

## Newspaper Clips January 9, 2015

**Business Line ND 09/01/2015 P-1**

### IIT-B initiative: impress 10 angels in 10 minutes and get ₹10 lakh

100 young ventures line up for the Feb 1 '10-Minute-Million' programme

**DEEPA NAIR**

Mumbai, January 8

To help start-ups raise funds, IIT-Bombay has launched '10-Minute Million', an on-the-spot funding initiative. Start-ups will get 10 minutes each to pitch to a panel of angel investors for raising ₹10 lakh.

"Raising money is difficult for most start-ups. The administrative formalities and non-standardised documents make it particularly irksome for first-timers. The initiative will revolutionise fund-raising," said Sagar Seth, Manager at the Entrepreneurship Cell of IIT-B.

After a process of online filtering, 10 start-ups will get 10 minutes each to pitch in front of a panel of 10 angel investors and seed funders.

#### **Over 100 register**

Seth said that over 100 start-ups have registered so far from various sectors such as

food, education, e-commerce, big data and healthcare. He said nascent stage start-ups (those that haven't raised any funding yet) will be given preference.

The initiative, which will be part of the Entrepreneurship Summit to be organised at IIT-B, will be held on February 1.

The idea for the initiative is partially derived from Shark Tank, an American reality TV series where aspiring entrepreneurs make business presentations to a panel of 'shark' investors.

The idea has been tweaked to suit the Indian context. According to Seth, the ₹10 lakh need not necessarily come from a single investor. Multiple investors can pool in to invest a total of ₹10 lakh.

The initiative comes at a time when the IITs are increasing their commitment to support entrepreneurship.

Nitin Nohria, Dean of Harvard Business School, who was in India recently said the IITs have, of late, been making big strides in promoting entrepreneurship, especially with the support of their alumni.

## घर बैठे लें आइआइटी प्रोफेसरों की क्लास

विकसन सिक्सोडिया, कानपुर : देश के अग्रणी तकनीकी शिक्षण संस्थान आइआइटी के प्रोफेसरों की क्लास में बैठने का मौका अब दूर-दराज के छात्रों को भी मिल सकेगा। आइआइटी कानपुर ने बाहरी छात्रों के लिए 18 कोर्स ऑनलाइन कर दिए हैं।

12वीं से लेकर बीटेक की पढ़ाई कर रहे छात्रों के लिए यह प्रोफेसर अलग अलग विषयों के टॉपिक रिकार्ड करके उन छात्रों तक पहुंचा रहे हैं जिनके लिए इन विषय विशेषज्ञों तक पहुंचना आसान नहीं है। ऑनलाइन एजुकेशन की शुरुआत पांच जनवरी हो गई है। ग्रामीण व ऐसे मेधावी छात्र जो आइआइटी में पढ़ने का सपना देखते हैं लेकिन किसी कारणवश यह सपना पूरा नहीं हो पाता है। उन छात्रों का सपना अब पूरा होगा। 15 से 30 मिनट के इस मॉड्यूल में विषयों से जुड़े महत्वपूर्ण टॉपिक को बारीकी से समझाया गया है। आइआइटी कानपुर के प्रोफेसर व प्रोजेक्ट में शामिल डॉ. विमल कुमार ने बताया कि छात्र इसके लिए 16 जनवरी तक <https://onlinecourses.nptel.ac.in> वेबसाइट पर अपना रजिस्ट्रेशन करके कोर्स ज्वाइन कर सकते हैं। अब तक केवल 'स्ट्रेटजी : एन इंटीरोडक्शन टू गेम थ्योरी' कोर्स में चार हजार छात्र ज्वाइन कर चुके हैं।

## कन्या भ्रूणहत्या रोकेगी आइआइटी की पहल

जागरण ब्यूरो, नई दिल्ली : गर्भावस्था के दौरान मां और उसके बच्चे की सेहत का हाल बताने वाली अल्ट्रासाउंड मशीन का दुरुपयोग यह पता करने के लिए हो रहा है कि गर्भ में पल रहा बच्चा लड़का है या लड़की। अल्ट्रासाउंड मशीन के इस दुरुपयोग को रोकने के लिए भारतीय प्रौद्योगिकी संस्थान (आइआइटी) हैदराबाद की सहायक प्रोफेसर पी. राजलक्ष्मी ने आधुनिक तकनीक पर आधारित नई व्यवस्था विकसित की है। इसकी मदद से 'पोर्टेबल अल्ट्रासाउंड मशीनों के दुरुपयोग' पर भी रोक लगाई जा सकेगी। अभी बड़ी तादाद में ऐसी मशीनों का दुरुपयोग लिंग जांच के लिए हो रहा है, लेकिन सरकारी अधिकारी उनका पता नहीं लगा पाते।

### दूर होगी सामाजिक बुराई

आइआइटी, हैदराबाद के इलेक्ट्रिकल इंजीनियरिंग विभाग में सहायक प्रोफेसर पी. राजलक्ष्मी कहती हैं कि इस मशीन के प्रोटोटाइप को व्यावसायिक रूप से तैयार करने के लिए एक बहुराष्ट्रीय कंपनी ने दिलचस्पी दिखाई है। अगर ऐसी मशीनें उपलब्ध हो जाती हैं तो देशभर में सिर्फ ऐसी ही अल्ट्रासाउंड मशीनों के उपयोग को अनिवार्य किया जाना चाहिए। इसमें बहुत सामान्य तकनीक और मामूली धन की जरूरत होगी, लेकिन इसके जरिये बड़ी सामाजिक बुराई को दूर किया जा सकता है।

### अच्छी खबर

- ◆ नई तकनीक से रुक सकेगा लिंग परीक्षण में अल्ट्रासाउंड का दुरुपयोग
- ◆ आइआइटी हैदराबाद की प्रोफेसर राजलक्ष्मी ने विकसित की तकनीक

### इस्तेमाल करने से पहले पहचान

इस तकनीकी व्यवस्था के तहत सामान्य अल्ट्रासाउंड मशीनों के साथ ही पोर्टेबल या हैंडहेल्ड मशीनों पर अंकुश लगाना मुमकिन हो सकेगा। इसके तहत मशीन के अंदर मौजूद बायोमीट्रिक ऑथेंटिकेशनव्यवस्था की वजह से इसका उपयोग वही व्यक्ति कर सकेगा, जो अपनी पहचान सुनिश्चित कर सके। इसी तरह उपयोग के दौरान मशीन से ली गई सभी तस्वीरें सीधे मुख्य सर्वर तक पहुंच जाएंगी। मशीन को जीपीएस से भी लैस किया गया है।

### पहले से ली जा रही है मदद

अल्ट्रासाउंड मशीनों के दुरुपयोग को रोकने के लिए कई स्तरों पर तकनीकी का उपयोग देश में पहले भी होता रहा है। कुछ राज्यों में 'साइलेंट आब्जर्वर' नाम की तकनीक का उपयोग किया जा रहा है, जो स्थायी रूप से लगाई गई मशीनों पर नजर रखती है।

# आईआईटी फीस 50000, नर्सरी की तीन लाख से ज्यादा

नई दिल्ली | कार्यालय संवाददाता

दिल्ली के निजी स्कूलों में नर्सरी कक्षा में अपने नौनिहाल का दाखिला कराना और वहां मोटी फीस पर पढ़ाना अभिभावकों के लिए सिरदर्द भरा काम है। हैरानी की बात यह है कि नर्सरी की फीस आईआईटी जैसे संस्थानों से कई गुना अधिक है।

आईआईटी की सालाना फीस 50 हजार रुपये के करीब है तो वहीं राजधानी में ऐसे स्कूल भी हैं जिनकी सालाना फीस साढ़े तीन लाख रुपये से अधिक है।

आईआईटी में छात्रों को पचास हजार रुपये सालाना फीस के अलावा खाने,

रहने और दाखिला फीस के तौर पर बीस से तीस हजार रुपये देने पड़ते हैं। वहीं दिल्ली-एनसीआर के स्कूलों में अभिभावकों को सिर्फ ट्यूशन फीस के नाम पर ही 96,000 हजार रुपये देने पड़ते हैं जबकि सालाना फीस के तौर पर साढ़े तीन लाख रुपये से ज्यादा देने पड़ते हैं।

मान लीजिए दिल्ली का एक स्कूल ट्यूशन फीस के नाम पर 96,000 रुपये लेता है और दाखिला फीस के नाम पर 88,000 रुपये लेता है। ट्रांसपोर्ट फीस और अन्य मदों के नाम पर 26,000 रुपये लेता है। ऐसे में उसकी कुल सालाना फीस 2.1 लाख रुपये बैठती है।

## आईआईटी की फीस

- एडमिशन फीस करीब 50,000 रुपये होती है
- ट्यूशन फीस, रहन-सहन और खाना 20 से 30 हजार रुपये



## मैनेजमेंट संस्थान की फीस

- फैकल्टी ऑफ मैनेजमेंट स्टडीज (एफएमएस), डीयू- 79,150 रुपये
- जमुना लाल बजाज इंस्टीट्यूट ऑफ मैनेजमेंट स्टडीज 2,03,000 रुपये

## आईआईएम के बराबर पहुंच जाती है प्राइमरी की फीस

- आईआईएम लखनऊ आठ लाख
- आईआईएम अहमदाबाद 13.7 लाख
- आईआईएम कोलकाता 13.5 लाख
- आईआईएम कोजीखोड़ 10 लाख

# बर्मिंघम विश्वविद्यालय भारत की मदद से बनाएगा ई-एफ1 कार

नई दिल्ली। बर्मिंघम सिटी विश्वविद्यालय इस सप्ताह भारत के तीन विश्वविद्यालयों के साथ समझौते पर हस्ताक्षर करने जा रहा है। विश्वविद्यालय के कुलपति क्लिफ ऐलन ने कहा कि भारतीय विश्वविद्यालयों के सहयोग से वह एक इलेक्ट्रॉनिक फॉर्मूला-1 कार बनाएगा।

ऐलन ने कहा कि विश्वविद्यालय एक ई-एफ1 कार का विकास कर रहा है और यह भारतीय विश्वविद्यालयों के

सहयोग से किया जा रहा है। उन्होंने कहा, हम तीन विश्वविद्यालयों चंडीगढ़ विश्वविद्यालय, देहरादून, का ग्राफिक एरा विश्वविद्यालय और जालंधर के लवली प्रोफेशनल विश्वविद्यालय के साथ समझौता कर रहे हैं। ऐलन शुक्रवार को विश्वविद्यालय के अधिकारियों के साथ मिलकर समझौते पर हस्ताक्षर करेंगे। उन्होंने इस सप्ताह विश्वविद्यालय का दिल्ली कार्यालय भी खोला है।

# SC raps UGC for delaying varsity verification process

## UGC fails to submit verification report of black listed varsities

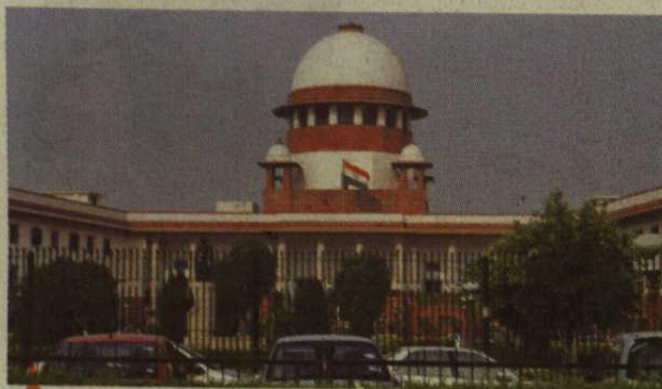
M POST BUREAU

**NEW DELHI:** The Supreme Court on Thursday rapped the University Grant Commission (UGC) for going into "slumber" over conducting physical verification of infrastructure and faculty strength of deemed universities, which were black-listed by a Committee appointed by the Centre.

"Why are you moving on in a snail's pace," a bench of Justices Dipak Misra and Vikramajit Sen observed when it was told that the UGC has not yet submitted the report on seven such universities to the Centre.

"UGC is not waking up. You are a statutory body but unfortunately you are not doing your statutory duty," the bench said and added that "there is a need for you to come out of the slumber".

The remarks were made when Additional Solicitor General Maninder Singh, appearing for UGC was trying to explain the circumstances for the delay by submitting that there was a need to modify the apex court order as the commission cannot go the way PN Tandon Committee made categorisation of the deemed universities like "A", "B" and "C" depending on the fulfil-



**UGC is not waking up. You are a statutory body but unfortunately you are not doing your statutory duty**

**SUPREME COURT**

ment of criteria.

The UGC said it can only do the inspection and after seeking response of such universities, place the report with the Centre which has to express its view before the apex court.

Taking note of the submission of UGC, Centre and other stakeholders, the bench asked the Commission to comply by its September 26, 2014 direction on seven such universities and Gurukul Kangra Vishwavidyalay within four weeks on physical verification.

It said in next one week, the Ministry of Human Resources Development will place its view in the apex

court, which posted the matter for hearing on February 23.

The bench said the same order will be there for the rest of the 34 such universities whose physical verification has been conducted and have been found to meet the criteria of being termed as deemed universities.

Additional Solicitor General Tushar Mehta appeared for the Centre while senior advocates Rajiv Dhavan, Vikas Singh, Pravin Parekh and Amarendra Sharan appeared for some universities.

The bench on September 26 had ruled out the suggestion of verification through photographs and videog-

raphy, saying it was not an acceptable mode of determining the credentials.

It had asked the UGC to complete within three months the physical verification of 41 deemed universities.

It had said that after completing the procedure of verification and rectification of deficiencies, the UGC will file its report both to the Centre and the apex court.

The Supreme Court had earlier last year directed the UGC to examine all the reports of the 41 deemed to-be universities and advise the central government.

These universities had gone to the Supreme Court after they were put in the 'C' category in 2009 by PN Tandon Committee, a retired professor from prestigious All India Institute of Medical Sciences (AIIMS).

After the Supreme Court's direction, UGC had set up a committee under vice chairperson of UGC H Devaraj, which heard all the 41 deemed universities separately.

A decision to issue show cause notice was taken for seven such deficient deemed universities by the Centre as to why they should not be denotified. But later it was left to the apex court.

# CAT is Old Hat for Gen Y; Global B-schools Are the Real Deal

Acceptance of younger MBA applicants at global B-schools, rising popularity of GMAT, global work experience are the draws

Anumeha Chaturvedi@timesgroup.com

**New Delhi:** Madhav Sharma worked with EY India for a year before the MBA bug bit him. So he wrote the Common Admission Test (CAT) and won admission to the Indian Institute of Management, Calcutta. But he wanted more than that.

"I did my engineering from Punjab Engineering College in Chandigarh and thought I needed global exposure," said Sharma, who'd also sat for the Graduate Management Admission Test or GMAT, which is for admission to institutes overseas.

Sharma turned down IIM Calcutta and instead went to Duke University's Fuqua School of Business, ranked as the No. 1 business school in America in 2014 by Bloomberg, bettering the renowned Harvard Business School. The youngest MBA in his batch, at 26, Sharma got a private equity job in San Francisco last year.

The growing acceptance of younger MBA applicants at global B-schools and the rising popularity of the GMAT exam in India is persuading many more like Sharma to opt for a global MBA. Many of the candidates who would have competed for seats at the IIMs are now ignoring them for overseas management programmes.

That's why top business schools like Harvard are taking in more Indian candidates. While the Boston-based school said its admissions office does not break down statistics by country, conversations with Indian alumni have revealed that the intake from the nation has nearly doubled from around 20 in 2014 to 40 in 2016. Indian students have also been consistently making it to the B-school through the so-called deferred 2+2 admission programme. Targeted at college students, this comprises two years of professional work experience followed by two years at Harvard.

In spite of the IIMs opening a special registration window to lure candidates for CAT registrations in 2014 after the application deadline and offering more centres in India, the number of those who sat for it fell last year from 2013. Though there was an upswing in registrations from 1.94 to 1.96 lakh, the test takers numbered 1.68 lakh in 2014. "This is lesser than 2013 (1.73 lakh)," said 2014 CAT convener Rohit Kapoor of IIM Indore. This despite six proposed IIMs being added to the existing 13.

In contrast, the number of students under 25 appearing for GMAT rose 19% in 2014 from the previous year, according to data from the Graduate Management Admission Council (GMAC), which administers the exam.

"The number of GMAT applicants have grown in testing year 2014 and there's a much higher rate of participation from undergraduates," said a GMAC spokesperson. Around 28,325 candidates applied for GMAT in 2014 compared with 25,268 in 2013.

Overseas schools confirm the age shift.

"While the average number of years of work experience at Fuqua is approximately


## The Lure of a Global MBA

Data from the Graduate Management Admission Council (GMAC), which administers the GMAT exam, reveals a

**19%**  rise in applicants under 25 appearing for the exam in testing year 2014

Though there was an upswing in registrations from 1.94 to 1.96 lakh in 2014, the CAT test takers numbered 1.68 lakh in 2014. This was lesser than 2013 which had around 1.73 lakh test takers

At Duke's Fuqua School of Business,

**80%**  of the applicant pool has had 2.5-3 years of work experience over the past three years as opposed to the average work experience of 5 years

Around **28,325** candidates applied for GMAT in 2014 compared with **25,268** in 2013

Admission consultants report a rise in younger applicants 



The mandate of the political class is excellence, but if the IIMs have to globalise, they have to reach the common merging point between equity and excellence.

**DEBASHIS CHATTERJEE**  
Former director, IIM-K

UPNESH

five years, over the past three years, 80% of our applicant pool has had 2.5-3 years of work experience," said Liz Riley Hargrove, associate dean for admissions at the Fuqua School of Business. "The numbers for students who matriculated are consistent with this trend as is the sub-pool of Indian applicants and matriculants."

Admissions consultants also report a rise in younger applicants. "Average work experience at the top 10 US B-schools is around 4.5 years but the number of younger applicants gaining admission is rising," said Rajdeep Chimni of consulting firm Admissions Gateway, which was co-founded by him and Dipika Chopra, an MBA from Columbia Business School. "Some of our mentees are successful with a year or two of experience and even get scholarships."

Chimni said younger applicants are seeking an MBA degree from top US business schools over Indian ones because of experiential learning opportunities, a focus on leadership and soft skills, greater diversity and in order to globalise their careers.

Kavita Mehta, founder of Mumbai-based consulting firm The Red Pen said candidates also want to explore careers in fields such as sustainability after an MBA as opposed to the popular avenues of banking and private equity. Rini Bhatt completed her BTech in computer science and worked with Amazon in Bangalore for a year before joining the non-profit Centre for Responsible Business, then heading for an MBA.

"I thought of an MBA from a global school to understand the social impact from a busi-

ness end as I wanted to launch my own social enterprise," she said.

With a GMAT score of 780, Bhatt is now at Wharton. "Over discussions, I have been hearing about the average age of MBA applicants going down at B-schools," she said. "Admissions committees expect younger candidates to have a vision of what they'd like to achieve and what they want to get out of life. They should definitely show some spark."

**Younger applicants seen seeking MBAs from US business schools because of a focus on leadership and soft skills, greater diversity**

Recruiters such as venture capital firm Accel Partners seem to be in favour of global MBA graduates.

Anand Daniel, principal at Accel Partners and an MBA from MIT's Sloan School of Management, said candidates from top global B-schools have a better global perspective, having lived overseas and studied with the best and the brightest from across the world. Accel Partners hires graduates from Harvard and Stanford and is yet to recruit from the IIMs.

"As more and more Indian companies compete against the world's best MNCs, it becomes more relevant to hire talent that has more global exposure," said Daniel, who focuses on investments in healthcare, education and information technology for Accel Partners and is on the board of TaxiForSure. "It also helps to have a strong network in leadership positions across the globe."

Debashis Chatterjee, former director of the

Indian Institute of Management Kozhikode (IIM-K) and currently a professor at IIM Lucknow, concedes that when it comes to boosting diversity, the elite Indian schools are constrained to a great extent.

"The IIMs are not driven by the market and diversity and have to negotiate with the government and the HRD ministry," Chatterjee said. "The mandate of the political class is excellence, but if the IIMs have to globalise, they have to reach the common merging point between equity and excellence. I don't know if we'll be allowed to globalise in the manner we should."

Bakul Dholakia, former director of IIM Ahmedabad and currently director at International Management Institute, New Delhi, said even as global business schools look at Asian markets such as India to drive intake and boost diversity, over the past three years, the diversity quotient at the top IIMs has been further skewed.

"The proportion of engineers is about 95% at the top IIMs. In the 80s and early 90s, the proportion hardly exceeded 75%. The IIMs should formulate a strategy to promote diversity in candidates and international linkages," said Dholakia. "If the IIMs want to become truly global, they should find mechanisms to boost diversity even in the flagship two year programmes." Dholakia spearheaded the launch of the executive PGPX programme at IIM Ahmedabad, which had one-third international students with interviews conducted in London and New York.

Birla Institute of Technology and Science (BITS) Pilani alumnus Gargi Apte joined Symantec after engineering and worked there for about two-and-a-half years before getting into the University of Virginia's Darden School of Business. She is currently in her second year. "At BITS Pilani, several of my seniors came to the US for their MBA and I spoke to them. My father, who is a strong believer in working before business school, also advised me to go to the US," Apte said.

Jim Aisner, director of media and public relations at Harvard Business School, said the idea behind its 2+2 programme is to reach students, particularly in science and technology, to make them understand the broad value of an MBA degree while they're still in college and thinking about options.

"An MBA doesn't have to work in a suit anymore. She or he can work in, say, a lab coat in a biotech company or in a T-shirt in a high tech startup. Admission is deferred for two years, but if they need three, that's fine as well," said Aisner. Sharma said Duke provided for a much richer experience as opposed to an Indian MBA and the exposure was extraordinary.

"In two years, I had a one-on-one meeting with Apple CEO Tim Cook, a Duke alumnus, the CEO of P&G and had classmates ranging from an anthropologist to a lawyer to an accountant from China," he said. "I got to learn a lot from peers and there's a greater focus on holistic development here — from making the right pauses in your speech to how to deliver Gen Y presentations."

## **IIM Bangalore hikes fees, gets the tag of costliest IIM**

<http://www.hindustantimes.com/india-news/pay-10-more-to-study-at-iim-bangalore/article1-1304777.aspx>

Fees for the flagship Post Graduate Programme in Management will now be Rs. 18.7 lakh for the academic session 2015-17, admissions for which will begin shortly. With this hike, IIM Bangalore has become the costliest IIM, pipping those in Ahmedabad, Kolkata and Lucknow.

The institute has hiked its fees months after IIM Ahmedabad announced an 11% hike in its fees, taking it to Rs. 18.5 lakh from Rs. 16.6 lakh. IIM Calcutta in April last year had announced a hike of almost 20%, taking the fees to Rs. 16.2 lakh.

HT, in a report on December 27 last year, had said that fees for some of the IIMs, including Bangalore, will be increased.

IIM-B said in a statement, “The fee hike has been approved by the board of governors. The hike has been implemented keeping inflation in mind.”

The institute had hiked its fees in 2013 by 6% from Rs. 16.03 lakh to Rs. 17 lakh. The fees across IIMs have gone up considerably since 2009. While IIM Bangalore had raised fees from Rs. 9.5 lakh to Rs. 11 lakh, IIM Ahmedabad hiked fees to Rs. 12.5 lakh in the same year.

“Getting quality faculty, infrastructure at rising cost is impossible for such institutes. Fee hike is inevitable,” said P Rameshan, director, IIM Rohtak. The institute has not hiked its fees since 2011.

A fee hike is expected by March in the new IIMs. Currently, IIM Trichy charges Rs. 10.1 lakh for PGP in Business Management, while IIM Rohtak and Udaipur charge Rs. 9 lakh each.

## IIT centre on bullet train technology to be ready this year

<http://www.indiatvnews.com/news/india/iit-centre-on-bullet-train-technology-to-be-ready-this-year-46118.html>



**Kolkata:** A research centre on developing bullet train technology will be ready at IIT-Kharagpur by the end of this year.

Funded by the Indian Railway Board, the new building of the Centre for Railway Research (CRR) is being constructed at a cost of Rs 20 crore inside the IIT campus, centre in-charge Prof Subhransu Roy told PTI.

He said that the Indian Railways has identified four thrust areas for research - high-speed trains, developing heavy haul capacity to carry more freight, intelligent maintenance and use of advanced materials like polymers, rubbers, etc.

“The new centre, which would be ready in the next 7-8 months, will work according to the ‘Make in India’ campaign to develop indigenous technology in railways. Developing technologies related to bullet trains is one of our focus areas,” Roy said.

India is currently considering two corridors for high speed trains.

While Japan is conducting the feasibility study for the bullet train project in the Mumbai-Ahmedabad corridor, China will do the same for the Delhi-Chennai route. Operating out of a temporary set-up, IIT researchers have already started working on suspension and bogies technology for high-speed trains.

Other sanctioned projects worth Rs 20 crores related to R&D of railway technology include the development of provisions for design of steel concrete composite railway bridges for high speed passenger traffic.

Developing bullet trains would require an array of rolling stock design aspects to be addressed, such as, aerodynamic design of rolling stock, vehicle dynamics, vibration and noise control, advanced control of electric loco drives, static and dynamic analysis of railway bridges, etc, Roy said. Around 40 faculty members from different departments of the institute and as many scholars are engaged in the research projects.

Once fully ready with high-end specialized labs, CRR will also house an academic unit offering MTech courses in railway management and engineering.

Besides the regular civil and mechanical engineering aspects, students would be taught on rail wheel dynamics, track, geotechnical aspects, transport planning, etc, officials said.

For operational aspects related to trains, they will invite working rail professionals as adjunct faculty.

The proposed degree course, whose curriculum is yet to be finalised, will have a maximum of 30 seats having space for both railway-sponsored employees as well as candidates who have cleared GATE entrance exam.

Currently, technical aspects are dealt by railway PSUs like Research Design and Standards Organisation (RDSO).

The Railways have their own training centres for its manpower requirements and now they are planning to come up with a railway university.

“Our pass-outs can find jobs in the railways or even as teachers in the rail university when it comes up,” Roy said.

As a precursor to the proposed MTech courses, they recently ran a short-term course where international experts on high speed rail system discussed technical aspects with Indian Railway officials.



**HT.COM ND 09.01.15 P-2**

# SMRITI IRANI VISITS DU ON CLEANING MISSION

**Shradha Chettri**

**NEW DELHI:** In a first, Human Resource Development minister Smriti Irani Thursday visited Delhi University as she was invited by Akhil Bharatiya Vidyarthi Parishad (ABVP) lead Delhi University Student's Union (DUSU).

Though the invitation was for cleaning Sanjay Basti, Timarpur in north Delhi as part of DUSU's "Nasha Mukh, Paryavaran Yukt, Swachh Bharat Abhiyan", she all of a sudden visited the DUSU office and also met few students.

As some of the student saw the minister in the campus they came to her and thanked her for rolling back the four year undergraduate programme. The minister also gave the students money to buy dustbins for Sanjay Basti.

# Why we must leave fossil fuels untouched

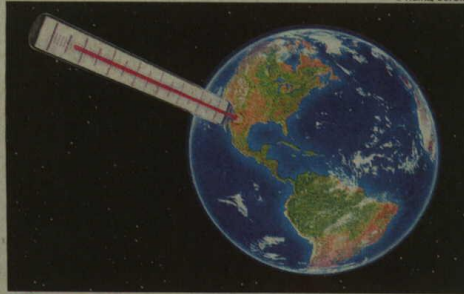
## To Prevent Warming, 80% Of Coal, 50% Of Gas & 30% Of Oil Reserves Mustn't Be Used Till '50

Kounteya.Sinha  
@timesgroup.com

London: British scientists have warned that most of the world's fossil fuel reserves need to stay in the ground if dangerous levels of global warming are to be avoided.

Over 80% of coal, 50% of gas and 30% of oil reserves are "unburnable" and not to be used before 2050 if global warming is to stay below the 2°C target agreed by policy makers, according to new research by the UCL Institute for Sustainable Resources.

The study funded by the UK Energy Research Centre also



© Kulka/Corbis

KEEPING IT COOL

identifies the geographic location of existing reserves that should remain unused. The authors show that the

overwhelming majority of the huge coal reserves in China, Russia and the United States should remain unused along with over 2,60,000 million barrels oil reserves in the Middle East, equivalent to all of the oil reserves held by Saudi Arabia. The Middle East should also leave over 60% of its gas reserves in the ground.

The development of resources in the Arctic and any increase in unconventional oil — oil of a poor quality which is hard to extract — are also found to be inconsistent with efforts to limit climate change.

The scientists first developed an innovative method for

estimating the quantities, locations and nature of the world's oil, gas and coal reserves. They then used an integrated assessment model to explore which of these along with low-carbon energy sources should be used up to 2050 to meet the world's energy needs.

Lead author Dr Christophe McGlade said, "We've now got tangible figures of the quantities and locations of fossil fuels that should remain unused in trying to keep within the 2°C temperature limit. Policy makers must realize that their instincts to completely use the fossil fuels within their countries are wholly incom-

patible with their commitments to the 2°C goal. If they go ahead with developing their own resources, they must be asked which reserves elsewhere should remain unburnt in order for the carbon budget not to be exceeded."

Co-author Professor Paul Ekins said, "Companies spent over \$670 billion (£430 billion) last year searching for and developing new fossil fuel resources. They will need to rethink such substantial budgets if policies are implemented to support the limit, especially as new discoveries cannot lead to increased aggregate production."