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आईआईटी निदेशकों पर केंद्र का शिकंजा

नहीं चलेगी मनमानी

नई दिल्ली | मदन जैड़ा

- बोर्ड ऑफ गवर्नर्स रखेगा निदेशकों के काम पर नजर

- सीधे केंद्र को रिपोर्ट पेश करेंगा बोर्ड ऑफ गवर्नर्स

भारतीय प्रौद्यौगिकी संस्थानों (आईआईटी) के निदेशकों की मनमानी पर अब बोर्ड ऑफ गवर्नर्स (बीओजी) की नजर रहेगी। केंद्र सरकार ने एक निर्णय में बोर्ड आर्फ गवर्नर्स को आईआईटी निदेशकों की कार्यप्रणाली पर नजर रखने की मंजूरी दे दी है। अभी तक आईआईटी स्वायत्त होने की आड़ में निदेशकों की मर्जी से चलते थे। बीओजी अपनी रिपोर्ट सीधे आईआईटी काउंसिल के समक्ष रखेगा। केंद्र के इस फैसले से कुछ आईआईटी निदेशक नाराज बताए जा रहे हैं।

देश में 15 आईआईटी संस्थान हैं। स्वायत्त संस्थान का दर्जा होने के कारण इनके दिन-प्रतिदिन के कामकाज में मानव संसाधन विकास मंत्रालय का दखल नहीं होता है। मंत्रालय सिर्फ यह देखता है कि वे सरकारी नीतियों का पालन कर रहे हैं या नहीं। एक तरह से निदेशक पूरी तरह से संस्थानों को चलाने के लिए स्वतंत्र हैं। लेकिन मंत्रालय की नजर में कई बार ऐसी शिकायतें आई हैं कि स्वायत्तता की आड़

में निदेशक मनमानी भी चलाते हैं। वे जरूरत के हिसाब से नियमों को अपनी सुविधानुसार बदल लेते हैं। ये बातें सरकार की जानकारी में नहीं आ पाती हैं। फिर मंत्रालय के पास इन्हें जांचने या नजर रखने का कोई नियम नहीं है।

मंत्रालय के अनुसार, मानव संसाधन विकास मंत्री की अध्यक्षता वाली आईआईटी काउंसिल ने हाल में हुई बैठक में इस प्रस्ताव को मंजूरी प्रदान कर दी है। इसके बाद से निदेशकों के कामकाज को परखने की जिम्मेदारी बोर्ड ऑफ गवर्नर्स की आ गई है जो काउंसिल को अपनी रिपोर्ट देंगे। इससे अभी तक बेकार माना जाने वाला बीओजी अचानक महत्वपूर्ण हो गया है।

IIT-Madras aims big with expansion plans

'Shaastra -2011' inaugurated; over 5,000 students expected to participate

Staff Reporter

CHENNAI: The expansion plans of IIT-Madras will include new facilities and projects and they are on the right track, its Director Bhaskar Ramamurthi said here on Wednesday. Considering that the number of students at the Institute is reaching the 8,000 mark, efforts are being made to expand and bring in newer projects and not duplicate the existing ones, he added. There are plans to triple the size of the IIT-M Research Park and the Institute is also in talks with the government to consider the proposal to set up another campus, Prof. Ramamurthi said. The collaboration of IIT-M with industry has increased by 25 per cent and there are also major associations with national research organisations, including ISRO and DRDO.

Earlier, inaugurating the 13th edition of IIT-M's technical festival 'Shaastra -2011,'
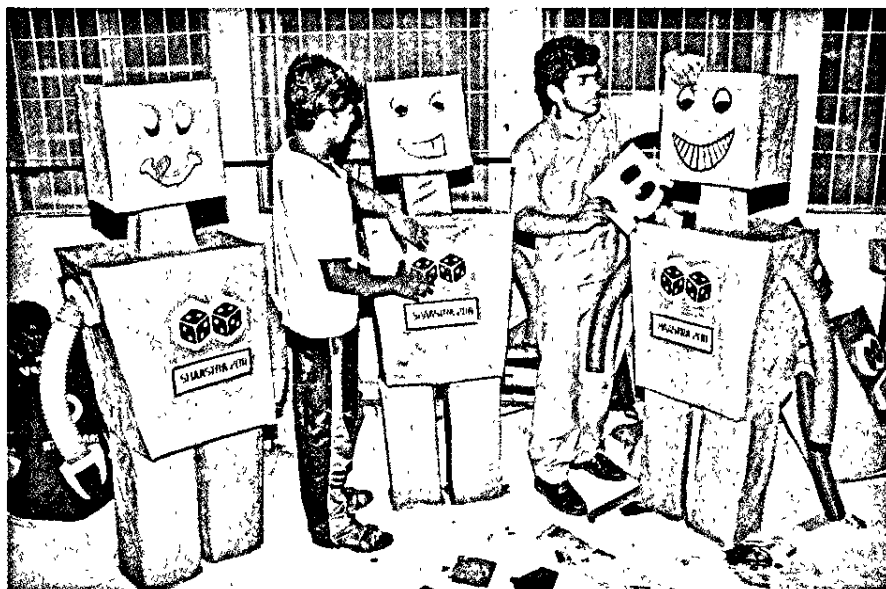
Students give finishing touches to the mascots of 'Shaastra 2011' at IIT-M on Wednesday. — PHOTO: M. KARUNAKARAN

he said the event would be made as inclusive as possible to help facilitate exchange of ideas.

V.G. Idichandy, who retires this month as Professor of Ocean Engineering and was previously Deputy Director, recalled the modest inception of the event, and spoke about how it was originally conceived to showcase the talents of students from all departments of engineering. "Now it is more about organisation, less about technology," he said, urging the students to not to restrict themselves with patents. "Your project may often fail, should fail, so that you learn You can be creative only when you are free."

The Centre for Innovation at IIT- M was a unique laboratory for the students funded by the alumni, where students could create whatever they wanted. "Do not let anybody take control of it," Prof. Idichandy said, adding that primary function of the faculty members was to be enablers. Niranjan Maka, managing site director, VMWare Software, participated in the inaugural function.

Starting from Thursday, the campus will host over 100 technical events over four days, including display of research projects, workshops and seminars. Over 20, 000 people have registered online for the event, and nearly 5,000 students are expected to participate.

Presidency, IIT-M alumni get top US honour

Chidanand Rajghatta | TNN

Washington: Three distinguished scientists of Indian-origin—two inventors and a researcher — figure in a celebrated White House honours list this year, broadly underscoring India's continued contribution to American advances. Two of them are IIT-ians, alumni of the academically elite Indian Institute of Technology.

New York University's Srinivasa SR Vardhan, Purdue University's Rakesh Agarwal, and North Carolina State Univeristy's B Jayant Baliga are among the select dozen named by President Obama to receive the National Medal of Science, and for Technology and Innovation, the highest honor bestowed by the US on scientists, engineers and inventors.

"Each of these extraordinary scientists, engineers, and inventors is guided by a passion for innovation and a desire to make the world a better place," Obama said in a statement on Tuesday following the release of the honors list. "Their ingenuity inspires us all to reach higher and
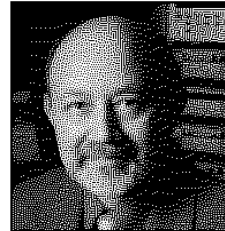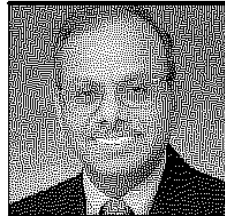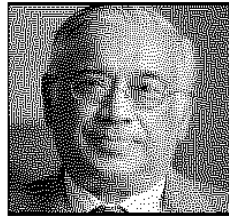
DESI GEEKS: (From top) Srinivasa SR Vardhan, Purdue University's Rakesh Agarwal, and North Carolina State Univeristy's B Jayant Baliga

try harder, no matter how difficult the challenges we face." The recipients will receive their awards at a White House ceremony later this year.

Scientists and researchers of Indian-origin have occasionally featured before in the White House honors list, but this is the first time that three have been recognized in a single year in a list typically dominat-

ed by US-born and US-educated scientists. While there is criticism from some quarters that India often tends to "adopt" NRIs and PIOs who have long given up on their homeland, in this instance all three winners have strong roots and association with India.

Srinivasa SR Varadhan, an alumnus of Presidency College, Chennai and the Indian Statistical Institute, who is also a Padma Bhushan recipient, won the award for his work in probability theory.

Rakesh Agarwal, an alumnus of IIT Kanpur, was awarded the National Medal of Technology and Innovation for an extraordinary record of innovations in improving energy efficiency and reducing the cost of gas liquefaction and separation," the citation said.

B Jayant Baliga, an alumnus of IIT Madras, won in the same category for development and commercialization of the Insulated Gate Bipolar Transistor and other power semiconductor devices that are extensively used in transportation, lighting, medicine and defence.

IIT Madras intake increases

DC CORRESPONDENT
CHENNAI, SEPT.28

The number of students joining the Indian Institute of Technology (IIT), Madras, has increased by about 50 per cent and the administration has started constructing new buildings to accommodate them.

Speaking to reporters after inaugurating Shaastra, the IITM's annual technical festival on Wednesday, Prof. Bhaskar Ramamurthi, who recently

We have increases our intake by 50 per cent from 5,500 and are marching towards 8,000 level

— Prof. Ramamurthi
Director, IIT Madras

assumed charge as the director of the institute, said, "We have increased

our intake by 50 per cent from 5,500 and are marching towards the 8,000 level. Tenders have been awarded and we have started construction. The buildings will be ready in 18 months. We have worked out a master plan so there is no problem in accommodating over 8,000 students," he said.

Pointing out that the administration would maintain the character of the institute as a reserve forest, Prof. Ramamurthi said that the expansion

would take place in the academic zone without disturbing the character of the institute.

Asked about the proposal to have a separate campus, the director said that if the state government provided land, they would think about it. "We can use the new campus for new initiatives but we are yet to decide anything about it; but for the next five years we will have expansion in this same campus," he added.

FROM 5,500 TO 8,000

IIT-MADRAS ADMITS 50% MORE STUDENTS

DC CORRESPONDENT
CHENNAI, SEPT. 28

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Pointing out that the administration would maintain the character of the institute as a reserve forest, Prof. Ramamurthi said that the expansion would take place in the academic zone without disturbing the flora and fauna.

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A day after, IIT-Bombay canteen still in a mess

Pallavi Smart @ MUMBAI

A day after nearly 600 students of the Indian Institute of Technology-Bombay (IIT-B) fell sick due to alleged food poisoning after eating dinner at the hostel mess, the canteen authorities, it seems, have not learned their lessons.

When this reporter visited the canteen on Wednesday, to her surprise, she found that the canteen staff were neither wearing handgloves nor caps, a precautionary health measure.

Though the canteen contractor claimed that he didn't know how it happened as the food was cooked in a regular way, authorities are waiting for the pathology report. It is now almost certain that Chinese food served on Sunday night caused the food poisoning. Students of hostel number 12, 13 and 14 were affected. Five students are still at the hospital.

Though most of the students have joined daily routine, they are still facing slight headache. However, six students are still at the IIT-B campus Hospital. Doctors said it is now difficult to find the cause of the incident as there is no leftover food. The pathology report will only specify infections and not the cause of it.

An MTech student, who is a resident of one of the three hostels, said: "I am okay now, but I do have a headache." Another student said, "There have been incidents when foreign particles like hair or mosquitoes were found in dal, rice or sabjee. But this was really an unfortunate incident."

According to information, the menu of all hostel mess is decided after feedback forms filled by students on what they would like to eat and what they would like to remove from the menu. Chinese food items were recently added to the menu.

A PhD student said: "Even after such a big incident, the mess is running as usual".

Jamia courses on China, Afghanistan: Jamia Millia Islamia has launched two new programmes on China and Afghanistan to promote a better understanding of India's two important neighbours, a statement said on Thursday. Both have been sanctioned by the University Grants Commission. "China and Afghanistan are two important neighbouring countries. These would promote an Indian understanding in a historical framework as well as from a contemporary perspective," it said. IANS

Higher education: Meet focus on class gaps

PIONEER NEWS SERVICE ■
NEW DELHI

The meeting of the HRD Ministry on 'Legislative Reforms in Higher Education' evoked various concerns from the Members of Parliament. A majority held the opinion that the envisaged expansion of higher education should not result in a heightened rural-urban and rich-poor divide as also a divide among those who can speak English and those who cannot.

Apprehending that the rich-poor divide could be further deepened, the members pointed out that till the secondary and higher secondary education sector, especially in Government schools, is not improved the poorer sections will not be adequately prepared for good quality higher education.

Another concern was on the poor teacher-student ratio in colleges and declining standards of college education. A suggestion was made by some MPs that the Centre should set up a Centrally-run college in every district of the country in the manner of Kendriya or Navodaya Vidyalayas.

Certain MPs also expressed displeasure on the National Assessment and Accreditation Council (NAAC) being located in one place (Bangalore) and having no other branches, which inconveniences people.

Concern was also raised over a number of engineering seats being left vacant as in some parts of the country there appears to be more engineering colleges than required.

Regarding the Tribunal Bill and other Bills which envisage committees, it was suggested by an MP that these committees must have at least one SC/ST/OBC member and also females as members. Some MPs were concerned over the advertisements put out by educational institutions which at many times are patently false and dupe students.

HRD Minister Kapil Sibal stated that the Ministry has asked the AICTE to write to those State Governments where there is a surplus of vacant seats as to whether recognition should be given to more engineering colleges from these States.

IIT-M scouts for land to house growing campus

TIMES NEWS NETWORK

Chennai: The Indian Institute of Technology-Madras may soon have another campus in the city. The institute is scouting for suitable land to expand beyond its Adyar campus, the newly-appointed director of the institute, Bhaskar Ramamurthi, said on Wednesday.

He was speaking to reporters after the inauguration ceremony of Shaastra 2011, the annual inter-collegiate technical festival of the institute.

"We are growing both academically and as far as the student strength is concerned. There is scope for new infrastructure to accommodate more people," Ramamurthi said. In an expansion mode, the institute is planning to accommodate nearly 3,000 more students in the next five years. Currently, the campus has a strength of 5,500. "The new campus will not

B A Raju
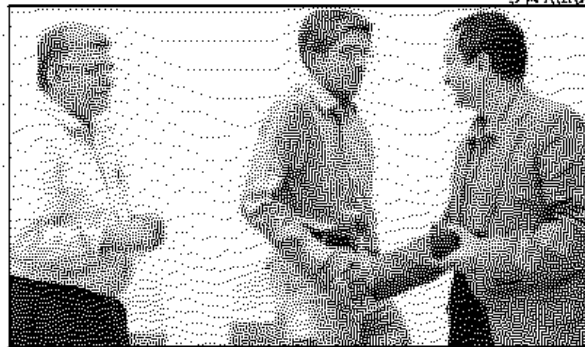
NEW FRONTIERS: (From left) IIT-M deputy director V G Idichandy and director Bhaskar Ramamurthi with Niranjan Maka, managing site director, VMware Software India Pvt Ltd, at the inauguration of Shaastra 2011 on Wednesday

be a twin to the current one and may be used for special industry-based initiatives. It will be equipped with special infrastructure to handle larger projects," he said.

Plans are also in place to rebuild on the current campus to accommodate more students. "We are planning to reconstruct some of the old buildings while

maintaining the character of the campus," Ramamurthi said. The institute is also planning an additional building in the IIT-M Research Park in Taramani.

"We are also looking at more industry-based collaborations and we want to make substantial contributions in terms of technologies and products," said the director. He also spoke of the importance of nurturing connections with students from other colleges to work on new innovations.

Shaastra 2011 will come to an end on October 2. The highlight of the event is likely to be the 'Aerofest', the air show which will see participation from international radio-controlled plane flyers for the first time.

In a first, Indian scientists sequence neem tree genome

Will help in developing agriculturally key compounds, pharmaceuticals

V SHOBA

BANGALORE, SEPTEMBER 29

FOR The first time ever, researchers in India have sequenced the entire genome of neem tree (Azadirachta Indica) in its entirety.

A team of ten researchers at Ganit Labs — an integrated genomics lab in Bangalore set up earlier this year under a public-private partnership between Institute of Bioinformatics and Applied Biotechnology and Strand Life Sciences, a bioinformatics company — has successfully sequenced the genome of the plant known for its medicinal properties.

"This is the first time the genome of a higher organism has been sequenced in India," the head of Ganit Labs Binay Panda told a press conference Thursday.

Researchers in the US and elsewhere have sequenced genomes of several complex organisms but neem plant is not one of them.

"We have traditionally known the medicinal properties of neem," Panda said. "Understanding its genetic complexity will help in developing agriculturally important compounds and pharmaceuticals. For instance, pesticidal compound Azadirachtin is found in neem seeds in wildly varying concentrations. With genetic understanding and engineering, Azadirachtin content in neem could potentially be increased and normalised."

The not-for-profit lab is setting up an online open access data bank where it will publish information on the genome architecture, coding parts and molecular evolution of neem plant.

The findings from the project, a results of extensive interdisciplinary collaboration, will be sent to a peer-reviewed journal for review and publication.

Translational genomics aside, the study has also thrown up scientifically significant findings. "For instance, some of the genetic data suggests similarities with citrus family, which is unexpected given that neem is a woody tree," Panda said, adding that scientists were yet to understand the evolutionary context of neem tree.

Vijay Chandru, chairman and CEO of Strand Life Sciences,which built the informatics to process the huge cache of data generated during the sequencing process, said this was just a beginning. "With second-generation sequencing equipment getting cheaper and smaller, India is beginning to realise the promise of genomics. By 2025, the biotech industry in India should be as big as the IT industry," he said, adding that private-public partnership would help attract much-needed talent to the sector.

Meanwhile, Ganit Labs has got its first customer: a team at IIT-Delhi that wants to outsource gene sequencing work. Also in the pipeline are projects to identify genetic markers of India-specific diseases like oral cancer and of very rare genetic diseases.

"We hope our efforts will lead to an increase in the interest in science and technology among youngsters in India," Panda said.

New engg colleges face vacancy woes

By **Mail Today Bureau**
In New Delhi

WITH thousands of engineering seats remaining vacant this year, the ministry of human resource development (HRD) has finally taken a step to check this worrisome scenario.

The All India Council for Technical Education (AICTE) has been asked by the ministry to seek the opinion of state governments on whether the Council should temporarily stop extending approval to new engineering institutes.

The number of vacant seats at engineering institutions across the country this year has made headlines and was also raised in the Parliament during the last session.

"The directive (to AICTE) to seek the opinion of state government was given about two weeks ago. The letter hasn't been sent to the state governments as yet. It will be done within the next few days," said a ministry official, who did not wish to be identified.

"The letter will go to the states where more than 10 per cent of the total seats have found no takers. Tamil Nadu and Madhya Pradesh figure on that list.

"The idea is to ask them if they want the AICTE to stop extending approval to new engineering institutes for the

AICTE has been asked to seek states' opinion on stalling approval of new engineering colleges.

time being," said another ministry official.

The AICTE is the only authority empowered to grant recognition to technical courses run by different universities and institutes in the country. The number of engineering institutions which got the Council's nod has been steadily increasing over the last three years.

The Council approved 2,388 engineering colleges in 2008, 2,942 in 2009 and 3,241 colleges in 2010. In 2010-11 AICTE recognised the highest number of engineering institutes in Karnataka (159) followed by Uttar Pradesh (105).

So much so, that there is now a popular perception that a few states have more colleges than required. Though the Council does not maintain a count of vacant seats, reports of the growing problem have been trickling through media reports and also from the state governments themselves.

For instance, there are about 30,000 seats vacant in engineering colleges across Maharashtra. In August, Tamil Nadu had reported that over 45,000 engineering seats had no takers. Similarly, AICTE Chairman S.S. Mantha had earlier denied any plan to put

the approval process on hold for some states saying that the Council does not have the right to deny someone the right to set up an educational institution in case all requirements and norms are met.

But this move, which was announced at a meeting of the Consultative Committee of Parliament for the HRD ministry attended by members of the Lok Sabha and Rajya Sabha on Wednesday evening, changes a lot and is good news for states that have sought the Centre's intervention to contain the problem of vacant seats.

Problem of plenty

- In 2008 the AICTE approved a total of 2,388 engineering colleges in the country
- The number increased to 2,942 in the subsequent year
- In 2010 the figure jumped to 3,241 but the number of takers for the college seats started dwindling
- Karnataka has the highest number of AICTE approved engineering colleges (159) followed by Uttar Pradesh which has 105 colleges

Prometric opens test centres, may go solo in conducting CAT

Prometric opens two test centres in India

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

US-headquartered test-conducting firm Prometric Inc. opened its own test centres in India, paving the way for the company going solo in holding the Common Admission Test (CAT) for the Indian Institutes of Management (IIMs). The company said, however, that "it will not drop its partners" in the near future. These include Everonn Education Ltd and MeritTrac.

"We have now opened two centres of our own—managed and administered entirely by Prometric—unlike other centres which are of third-party vendors," said Soumitra Roy, managing director of Prometric India. "We don't know about the future, but will continue to expand our network."

Prometric, which has been conducting CAT online for the IIMs since 2009, is doing so in association with Everonn and Manipal education group-promoted MeritTrac.

Roy said the situation at Everonn is being closely monitored. The Indian company's

managing director P. Kishore is in judicial custody in an alleged tax evasion and bribery case. Roy also said that he didn't want to associate an individual with the entire system. "We will take appropriate action at the appropriate time," he said, without elaborating.

Roy didn't comment on a question over whether there was a conflict of interest in Everonn entering the management test-preparation business while being involved in conducting CAT for IIMs.

Prometric's move was a sign of its ambitions for India, said Bharat Gulia, senior manager (education practice) at Ernst and Young.

"They have a bigger and better bet on the Indian market. It's a long-term view," he said. "The online testing segment is growing bigger in the country and a firm like Prometric looks for a bigger share."

The new centres have been opened in Gurgaon and Hyderabad—the first can accommodate 226 candidates in one sitting and the second 284. They will start operations this year.

They are "state-of-the-art centres that will cater to global demand", Roy said, without giving investment details. "They will be the benchmark for other test

> The new centres have been opened in Gurgaon, Hyderabad and will start operations this year

centres run by our partners."

The first edition of the online CAT led to a flood of criticism owing to technical glitches and virus attacks that disrupted the testing process and affected thousands of candidates. Their protests forced the IIMs to go in for another round of exams.

The 2010 CAT, however, went off smoothly.

The new centres, equipped with the latest technology and back-up systems, will end any apprehensions that students have, Roy said.

The new centres may help the IIMs in their bid to make CAT a global test, a point that Roy also made. Besides, CAT this year is something of a "super exam" with the results determining admission for some non-IIMs as well. These include the management schools of the Indian Institutes of Technology, the Faculty of Management Studies, the Delhi School of Economics and Mudra Institute of Communica-

tions, Ahmedabad, all of which have scrapped their own entrance exams.

The setting up of the new centres was welcomed by Janakiraman Moorthy, professor at IIM-Calcutta, and CAT-2011 convenor. "It will help IIMs scale up things in future," he said. Prometric "may go solo in future for conducting CAT".

The move may help Prometric in its bid to gain a bigger share of the growing Indian education market that has drawn overseas companies such as **Pearson Education**, which has acquired local firm TutorVista, besides setting up a joint venture with **Educomp Solutions Ltd** for skill education called IndiaCan.

"India's education system is becoming more international in scope," Roy said. "The modernization of India's approach to testing and evaluation is a critical component to ensuring that the Indian workforce continues to be seen as highly-trained, highly-productive and reliable... It is more critical than ever to enforce high security standards that assure fair testing experiences across the board."

CAT 2011: The Countdown

AROUND THE CORNER: The registration ends on October 4, 2011. At stake are an estimated 3,159 seats, thanks to new IIMs increasing the number of seats in 2012. Here's a primer on this year's test

Over 3150 PGP Seats at Stake

IIMs: 13

Ahmedabad, Bangalore, Calcutta, Lucknow, Indore, Shillong, Kozhikode, Rohtak, Udaipur, Kashipur, Tiruchirappalli, Raipur, Ranchi

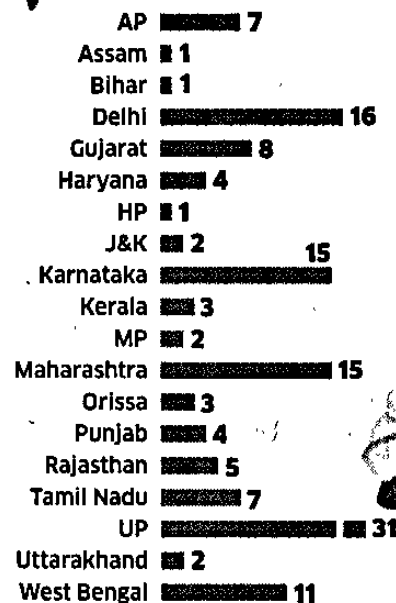### NON-IIM INSTITUTES ACCEPTING CAT SCORES

IITs: 6

Delhi, Bombay, Madras, Kanpur, Kaharagpur, Roorkee

National Institutes: 16

These include Faculty of Management Studies (FMS), Delhi, NITs (Tiruchirappalli, Calicut, Surathkal), Department of Management Studies, IISc, Bangalore, Delhi School of Economics, Delhi and Department of Management Studies (School of Management), Pondicherry.
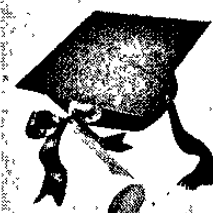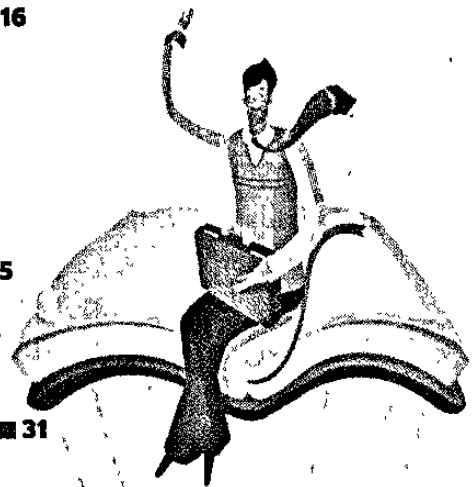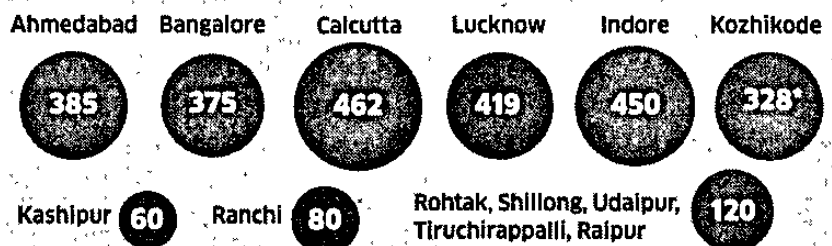
State-wise Number of Institutes

State	Number
AP	7
Assam	1
Bihar	1
Delhi	16
Gujarat	8
Haryana	4
HP	1
J&K	2
Karnataka	15
Kerala	3
MP	2
Maharashtra	15
Orissa	3
Punjab	4
Rajasthan	5
Tamil Nadu	7
UP	31
Uttarakhand	2
West Bengal	11

Test Dates
Oct 22-Nov 18

Results
Jan 11, 2012

SEATS ACROSS IIMs

3,159

Seat Break-up

| Institute	Seats
Ahmedabad	385
Bangalore	375
Calcutta	462
Lucknow	419
Indore	450
Kozhikode	328*
Kashipur	60
Ranchi	80
Rohtak, Shillong, Udaipur, Tiruchirappalli, Raipur	120

AMRIT

Because of their proximity to the national capital Delhi, areas like Meerut, Ghaziabad, Noida, Greater Noida, Gurgaon and Sonipat have started attracting students from all over the country

NCR now a higher
EDUCATION HUB
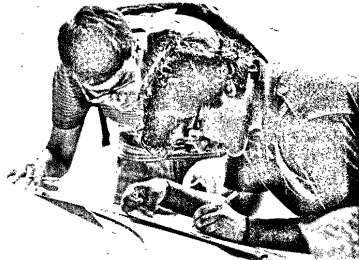
A n Assocham study has projected the size of higher education market in the country to reach $50 billion by 2015. Considering the growth of educational institutions in the adjoining areas of Delhi namely Meerut, Ghaziabad, Noida, Greater Noida, Gurgaon and Sonipat over the past decade, it is not difficult to prophesise that the lion's share of the market pie will fall into the hands of players active in the greater national capital region.

"It seem like the area has become an education powerhouse with so many institutes opening up in Noida and the Knowledge Park also on its way," says SK Kak, vice-chancellor, Mahamaya Technical University, Noida. Currently, there are more than 100 reputed state and private institutions, including engineering, management, medical and finishing schools in Noida, Greater Noida, Ghaziabad, Meerut and Gurgaon, imparting higher education to more than 1,00,000 students.

According to universities officials, majority of students come here from eastern Uttar Pradesh and states like Bihar, Madhya Pradesh, Jharkhand and West Bengal. Pointing at the two universities opened in the area and affiliated colleges, Rakesh Dhar Tripathi, Uttar Pradesh minister of higher education, said: "These colleges are designed not only for students from Uttar Pradesh and other states, but also from international standard institutions."

Other than the faculty and facilities, the minister attributes the success of NCR becoming an educational hub to its close proximity to New Delhi. "Being close to the national capital is a major reason which is attracting a lot of students to institutions here, from across the country," says Tripathi.

This is a major shift from the situation two decades back when a majority of students seeking management, engineering, medical or other professional courses opted for institutes based in Bangalore, Mangalore and Pune. Now, the NCR has gone through a makeover to become a popular destination for higher education, and churning out managers, engineers and other professionals for last several academic sessions. Government and private institutes are setting up campuses offering not just professional and technical courses but skills development and professional grooming as well.

Apart from government colleges, the private sector is

{ **To meet the employment demands of corporates and industry, many colleges have mushroomed in the area churning out thousands of students every year** }

highly active in the region. Some of the major universities operational are IMT Ghaziabad, Management Development Institute Gurgaon, JK Business School (Gurgaon), Amity University, Sharda University, Noida International University, JSS Academy of Technical Education. Noida will also soon become home to another international standard university, Shiv Nadar University.

According to Greater Noida Authority website, 340 institutes have already been allotted area in the Knowledge Park. These include schools, management institutes, vocational training institutes, technical education universities etc. Some colleges have already started functioning in the park, most prominent being the 10-acre campus of IIT-Roorkee which was inaugurated in April 2011. Almost 1,870 acres has been developed as a Knowledge Park I, II, III, IV and another 1,000 acres is being developed as Knowledge Park V.

If Noida is shining bright with partially functional Knowledge Park, Meerut is making fresh forays in the field of education a number of private educational institutions with hostel facilities for outstations students on their campuses. Yogesh Tyagi, chairman of Radha Gobind Engineering College, one of the leading institutes in Meerut, held a similar view to that of Tripathi. "In comparison to Ghaziabad, it requires lesser land to open an institute here. But one major factor in many sincere players emerging in Meerut educational sector is its proximity to the national capital," says the chairman.

The students who study in Meerut institutes can easily apply for and avail jobs in Delhi-based companies. It is not a consequence that the maximum numbers of students in Meerut are enrolled in BEd courses while the second highest numbers of students are studying engineering or management. According to AK Vashisht, a professor at Bharat Institute of Technology (BIT) in Meerut, "The economic growth in the country has been unprecedented over the last decade and half and this has resulted in high demand for skilled manpower and professionals in the field of medicine, infrastructure, administration and management which has led to a surge in the number of universities."

According to KK Sharma, a private company executive settled in Meerut, till about a decade back, a majority of middle-level students from north Indian states often had to take admissions in engineering institutes of South India. "Five years back, my son had to go to take admission in one such institute in Karnataka. But my younger son is admitted to a local engineering college." Sharma says that there are few quality private professional institutes in West Bengal or Bihar. Hence, besides Uttar Pradesh, students from these two states also take up admissions in Meerut colleges.

To lure even higher number of students, most of the institutes here have placement cells that work out early recruitments for the deserving candidates, immediately after successful completion of their courses. Head of BIT's placement cell says that the institute has supplied manpower to multinationals like Hewlett Packard, IBM, TCS, Religare Securities and Synergy. "The annual pay package of our fresh pass outs fall in the range of ₹3-5 lakh. This has served both the stu-

dents as well as the image of Meerut institutes."

It is also believed that the influx of students will also prove to be significant boost to the economy of NCR. "Like Bangalore and Pune, which started off as educational centres and are now major economic fountainheads, the NCR too has the opportunity and capability to emulate the feat," says Sunil Jindal, secretary, Shreenathji Trust, which runs the Vishwarya Group of Institutes in Gautam Budh Nagar. Agreeing to the point, Chauhan of Amit added, "There are many restaurants, shops, organisations which are purely running on students."

Kak of MTU said that educational institutes still have to understand the kind of role that they have to play in constructive development of the society. "Decisions by most of the colleges on courses, curriculum and allotting seats have become market led," he says. "There is a general erosion of interest in science courses, especially life-sciences. Education institutes should take up the mantle to revive science education."

This is where Gurgaon is ahead of Noida and Meerut. In Gurgaon, finishing schools are coming up to hone the skills and corporate etiquettes of a large number of fresh graduates to enable them to work in branded offices with confidence. The millennium city has been witnessing a surge in job opportunities with an improved economy but lacking in skilled and trained workers to capitalise on these opportunities. Hence, these grooming centres are serving the purpose and cashing on it by honing up the skills and corporate etiquettes of a large number of fresh graduates to enable them to work in branded offices with confidence.

"The newly graduated often lack in soft and technical skills which need enhancement," says Saurabh Sachan, managing partner of AquSkills Employability Enhancement. He added that AquSkills works in the field of employability enhancement for fresh graduates to make them fit for the positions they aspire for.

To meet the employment demands of corporate offices and industries, many colleges have mushroomed in the city which is churning out thousands of students every year. Sachan said these institutes fail to provide quality training to the students; hence they are unable to get a placement in a renowned company.

There is a huge gap between the expectations of a company from an aspirant and the curriculum taught to the students in colleges. "Our school is working in the direction to make more educated people employable by understanding the requirements of corporate houses. To achieve this, we have installed technical labs in some colleges where we try to impart education and training which is required by companies and helps the students," Sachan adds.

"Finishing schools are acting as a bridge between in-stitutes and industries," says Rakesh Saha, CEO of Soft Skills World. He added that corporate houses are hiring finishing schools to organise personality development programmes for their employees.

"We have been working with a finishing school for a year and around 500 employees have been trained under different modules," says Deepti, HR manager of Tulip Telecom. "Such classes help the employees to

{ **In Gurgaon, finishing schools are coming up to hone the skills and corporate etiquettes of a large number of fresh graduates** }

make them a groomed corporate worker. Employees are taken through team building exercises, how to develop communication skills, business etiquettes, business writing skills and presentation skills," she adds.

In addition, she says that the company has approached these schools for suitable aspirants as the candidates coming out of these centres are polished, have adequate skills and knowledge. In one year, 15 students have been placed from this finishing school by Tulip Telecom.

Finishing schools not only help students to get through an interview but bag a good amount of salary too. "The salary of the finely honed aspirants is 50-70% more as compared to the salary of one who has not been to a finishing school. The success rate of the students of these schools is between 25% and 100%," says Saha. The fees for the courses vary from ₹30,000 to ₹1,20,000 based on the programme.

Besides giving training for these special skills in Gurgaon based colleges, the schools are also being hired by institutes in Delhi. "Our students have been trained by a Gurgaon-based finishing schools," said Manish Saluja, academic head for wealth management of Indian Institute of Financial Planning. He added that under this programme over 400 students have been trained.

However rosy the situation is looking for education institutes in Noida and Greater Noida and Gurgaon, there are certain bottlenecks that could strangulate the whole process. "It is not as easy anymore as it was earlier to set up an institute here. The land is getting dearer by the day and there is a sense of confusion with the policies as well," says Jindal. He was pointing out at the confusion over the entire episode of licence cancellation of education institutes across the country and AICTE norms.

Raising concerns, institutes also pointed out to the lack of public transport and law and order situation in the cities which many believe is a problem that will only aggravate with development if proper care is not taken immediately. "No matter how good the institutes are, if you are not able to provide transportation and security to students, both the institute and student will suffer," Kak adds.

J Srikant, Md Tausif Alam, Rakesh Ranjan, Astha Alang

China takes giant leap, puts space lab into orbit

Saibal Dasgupta | TNN

Beijing: China on Thursday successfully launched its first unmanned "space laboratory". The Tiangong-1, which means "Heavenly Palace", blasted off from a site in the Gobi Desert around 6.46pm (India time).

The 10.5m-long, cylindrical module was launched two days before its National Day celebrations, making China the third country after the US and Russia to operate a permanent space station, which it expects to be operational by 2020.

Chinese Premier Wen Jiabao watched as the unmanned "space lab" and the Long March rocket that heaved it skyward from a pad at Jiuquan in northwest Gansu province, lifted off under clear skies.

The Tiangong-1 will orbit on its own for a month after which it will be joined by another spaceship, Shenzhou-8. Both will then conduct the first space docking. The next two years will see two more spaceships.
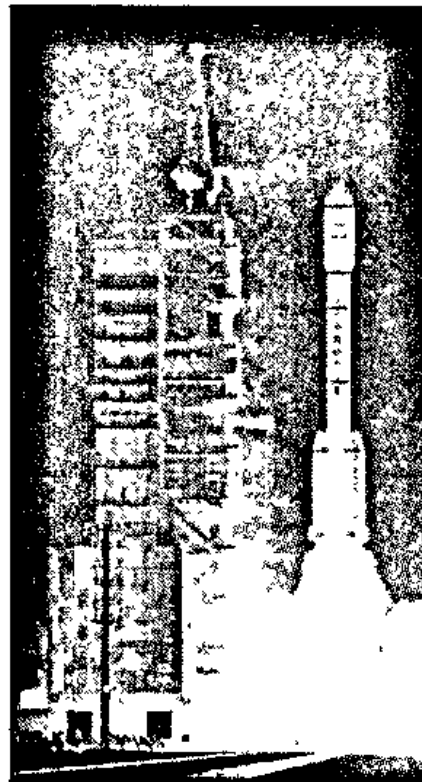
Long March-2FT1 rocket loaded with Tiangong-1 or 'Heavenly Palace' blasts off on Thursday

The Tiangong-1 will help China establish a manned space test platform capable of long-term unmanned operation in space with temporary human attendance, China's Manned Space Engineering office spokeswoman Wu Ping said.

China launches space lab module

## Testifies to the nation's growing prowess in space

Ananth Krishnan

BEIJING: China on Thursday evening successfully launched its first space laboratory module, a key first step in its objective of becoming only the third country, after Russia and the United States, to assemble its own space station by 2020.

The unmanned module, launched from the Jiuquan Satellite Launch Centre in north-western China, will dock with a spacecraft, Shenzhou-8 after orbiting the earth for about a month, said officials. The 8.5-tonne Tiangong-1, or Heavenly Palace, laboratory module has a 15 cubic metre space where two or three astronauts can work and live, the official Xinhua news agency reported.

The launch of the module, said analysts, reflected China's rising ambitions as a major space power. Both the U.S. and Russia launched their space stations more than three decades ago.

A commentary in the State-run Xinhua news agency hailed the launch as "the latest showcase of the nation's growing prowess in space, and comes while budget restraints and economic tailspin have held back the once dominant U.S. space missions."

The launch was timed to coincide with a national holiday, which will be celebrated this weekend on October 1. The recent successes of the space programme have been frequently framed by the Communist Party's official media as underscoring the country's status among an elite group of global powers,
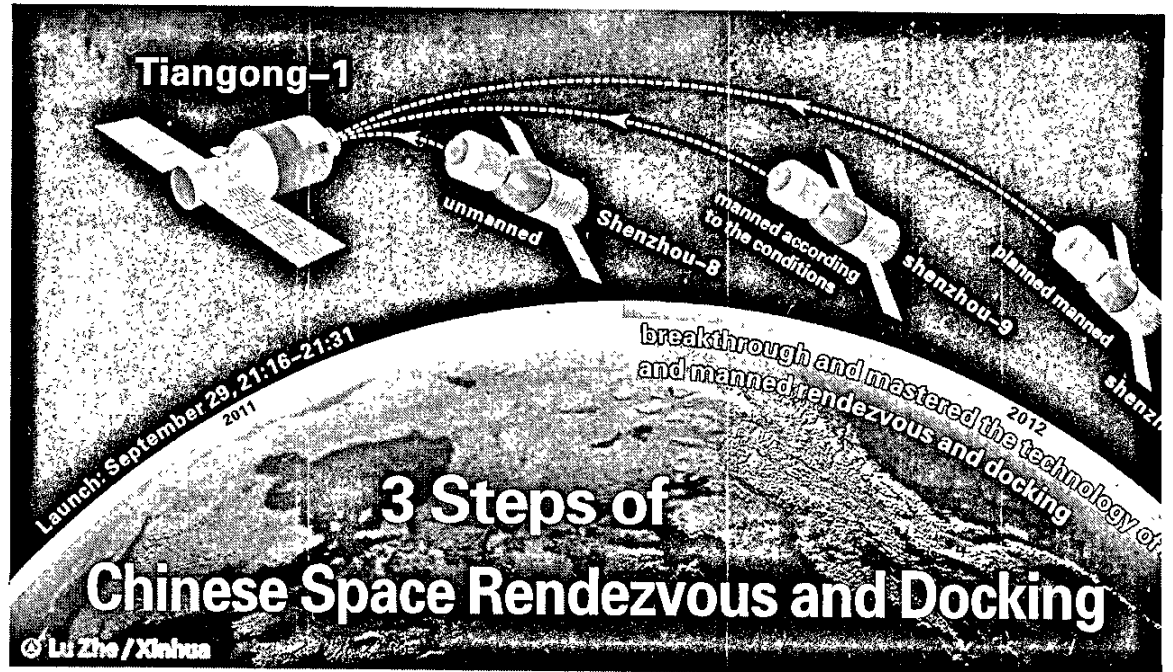
A MILESTONE: *The graphic shows the 3 steps of space docking with a spacecraft China plans to conduct later this year.* – PHOTO: XINHUA

as well as the technological advancements achieved under its rule.

According to Zhang Shancong, deputy chief designer of Tiangong-1, the module would be used to take hyperspectral images of China's farmlands to detect heavy metal pollution, residue of pesticides and plant diseases, Xinhua reported. The module was carried by a Long March-2FT1 rocket, a modified version of a rocket that earlier had a failed launch.

The launch of the module is a milestone for China's rapidly growing home-grown space industry, which has, in

recent months, made waves by spreading its interests overseas. China has, in recent years, offered its Long March rockets to launch more than 20 satellites for a number of countries, according to reports in the official media.

Most recently, China launched Pakistan's first communications satellite, last month, seen as marking a deepening in technological ties between the two countries.

The PAKSAT-1R, sent into orbit from western Sichuan on a Long March-3B carrier rocket, was developed and launched with the help of the

government-supported China Great Wall Industry Corporation (GWIC), which has reached out to developing countries, offering both technological expertise and financial assistance to help their space programmes.

China has also joined an elite group of nations in launching its own global navigation system, called Compass or Beidou, which will function similar to the American Global Positioning System (GPS), and will be used by both the Chinese military and to develop the telecommunications industry.

China's increasing invest-

ments in its space and satellite programme, which serve both military and civilian purposes, has stirred debate over the country's possible strategic motivations.

Responding to concerns voiced by some countries that the Tianggong-1 launch "would possibly lead to a new wave of space race," a Xinhua commentary published on Thursday responded, "China is neither the first country to seek explorations in outer space, nor the country with the most advanced technology, [so] it seems incomprehensible that China should cause concern to others."

One Size Doesn't Fit All

We need to revisit the issue of entrance tests for better selection of candidates

Pankaj Jalote

In India, we have entrance tests for pretty much everything – for schools, colleges, universities, jobs. When there is a large pool of applicants for a programme or job and only a few seats, entrance tests serve the purpose of selecting the required number in a transparent manner.

If selecting a small number from a larger pool was the only purpose, then one can also use a test of memory, spelling test, general knowledge test, etc for, say, admission to engineering or medical colleges. Clearly, such a test will not be considered valid by most.

An entrance test is valid if it selects, from a larger pool, those candidates most likely to do well in the programme. A perfectly valid admission test is not feasible, as the abilities of people change with time, and some ability (or lack of it) at the time of the entrance test cannot fully reflect the candidate's ability to do well in the programme. (Due to this reason any test for nursery admissions will not be valid, as no test can reflect the capability of a small child in doing well in school, as children's capabilities develop.) However, for admissions at the college level, as basic abilities are somewhat developed, a good entrance test, which will not be perfectly valid, can be devised.

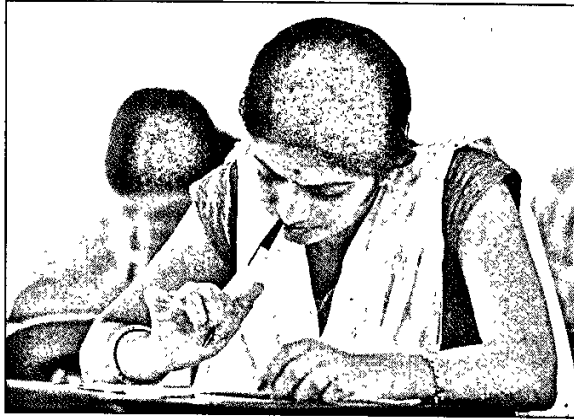Let's look at admission tests for engineering programmes – perhaps the largest conducted in India. For decades, it has been implicitly assumed that physics, chemistry, maths (PCM) are good subjects to test after class XII for admission into engineering. But is this assumption valid, and do these tests form a good entrance test? Few, if any, studies have been done to examine this question. Other countries do not follow this approach – in the US, for example, the entrance test SAT is a general aptitude and thinking ability test, and many universities take admission in all programmes, including engineering, based on SAT scores.

The insistence on PCM for entrance is more anomalous for information technology (IT) or computer science (CS) programmes, which form the bulk of the seats in engineering institu-

Is the formula tried and tested?

> *To select candidates most suitable for different programmes, it is best to have an entrance test which tests for aptitude as well as for a few subjects, and gives the scores for different sections separately*

tions, as the nature of computing sciences is such that it does not require proficiency in physics or chemistry for someone to do well.

What is the validity of these tests? We have been studying the correlation of scores in major all-India entrance exams and class XII marks, with performance of students in the first semester in their CS/IT programme. In other words, we studied how strongly performance in the entrance exams or class XII predicts performance in the first semester of a CS/IT programme. For this study, we used data from a few well-established IT institutes.

What we found is surprising. The rank correlation of a major all-India test for engineering with performance in these institutes was very weak – the performance in this entrance exam had no predictive value for performance in the institute. In other words, among the students admitted, those ranked in the bottom 10% had about the same chances of doing well (or poorly) as students with a rank in the top 10%.

However, we found a reasonably strong correlation of class XII marks with performance in all these institutes. That is, class XII performance is a reasonable predictor of how well a student does in these institutes. And we found a good correlation between performance in the aptitude test that we conduct for entrance and performance in the institute.

It seems clear that common "one size fits all" engineering tests which provide an ordered ranking of students are not suitable for selection into programmes like CS/IT, and can end up selecting students who may not have proper aptitude for such programmes. We believe that research will find that similar situation exists with some other disciplines also.

If we want to have a test that helps in selecting candidates who are most suitable for different programmes, it is best to have an entrance test which tests for aptitude as well as for a few subjects, and then gives the scores for different sections separately, rather than giving a ranking of candidates based on the sum of scores of all sections. With such scores, it will be up to the institutes to decide what weight they assign to different components for deciding the ranking for selecting candidates for different programmes. This will allow flexibility that different disciplines need for selecting appropriate candidates.

Such a test will also provide the ability to give weight to class XII performance, which will become just another component to be included. (Including of class XII marks will require normalisation across different boards – a difficult, but doable exercise.) Overall, a test which has components to test for multiple orthogonal capabilities, and gives scores for each one separately, can open up possibilities of more rigorous and better suited selection criteria for different disciplines – that too, without requiring different exams for different disciplines or institutes.

Finally, there is a crying need for research in this area, and we need good research groups and centres which will study the effectiveness of exams on an ongoing basis, and conduct experiments, etc to improve the tests. This research capability can then also be used to help reduce exam-related stress, and other such issues that need urgent attention in the country.

The writer is director, IIIT-Delhi. Views are personal.