISADVANTAGES

- > With just nine months left for launch, no concrete structure has emerged yet
- > Teachers alleging that new system will convert DU into an equivalent of community or junior colleges in the US as certificates and associate degrees are awarded only in such colleges
- > There are fears that DU may be reduced to a 'feeder' institution for foreign universities to recruit students and teachers from once they enter the scene
- > Deviation from the national policy of 10+2+3 followed by Indian universities
- > No formal proposal at any statutory bodies
- > DU colleges don't have the necessary infrastructure to accommodate the additional 54,000 intake
- > Teachers allege its being implemented just because PM & Kapil Sibal talking about it
- > No opinion has been sought from staff councils
- > No stock-taking of pre-requisites for such major structural changes
- > Teachers argue that offering exits in the programme will only encourage low-income groups and women to leave early with a lesser degree

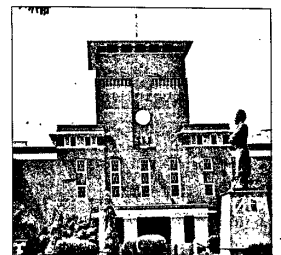


It's for more academic freedom: VC

Manash Pratim Gohain | TNN

New Delhi: Vice-chancellor Dinesh Singh opposes the notion that introduction of a four-year degree system is unique to the university. And on the teachers' allegations of lack of consultations and even any communication, the man at the helm of Delhi University assures that all those who need to know will be told about it and their approval sought.

"This is nothing new. IISER (Indian Institute of Science Education and Research) and IISc (Indian Institute of Science) already have four-year-degree programmes. Yes, this is the first time a university of the size of DU is going for it. On why we are introducing it, I would like to put on record that we are not imitating anyone but responding to the need of the nation and society. We (DU) can't be removed from it as we are a publicly-funded institution. Moreover, we would also like to give the students some degree of freedom through this programme. Also teachers should be allowed to play the role of true mentors. The programmes will be guided by the Gandhian premise where a significant part of the course will be knowledge through action. The key to these courses will be the



trans-disciplinary approach," said Singh. The VC says a majority of the teachers know what's going on and a large pool of teachers is, in fact, engaged in developing the structure before it is placed before the statutory bodies for approval. "I have personally interacted with over 4,000 teachers. Is that not consultation? Seven hundred of them are working in smaller groups, fine-tuning the details and holding meetings for hours. There has been an academic congress meeting too. Now, based on all this, we will actively engage all the teachers in consultations. No process will be violated and we will give all the freedom to the teachers to frame the curriculum. We will place it before the academic council for approval. If it approves, we will implement. I alone can't decide what to implement," said Singh.

On a more fundamental question whether the present 10+2+3 system, which is a national policy, had become completely obsolete that it's time for such radical reforms, Singh said no system has become obsolete but it is an initiative to give students a higher degree of freedom in academics. "We should embrace all noble ideas, no matter from where they come. I have interacted with hundreds of students of Sanskrit at a personal level. I find they have an urge to also study mathematics, computer science and political science. So far, not one of them had got a chance to meaningfully engage with these subjects. We want them to see Sanskrit in action," said Singh.

"Today, I find every student in this university is a job-seeker. It is incumbent on us to create entrepreneurs, who will create jobs and opportunities. It is incumbent on DU to institute a platform for innovation," added Singh.

More freedom or pressure? Students' split wide open

Shreya Roy Chowdhury | TNN

New Delhi: Students are divided over the four-year degree course to be introduced next year. Some welcome the move, believing it will mean work experience and greater exposure to industry. Others feel it will only delay their getting into professional, post-graduate courses such as law. And many believe, erroneously, that it'll be the same course only with work experience factored in.

"I prefer the three-year system as I want to study law. If graduation takes four years, I will be studying for seven years instead of six," says first year BA programme student Shivam Pareta. There are students who are apprehensive of additional pressure. "Our semester system is already very hectic," says Rachna Maurya, a second-year mathematics (honours) student. "Four years of this will be very difficult. There has been a lot of protest against this on campus," says Tripti Agrawal from the same class, adding, "We'd prefer a two-year master's degree course over a one-year postgraduate course with four years of graduation."

But there are pluses as well. Akanksha Shidhare feels the four-year system will work as there is "much pressure because of the semester system." "Increasing the number of years will also increase the chances of internships. Now we can't give time to anything else," she



says. She also states with conviction, "Our course will remain the same. That's what our teachers have told us."

While some future DU aspirants are excited, others are apprehensive of the new system. Tanya Sahai, a humanities student in Class XII, says "everyone is really excited about the proposed system." "My dad told me we can do more than the honours subject and it all sounds interesting," she says. "But we'll have to wait and find out what exactly they're going to bring in." Sahai is considering only Delhi Uni-

versity. "I'm annoyed about always being in a batch that's experimented with," she says. The CCE (Continuous Comprehensive Evaluation) system was introduced when she was in Class IX.

A word of caution from a DU teacher: "Whenever a change is announced, students are happy. They feel something is being done for them. But they are pleased as long as they don't know the details of that change. Once they experience it, they say the current system was better," says P K Parihar who teaches geography at Dyal Singh College.

There is no room for more students here!

Shreya Roy Chowdhury | TNN

New Delhi: Already weighed down by the 54,000 additional students under the OBC quota, the university infrastructure is creaking and colleges say they are not prepared to handle any more.

For the OBC expansion, the colleges had received huge grants from the University Grants Commission to develop infrastructure - classrooms, laboratories, libraries etc. Despite the 2012 deadline, most colleges are yet to add new buildings. Classes are being held in lawns and gazebos at Lady Shri Ram College; at Hindu, rooms long used for storage will be converted into laboratories; and Dyal Singh College doesn't hold tutorials for lack of space, says a teacher.

"The UGC hasn't conducted any audit to see how the grants are being used," says Naveen Gaur, physics teacher at Dyal Singh. "The money being poured in is not being used wisely." In response to an RTI filed by Gaur in 2010, it was revealed that the university's departments had collectively received Rs 117.43 crore and colleges Rs 299.37 crore from the UGC in 2008-2009.

In 2009-2010, the departments got another Rs 75 crore and colleges Rs 175 crore. The infrastructure to be built with this money for science has disappeared in "renovation of labs" and "purchase of chemicals". The zoology department saw more substantial improvements in the form of "vertical extension of department" and "renovation of animal house." At Dyal Singh, the recently-repaired roof of the entire old block was re-laid.

The university also pushed for "bam-

boo" rooms. "The money went into bamboo rooms instead of permanent infrastructure," says P K Parihar, who teaches geography at the college. The rooms are now under termite attack. The four at Gargi College are faring better but demand for more can't be met because of lack of space.

"Buildings take time," says Mitali Mishra, who teaches English at Lady Shri



DESTROYED: A termite-infested writing board at Dyal Singh College

Ram College. "You need clearances and sanctions. We are very organized and classes are going on but we are teaching in the auditorium and gazebos. We are already using every room available." Kalindi College too is short of classrooms. At Hindu, space for new rooms has been identified within the existing structures. Two rooms used for storing outdated lab equipment will be turned into fully-functional laboratories as plans for a new building are yet to be cleared.

DU Eng dept among world's best

Shreya Roy Chowdhury | TNN

New Delhi: A reputed global survey of universities has ranked Delhi University among the 100 best places to study English. Even as Indian institutions of higher education have drawn flak for failing to make the top 200 in overall university rankings, DU's English department features in the 51-100 group in the QS annual survey.

English (or language) departments of

three other Indian universities are on the QS list by subject (in this case, English language and literature) — Jawaharlal Nehru University, University of Calcutta and University of Hyderabad. But unlike

► Teachers play down ranking, P 9

DU, they are in the 151-200 ranks group.

DU's English is better than that of Purdue University, Nottingham University and University of Liverpool.

DUTA seeks President's intervention

New Delhi: In a general body meeting on Saturday, the Delhi University Teachers' Association decided to "intensify the stir" against the vice-chancellor's policies by starting an indefinite relay hunger strike from October 10. The meeting was held a day after DUTA members met President Pranab Mukherjee, seeking his intervention as visitor of the University.

Apart from complaining to the President about the VC's "stonewalling" the associations — DUTA and DUCKU — it also complained about "the cheap and cowardly tactic of putting pressure on the principals of SRCC and Ramjas College to deny DUTA a space to conduct its annual general body meet on September 22." The meeting was held at Ramjas College. TNN

THE SCIENTIST WHO WASN'T A SPY

S Nambi Narayanan has lived an extraordinary life. Branded a spy in 1994, the Isro scientist has fought hard for his honour. The recent Kerala HC order for monetary compensation to him has brought a little more cheer to the man who says he's now ready to bring his tormentors to justice and expose the conspiracy against India's ambitious cryogenic project

Photo courtesy Rakesh Nair



PAINFUL PAST A 1994 picture of Nambi Narayanan (extreme left) with the Maldivian women who were accused of spying along with him

Vijay B | TNW

They began their scientific careers as the two bright stars of India's space research programme. Later, of course, APJ Abdul Kalam's and S Nambi Narayanan's lives would go on separate trajectories and their stories would read very differently.

Kalam, who was working on the solid propulsion system in the Indian Space Research Organisation (Isro), went on to become a much-loved President of India. S Nambi Narayanan, who was working on the liquid propulsion system — the technology was successfully used in many satellite missions — during the same period, was branded a spy and traitor; his brilliant scientific career dented forever even as he fought against an unjust system to prove

his innocence.

Narayanan, along with six others, including his Isro colleague D Sasikumar, was arrested on November 30, 1994 on charges of espionage and for selling defence secrets to two Maldivian women, Mariam Rasheed and Fauzia Hassan. He spent 50 days in jail after that and lived in anxiety and ignominy until the Supreme Court cleared him of the charges in 1998. But even after that he never got to work in the prestigious cryogenics field at Isro.

Last week, the Kerala high court upheld an order of the National Human Rights Commission directing the state to pay a compensation of Rs 10 lakh to the scientist for implicating him in a false case. But that doesn't really mean much to him now.

Sitting in his spacious living room, at West Fort in Thiruvananthapuram, amidst rocket models and European paintings,

71-year-old Narayanan resembles Alexander Solzhenitsyn, the tortured Russian Noble Prize-winning author who was expelled from the Soviet Union. "They framed me in a false case, perhaps to destroy India's space research program which was moving at a fast pace," he says in a soft voice, caressing his long, grey beard that shines in the morning sun.

In those dark days, the media so convincingly printed and parroted everything that one particular police inspector said that even educated Keralites began believing the concocted stories that detailed illicit links between a scientist and a couple of random Maldivian women. The controversy was soon used by a section of Congress politicians to tarnish the image of then chief minister K Karunakaran, who was already embroiled

in what was called the Palmolein scam. "I spent 50 days in jail and the state police pressured me to say that even the Isro top brass was involved," says Narayanan. The case was later taken over by the CBI which found no evidence, and said it was fabricated. This was later upheld by the Supreme Court. But it may not be closure yet for Narayanan as the identity of key players who fuelled the case still remains in the dark. Also, the question remains unanswered whether it was merely an unfortunate chain of events or if there was a larger game plan.

Narayanan, personally, believes in the role of some external agencies which wanted to halt India's cryogenic space research programme. "We can now put the jigsaw puzzle together if we can look at what was happening internationally at that time as India was cutting into a billion dollar space industry poised to take off with its cryogenic engine research," he says.

Police inspector Vijayan, who registered the first case against the two Maldivian women for overstaying, and the vernacular media which printed verbatim what the state police said, were perhaps minor characters in a larger international conspiracy.

India, by the early 1990s, had developed its own solid and liquid fuel and was able to put its satellites in orbits up to 800km. But the ultimate challenge was to develop a cryogenic engine that would propel heavy rockets with payloads of more than three tonnes to the geo-synchronous orbit, 36,000 km away from earth. These satellites would then provide accurate geo-spatial images of earth and would usher in a path-breaking revolution in telecommunication and media. Cryogenics, the science of extreme low temperatures, has been a tricky one for rocket scientists across the world.

"At stake was a 300 billion dollar space research and applications industry which was in the hands of five nations — the US, France, China, Russia, and Japan. Almost every major country wanted to put its own satellites in the orbit and they could do it only with the help of these five nations," says J Rajashekaran Nair, who authored Spies from Space: The ISRO Frame-up. In 1992, India signed an agreement with Russia for transfer of technology to develop cryogenic-based fuels. The agreement was signed for Rs 235 crore, when the US and France were offering the same technology for Rs 950 crore and Rs 650 crore respectively. "Documents show that US president George Bush (Sr) wrote to Russia, raising objections against this agreement and even threatening to blacklist the country from the select-five club," Rajashekaran says.

Russia, under Boris Yeltsin, succumbed

to the pressure and denied cryogenic technology to India. To bypass this monopoly, India signed a new agreement with Russia to fabricate four cryogenic engines after floating a global tender without a formal transfer of technology.

Isro had already reached a consensus with Kerala High Tech Industries Limited (Keltch) which would have provided the cheapest tender for fabricating engines. But this did not happen as the spy scandal surfaced in late 1994. "If you look at the people who were arrested in the case, they were all connected in some way in developing or procuring the tech-

nology. We cannot rule out foul play by an external agency," says Rajashekaran.

The plot, says Narayanan, was to tarnish the image of a premier research institution. "How could we have leaked out cryogenic missile technology when we did not even possess one? But what we lost in the process was years of hard work to revolutionise our space research, and the credibility and morale of our scientific community. And on a personal level, it ruined the lives of six families who were dragged into the case for no fault of theirs."

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MY MIND IS MY EYE NOW, I CAN HANDLE ANYTHING

Sheer grit and determination can do wonders. And 23-year-old Pratish Datta, a visually challenged student from IIT-Kharagpur, knows all about it. He recently received the J C Bose Memorial Gold Medal for best academic performance in the two-year PG course in science from President Pranab Mukherjee. While this honour has been special, Datta has been a topper all his life. He tells Shobha John that if one tries, one can do anything; lack of sight is hardly an impediment

FOR THE RECORD

You did MSc in mathematics at IIT and are known to do complex mathematical calculations mentally. How is that possible?

■ It goes back to my childhood. I lost vision in one eye at six months of age and had poor vision in the other. My parents felt that if I studied a lot, the pressure would damage this eye too. So my mother would read all my lessons to me and I would memorize them. Even maths sums were done mentally. I knew no other way to do it. Over time, practice made me perfect. I also manage to finish my exams in almost the same time as normal students. But a lot of higher mathematics is not just calculation but visualization too and I can handle that. Even Swiss mathematician Leonhard Euler lost his vision in the last 17 years of his

life. But he continued to do research. My mind is my eye now. How did you cope with the loss of your eyesight?

■ I was doing my second year at St Xavier's College in Kolkata in 2008 when I lost vision in my second eye. I was shocked to suddenly see a dark world but my parents and teachers stood by me. As I loved studies, I decided to concentrate on that. All my happiness is related to studies. Even when I came to IIT, there were many questions about whether I would be able to cope. But my faculty helped me with a competent scribe, which itself takes the load off students like me. He's a computer operator here who understands mathematics symbols and has done presentations for various seminars.

The dean of student affairs also helped me find accommodation within the campus. I also have nice friends, especially Fouzoul Atik who studied

with me in MSc. He would sit beside me, dictate what was written on the board, take me from one class to another, xerox pages for me...he was very happy when I got the gold medal.

Was it difficult

to handle the pressure in IIT with this impairment? Your mother seems to have sacrificed a lot.

■ As I was able to see in childhood, I understood maths symbols and could do well. But for many others, the fact that higher education books aren't in Braille are a handicap. An attempt should be made to convert them so that others like me don't suffer. As for my mother, she has stood by me like a rock. Even when I said I wanted to study in IIT, she told me bravely, 'Go as far as you want, I will be with you.' And she did. She left Kolkata where my father is a civil engineer and came to stay with me, an only child, here at Kharagpur.

What should education institutions do for the visually challenged?

■ They should be generous towards them and help them as much as possible. Such students already start with a disadvantage and could do with a leg-up in life. Give them competent scribes and good scholarships.

What do you plan to do now?

■ I want to do my PhD in cryptology and network security as it's a field which is gaining importance and involves both maths and algebra. I want to continue doing research.

You seem to lead a normal life — you use the mobile quite well and have a Facebook profile. How do you manage these?

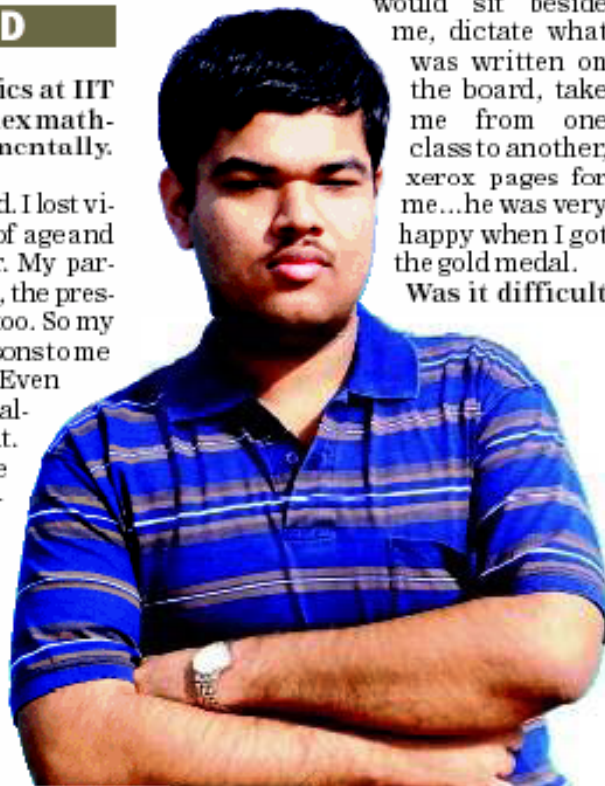
■ I have memorized the keys and functions of my mobile so I can use it effortlessly. I also have a computer screen-reading software called JAWS which reads out whatever text there is on it.

Your Facebook profile shows you having varied interests, including football and cricket.

■ I used to play cricket when I could. Now I just hear the commentary.

It also mentions that you like chatting with hot girls. Does that happen often?

■ (Laughs) It's not like that. I have got some popularity after the award but it's not like I chat with many girls. I am particular.



Aakash 2 supply to IIT Bombay starts; launch likely in October

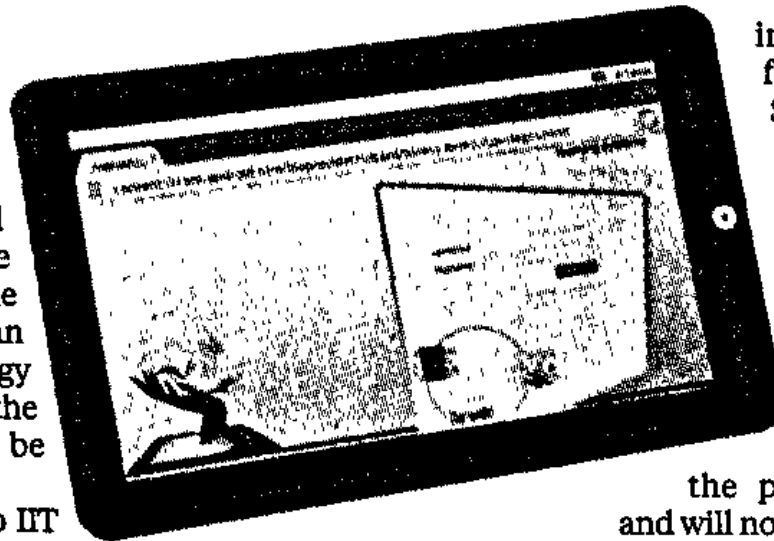
PRESS TRUST OF INDIA
New Delhi, 23 September

Datawind, the maker of low-cost Aakash tablet, today said it had started supplying the new version of the tablet to the Indian Institute of Technology (IIT) Bombay, and the tablet was likely to be launched in October.

"Supplies are on to IIT Bombay. In the next few weeks, it should be launched. I do not have the exact date, but Kapil Sibal, the human resource development (HRD) minister, has said he wants to launch on the anniversary date, which is October 5," Sunit Singh Tuli, chief executive officer, Datawind told PTI.

The launch will depend on the minister's schedule, but it is not very far from now, he added.

Tuli said Datawind has started supplying the next version of the low-cost tablet, Aakash 2, to IIT Bombay since the last one month and a half, while at the same time refus-



Datawind had won the tender for making and supplying Aakash tablets for price of around \$49 per unit. Apart from this order, the company has also received orders for 5.5 million more from general customers

ing to disclose other details. Sibal had earlier said that the new version of Aakash would have a better battery with a three-hour battery backup, a capacitive touch screen among other new features at the same price. Datawind had won the tender for making and supply-

ing Aakash tablets for price of around \$49 per unit. Apart from this order, the company has also received orders for 5.5 million more from general customers.

Tuli said the company has cleared most of

the pre-paid bookings and will now start focusing on supplies for the non-paid bookings.

"Out of the 5.5 million orders, 4 to 5 per cent were pre-paid bookings. May be in a week or 10 days, all the pre-paid will be done. Then we will focus on pre-bookings. We are giving them offers to upgrade to Android 4.4 version," he said. Datawind is delivering around 1,500 to 2,000 tablets each day, being assembled within the country as well as outside, Tuli said. He added that the company is in talks with channel partners to sell products across the country, but it will first focus on the pre-booking order that it has.

Tablet stuck as ministries tussle

NITIN MAHAJAN
NEW DELHI, SEPT. 23

Despite heading both the Union HRD and IT ministries, Kapil Sibal has been unable to launch the much-publicised and much-anticipated Aakash tablet, with repeated deadlines being missed. It is understood that the two ministries have been "discussing" the launch of the Aakash-2 tablet despite preparing a Cabinet note almost six months ago for procurement of 50 lakh devices. The two ministries have been unable to seek the clearance of the Union council of ministers, further delaying the project.

Projected as the cheapest computing device in the world, the announcement of the tablet targeted at the student community was made by Mr Sibal in October last year. The government has been unable to



procure the tablets for students and faculty despite a prototype of the device being unveiled as far back as July 2010.

Sources stated that the tablet, this time being developed in coordination with IIT-Bombay, is far from being finalised and could take another few months before becoming a reality for end users.

Sources stated that the launch date of the Aakash-2 tablet is yet to be known. The delays and controversies affecting the project have been repeated withholding the low-cost com-

puting device from the student community in India.

Priced at ₹2,276, the device will be subsidised by up to 50 per cent for students as the government prepares to expand information technology education in the country. The device was developed as part of India's aim to link 25,000 colleges and 400 universities in an e-learning programme.

It is understood that the government plans to upgrade Aakash-2 over the original Aakash tablet. It is claimed that the initial version, procured through a private firm, had failed to perform up to expected standards. It ran Android v2.2 on a 366MHz processor, based on an older ARM architecture. The Aakash-2 tablet is likely to be replaced by a successor, which will have a dual core Cortex-A9 processor by the end of this year.

10-yr term soon for college principals

Manash Pratim Gohain | TNN

New Delhi: College principals are likely to have a fixed term of 10 years. The review committee set up by the University Grants Commission (UGC) has made this recommendation at its last meeting on Friday. If approved, all new appointments for college principals will be for 10 years. The principals can, however, have a second term of five years. At present, the principals retire at 65.

The UGC, in June 2010, had limited the tenure of the post of a college principal to five years in its new regulations for appointment of teachers and other academic

If the recommendations are accepted, all appointments for principals will be for 10 years. The principals can, however, have a 2nd term of five years

staff in universities and colleges. The regulations on fixed term for college principals were opposed and the committee was asked to review the norms.

The UGC's regulations say that "the term of appointment of the college principal shall be of five years with eligibility for reappointment for one more term only after a similar selection committee process". In its final meeting on Friday, the review committee chaired by vice-chancellor of Delhi University, Dinesh Singh, recommended that the term of appointment of the college principal shall be of 10 years with eligibility for reappointment for one more term of five years only.

Four-year degree at DU

Vatsala Shranghi/TNN

Students at Delhi University (DU) will be introduced to a four-year Bachelor's degree programme in 2013. The university authorities have been working on it to frame a student-oriented degree course, likely to be implemented from next year for first-year students.

The new syllabus will be project-oriented and hands-on, offering greater flexibility of choice. Says Malashri Lal, dean, academic activities and projects, "The recent academic congress initiated by the VC, in which more than 3,000 students and parents participated, was held to get an idea of what kind of courses they are looking for, their expectations from the university, where sports and extracurricular activities stand, etc."

Further, she says, "In the meetings, everyone was keen to have an integrated syllabi, flexibility to opt for varied subjects, quality IT capability, project, field work and internship opportunities in every discipline. We are trying to integrate all this in order to formulate the new curriculum."

The plan for the four-year programmes involves credit points system and various exit options for students. "Students will be awarded credit points for both academics as well as extra-curricular activities. The credit system is not new as many universities in India have credit transfers including the Indian Institutes of Technology (IITs) and Jawaharlal Nehru University (JNU)," informs Lal.

Students in the new scheme will have exit options. If they opt to exit after two years, it will be a diploma. After third year, it will be a general degree and an honours degree on completion of the full programme.

The final plan has to go through the academic council (AC) meeting. However, Debjani Sengupta, faculty, department of English, Indraprastha College for Women says, "We roughly know that students will be having credit points, etc. Teachers who will be teaching the course must be consulted as we have a stake in it."

While some faculty members are apprehensive about the feasibility of the new course, another section of teachers welcome the plan. As Ajay K Arora, principal of Deshbandhu College, says, "Though there is little time to develop the new course, we have a large faculty and we will manage."

HIGHER EDUCATION BILL

'Legal education will be under BCI'

HT Correspondent

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NEW DELHI: Law minister Salman Khurshid on Sunday gave an assurance that the legal education would continue to remain within the purview of the Bar Council of India (BCI), the country's apex body of lawyers. He said the new higher education bill was framed to cater to students who desire to study law as an additional subject while pursuing other courses.

Khurshid said the bill was in league with the structural changes in education taking place across the world, and a balance had to be made between

**Legal education will remain
within purview of BCI...
They are the best to decide...**
SALMAN KHURSHID
law minister

professional bodies like the Bar Council and other bodies regarding legal education.

"There are people who want to read law not to crack law, but who want to combine law with subjects like physics, chemistry, mathematics, management," he said at a seminar at the Indian Law Institute and Bar Council of India to mark 50 years of Advocates' Act. The minister's

comments come in the backdrop of strong opposition from the legal fraternity to the proposed bill of the HRD ministry. BCI has alleged that the bill on higher education was aimed at usurping its control over legal education.

Senior advocate and BJP Member of Parliament Ravi Shankar Prasad noted globalization of economy, knowledge and governance was "seriously affecting the landscape of the profession."

Lok Sabha speaker Meira Kumar stressed on speedy delivery of justice and made fervent plea to lawyers not to undermine their contribution to it.

FRESH CHAPTER

Industries may soon get a role in higher education

Govt expects industry involvement will, apart from employability, solve issues related to land availability, finance

BY PRASHANT K. NANDA
prashant.n@livemint.com

NEW DELHI

India is preparing to involve industries in higher education in an effort to boost both research and employability.

The human resource development (HRD) ministry expects this will, in addition to employability, solve issues related to land availability and finance. In return, the government will give industries independence and fast-track regulatory clearances for opening institutes that will focus on research specific to industry requirements.

The ministry, in association with lobby group Confederation of Indian Industries (CII), has invited 17 government departments and ministries and nearly 60 companies to a two-day conference in Delhi that will begin on Monday, according to a ministry concept note that *Mint* has reviewed.

"If we reach an agreement, then we don't have to go to Parliament and it will be more of a ministry-level decision to engage industry in higher education," said S.S. Mantha, chairman of the All India Council for Technical Education (AICTE), the regulator in



Course correction: Educationists say involving the industry will promote theme-based research and innovation.

the higher education sector for technical institutes and a part of the HRD ministry. "Through the conference we want to understand what the industry requires on regulatory front. We will try to accommodate that."

Shalini Sharma, head of the education wing at CII, said companies are open to the idea and want to know "what the government is offering". The exercise will fast-track industry involvement and is a positive for higher education, Sharma said, particularly as research needs to pick up in the country and should happen in sync with industry demand.

"The government cannot do everything by its own. Once the industry participates, issues like land and finance will be taken care of easily," said Mantha.

Mantha said involving the industry will promote theme-based research and innovation during the 12th Five-Year Plan (2012-17). This will "stimulate discussion between industry players and ministries" on set-

ting up institutes that will focus on specific research and enter into twinning and collaborative programmes with other universities and research organizations, he said.

Such institutes should admit trained people across disciplines to do research, leading to the award of doctoral degrees in sectors ranging from water to chemicals, urban development to manufacturing, and energy and mines, the concept note underlined.

The HRD ministry will function as the nodal agency for setting up such institutes, it said. Higher education reform has been left cold the past couple of years, but the government has given education a priority sector tag for the 12th Five-Year Plan period that began on 1 April 2012.

Several proposed legislations related to higher education, including the foreign university Bill, education tribunal Bill, education malpractice Bill and accreditation Bill are pending in Parliament.

Social networking nets IIT-B donations in US

Bhavya Dore

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MUMBAI: The IIT Bombay Heritage Fund, a registered charity in the US, has won \$10,000 (Rs 5.33 lakh) through a crowd-sourced philanthropy programme.

A total of \$5 million was awarded to charities through online voting as part of the fourth edition of the Chase Community Giving contest, run by global financial services firm JP Morgan Chase. When the results were announced on Thursday,

it emerged that the IIT Fund was one of 196 charities from around the world to be awarded donations, from among a total of 30,000 nominees. This is the first time the Fund participated in the challenge.

“As a relatively young charity restricted to IIT-B, we didn’t even think we had a chance,” said Bakul Desai, chairman of the IITB Alumni Association. “It was through viral networking of our alumni as well as support from other IIT alumni groups that we did well.”

IIT-B team points out shortcomings in SAS Nagar drainage system

HT Live Correspondent

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SAS NAGAR: An experts' team from Mumbai-based Indian Institute of Technology (IIT) has observed what the public already knew: Not all is well with the drainage system in SAS Nagar.

Drains in the city were not cleaned properly, thus causing waterlogging after every spell of rain and resultant inconvenience to local residents, observed the IIT-B team which is visiting SAS Nagar to help resolve the perennial waterlogging problem in the city.

The visit of IIT team, which conducted a survey and identified problem areas in SAS Nagar, comes in wake of a tie-up between Greater Mohali Area Development Authority (GMADA) and IIT-B to find a solution to waterlogging problem.

Talking to media persons here on Saturday, Dr Kapil

**EXPERTS OBSERVATIONS:
DRAINS IN THE CITY
NOT CLEANED
PROPERLY, CAUSING
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LOCAL RESIDENTS**

Gupta, head of IIT department of drainage management, said, "The drainage system in the city needs to be upgraded, which is long overdue."

He also suggested construction of walls along the chow passing through the city.

"Re-carpeting of roads over and over again has raised their level in comparison to houses which results in waterlogging in that particular area. To avoid such situations, old roads should be dug up before new roads are laid," Dr Gupta added.

Talking about the increasing

incidents of flooding in urban areas, he said, "Changes in climatic conditions has brought about a drastic change in the pattern of rainfall. The number of rainy days has shrunk and the quantity of rain in much smaller spans affects drainage of rainwater. Unlike the earlier days, about 80% rainwater goes waste through drains."

The IIT professor also pointed out that the diameter of drain channels was less, adding that there was urgent need to increase their diameter.

"Automatic rain gauge equipment should be installed at distances of four square km that will help measure rainfall and help experts devise the drainage system plan. Drains should also be properly cleaned before March 31 every year," Dr Gupta suggested.

GMADA authorities said that they would implement the team's recommendations within two months, before its second visit scheduled in November.