Newspaper Clips

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P-2

IITs may assess safety of 70 city flyovers: PWD

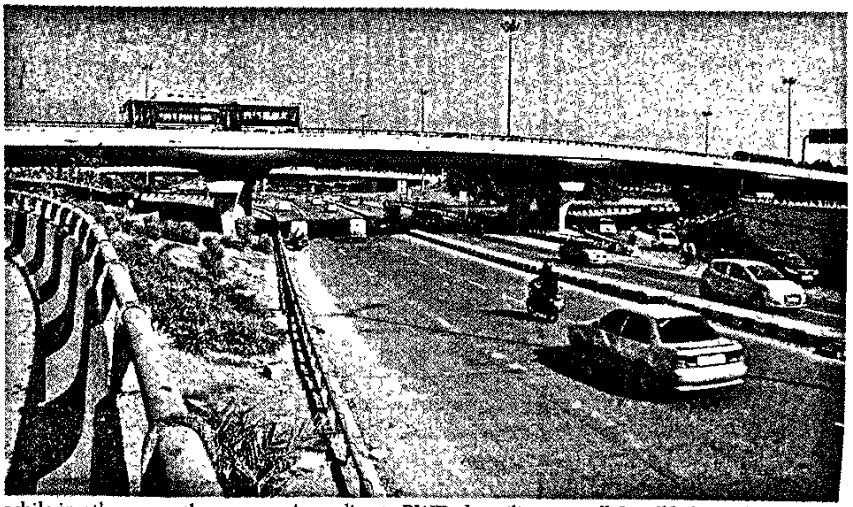
RAJESH KUMAR ■ NEW DELHI

Delhi Government's Public Works Department (PWD) is planning to conduct a detailed safety audit of 70 flyovers to assess their strength and capacity to withstand heavy traffic during the peak hours.

Numerous flyovers were built between 1998 and 2010 by the Sheila Dikshit-led Government. Before the 1982 Asiad, there were only two flyovers in the city- Safdarjung and Patel Nagar. After the Asiad Games, the city witnessed a boom in flyovers to meet the traffic requirements.

Sources said that the safety audit is likely to be conducted by IITians. Besides checking the traffic-bearing capacity during the peak hours, they will also assess the endurance and motorable capacity of the flyovers.

According to sources, there are dozens of such flyovers across the city that are decades old and need repair. In some cases, their vibrations have been measured during heavy traffic,



while in other cases, there was an urgent need to assess the strength of the pillars as traffic has increased over the years.

"The move is seen to ascertain whether there is any structural flaw in the flyovers or not," said an official. There are several flyovers that need to be spruced up if they are to serve the city in the future.

According to PWD, the railings on both sides of the flyovers are being taken care of so that it stands the test of time with a life span of almost 30 years. The life span of the bearings and expansion joints are around 20 years and several flyovers have already crossed their expiry date. There will be a mechanical examination as well. It will help in plugging the critical support to the capacity of the flyovers.

It may be recalled that several columns of Janak Setu, which was built during 1982 Asiad had to be rebuilt. The three-decade-old flyover, which cuts travel time between several key commercial hubs in West and South Delhi such as Tilak Nagar, Jail Road, Rajouri Garden and Dhaula Kuan, has been in urgent need of repairs because a hazardous tilt and patches of wear and tear have made it unsafe for traffic.

The Capital's oldest flyovers at Patel Nagar and Safdarjung were built in 1967 and 1970, respectively. The Zakhira flyover connecting Zakhira to Anand Parbat was built after the 1982 Asiad. The flyover at Oberoi, Defence Colony, in front of Moolchand Hospital and the one near Oberoi Hotel, linking Mathura Road leading to India Gate, the Sewa Nagar and Ranjit Singh flyover were also built during 1982.

In some cases, flyovers have been succeeded in smooth vehicular traffic movement while in some cases, they have increased jams. For instance, poor planning at RTR flyover is a glaring example of flyovers creating more jams. Keeping this aspect in mind, traffic engineering is being augmented to facilitate smooth travel for motorists as well as commuters.

Deccan Chronicle Chennai 30-10-2012 P-6

IIT-M classrooms to be powered by solar energy

N. ARUN KUMAR | DC
CHENNAI, OCT.29

Solar energy will be used to run most offices and classrooms at IIT, Madras., soon. A team of researchers (TeNeT group) including IIT-M director Prof. Bhaskar Ramamurthi and Prof. Ashok Jhunjhunwala has developed a cost-effective, alternate solar technology which can make equipment like air-conditioners, water pumps and other devices work efficiently without much investment in batteries to store electricity.

"The present solar technology is a mismatch of production and storage (battery) of electricity. The cost of storing one unit of power in a battery works out to ₹ 14 and so we have made some modifications in the air conditioners and other equipment to make it work directly using solar power so that we can eliminate the storage component (battery)," Prof. Bhaskar Ramamurthi said during an interview to this newspaper on Monday.

Bhaskar Ramamurthi

There is no cost involved in powering these ACs as there's no need to store electricity in batteries. Solar electricity will be used directly

Pointing out that the current ready-made solar technologies had turned out to be inefficient, the IIT-M director said all equipment including air-conditioners, fans and pumps needed to be optimised to match them with solar power generators.

"There are two types of fans, the conventional one, which uses alternate current (electricity from the grid) and the other one with brushless direct current (DC) motor, which uses current from batteries and solar panels, which has 40 per cent more efficiency. We are working with fan companies to develop brushless DC motor fans for our solar power technology", he added.

Prof. Ramamurthi noted that several offices in the institute would get air-conditioners powered by solar energy. "There is no cost involved in powering these ACs as we don't need to store electricity in batteries, instead we will use the solar electricity directly," he said.

In a few months the institute is confident of putting up solar power in some of the classrooms and offices before it is spread to the entire campus

Dainik Jagaran ND 31/10/2012 P10

उच्च शिक्षा में निचला दर्जा

विश्व के 200 शीर्ष विश्वविद्यालयों की सूची में भारत की गैरमौजूदगी के कारणों की पड़ताल कर रहे हैं डॉ. विशेष गुप्ता

इस वर्ष टाइम्स हायर एजुकेशन वर्ल्ड यूनिवर्सिटी रैंकिंग में विश्व के 200 श्रेष्ठ विश्वविद्यालयों में भारत का कोई विश्वविद्यालय स्थान नहीं बना पाया है। यह संस्था शोध की गुणवत्ता, स्नातक स्तर पर रोजगार के अवसरों की उपलब्धता, वैश्विक स्तर पर शिक्षा, विषयवस्तु व शिक्षण प्रतिबद्धता और संस्था की अंतरराष्ट्रीय साख जैसे 13 महत्वपूर्ण बिंदुओं के आधार पर विश्व की उच्च शिक्षण संस्थाओं का मूल्यांकन करती है। हालांकि इस वर्ष अमेरिका और ब्रिटेन भी इस लिस्ट में नीचे आए है, लेकिन अब भी उच्च शिक्षा में उनका ही दबदबा है। शीर्ष 10 विश्वविद्यालय अमेरिका और ब्रिटेन के ही है। सूची में कैलिफोर्निया इंस्टीट्यूट ऑफ टेक्नोलॉजी शीर्ष पर है, जबकि ब्रिटेन की ऑक्सफोर्ड यूनिवर्सिटी दो स्थान की बढ़त हासिल करते हुए अमेरिका की स्टैनफोर्ड यूनिवर्सिटी के साथ ही दूसरे स्थान पर है। दुनिया के श्रेष्ठ 200 संस्थाओं की सूची में अमेरिका के 76 और ब्रिटेन के 31 संस्थानों को स्थान मिला है। इस सर्वेक्षण में भारत के आइआइएम जैसे संस्थान तक किसी श्रेणी में नहीं है। दूसरी ओर आइआइटी संस्थानों की अंतरराष्ट्रीय रैंकिंग भी लगातार गिर रही है। चीन, जापान, फ्रांस, फिनलैड, न्यूजीलैड, दक्षिण अफ्रीका, सिंगापुर, दक्षिण कोरिया, थाइलैड, इजरायल और ताइवान जैसे छोटे देश उच्च शिक्षा के मामले में भारत से काफी आगे निकल गए।

इस संदर्भ में मैकेंजी की रिपोर्ट पर भी ध्यान देना चाहिए, जिसमें साफ कहा गया है कि भारत में हर साल पास होने वाले छह लाख इंजीनियरों में से तीन-चौथाई ऐसे होते हैं, जो अपना काम पेशेवर तरीके से नहीं कर पाते। यानी विदेशी विश्वविद्यालय अपने शैक्षिक बाजार व नौकरीयुक्त ढांचे को उच्च रैंकिंग पर रख अपनी ब्रांडिंग हमसे बेहतर कर रहे हैं। तभी उनसे जुड़ी रैंकिंग देने वाली संस्थाएं अपने ब्रांड को श्रेष्ठ बताकर विकासशील देशों में प्रस्तुत कर रही हैं। पूरी दुनिया में भारत के टेक्नोक्रेट अपनी मेधा का लोहा मनवा रहे हैं। दूसरी ओर जिस आउटसोर्सिंग को लेकर अमेरिका आज डरा हुआ है उसमें भारतीय युवाओं का बड़ा हिस्सा है। भारत अपनी शैक्षिक श्रेष्ठता के बलबूते अंतरराष्ट्रीय आउटसोर्सिंग बाजार का सबसे बड़ा हिस्सेदार है, जो कई विकसित देशों को चुनौती दे रहा है। भारत की इसी चुनौती से

कड़वी सच्चाई

• भारत में 68 फीसद विश्वविद्यालयों और 90 फीसद कॉलेजों में उच्च शिक्षा की गुणवत्ता या तो मध्यम दर्जे की है या दोषपूर्ण है

अमेरिकी राष्ट्रपति बराक ओबामा चिंतित है। अब यहां सवाल यह पैदा होता है कि फिर ऐसा क्या है जो भारत की उच्च शिक्षण संस्थाओं को विश्व स्तर पर कमतर आंकने की कोशिश की जा रही है।

दरअसल, देश में उच्च शिक्षा से जुड़ी कड़वी सच्चाई यह है कि भारत में उच्च शिक्षा का विकास समान आधार पर न होकर मिस्र के पिरामिड की तरह हुआ। इसके सर्वोच्च शिखर पर आइआइटी, आइआइएम, एम्स और केंद्रीय विश्वविद्यालयों जैसी लगभग 200 संस्थाएं हैं, जिनमें मुश्किल से एक लाख छात्र प्रवेश पाते हैं। दूसरी ओर इस पिरामिड के निचले पायदान पर करीब 300 विश्वविद्यालय और बीस हजार कॉलेज हैं, जिनमें लगभग डेढ़ करोड़ छात्रों का भविष्य तय होता है। इनके बीच डीम्ड यूनिवर्सिटी हैं, जिनमें से कुछ को छोड़कर शेष को औसत अथवा निम्न स्तरीय श्रेणीक्रम में रखा जाता है। इन सबके बाद कुकुरमुत्तों की तरह फैलती स्ववित्त पोषित संस्थाएं हैं, जिन्होंने उच्च शिक्षा की गुणवत्ता की परवाह किए बिना खुद को एक बड़े बाजार के रूप में विकसित कर लिया है। सही मायनों में इन संस्थाओं ने प्रवेश की पात्रता को ध्वस्त करते हुए उच्च शिक्षा के स्तर को गिराया ही है। इसी कारण राष्ट्रीय उच्च शिक्षा मूल्यांकन परिषद ने भी अपनी सर्वेक्षण रिपोर्ट में साफ कर दिया है कि भारत में 68 फीसद विश्वविद्यालयों और 90 फीसद कॉलेजों में उच्च शिक्षा की गुणवत्ता या तो मध्यम दर्जे की है या दोषपूर्ण है। इन संस्थाओं के 75 फीसद डिग्रीधारी छात्र बेरोजगार हैं। उच्च शिक्षा के आंतरिक ढांचे को देखने से पता लगता है कि उच्च शिक्षा के बजट का 90 फीसद भाग शिक्षकों के वेतन में खप जाता है। पाठ्यक्रम, ज्ञान, कौशल और परीक्षा पद्धति अब भी पुराने ढर्रे पर ही चल रही है। असल में यही वे मानक बिंदु हैं, जो शिक्षा के अंतरराष्ट्रीय बेंचमार्क का निर्धारण करते हैं। उच्च शिक्षा के इन्हीं मानकों पर हम लगातार कमजोर पड़ रहे हैं।

विकसित देश आज भारत को एक विशाल बाजार के रूप में देख रहे हैं। वैश्विक अर्थव्यवस्था में आज शिक्षा बहुत बड़ा बाजार है। तीन लाख से अधिक छात्र ब्रिटेन, अमेरिका, जर्मनी और ऑस्ट्रेलिया उच्च शिक्षा प्राप्त करने के लिए जाते हैं। यानी अब भी भारत का बहुत बड़ा हिस्सा उच्च शिक्षा प्राप्त करने के लिए लालायित है। भारत सरकार के लिए यह मुमकिन नहीं कि मौजूदा ढांचे में वह इतनी बड़ी संख्या में उच्च शिक्षा मुहैया कराए। यही कारण है कि सरकार भी विदेशी विश्वविद्यालयों को आमंत्रित करने को मजबूर है। इसीलिए अमेरिका, ब्रिटेन, जापान और जर्मनी जैसे देश अपने संस्थानों की ब्रांडिंग में लगे है। इसी सोची-समझी रणनीति के तहत विकसित देशों की प्रायोजित संस्थाएं विश्व स्तर पर रैंकिंग कर उच्च शिक्षा में ज्ञान के नए बाजारवाद को जन्म दे रही हैं।

हम विदेशी विश्वविद्यालयों के पिछलग्गू क्यों बनना चाहते हैं? क्यों हम अपनी उच्च शिक्षण संस्थाओं में विश्व स्तर के ढांचागत विकास से कतराते हैं? वह इसलिए क्योंकि हम खुद उच्च शिक्षा से जुड़ी संस्थाओं के लचर ढांचे से पूर्णतया अवगत हैं। एक ओर हमें राजनीति की सीमाओं से बाहर आकर राष्ट्रीय हितों व आवश्यकताओं के अनुरूप उच्च शिक्षा के ढांचे को वैश्विक स्वरूप प्रदान करना होगा। दूसरे, अपनी संस्थाओं को भी वैश्विक फलक पर परचम लहराने के लिए तैयार करना पड़ेगा। तभी भारत उच्च शिक्षा की ग्लोबल रैंकिंग में ऊपर उठ सकेगा।

(लेखक समाजशास्त्र के प्राध्यापक हैं)
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DU and Jamia Millia launch masters in maths education

Course will feature topics ranging from the Cold War to advertising

HT Education Correspondent
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University of Delhi and Jamia Millia Islamia (JMI) have announced the admission schedule for the new two-year joint degree, masters in mathematics education under the Meta University concept. Graduates who passed their degree examination with at least two full-fledged papers in math at the undergraduate level are eligible to apply for the course, which is due to start on January 3, 2013. Twenty seats are on offer at the two universities.

Equivalent to an MSc mathematics education, the masters programme covers an interesting mix of papers and topics, including Seeing The World Through Calculus: First Steps; School Curriculum: Concept, Processes and Assessment; Does Nature Play Dice? The Amazing World Of Probability And Statistics; English Language Proficiency; Creativity In The Digital World: Graphics And Multimedia; and Understanding Economic Behaviour: The Macro Level.

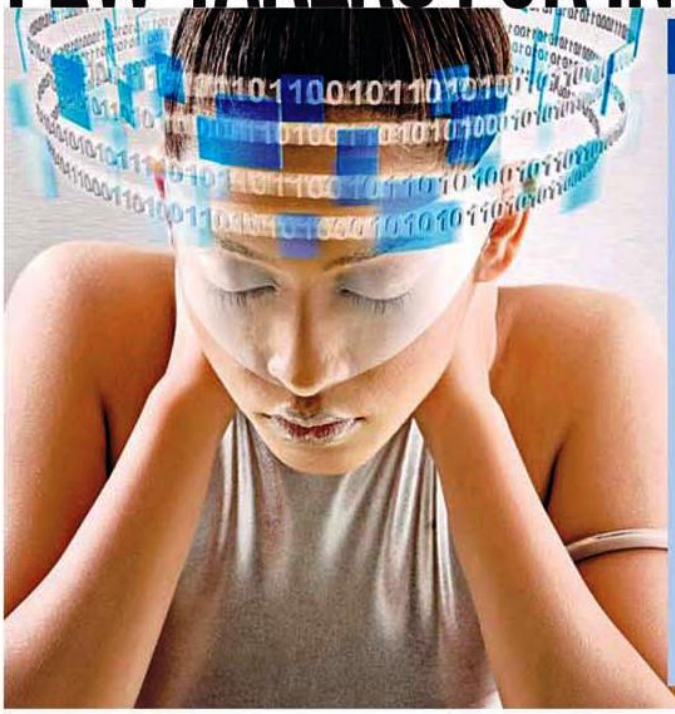
As part of the joint programme, JMI will offer courses including English For Media Communication: Writing For The Media; Advertising; Contemporary India And The World We Live In; Development Journalism; Media Management; Public Relations And Corporate Communication; and Media Laws And Ethics. The curriculum includes innovation projects. Aspirants can obtain the free application form from the Cluster Innovation Centre at the DU north campus or download it from www.du.ac.in or www.jmi.ac.in.

The one-hour entrance test for the course will have 75 multiple choice questions, each of one mark, on mathematical skills, reasoning, mental ability, general awareness, communication skills in English etc.

THE TIMELINE

- **Last date for application:** November 14, 2012
- **Date of admission test:** December 2, 2012
- **Declaration of test result:** December 6, 2012
- **Interviews of shortlisted candidates:** December 11-12, 2012
- **Final result:** December 13, 2012
- **Session starts:** January 3, 2013

FEW TAKERS FOR INNOVATORS



MAKE YOUR IDEA WORK

1 First of all you need to build a model of the innovative idea so that it will explain how your concept can be transformed through technology into a usable product.

2 For the next step, you need to indentify whether your innovation requires inputs from experts of various technologies. You have to partner with such people.

3 You also need to prepare a business plan around the idea. You can approach bodies like FITT at IIT Delhi which encourage people to formulate a viable business plan.

4 The next step is to approach an angel investor or business incubators. The advantage of approaching FIIT is that the experts screen the proposals and help you find a place in an incubation centre.

5 An incubation centre provides opportunities for an early assessment of innovative technologies by identifying their market potential and provides the required support (marketing, operational and financial support). It facilitates commercialisation by providing an opportunity for individuals who have developed innovative products/prototypes and are not in a position to take it to the market on their own and are willing to transfer the technology.

Jeevan Prakash Sharma
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Of late, India's first solar passenger car developed by the students of Delhi Technological University was flagged off by the President of India, Pranab Mukherji, from the Rashtrapati Bhawan. Though there was a big buzz around the event and the car, the product is yet to grab the attention of an automotive company willing to turn it into a viable commercial product.

Innovation is a word we love to use, but unfortunately, in India, not many of us are willing to give innovative products adequate recognition or the support. Apart from the solar passenger car, many such 'inventions' such as the unmanned aerial vehicle, energy farming and bio diesel reactor design, driverless car, a sensor for detecting air leakage in packed items, alarm-based LPG sensor etc, have been forgotten. Many have used up a huge amounts of funds, but apart from generating some buzz and helping their creators get some mileage academically or in the media, none of these innovative products or concepts have been commercialised or put to proper use.

So, does that put a question mark on the quality of innovations in this country or is there a missing link between the innovations and their commercialisation? the gap between the lab and the market, others say the innovations do not have an earth-shattering impact.

Vijay P Bhatkar, a senior computer scientist who is also chairman of the Board of Governors of the prestigious Indian Institute of Technology and known as the architect of the PARAM series of Supercomputers, says, "An idea which is non-obvious, suggests a new function and efficient operation and which hasn't been dealt with in the past is an innovation. Now if I judge innovations coming out from our institutions on these grounds, only 2% of them are innovations. The rest of them are either copying of concepts or just an average thinking."

Anil Wali, director, Foundation of Innovation and Technology Transfer (FITT), IIT Delhi, says, "There is no dearth of creative minds in this country, but, unfortunately, we have not been able to capture them to an optimum level. However, in spite of a whole lot of copy-paste work in the name of innovations, we still have some remarkable creative work being produced by various institutions."

So what about the conversion ratio of even these 2% of innovations into marketable products? Experts like Wali feel that if the innovation is commercially viable from the user's perspective, there are lots of takers in the market. "Innovation that is successful in the lab may not be in the market, I am sure the industry will come out to accept it," says Wali.

Do scientific minds require more support from the industries? "Industries, most of the time, show a keen interest in new developed technology but are hesitant to invest money in the same as they are skeptical about its success. This necessitates the intervention of the government to facilitate the commercialisation of new technologies," says VK Jain, a director, Amity Institute for Advanced Research and Studies (materials and devices).

Scientists see the benefits of these innovations in building innovating capacity among students and faculty at the institution level but effort to partner with appropriate industry which could exactly address market and consumer needs is completely missing.

"It takes time and good efforts to bridge the innovation to a marketable product. Many times, industries do not have enough patience to undergo this time-consuming cycle," says A Balachandran, general manager, Technology Business Incubator at Vellore Institute of Technology.

One of the landmark achievements in the direction of bridging the gap between lab innovations and their marketable production has been the establishment of Technology Business Incubators (TBI) by the campus facilities for product development, testing and trials, test marketing, mentoring and seed funding. There are over 50 TBIs in the country at the moment.

But this initiative is considered just one positive step as a lot depends on cooperation from the corporate sector.

Bhatkar sees lack of entrepreneurship as one of the major problems in the way of conversion of ideas into products. "Our scientists can innovate but then entrepreneurs have to commercialise and market that innovation. Unfortunately, they don't want to take that risk," he adds.

One of the suggestions that PB Sharma, vice chancellor, Delhi Technological University, puts forward is to involve the industry at the early stages of innovation, "otherwise we continue to lose such great opportunities of taking college innovations to products for the masses," he says.

Pradeep Kumar, chairman, Delhi College of Technology & Management, endorses this, adding, "Take the industry into confidence for a particular innovation and encourage them to finance at least 40% of the cost of project. In counties like the United States, colleges and the industries coordinate closely on such matters."

"Wider sensitisation programmes through the industry associations like FICCI, CII etc, and by