

Newspaper Clips

April 21, 2011

HINDU ND 21/04/2011

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All eyes on IIT-Delhi's Open House

I²Tech 2011 to showcase high-impact research projects

Neha Alawadhi

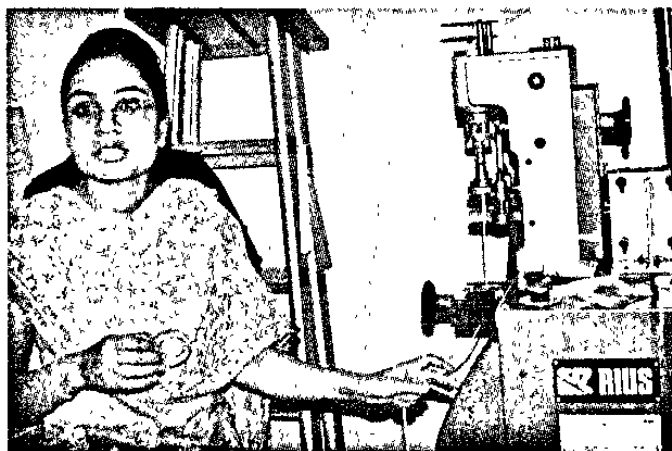
NEW DELHI: A low-cost Braille display for the visually-challenged, a page-turning machine for the physically-challenged, a body posture correction alarm and a voice-based complaint management system for municipal complaints are among the projects that will be showcased at Indian Institute of Technology-Delhi's Open House event -- I²Tech 2011-- here this Saturday.

The Open House will include display and showcasing of laboratories and research projects by students, staff and faculty along with industry interface with experts from major industries. The Open House also coincides with the Institute's ongoing Golden Jubilee celebrations.

High-impact research

"We are expecting over 1,000 people from industries, including 12 firms, to formally interact with our students during the Open House," said IIT-D Director Prof. Surendra Prasad on Wednesday.

Highlighting IIT's achievements and progress during 2010-11, Prof. Prasad said the Institute was "pro-



TECHNOLOGY FOR THE FUTURE: A researcher explaining an ongoing project at Textile SMITA Lab at IIT Delhi on Wednesday.

- PHOTO: SANDEEP SAXENA

moting high-impact research". Several departments at IIT-D are involved in research-based projects including smart materials like bio-textiles (Textile Department). The research focuses on creating artificial tissue cells like blood vessels and bladder tissue that can prove useful in medical treatment.

Naval and Army officers are also engaged in research to develop useful models for strategic use. The Centre for

Applied Electronics is working on creating a self-sustained remote acoustic surveillance platform. The system is designed to detect low-power waves and also act as a communication system using digital signal processing hardware. Another research project involving ultra-wide band communication would find widespread use in ground penetration radars, anti-vehicle collision systems in cars and in medical research.

Speaking further about the Institute's achievements last year, Prof. Prasad said IIT-Delhi was in the process of setting up a centre for nano-fabrication and nano-devices within the campus. The centre, being set up at a cost of nearly Rs.50 crore, would focus on non-silicon devices, unlike similar centres at IIT-Bombay and Indian Institute of Science, Bangalore, that focus on silicon-based devices.

IIT-Delhi has also taken up industry-based initiatives with companies like PepsiCo, Shell and Indus Towers. The Institute also approved 44 works last year for patents, according to Prof. Prasad.

Contributions

The I²Tech on Saturday would include IIT's useful technological contributions including "Ferrite Phase Shifter" that are widely used in Defence radar operations, the "Fru wash" technology that prevents deterioration of unrefrigerated fresh vegetable and fruits by forming an organic coat over them and "axle counter for automatic signalling in railways" that is being used widely by Indian Railways.

Indian Express, ND 21/04/2011 p-3

Hi-tech innovations to be showcased at IIT-Delhi's Open House this weekend

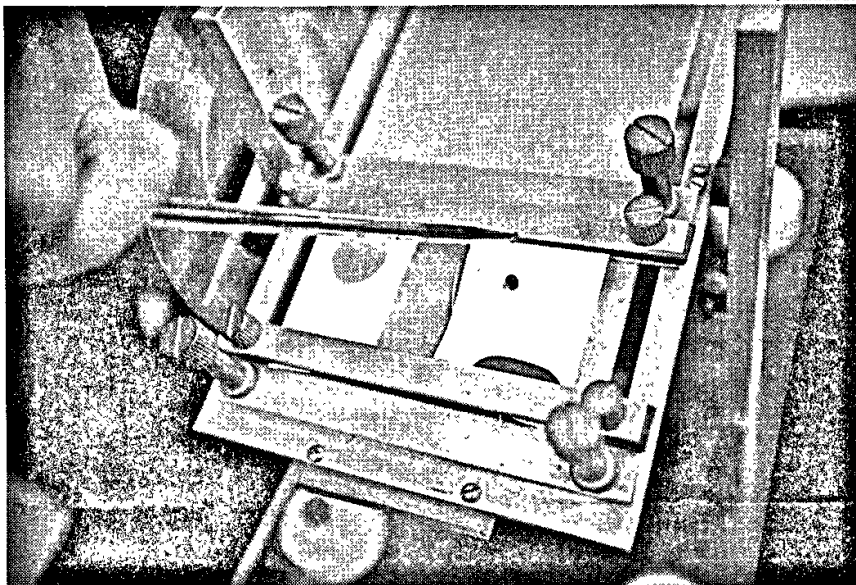
EXPRESS NEWS SERVICE
NEW DELHI, APRIL 20

THE seventh Open House of the Indian Institute of Technology-Delhi (IIT-D) will be organised on Saturday. It will feature research undertaken by members of the IIT community over the past year.

Since 2011 is also IIT-D's golden jubilee year, this edition of Open House will feature some of the major technological contributions made by the institute in recent years. Around 400 projects by 1,000 IIT students will be on display at the Open House, titled I2 Tech 2011.

Among the technologies that will be on display on Saturday are the Social News Reader, which will expose online readers to news read by different social groups by identifying different clusters in the user's online social network; the Bagbrella, which is essentially a hands-free umbrella in a bag; and a Body Posture Correction Alarm, which alerts the user when his/her posture is wrong.

As most of the older technolo-



An instrument used for developing stain repellent cotton through atmospheric pressure plasma processing. It will be put on display at the seventh Open House of the IIT-D

gies have become meaningless, the Open House will feature more recent innovations. Some of the technologies on display on

Saturday will be The Ferrite Phase Shifters, used in radars to allow for a sweeping beam with- out actually moving the instru-

ment; the Fru Wash Technology, which provides an oil coating to fruits and vegetables, extending their shelf life; and the Axle

Counter for Automatic Signalling in Railways, which has replaced manual systems at railway stations.

Prasad took some time off to talk about the institute. While he admitted to IIT-D having on board only 460 faculty members against a total of 578 posts, Prasad pointed out that the Institute has been consistently taking in new staffers — 60 had joined over the last three years while only 18 had retired. The Director also said the Institute has also been hiring more women faculty members.

Prasad said that infrastructure at the institute is catching up with the requirements of the Other Backward Classes (OBC) expansion.

"Just before the Other Backward Classes reservations were implemented, we had started building a girls' hostel. So, we have not faced any problems on that front. Hostels for accommodating over 1,000 boys will soon be ready, along with 100 houses for the faculty. We will also move into the new academic complex soon," the Director said.

OINAMANAND

Times of India ND 21/04/2011 p-10

IIT-D to showcase its innovations over 50 years for golden jubilee

TIMES NEWS NETWORK

New Delhi: IIT Delhi will showcase its best innovations carried out over the last 50 years to mark its golden jubilee celebrations on Saturday. Schoolchildren, students from other universities and general public can visit the IIT-D campus to be a part of this open house called I2Tech and interact with the students and faculty there. So from path-breaking research initiatives to technology innovations like — a page turning machine, an alarm to correct your body posture, Bagbrella that is a bag with a detachable umbrella — there will be options galore for the visitors.

Around 400 projects by 1,000 IIT students will be displayed this year.

“Last year 2,000 school students and other visitors had come to IIT Delhi. I expect that public participation will be more this year. There may also be 1,000 people from the industry present to interact with the students during the open house,” said IIT-D director, Surendra Prasad. He added,

OPEN HOUSE 2011

“Besides new initiatives, we will also exhibit our history over last 50 years in the golden jubilee year of IIT Delhi.” IIT-D carried out Rs 150 crore worth sponsored research activities and technological developments in 2010-11. In the same year, 43 patents from the institute were approved as compared to just 31 in the

previous year. “This time our alumni also contributed approximately Rs 30 crore for setting up of a Central Research Facility, School of Biological Sciences,” Prasad added.

The projects displayed across departments on Saturday will be the work of faculty as well as students of IIT-D. Look out for useful initiatives like the externally-heated clothing which can provide gradual heat in a controlled manner for a long period of time in extreme cold climate. The page turning machine will be ideal for those who have lost both their limbs. It is a simple machine which uses friction to lift the page. IITians have also developed a low-cost refreshable Braille display and also designed a special spondylitis pillow.

Financial Chronicle ND 21/04/2011

p-10

Innovations by IITians

Around 400 projects by 1,000 IIT students will be on display, especially school children and industry people, during ‘I2Tech’ which coincides with the institute’s golden jubilee celebrations.

FROM IIT CAMPUS

No internet from midnight, institute wants students to rest

Mallica Joshi

■ mallica.joshi@hindustantimes.com

NEW DELHI: Staying connected is going to be a problem for students at Indian Institute of Technology Delhi (IIT-D) from the coming academic session.

The institute has decided to prohibit use of internet in the hostel between midnight and 6am. Presently, students get free internet access all day long in the hostel. The step was taken, authorities said, to ensure that students get enough sleep and are not stressed out.

"We want to ensure that the students' performance does not suffer. Many students used to stay up playing games and downloading movies at night and would not go to class in the morning," said Shashi Mathur, dean, students, IIT-D.

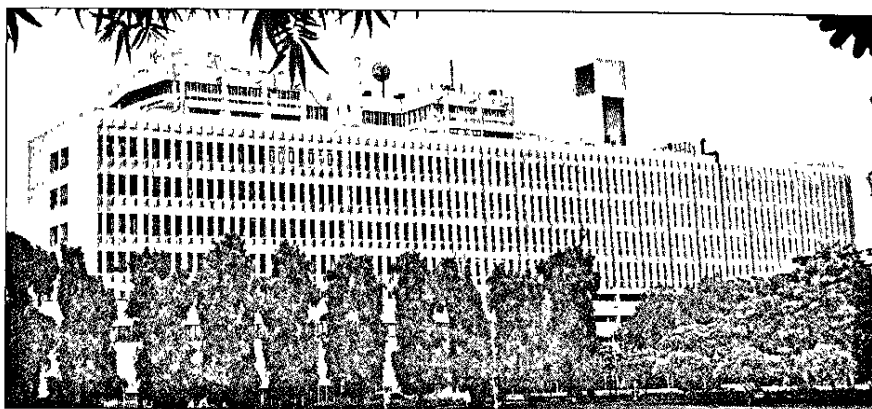
Internet facility, however, will be available in research rooms, labs and libraries all night long. "Anyone who wants to study at night can access the internet at these places," Mathur added.

But the decision has not gone down well with the students.

"The administration expects us to trek to labs and libraries in the dead of the night. Who would want to do that, especially in the winters?" said Abhishek Bhargava, a third-year student of mechanical engineering.

Calling it a regressive move Mitali Shah, a second-year student of civil engineering said, "We are adults and can manage our time. Some students want to study at night and Internet in the hostel is an aid. This is not a fair decision."

In 2008, the institute had put restriction on the amount of data students can download



■ Internet facility, however, will be available in research rooms, labs and libraries all night long. HT FILE

using the hostel bandwidth. This restriction is still in place.

Officials said if students use the allocated data limit to download games or movies, their studies get affected, as they can't download any study material. But once the new restrictions are put in place, the cap on data will be lifted.

"Genuine students were suffering because of the cap. Also, it was creating other problems like slow internet speed," Mathur added.

In the past, IIT-Bombay and IIT-Madras restricted the use of internet in hostels at night. IIT-Madras was the first one to put a restriction. Students weren't allowed to use internet in the hostel from 1am to 5am.

The two institutes also took the decision for the same reason — students playing games all night and missing classes.

Students will, however, be allowed to use their personal internet. "If students have their own means to go online, we will not prohibit it," said Mathur.

Students to display their inventions

HT correspondent

■ htreporters@hindustantimes.com

NEW DELHI: Ceiling fan cleaners, cloth drying machines and an alarm to correct body posture — Delhiites will be able to see all these innovations and many others at I2Tech 2011 at Indian Institute of Technology, Delhi (IIT-D) on Saturday.

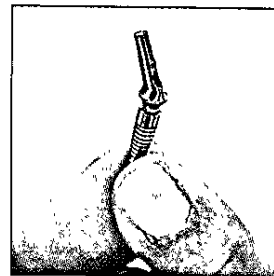
Research work and students' projects will be on display at the event, which is open to all.

"The event attracts many school students, with more than 3,000 students coming to see the innovations last year. The projects on display are from varied fields," said Surendra Prasad, director, IIT-D.

Around 400 projects by 1,000 IIT-D students — many of which may make life easier — will be on display in the seventh edition of the event. Some of which are:

CEILING FAN CLEANER:

This device will clean fan blades from both sides. It can be used while standing on the floor and the length of the stick of the fan cleaner can be adjusted according to the user's height.



■ One of the IIT-D research projects on display at an open house for the media on Wednesday. RONJOY GOGOI/HT

BAGBRELLA (UMBRELLA AND A BAG): A product designed to protect people from unpredictable rain; it is expected to be very handy and comfortable. The user will not have to hold the umbrella in their hand as the bag (a knapsack) will have an inbuilt umbrella providing a hands-free experience.

CLOTH-DRYING MACHINE: Students have designed a machine that will do away with the need to spread clothes in the sun. The machine aims to move air between clothes to dry them.

We want to ensure that the students' performance does not suffer. Many students used to stay up at night and would not go to class in the morning.

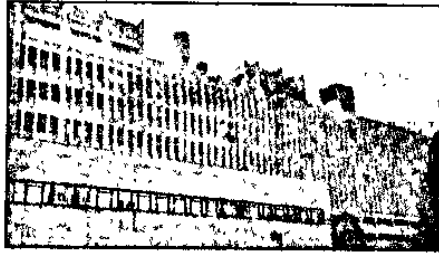
SHASHI MATHUR,
dean, students, IIT, Delhi

We are adults and can manage our time. Some students want to study at night and Internet in the hostel is an aid. This is not a fair decision."

ABHISHEK BHARGAVA,
third-year student, IIT-D

आईआईटी दिल्ली में रात 12 से सुबह 6 बजे तक इंटरनेट पर रोक

शिक्षा की गुणवत्ता को बेहतर बनाने और छात्रों को तनावमुक्त माहौल प्रदान करने के लिए लिया निर्णय



स्वर्ण जयंती वर्ष पर

आईआईटी में विशेष प्रदर्शनी

नई दिल्ली। शिक्षा की गुणवत्ता को बेहतर बनाने और छात्रों को तनावमुक्त माहौल प्रदान करने के उद्देश्य से भारतीय प्रौद्योगिकी संस्थान (आईआईटी) ने अगले महीने से मध्यरात्रि के बाद संस्थान के हॉस्टल में इंटरनेट के उपयोग पर रोक लगाने का निर्णय किया है। आईआईटी दिल्ली के निदेशक सुरेन्द्र प्रसाद ने कहा कि संस्थान के हॉस्टल में छात्रों के रात्रि में अधिक देर तक इंटरनेट का उपयोग करने और इससे छात्रों के तनावग्रस्त होने की बात सामने आई है। उन्होंने कहा कि संस्थान में छात्रों को तनाव मुक्त बनाने और उनकी काउंसलिंग के लिए एक पूर्णकालिक काउंसलर नियुक्त किया गया है और कई अंशकालिक काउंसलर भी इस कार्य में लगाए गए हैं।

प्रसाद ने कहा कि छात्रों को तनाव मुक्त बनाने की दिशा में महत्वपूर्ण पहल करते हुए संस्थान ने हॉस्टलों में एक मई से मध्यरात्रि के बाद इंटरनेट के इस्तेमाल पर रोक लगाने का निर्णय किया है। उन्होंने कहा कि इस पहल के तहत हॉस्टलों में मध्यरात्रि में 12 बजे से सुबह छह बजे तक इंटरनेट के उपयोग पर रोक लगी रहेगी। यह पूछे जाने पर कि छात्र मोबाइल इंटरनेट एवं विभिन्न माध्यमों से इंटरनेट तक पहुंच

स्थापित कर सकते हैं, आईआईटी के निदेशक ने कहा कि हमारा उद्देश्य किसी के निजी जीवन और स्वतंत्रता में हस्तक्षेप करना नहीं है। आईआईटी के निदेशक ने कहा कि अगर कोई छात्र इस अवधि में निजी तौर पर मोबाइल एवं अन्य माध्यमों से इंटरनेट तक पहुंच स्थापित करना चाहता है तो वह ऐसा कर सकता है। उन्होंने कहा कि हमारा मुख्य उद्देश्य छात्रों को तनाव मुक्त माहौल में पढ़ाई लिखाई सुनिश्चित करना है। गौरतलब है कि कई अध्ययनों में ऐसी बात सामने आई है कि देश के विभिन्न आईआईटी में रात्रि के समय छात्र इंटरनेट का काफी इस्तेमाल करते हैं। इसके कारण नींद पूरी नहीं होने से तनाव की स्थिति में पढ़ाई लिखाई प्रभावित होने एवं अन्य व्यक्तिगत कारणों के कुछ छात्रों के आत्महत्या करने की घटना भी सामने आई है। आईआईटी में छात्रों के आत्महत्या करने के बारे में पूछे जाने पर प्रसाद ने कहा कि आईआईटी दिल्ली में ऐसा घटना सामने नहीं आई है लेकिन आईआईटी प्रवेश परीक्षा पास करने के बाद यहां के नए माहौल में अपने आप को अनुकूलित करने में कुछ छात्रों को परेशानी पेश आती है।

नई दिल्ली। आईआईटी दिल्ली अपने स्वर्ण जयंती वर्ष समारोह की श्रृंखला के तहत विशेष प्रदर्शनी का आयोजन करने जा रहा है जिसमें संस्थान के प्रौद्योगिकी शोधकार्यों से जुड़े उत्पाद, छात्रों के प्रोजेक्ट वर्क एवं अन्य विषय पेश किए जाएंगे। आईआईटी दिल्ली के निदेशक प्रो. सुरेन्द्र प्रसाद ने कहा कि ओपेन होम कार्यक्रम के तहत इस प्रदर्शनी का आयोजन 23 अप्रैल से होगा जिसमें संस्थान से बाहर के लोग भी शामिल हो सकते हैं। इस विशेष प्रदर्शनी में पिछले 50 वर्षों में आईआईटी दिल्ली की ओर से प्रौद्योगिकी अनुसंधान एवं विकास के माध्यम से तैयार किए गए उपकरणों एवं उत्पादों को प्रदर्शित किया जाएगा। प्रसाद ने कहा कि इस प्रदर्शनी में फेज शिफ्ट, फर्लों पर उपयोग किए जाने वाले जेल कोटिंग, रेलवे के लिए तैयार की गई आटोमेटिक सिग्नल प्रणाली जैसे उत्पाद पेश किए जाएंगे। प्रदर्शनी में छात्रों की ओर से तैयार किए गए करीब 1,000 परियोजना कार्यों को प्रदर्शित किया जाएगा। आईआईटी दिल्ली की उपलब्धियों बताते हुए प्रसाद ने कहा कि इसने उत्कृष्ट उत्पादों का पेटेंट करने के साथ उद्योगों के साथ मिलकर अनुसंधान कार्यों को आगे बढ़ाया है।

Hari Bhumi ND 21/04/2011 p-2

— ताकि छात्र तनावमुक्त रहें — आईआईटी दिल्ली में इंटरनेट पर पाबंदी

माहौल

एक काउंसलर भी
नियुक्त किया गया है

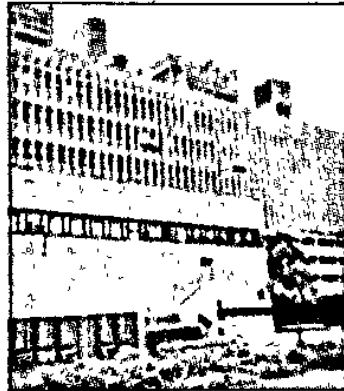
हरिभूमि न्यूज़

नई दिल्ली। शिक्षा की गुणवत्ता को बेहतर बनाने और छात्रों को तनावमुक्त माहौल प्रदान करने के उद्देश्य से भारतीय प्रौद्योगिकी संस्थान (आईआईटी) ने अगले महीने से मध्यरात्रि के बाद संस्थान के हॉस्टल में इंटरनेट के उपयोग पर रोक लगाने का निर्णय किया है।

आईआईटी दिल्ली के निदेशक सुरेन्द्र प्रसाद ने कहा कि संस्थान के हॉस्टल में छात्रों के रात्रि में अधिक देर तक इंटरनेट का उपयोग करने और इससे छात्रों के तनावग्रस्त होने की बात सामने आई है। उन्होंने कहा कि संस्थान में छात्रों को तनाव मुक्त बनाने और उनकी काउंसिलिंग के लिए एक पूर्णकालिक काउंसलर नियुक्त किया गया है और कई

अंशकालिक काउंसलर भी इस कार्य में लगाए गए हैं।

प्रसाद ने कहा कि हॉस्टलों में मध्यरात्रि में 12 बजे से सुबह छह बजे तक इंटरनेट के उपयोग पर रोक लगी रहेगी। यदि छात्र मोबाइल इंटरनेट एवं विभिन्न माध्यमों से इंटरनेट तक पहुंच स्थापित करते हैं तो वह ऐसा कर सकते हैं। हमारा उद्देश्य किसी के निजी जीवन और स्वतंत्रता में हस्तक्षेप करना नहीं है।



हम सिर्फ छात्रों को तनाव मुक्त माहौल में पढ़ाई लिखाई सुनिश्चित करना चाहते हैं। आईआईटी में छात्रों के अत्महत्या के बारे में प्रसाद ने कहा कि

आईआईटी दिल्ली में ऐसा घटना सामने नहीं आई है लेकिन आईआईटी प्रवेश परीक्षा पास करने के बाद यहा के नए माहौल में खुद को ढालने में कुछ छात्रों को परेशानी होती है। उन्होंने कहा कि आईआईटी मुंबई और आईआईटी कानपुर ने भी अपने यहा मध्यरात्रि के बाद छात्रों के इंटरनेट के इस्तेमाल पर रोक लगा रखी है।

अभी-अभी » न किन शेयरों में खरीददारी करें, किनसे बचें | इस बारे में जा

लड़की बन कर गर्लफ्रेंड के होस्टल में घुसा IIT स्टूडेंट

17 Mar 2011, 17:18 hrs IST, टाइम्स न्यूज नेटवर्क

गोरखपुर | एमएमएम इंजीनियरिंग कॉलेज की बीटेक फाइनल इयर की एक छात्रा ने फिल्मी स्टाइल में अपने बॉयफ्रेंड को पूरी रात होस्टल के अपने कमरे में रखा। लड़का आईआईटी दिल्ली का छात्र है। लड़की को तो कॉलेज से निकाल ही दिया गया है, कॉलेज प्रशासन ने आईआईटी दिल्ली से भी कहा है कि लड़के के खिलाफ कार्रवाई की जाए।

मिली जानकारी के मुताबिक लड़की एमएमएम कॉलेज के सरस्वती महिला होस्टल में अपने रूम मेट के साथ रहती थी। इसी महीने की 7 तारीख को लड़की की रूम मेट होस्टल में नहीं थी। मौके का फायदा उठाते हुए लड़की अपने बॉयफ्रेंड को कमरे में ले आई। उसका बॉयफ्रेंड लड़की के वेश में रात में उसके कमरे में आया। अगली सुबह वह उसी वेश में वहां से निकल गया।

हॉस्टल की कुछ लड़कियों ने इसकी शिकायत वॉर्डन से की। बात प्रिंसिपल तक पहुंची जिसके बाद इस मामले की जांच के लिए एक कमिटी गठित की गई। सूत्रों के मुताबिक लड़की ने खुद कबूल लिया कि वह अपने बॉयफ्रेंड को कमरे में लाई। लड़की ने अपने बॉयफ्रेंड का नाम-पता भी बता दिया।

बताया जाता है कि दोनों आगरा के हैं और काफी समय से एक-दूसरे को जानते हैं। दोनों पढ़ाई में काफी अच्छे हैं और लड़की भी कैंपस सेलेक्शन के दौरान एक कंपनी द्वारा चुनी जा चुकी है।

इस घटना के बाद जिला प्रशासन ने गर्ल्स होस्टल की सुरक्षा कड़ी कर दी है।

Hindustan Times ND 21/04/2011 p-10

No money for salaries, IIT-M showers gold coins

ht SPECIAL
Charu Sudan Kasturi
 ■ charu.kasturi@hindustantimes.com

NEW DELHI: Indian Institute of Technology Madras's plan to offer gold coins to its 1,500-strong staff at a time when it is struggling to pay salaries and scholarships has triggered criticism from sections of its faculty.

Several faculty members have spurned the offer, dubbing the coins weighing between 2 and 8 gm a "waste of money by a public institution" like the IIT.

The weight of the coin — 2g, 4g, 6g or 8g — offered to the staff member will depend on the years he/she has spent at the IIT. "The different weight denominations offered almost encourage people to melt the coins for cash," one of the professors, who rejected the offer

FACULTY MEMBERS HAVE SPURNED THE OFFER, WHICH COMES AT A TIME WHEN INSTITUTE HAS SOUGHT CENTRAL AID

said, speaking under the condition of anonymity.

Documents accessed by HT show the largesse comes close on the heels of desperate pleas

from the IIT to the HRD ministry for funds — claiming it was struggling to pay salaries, scholarships and pension.

IIT Dean (administration) P Sriram told HT he was "100 % sure the money used for the coins did not come from any HRD ministry funds." Sriram said he was unsure how the coins were financed, but said non-HRD ministry funds could technically not be used for payment of salaries.

Faculty members argued the technicality cited by Sriram hid the fact the IIT is forced to penny-pinch over funds.

"We are in the negative as far as Non-Plan [funds] are concerned to the extent of ₹32 crore, and we still have salary/scholarship/pension to pay to the tune of ₹15 crore," IIT Madras director MS Ananth wrote to HRD ministry additional secretary Ashok Thakur on February 15, 2011. Neither Ananth nor deputy

director VG Idichandy were available for comments.

The irony, faculty members argued, is heightened by the fact that the controversy has erupted at a time when the IITs are pleading with the government for financial autonomy. "Should the IIT be building its corpus using funds it generates to achieve financial autonomy, or should it fritter these away on gold coins?" a faculty member said.

Assam Tribune Guwahati 19.04.11 p-11

OIL initiative for underprivileged students to crack IIT test

STAFF REPORTER

GUWAHATI, April 18 –

Seeking to brighten the prospects of a group of underprivileged students of Assam and Arunachal Pradesh, the Oil India Limited is launching the Utkarsh Superb 30 programme for the second consecutive year. The initiative will train 30 meritorious students to succeed in the highly competitive IIT entrance examination to be held next year.

The students selected after careful screening will be provided with a ten-month residential programme inclusive of food, accommodation and coaching with the sole objec-

tive of equipping them to crack the IIT and other engineering entrance tests.

To enable the students to be well prepared, the best locally available faculty will be engaged along with all necessary course materials. It will also be monitored by Shri Abhay-anand, a 1977 batch IPS officer from Bihar, who helped develop the Super 30 when it was first launched in Patna.

According to Krishnamurthy Singh of the Centre for Social Responsibility and Leadership (CSR&L), the executing agency for the Superb 30 initiative, the selection of students has started and a written test will be conducted on May 13 in var-

ious locations including Guwahati, Jorhat, Dibrugarh, Tinsukia, Tezpur, Bongaigaon, Silchar, Itanagar and Pasighat.

Students whose annual family income is not more than Rs 1.50 lakh are qualified to take the written test. Interested students should access www.csrl.in where they can register for free. They will fill in the form online to generate their admit cards. The admit card along with a photo identity card will have to be produced at the test centre.

Singh said that the OIL initiative is not just to support a few meritorious students overcome financial constraints to take a tough test and succeed, but to send a message to

other students in their localities to become inspired.

"This initiative is designed to change lives of not just the students but for those around them, as once they graduate from top engineering colleges they will be able to transform their family for the better," Singh noted.

He further informed that young students from Assam and the rest of the Northeast are yet to become really aware about the IIT entrance test and only a few of them appear in it. Last year there were about 4,500 candidates from the Northeast, whereas nearly 47,000 students took the test from a city like Kanpur alone.

Business Line ND 21/04/2011 p-21

Super 30 founder is Europe journal's global personality

Indo Asian News Service

Patna, April 20

Mr Anand Kumar, who founded Super 30, Bihar's free coaching centre which helps economically backward students crack the IIT-JEE, has been selected by Europe's magazine *Focus* as one of the global personalities who have the ability to shape exceptionally talented people.

He is the only Indian named in the list.

"This gives me a feel that honest and sincere efforts get noticed, no matter where they are being made. I will carry on with my pursuit of educating poor children," Mr Kumar said.

Focus is published by Italy's biggest publishing house Arnoldo Mondadori Editore. Apart from Mr Kumar, the article also mentions Iwano Brugneti (athlete).

Earlier, *Time* magazine had described Super 30 as the 'best of Asia.'

Discovery channel made an hour-long documentary on Mr Kumar, while



Mr Anand Kumar

a film made by a British producer won the 'Viewers' Choice Award' in the Los Angeles Film Fest.

Mr Kumar, who could not go to the Cambridge University for higher studies because of extreme financial constraint after the death of his father, started the Ramanujam School of Mathematics in 1992 and founded the Super 30 in 2002.

Super 30 provides free food, stay and

rigorous coaching for nearly a year to 30 poor and talented students selected through a two-tier examination process. Most of the successful candidates have come from the most underprivileged sections of society.

In the past eight years, the initiative has helped 212 students clear the IIT entrance test. In the last three years, all the 30 students of the institute made it to the IITs each year, drawing worldwide attention.

The students have to pass a competitive test to get into Super 30 and then commit themselves to a year of 16-hour study each day, Mr Kumar said.

Japanese channel NHK and Al Jazeera also made documentaries on Super 30. In 2007, industrialist Mukesh Ambani honoured Mr Kumar with the 'Real Hero Award.' During his visit last year, US President Barack Obama's envoy Rashad Hussain described Super 30 as the "best in India".

Auto-driver's techie son heads for IIM-C

By Girdhar Jha in Patna

BRAVING all odds, the son of a poor auto-rickshaw driver from Patna has made it to the Indian Institute of Management, Calcutta, (IIM-C).

Anupam Kumar, a resident of Bhadra Ghat locality in Patna, scored a 97.09 percentile in the Common Admission Test (CAT) to qualify for the prestigious institution.

Anupam says he owes his success to his family. "Whatever I have achieved today is because of my parents," he said, adding, "God should give everybody parents like mine."

He said his family had often found it difficult to make both ends meet while he was pursuing his goal. Anupam's father Srikrishna Jaiswal has been an auto-rickshaw driver for more than two-and-a-half decades in Patna.

"Our family income was quite low but my father never lost hope. He has been working hard for many years for the family," Anupam said. This was not the maiden success of Anupam, though. In 2005, he had cracked the joint entrance examination for the Indian Institute of Technology (IIT) as a student of Super 30, a free coaching institute for underprivileged children run by a young mathematician Anand Kumar.

He subsequently completed his first year of the M.Sc. integrated course in Physics at IIT-Kharagpur but left it to join Indian School of Mines (ISM), Dhanbad. He has since been pursuing a five-year dual course there in mining engineering with MBA.

Anupam's father Jaiswal has been toiling hard for years to fulfill the dreams of his children. He leaves every day at 9 am and returns home as late as 11 pm, so that he could earn sufficient money to help his three children pursue their dreams.

Hardly surprising then,

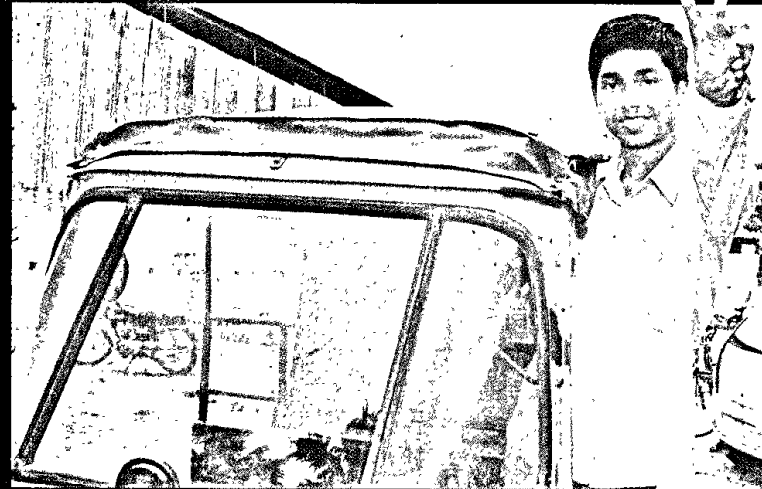
Had also cracked the IIT entrance

his eldest son Anupam's success has brought cheers to his family. "God has answered our prayers," Anupam's mother Sudha Devi, a housewife, said, adding "When my son called up to say he has been selected for IIM-C, our joy knew no bounds."

After doing his matriculation from a private school and intermediate from the Hindi medium Guru Gobind Singh College at Patna Sahib in first division, Anupam focused on making it to the Indian Institute of Technology (IIT).

But the road to success

SONUKISHAN



DEDICATED SON: Anupam says he owes his success to his father's hard work.

- Anupam did his matriculation from a private school and graduated from a Hindi medium college in first division
- After graduating, he had his eyes set on IIT and started preparing for the entrance test

FROM RAGS TO ACADEMIC RICHES

- He couldn't clear it in his first try, but after taking special coaching, Anupam made it through in the next attempt
- He completed his first

year of M.Sc Science at IIT, but left it to join the Indian School of Mines ■ Anupam appeared in the CAT for the IIMs and scored a 97.09 percentile to make it to the Institute



Anupam's father will continue with his job.

was not easy because of resource crunch.

Anupam said he started giving tuitions to children to supplement the income of his family. "I used to earn ₹1,000-₹1,200 by giving tuition to the students of classes VI and VII. At times I had doubts whether I would be able to fulfill my dreams. I also thought of becoming a teacher at a coaching institute at one point of

time," the IIT protégé said. Anupam had disappointment in store when he failed to qualify in his first attempt at IIT-JEE in 2004. But he got admission in Super 30 as one of the 30 students and went on to crack the IIT-JEE the next year.

Recalling his student, Anand said he was pleased to know that he had made it to the IIM-C. "He was a very talented and hard working boy," the founder of Super 30 said. "I am sure he will go far in his career."

Anupam's success has also inspired his younger brother Abhishek and sister Anamika to pursue careers in engineering.

Notwithstanding Anupam's success, his father Jaiswal does not intend to stop driving his auto-rickshaw on the roads of Patna. When Anupam informed his father about his latest success, Jaiswal told him to keep focus on his studies. He would keep running the auto-rickshaw for another two years before thinking of retirement, his father said.

Times of India ND 21/04/2011

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Born this way: Tendency to be 'yes man' is in the genes

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London: Some people are born 'yes men', thanks to their genes which make them more likely to follow other people's directives.

Researchers found that coming to a decision often involves listening to two parts of the brain — one that relies on taking advice and the other on experience.

The brain weighs up the often opposing views and then arrives at a decision to take an action, the researchers found.

But Brown University researchers in Rhode Island discovered that some people have genes that skew the decision towards one part of the brain than other.

They discovered the DARPP-32 genetic variation meant that individuals are more likely to do what he or she is told, even when it is contradicted by experience, the journal *Neuroscience* reports. IANS



BENDING OVER BACKWARDS: Variations in the DARPP-32 gene mean that some of us are more likely to do what we are told, researchers say

Times of India ND 21/04/2011

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No more sci-fi: This computer has emotions

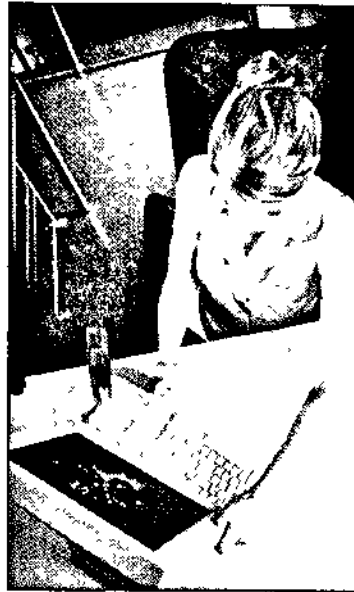
© Matthias Tunger/Corbis

London: Imagine a computer that has emotions just like you. This could soon be a reality, as scientists are inching closer to new class of computers which they say can feel "sorry" for their mistakes.

Researchers at Tel Aviv University's Blavatnik School of Computer Science are developing programmes which will make computers realise their mistakes and then operate much faster and predict events before they happen.

The programmes, the researchers said, will ask computers to try and do something only for them to be deliberately thwarted. By understanding the difference between the desired outcome and the reality, the machines will learn a sense of "regret" and how to minimise it. Computers which experience this will be less likely to make the same mistake in the future and will run more efficiently, the researchers said.

It could also teach them to predict the future — by considering all possible outcomes, they work out which is the most likely to succeed before they even



SENSE & SENSIBILITY: The new breed of computers will be made to 'feel' sorry for their mistakes. This will ensure that they don't repeat mistakes

start. The researchers led by Yishay Mansour, however, admitted that it was not quite on a par with artificial intelligence depicted in science-fiction films.

It's a first step in creating computers which could one day have human emotions, they said. Mansour has developed an algorithm that adapts to the situation at hand, effectively "learn" while running. PTI

Times of India ND 21/04/2011 p-11

PSLV puts three satellites in orbit

V Ayyappan | TNN

Sriharikota: After two failed GSLV lift-offs last year shook the new-found confidence of India's space establishment, Isro on Wednesday successfully launched its 17th polar satellite launch vehicle.

A precision launch of the PSLV-C16 was followed by the spacecraft placing three satellites — ResourceSat-2, an Indo-Russian YouthSat and Singapore's first satellite X Sat — on an 822-km sun synchronous orbit. The satellites were placed in orbit 18 minutes after blast-off from the Sriharikota spaceport.

Indian Space Research Organization chairman K Radhakrishnan called the launch a grand success though there was a minor difference in the orbit achieved. "We wanted to put the satellites into a 820km orbit, but we got an 822km orbit," he said. The mission cost Rs 250 crore.

The launch was keenly watched across the world as data from ResourceSat-2 will

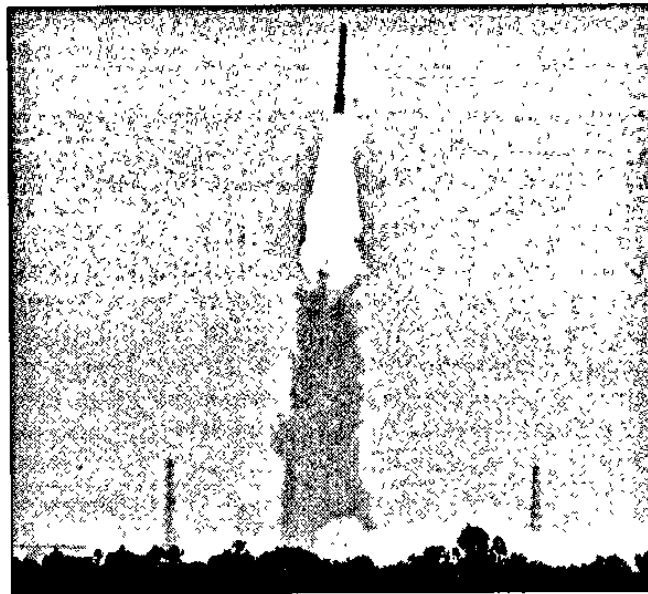


IMAGE BOOSTER: The PSLV-C16 takes off from the Satish Dhawan Space Centre in Sriharikota on Wednesday

be used by 15 countries. The 1,206 kg satellite will collect data on natural resources, including ground water and mineral deposits on land and fish density in the sea. The satellite has three cameras that can cover widths of 740

km, 141km and 17 km at resolutions ranging from 22 metres to 5 metres.

"The satellite will replace ResourceSat-1 which is in orbit since 2003. ResourceSat-2 is a global mission and has many improvements. It can

be used to monitor snow cover, glacier changes, urban landscape and others," said Radhakrishnan.

PSLV-C16 mission director P Kunhikrishnan said all the stages of the rocket performed well. "The solid stage propulsion and liquid stage propulsion worked well and we were able to achieve the orbit in 18 minutes after the launch. The solar panel of ResourceSat-2 has been deployed and the satellite was pushed to the second orbit soon. If all goes well with the satellite, the ground centre in Bangalore will start receiving images from May 18," he said.

The other payloads are 92-kg YouthSat, an Indo-Russian stellar and atmospheric satellite built with the participation of students from universities. The YouthSat mission intends to investigate the relationship between solar variability and upper layers of atmosphere.

The third one, X Sat, is Singapore's first satellite and weighs 106kg.

STARTING SMALL

The rise of student entrepreneurs

The number of student start-ups—companies founded by people in graduate and postgraduate schools across the country—has increased over the last couple of years, despite a lack of investor interest

BY ANURAMA CHANDRASEKARAN
anupama@livemint.com

CHENNAI

There's something about these companies.

One offers inventory management software for small- and medium-sized enterprises. Another sets up websites for NGOs (non-governmental organizations). The third builds robot kits for educational purposes.

All are run by people who are still in their early or mid twenties. All are small. Some may grow. Others may fade away.

Welcome to India's student start-ups—companies founded by people in graduate and postgraduate schools across the country. When the National Entrepreneurship Network conducted its First Dot National Competition for student start-ups earlier this year, it received 99 applications from 19 cities; 44 were from non-metropolitan cities. Interestingly, the founders of 54 were from non-metropolitan cities. And only four of the 99 came from families that earned more than ₹25 lakh a year.

Whether it is IT (information technology), clean-tech, education, media, or retail—the exciting thing is these entrepreneurs are not rich, but they are putting in money of their own," says Laura A. Parkin co-founder and chief executive officer, National Entrepreneurship Network (NEN).

NEN, through its eCells, builds a comprehensive set of programmes to create an entrepreneurial ecosystem on campus. It is present in 540 campuses across the country today and offers games, skill-building workshops and mentoring sessions.

There's a pattern in the 99 applications received by NEN that is true of student start-ups in general. Areas requiring low capital investment such as IT services, mobile communication services and e-commerce are hotspots for start-ups. There aren't so many student start-ups in capital-intensive sectors such as infrastructure. Some service sectors, which have seen activity, are the health-care, education, financial services and entertainment sectors.

"There's still a hangover of the dot-com era and it does make me worry when a student talks about a Web-based business," says R.S. Veeravalli, who oversees the entrepreneurship cell at Great Lakes Institute of Management. "The grim reality is that just 10 out of 1,000 ventures succeed."

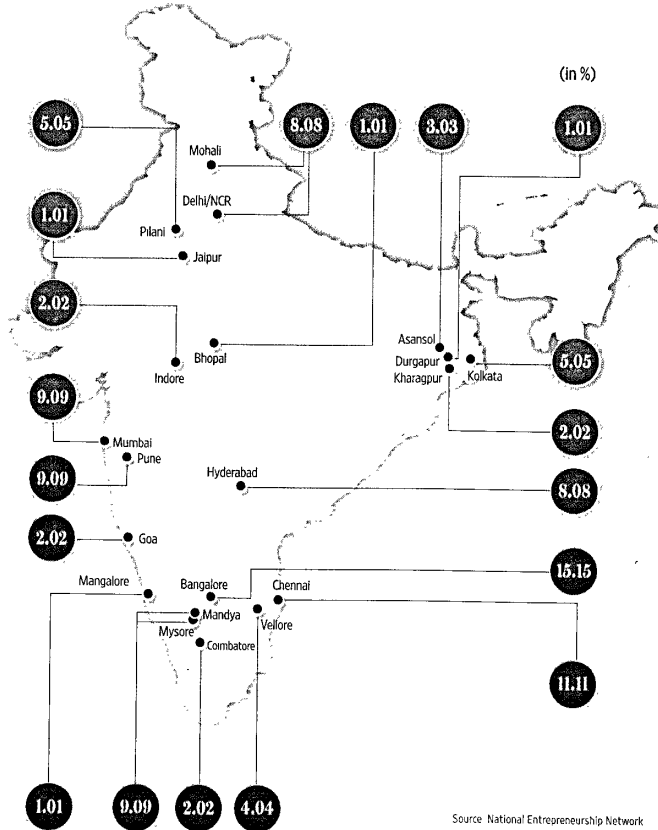
Still, niches such as agriculture, biotechnology, nanotechnology and clean energy are seeing traction because of a policy push. Recently, the government's department of science and technology,

Whether it is IT, clean-tech, education, media, or retail—the exciting thing is these entrepreneurs are not rich, but they are putting in money of their own.

Laura A Parkin
Co-founder and CEO, National Entrepreneurship Network

Growing numbers

NEN's First Dot National Competition for student start-ups, which was conducted earlier this year, received 99 entries from 19 cities across the country.



Source: National Entrepreneurship Network



the Council of Scientific and Industrial Research (CSIR) and International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) said they would give access to their technologies for people interested in starting agricultural ventures. As a result, the Hyderabad-based Indian School of Business is creating a national level seeds and biofuels business plan centred around two technologies of Icrisat.

And the Indian Institute of Management, Bangalore, currently hosts start-ups in the space of security solutions for public banking transactions; back-end regulatory processes for the stock exchanges; a bio-informatics firm that helps scientists quickly search databases; a venture to help computer illiterate users access Internet content using a television remote; and a firm that measures and optimizes carbon footprints for organizations.

Whatever be the areas they choose to operate in, there's no denying the increase in number of student start-ups.

"The number of entrepreneurs setting up shop each year has tri-

pled compared with three years ago," says Aditya Mishra, co-founder and director of HeadStart, a Bangalore-based organization that promotes entrepreneurship. "But start-ups require smaller investments and as angel and seed funds funded by multinationals look at bigger investments for returns, no one has stepped in to fill up the gap."

The number of deals receiving seed money or angel investment halved to 11 in 2010 from 22 in 2009, according to venture capital-focused news site VC Circle. In 2009, 16 were funded.

The size of the deals has increased as the 11 deals in 2010 got \$6 million, or double the \$3 million that 16 deals got in 2009, signalling VC interest in bigger investments.

"By the time a great idea receives

approval and the funds arrive, the people behind the ideas move on to accept high-package jobs in multinational companies," says Dhrubesh Biswas of the Indian Institute of Technology, Kharagpur. Biswas is in charge of IIT-K's Incubation and Entrepreneurship programme.

Indian venture investors are still miles away from cranking up student start-ups in the country. And they may be getting further away.

Even as Indian colleges set up entrepreneurship cells and incubators—free facilities with office space and computers—and see a surge in student entrepreneurs, private equity is yet to be impressed.

Investors complain that student start-ups do not seek to expand their businesses and remain sceptical of college goers overusing the incubators as a free office space and nothing else. Besides, initiatives such as "deferred placements"—that allow students to line up for a campus interview in case a business turns sour—aren't helping.

This year IIM-C also introduced

the concept of "deferred placement" where students can pursue alternative careers or "start-ups" and in case of failure, come back and participate in the campus placements programme even three to four years after graduation.

Such carrots may hurt student entrepreneurship drive, says S. Sriram of Chennai-based Great Lakes Institute of Management.

"What tends to happen with deferred placement is that there will be people who give up," says Sriram. "Part time will become spare time and then a hobby and inertia will set it and it will go for a toss. I try to assess if they are ready to live with it." So, Great Lakes has steered clear of offering deferred placements and instead of a generic discussion within entrepreneurship cells, the focus is increasingly on one-on-one discussions with prospective student entrepreneurs.

Investors cite similar issues with incubators.

"I believe incubators are increasingly used as a stopover point rather than research and development hubs that also allow access to resource people," says Anuradha Ramachandran of Ventureast, a Chennai-based \$300 million investment fund. "Some college-based incubators believe that the reason they are there is to provide a physical space and help save rental money, which is the most disgusting thing I have come across."

Still, the lack of investor interest hasn't stopped the start-up itch at IIT Kharagpur, which recently started a five-year dual degree programme, apart from a bachelor in technology degree. So, students can get an additional master's degree in entrepreneurship after they launch ventures of their own.

"Output is the only grade when it comes to entrepreneurship programmes. So we have stressed upon launching a start-up as a prerequisite to get the degree," Biswas said.

Apart from the 15 new ventures that IIT Kharagpur students launch every year on an average, 20 additional ventures will automatically emerge from the dual degree entrepreneurship programme, he said.

At the IIM in Kolkata, the Centre for Entrepreneurship and Innovation (CEI) offers various entrepreneurship programmes for post-graduate students and people with work experience. The courses incorporate the current business realities of globalization and outsourcing. It also encourages research projects on different aspects of entrepreneurship. CEI also provides direct support to prospective ventures by providing consulting services, helping in identifying opportunities and resource requirements, providing the necessary industry interface and arranging the funds.

"In most cases, students who plan to pursue their own venture do so after working for five to seven years in a company. This exposes them to the necessary social network for starting a company," says Anjan Raichaudhuri, who teaches an entrepreneurship course at the Indian Institute of Management, Calcutta.

"You need to be both romantic and realistic to start a new venture."

Sapna Agarwal, Priyanka Pulla, Manish Basu and Prashant Nanda contributed to the story.

This is the first in a series of student-start-ups that Mint will run through April and May. The second part will look at the financing landscape for student start-ups.

MINT ND 21/04/2011 P-1

PRADEEP SINGH

Looking for 'impact of scale', an entrepreneur tries again

By SRIDHAR K. CHARI
sridhar.c@livemint.com

BANGALORE

It was 1994.

Pradeep Singh, a Harvard Business School (HBS) alumnus and Microsoft Corp. veteran asked for a meeting with N.R. Narayana Murthy and Nandan Nilekani on a little business idea he had. Back then, when you were from Microsoft, people listened.

Singh told the duo about an email tech support company he wanted to set up and how

he was convinced back-end support would eventually become big, very big. In some ways, it was back-office services or business process outsourcing he was describing. Only, back then, no one knew it by the name (in 2010-11, the back-office services industry was worth \$14.1 billion, or around ₹62,600 crore today, by revenue according to industry lobby group Nasscom).

Murthy agreed the potential was there, says Singh. "We can take 65%; you can take 35%," he said and I thought he was

already negotiating. Then he picked up a newspaper, placed it in front of me and said, "There will be a photograph of me and Nandan in the papers and you will be mentioned somewhere in the fine print. You don't need us. Go and do it on your own."

And so, Singh went and did just that. The company was Aditi Technologies Pvt. Ltd and it provided support to Microsoft customers on the CompuServe forum (yes, this was back then).

Singh's dream didn't have a



New start-up: Pengala Learning founder Pradeep Singh.

happy ending, though. First, Microsoft ended its partnership with CompuServe and then, a few years later, the customer relationship management product company he had spun off Aditi, Talisma Corp. Pvt. Ltd became, in his own words, "a debacle".

Still, entrepreneurs are not easily deterred. Singh is back with a new start-up, and he claims to have both a business case and an "aspirational case".

Pengala (the company is

TURN TO PAGE 2 ▶

Looking for 'impact of scale', an entrepreneur tries again

▶ FROM PAGE 1

Pengala Learning Pvt. Ltd is a digital learning platform that hopes to solve one of the biggest challenges in the education business in India: how can a school or a test preparation institute scale up without adding teachers and bricks and mortar classrooms?

"The business case is pretty solid. We don't build content. We don't sell it. So, no sales and marketing costs. In between, we take a piece of the action. There is the guy with a high propensity to pay—the guy preparing for IIT JEE (the joint entrance examination for admission to the Indian Institutes of Technology) without a coaching centre nearby—that gets the cash flow positive

thing going...," explains Singh.

Then there is the aspirational case. "After you feed people, what is next? To teach them. The scale is enormous. There is no way to do it with the bricks and mortar model. There is no easy answer. If the difficult answer works, there is enormous impact."

Deepak Srinath, director at **Viedea Capital Advisors Pvt. Ltd**, said that if Pengala could make its platform interactive and provide a genuine learning experience, there was no doubt that the market for it existed. "Test prep institutions are strong regionally, but no one has a national footprint. And if you are scaling with a bricks and mortar, franchisee type model, maintaining quality can be difficult," he said.

Those doubting the idea would do well to read up on Singh's past, though there is no guarantee that a man's history has any bearing on his future.

Even today, most students graduate from US business-schools in debt. When Singh graduated from HBS in 1984, he had \$60,000 in the bank.

So, he went and bought a second-hand BMW, and he and his wife Ruby drove around the US for six weeks.

The money came from a resume printing service he ran, which brought in revenue of \$125,000.

"Remember, this is 1984, with no ready-made laser printers around. The average HBS graduate is incredibly insecure about his resume—par-

ticular type of paper, watermark, thickness, and so on. My first year I passed with honours; barely made (it through the) second year. This had turned out to be a full time job!"

He may have just been lucky, but Singh is a man who likes to look back on his life in terms of the "lotteries" he has won. The first, he says, was the "womb lottery".

"I was born of refugee parents, Sikhs from Lahore—open-minded liberal. I went from barely making first grade in school to going through IIT-JEE preparations and making it to IIT, Delhi."

The second lottery was admission to HBS. "Incredibly unpredictable process," he says grinning. "They pretty much pile up the applications, and throw darts to choose!"

HBS had other pluses: summer internship at **McKinsey and Co.** (he was hired by Rajat Gupta). Then he went to work for **Texas Instruments Inc.**

And finally, when he was set to return to McKinsey, a friend told him about a small company in Seattle that few people had heard of that was making around \$100 million.

It was called Microsoft. Singh's hiring manager was Jeff Raikes, who runs the Gates Foundation today. The job came with some nice stock options.

That was the third lottery.

Since then, the law of averages seems to have caught up with Singh.

Sure, Aditi is still around, and will end the year with \$80-85 million in revenue. And Singh says that when he walks in, sees some people laughing over a joke in a corner, others engaged in an intense debate in another, he thinks to himself, "Hey, I made this happen."

But he admits he'd like nothing more than to make a big impact.

Who knows? Maybe he'll win the lottery again.

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REGULATORY GUIDELINES

Govt yields a bit on new technical college norms

Demand for ₹90 lakh as security money now rolled back to the original ₹30 lakh, but with a rider

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

NEW DELHI

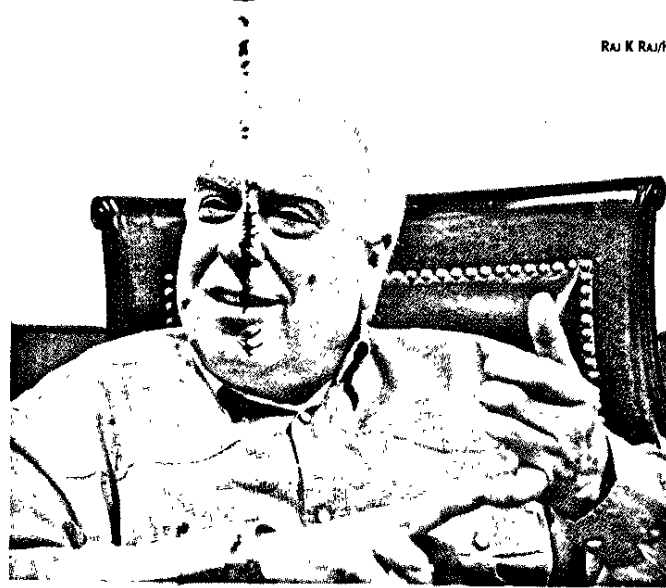
Caving in to pressure, the Human Resource Development (HRD) ministry has partially rolled back the changes in the guidelines governing setting up of new technical institutes.

Earlier the HRD ministry had revised the guidelines and made it mandatory for new institutes to pay ₹90 lakh as security money for a period of 10 years. Now, it has rolled this back to the original level of ₹30 lakh, but inserted a condition wherein this sum would have to be paid in cash to the All India Council for Technical Education (AICTE), the apex regulator of technical education in the country.

In turn, AICTE would invest the money in a fixed deposit and retain the interest earnings in a special account.

Private colleges and institutes were, however, disappointed with the changes and wanted the government to restore the original guidelines.

They believe the move is a



Policy focus: HRD minister Kapil Sibal has said that India would like to add 30 million students in the higher education space.

dampener to setting up new institutes at a time when the cash-strapped government is unable to make similar investments. Earlier, institutes were required to only furnish a bank deposit receipt for eight years and were allowed to retain the interest earnings.

AICTE member secretary M.K. Hada confirmed the development.

According to a senior HRD ministry official, who requested not to be named, increasing the security money to nearly a crore rupees "sounds little unfair" as it will hinder new institutes coming up. "When the fo-

cus is on increasing access to education and making gross enrollment ratio in higher education to 30% from the current 13%, you should not discourage education entrepreneurs. But, we have to closely monitor the quality," the ministry official said. Currently around two million students are pursuing technical education such as engineering, management, pharmacy, architecture among others. And overall, less than 15 million Indians are pursuing higher education, which is just 13% of those who are eligible or in the age group. HRD minister Kapil Sibal has reiter-

ated on occasions that India would like to add 30 million more students in the higher education space and the country needs over 20,000 more colleges in a decade time.

Last year, gov't approved at least 600 new institutes and if all of them submit a security money of ₹30 lakh each in cash, then AICTE will have a corpus of ₹180 crore on which it will earn an interest. Moreover, the council will keep the cash in a bank fixed deposit for 10 years, according to the new rules. H. Chaturvedi, director of Birla Institute of Technology at Greater Noida and alternate president of the Education Promotion Society of India, an industry lobby, said, "At an interest rate of 9-10%, AICTE is expected to earn above ₹1,000 crore from this process in a few years. They are a government body and should not become a fund accumulator."

AICTE's Hada said the regulator is not making money rather it will help students in case of an institute shuts down. He said AICTE has encountered few instances when colleges furnish some fake receipt or withdraw the money before the expiry of the stipulated period. This will guard against any such attempts.

Private sector owns over 70% of the over 10,000 technical colleges in the country and Chaturvedi argued "government should not make private education unviable that too when government cannot fulfil the demand for such colleges."

Chaturvedi indicated that this was part of a trend as earlier AICTE had imposed a charge ₹5,000 for each of the 10,364 technical colleges following the introduction of e-governance, earning it ₹5.18 crore.

RAJ K RAJ/HT

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The globalisation of management

In today's age of globalisation, management education needs to align the syllabus, structure, pedagogy, contents, faculty and every other aspect to the needs of continuous changes in the business world

Dillip Ranadive

Keeping the definitions of hard-core economists aside, the word 'globalisation' can be understood as the large-scale integration of cross country economies at industrial and corporate levels and its effect on various business and social aspects. In fact, the advent of globalisation in our country has been at such a scale over the decade or so that it has influenced almost every aspect of the business life, may it be the flow of information, capital, and technologies or most importantly people. From the look of the things as of this day, this is fast becoming order of the day and is here to stay.

In this situation, the field of management education has an almost obligatory responsibility to align the syllabus, structure, pedagogy, contents, faculty and every other aspect to the needs of this particular change in business world. The art and science of management was supposed to have been developed and perfected in US. While this system has its proven advantages, it is beyond argument that it is basically uni-cultural and therefore, it will have to be modified to include and accommodate the needs created by the multicultural dimensions of the businesses and issues generated there from.

The managers who are to manage things in such multicultural environments need to have this dimension to their knowledge, which equips them with skills and expertise to deal with such dynamic situations and produce results. Globalisation brings in executives who have different cultural upbringings to work closely and even creates their interdependency for the purpose of organisational interest. It is necessary that the management education provides a base to students to come to terms with these differences and also equips them to reach solutions.

The system of management education has experienced a multidimensional impact due to globalisation. Knowledge has emerged as the major driving force in the globalised economy as well as society and it has created both challenges and opportunities. The tools of learning are becoming tech-savvy and the techniques like e-learning, distance learning, video lecturing and overseas internships are rapidly becoming common. Management education will soon have to transform in to a more competitive

and deregulated system which is tailored to meet the dynamically changing needs of globalised free market and will prepare students to take up the challenges of 21st century job market in the emerging cross cultural, cross economic scenario.

The changed business world is found to demand more of practical, solution oriented mindsets than the conventional, theory-strong ones. The trend of placement processes shows a growing preference to test students majorly for their attitudes, analytical minds and problem solving ability. Some recruiters are using advanced psychometric tools to scale the emotional quotient of students and use it as an important component for judging them for profiles which would lead to leadership roles in a short period. Whereas the university syllabus leaves much scope for improvement, the autonomous courses in management have been quick to adopt programmes which offer much better scope for practical learning and develop solution orientation, such as those based on case study methodology.

The educational system will have to create a deep-rooted understanding of changing definitions of the words 'job' and 'career' amongst students. Gone are the days of lifelong jobs at one place. They will have to emphasize and ensure clear understanding in students' minds that two words which matter most in today's globalised corporate world are 'results' and 'performance'. Skills cannot be taught but they have to be acquired and the management educational system will have to have enough space for students to make meaningful efforts in that directions. The system will have to strike a balance between the conventional academics and specialized, tailored courses for skill and knowledge development. There is also a strong need for corporates to align with management institutions to assist them in tuning up the learning programmes to their specific needs. Also, corporates can be effective partners of management institutions and contribute to groom talent, which their specific business models need. In fact, just like their CSR initiatives, corporates can seriously think of CER (Corporate Educational Responsibility) initiatives aimed at management education and can even ensure that some of the HR managers have this as a part of KRA.

(The writer is director, Corporate Relations MIT Group of Institutions)

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'B-Schools must be knowledge hubs'

Top B-schools in the country are making best efforts to produce quality managers for the industry but are facing a few challenges. Prof (Col) A Balasubramanian, president of Sri Balaji Society, Executive Director BIMM, and Dean BITM, BIIB, BIMHRD, tells us what needs to be done to enable B-schools generate opportunities for management students

On the question of B-school autonomy, on the lines of IIMs, what do you feel is required to be done?

The autonomy essentially is related to the survival, functional efficiency and competitiveness to grow as a distinct institutes or brands. Every student joining a business school expects a job. This expectation will have to be met by the B-schools. Therefore, the admission process becomes very critical. A grown up graduate student is conscious of what he is doing, take a decision to join a particular course with the approval of the elders in the family including the parents and demands a 'Return on Investment'. This being so, if the institute does not have the authority to scrutinise the suitability, on various parameters and grant admission in their own institute, how do you expect them to deliver the result? In other words, giving admission based on a certain qualification and a certain cut off point of an entrance exam in a routine manner in a crowded atmosphere will defeat the very purpose of scientific admissions. Having admitted a student, the institutes should take the responsibility to impart the best knowledge, skills and attitudes just like a 'finishing school'. To produce a best manager we need the best faculty for which one should have the right to fix the right fee. All these rights already exist and are protected by various judicious pronouncements by the Supreme Court of India.

But, how about, those

taking capitation fee and exploiting the students?

The law of the land will take care of it. The problem here is, the Central Government has grabbed the subject 'education' from the concurrent list and expects a few gentlemen to control the whole technical education. How can a person who does not know the requirements of the industry be at the helm of a regulatory body, which produces students for that sector?

Industry interface in B-School education is still lacking. Your views on the same?



Prof (Col) A Balasubramanian

I think that the situation is changing. We organise national HR meets in which stalwarts discuss various issues with students. Like that every institute is doing something depending upon the capabilities and requirements perceived by them.

Do you feel in the final exams more stress should be on projects and outdoor assignments rather than high theoretical inputs?

Theoretical inputs make the bedrock of any good education system, but since management is a practical course like medicine there is no short cut to practical as-

signments and projects. Therefore, management the-ory is nothing but well tested management practices published in the form of books. Let us note that the most revered Ramayana, Mahabharata, Quoran Bible and Guru Granth Saheb all are in the form of books. Do we treat them as theory, case-study or practice?

As compared to Ivy League Institutions do we have a lot of catching up to do?

The eco system in India and the US is different. The US is a highly industrialised country with processes and systems developed over a century or more. In India, real industrialisation has started after Dr Manmohan Singh demolished the Permit Raj and ushered in globalisation. In India, freshers study management before entering the corporate world. In the West, management schools are filled with students with rich corporate experience. In any case our own IIMs are no less than the Ivy League.

Is there a need for a common syllabus and uniform practices for the entire country?

If we want to kill the initiatives, experiments and innovative practices introduce a common standard and face the consequences of stalling the industrial and corporate growth of our nation. Did the corporates, the real employers of our MBA's make such a suggestion? Are views of all the trade and industry bodies — the end users of MBA's — sought? Can the marketing strategies of different companies across the regions be the same? Can the price of two products Maruti and a Mercedes be the same? It is

the differentiation, which is the value creator.

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Pvt cos soon in internal security?

But Govt Wants 5-7% Of Profits Invested In R&D For Cutting-Edge Tech

TIMES NEWS NETWORK

New Delhi: The government on Wednesday said it was ready to accept participation of private players in internal security area but asked them to spend at least 5-7% of their profits in Research & Development to get cutting-edge technology.

Expressing the government's readiness, Union home secretary G K Pillai said the home ministry has undertaken several ambitious projects like the Crime and Criminal Tracking Network and Systems (CCTNS), National Intelligence Grid (NATGRID) and visa tracking system where tremendous opportunities were waiting for the private sector.

"I would like to say that in the internal security scenario, there is a huge market which is available for you," Pillai said at a seminar organized by Indian

In the internal security scenario, there is a huge market which is available for you (private sector)... there is tremendous potential where industry and govt can collaborate

G K Pillai



Chamber of Commerce.

The home secretary said another project which is in the pipeline is the "Safe City Project" through which the government wants to make the cities safe. The project is being started in 24 cities for the safety of citizens through dedicated security networks. The home ministry hopes to extend the project to all major cities in the country in a phased manner.

"If that happens then there is tremendous potential where

both industries and government can collaborate," he said.

Citing the example of the Bangalore traffic management scheme, Pillai said the government and private sector jointly worked out a new scheme which is being implemented in 197 traffic junctions in that city. "The results are already there. In the last two years, there is a 20% decline in fatalities in Bangalore and 2,000 lives have been saved," he said.

Asking private companies

'Accidents kill more people than terrorists': Stressing on the need for "effective traffic management", G K Pillai said more than one lakh people died every year in road accidents in the country, 20 times more than from extremist violence. "The country lost more than 1,00,000 people every year in accidents. Apart from the human loss, the country also lost about Rs 10,000 crore in compensation and insurance claims," he said. **TNN**

to spend at least 5-7% of their profits in R&D to get new technology, Pillai said: "I feel that most companies are still not investing enough in R&D. They believe that it is not crucial enough. But if you really want to go up the value chain, you have to spend 5-7% of your profits in R&D. It is important, it is a long term investment, it is going to give you good dividend as you move forward."



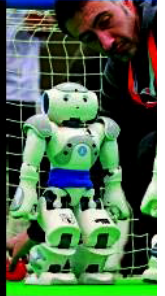
What do you do when your child loves robotics, but you simply cannot afford a kit that is exorbitantly priced? Years back, the Danish company Lego introduced a robotics kit - as users built the kits, they began to grow familiar with the principles of robotics. This familiarity would eventually help them crack problem statements. But the downside of this wonder kit was the pricing - ₹25,000-₹30,000 was too much for a parent to afford. That was when the Chennai-based Robotics Research Lab Academy (RRLA), an institute that specialises in teaching classical robotics,

age group. For instance, at the lower levels, they are given a bread board that teaches them how to build circuits." Several other factors have been conducive to the growth of the robotics movement in South India. Advanced robotics is up for the taking at the post graduate level and for research endeavours. Robotics at the college level in Chennai is a rage too. "Almost every university in Chennai has robotics lab. But there is a need to upgrade the robotics systems in labs," says Veejayshree. Dr G Venkatesh, Chief Mentor, Bangalore Robotics, a Bengaluru-based institute says, "Robotics competitions are a big draw for

processes which required. We through can demand for s increase. Rob repetitive, di nature. These programmed are thus requ maintaining But despite i a main cours science or en a course is of at the post g is no exclusi Level. Studer if they starte level itself, s

Rage of robotics

The robotics movement at the school and college levels is helping steer societies towards the age of automation, says **Anjana Raghu Ram**



The market for robotics is thriving. Robotics is applied in various spheres like automobiles, electronics and medicine

stepped in. P Veejayshree, Head, Projects, RRLA, says, "We focus on the robotics movement at the school level. We felt that if the kits were priced reasonably, then we would be able to embrace a wider market. So we decided to stock the kits and charge about ₹500 per programme. That would make the prospect more affordable." The robotics movement at the school level has been hugely successful because of the interest evinced in and created by what is called Fun Robotics or Hobby Robotics. The RRLA, that has its presence in schools like Chettinaad Vidyashram in Chennai, will soon reach five schools in the next academic year by teaching the principles of robotics, in tandem with the Maths and Science NCERT syllabus. Veejayshree says, "We have structured programmes, depending on the age group. The level of complexity grows with the

students - they are integral to the tech fest of engineering colleges. Since they are a major draw, students rush to training centres to win competitions." While the supply sphere is demonstrated by the rage to excel in competitions and the number of people enrolling at training institutes, the requirements for students trained in robotics by the industry reflect the demand. The market for robotics is thriving - and the myriad applications of robotics in various spheres like automobiles, electronics and medicine, demonstrate that employment opportunities are aplenty for those interested in the field. Saranga Rajan, Head of Productions, Hyundai, Chennai, says the company recruits people with a background in robotics. "Yes, robots are used in our welding shops, the painting processes, and assembly

Krishna, fro of Informati Hyderabad. I robotics mus polytechnic Research emerging as with labs mu South to cate interest. Dr I perspective d "I see consid level of hobb however, a la robotics as a research mee need to move robotics. The for subjects I robotics." He the demand- are not many companies in problem is th sums up.



A pedagogic approach



Management education has come of age. Today, the quality of faculty, teaching methodologies and international relations indicate the success and reputation of an institution. **Prafulla Agnihotri**, Director, IIM Trichy, elucidates

South India has an enormously rich history of education. While science and technology are the most prominent fields of higher education in the South, management has also been gaining popularity over the last ten to fifteen years. Testimony to this is the presence of reputed institutions such as the Indian Institute of Management (IIM) - Bangalore, Indian School of Business - Hyderabad, Department of Management Studies at IIT Madras, Bharathidasan University, Trichy, and the newly opened, IIM in Trichy.

SUPERIOR FACULTY

The success of a management institution

adopted by professors across institutions. Case study is an ideal teaching methodology. This system of teaching should be supported by additional techniques such as projects, which will lead to experiential learning. It is important to offer practical insights into every problem and not just provide theoretical concepts.

ADAPTABILITY

It is important to equip the managers of tomorrow with necessary skillsets, as they will eventually be the driving force of the nation. The management education must adapt to this situation and must offer appropriate programmes to its students. They should also aim to seek alliances with B-schools abroad, for both students and faculty exchange programmes. Lastly, management institutions must understand that they should seek co-operation from the industry, so that the best of theory and practice can be offered to the

MANAGEMENT EDUCATION depends a lot on the strength of its faculty; their qualification, research background, and research-guiding abilities are vital to the growth of the institution. B-schools across the country must devise methods and mechanisms to allow the faculty to interact with international institutions of repute. This can be made possible by encouraging them to attend leading international conferences and/or publishing their research papers in leading international journals. It is important that faculty across B-schools are aware of the latest trends and developments across organisations. This can be done only if there is a strong industry-academia interaction. The output of the academia is the input for the industry.

TEACHING METHODOLOGY

Management education is surely undergoing a pedagogic change. Several innovative teaching methodologies are being

practiced and offered to the students.

Research resurgence

The country needs a clear roadmap for transforming universities as forerunners in active applied research. We find out the research ambience in the field of technology in South India



Stepping into the 64th year of Indian independence, the country that gave the world the university system is still grappling with systemic problems in its higher education system. Bureaucratically-burdened public universities and overly-regulated private universities are still riding on tough waters, making Indian academic research lag behind US and China. Despite this, there is reasonable progress shown by the five IITs, Indian Institute of Science, few National Institute of Technology (NITs), central/State universities and some promising private deemed universities. The recently formed Indian Institutes of Science Education and Research (IISER) are yet to establish significant presence in the research orbit, but definitely moving ahead. There is ample research done in basic research and relatively less in applied research.

The real strength of India comes from its soft infrastructure in the forms of its intellectual capital. Over 50% of engineering graduates from across the country are produced in South. South India is the Mecca for engineering education that saw the emergence of the Genome Valley (Hyderabad), Silicon Valley (Bangalore) and Auto Valley (Chennai). To support this "valley ecosystem", many universities provide to the system, highly talented graduates and also engage in active research in Biotechnology, Nanotechnology, Computer Science, Automobile Engineering, Material Sciences, etc. Pioneering research is done in Computational Sciences at IISc Bangalore and in Computer Engineering at IIT-Madras (IIT-M), IITs in Bangalore and Hyderabad, and also in Amrita University, Coimbatore. Research in Automobile Engineering, Engineering Design and Material Science is done extensively in IISc, IIT-M and to a certain extent, in the field of Automotive Electronics at VIT University, Vellore. Biotechnology and Nanotechnology related research is extensively done at IISc, SASTRA University - Tanjore, Amrita University and IIT-M. In addition, other State universities like CUSAT (Kochi), College of Engineering (Chennai), NITs (Trichy, Warangal,

The real strength of India comes from its soft infrastructure in the forms of its intellectual capital. Over 50% of

engineering
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South

institutions like the Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, South can be positioned as the *Zone for University Research & Innovation (ZURI)*. *R&D* can identify 100 universities are the institution and the industry partners. SASTRA University's SASTRA Innovation (SHRI) is also a step an interdisciplinary approach prepare an action plan and encourage universities to conduct high quality ment of the society at large. Instead a separate class of "Universities for *R&D* can identify 100 universities

*The writer is the
dean of a leading
university in Tamil
Nadu*