

# New admission norms for IITs

**K**APIL Sibal's announcement, a few weeks ago, "One Nation, One Test" for admissions to IITs, centrally-funded institutes, as well as private, aided and unaided engineering institutes, triggered a huge uproar from teaching fraternity and alumni as expected. It is not the first time such a negative reaction was sparked, and also, not for the first time, the ministry of human resource development came up with such a concept. Almost a decade ago, the NDA government tried to bring such reforms, but later withdrew them. The arguments, on both occasions, were the same; "it is an unfair plan and encroachment on the academy of the institutions".

More than 50 years ago, technical schools, such as the Indian Institute of Technology (IIT), were formed to offer engineering education of high standards to create able engineering manpower to become self-reliant in all aspects of society that enriches our citizens' lives. The larger subsidy from the government facilitated technology education for a large number of talented students, right across income levels and social spectrums, to seek an engineering education. To select the best students for limited seats, the joint entrance examination (IIT-JEE), which was tough and competitive, gave a level playing field to students who had learnt their subjects at the 12th standard. The entire admission process was strictly on merit and it did sustain this standard for the past five decades. In the 80s, came the IIT boom that triggered com-



Arun Nigavekar

**DOUBLE STANDARDS:** If the faculty of IITs is so deeply interested in protecting their autonomy; it is also their responsibility to be a part of nation-building by proactive involvement

petition to join IITs and the situation soon became critical. This gave rise to private coaching classes, which not only mushroomed all over, but more so, at a small town of Kota in Rajasthan. Students would concentrate on coaching, rather than learning at the 11th and 12th standard classes, and, some even spent a year or two at Kota to prepare for the IIT-JEE. It was an expensive game and the middle class became totally dependent on the 'Kota' process. Of course, there were few students who got listed on their own merit. However, there were a large numbers of students, who were equally talented and did well in the board examinations, but could not get admitted to these premier institutions.

The IITs and the Union government have finally agreed to the new format for the IIT entrance examina-

tion, as suggested by the joint admission board (JAB). The new format will be implemented in 2013. Under the new format, IIT aspirants will first have to appear for the JEE-Main. Only the top 150,000 students from the JEE will then be eligible to take the JEE-Advanced exam. The top-ranked candidates, who clear this exam, will finally be eligible for around 9,000 seats at the IITs. However, the final selection of candidates will be based on the JEE-Advanced scores, subject to a condition that they are in the top 20 percentile in their board exams as well.

At present, India has 29 school boards that conduct school final examinations for more than two million students; about 500,000 appear for the IIT-JEE to seek admission to 15 IITs, and the Indian School of Mines, Dhanbad; and the Institute of Technology, Banaras

Hindu University, which has been given the status of an IIT. The bright students generally perform well in their board exams too. However, there are many students who exclusively aim for IITs and neglect their junior college-level studies. The new format will make such students pay attention to their classroom studies as well, and the teaching community would have to adopt a modern approach for delivery of education. The real need is to build solid foundations for students in core subjects, with sound clarity of concepts. The school boards would have to stick to a well defined schedule for the conduct and declaration of examination results and would have to work on a percentile list by categories, such as general, backward classes, scheduled castes and tribes. Well, now that there is

some unanimity on how to go about the admission process, we need to realise that it is just the old admission process with a few modifications. The restoration of faith on the 11th and 12th board examinations is not total. The percentile boundary is only qualifying; it has to be given weightage in the creation of a merit list, if faith is to be established in the board examinations. There are literally, millions of bright students in small towns, who do not have access to good schools and cannot afford 'Kota' training, but are very bright and perform very well in the board examinations. Under such circumstances, is it not the responsibility of society to provide opportunity to such bright young students, who were born to less affluent parents, to be a part of a better educational system? There is still a larger question on moral responsibilities of IITs; they should start playing a larger role in enhancing the quality of education in engineering institutions that are spread across the country. If the faculty of IITs is so deeply interested in protecting their autonomy; it is also their responsibility to be a part of nation-building by proactively getting involved in the creation of uniform, relevant and quality professional educational standards across the nation. Let us not forget that IITs are not isolated islands; they are supported through money paid by taxpayers.

arun.nigavekar  
@mydigitallc.com

(The writer is a former member of the Chairmen of UGC and former VC of University of Pune)

# Engineering woes

## Colleges lack facilities, faculty

**O**NE of the major aspirations of many students is to study engineering, and it is a sad day indeed when they chose not to take it up. While at one level, this phenomenon might be seen as a simple case of supply and demand, in which, thanks to the mushrooming of private colleges under the auspices of Punjab Technical University, the supply far outweighs the demand, this would be too simplistic an analysis of the extant situation. As the recent report in The Tribune has shown, there is unevenness in the institutions that are affiliated to PTU, with some faring better than others.

While the high cost of education is a factor, especially in private colleges, many people now take educational loans to tackle this problem. However, another major reason of the lack of interest in engineering colleges in Punjab is that students who finished their course did not find the jobs that they wanted. In fact, many of them did not find proper jobs at all. The industry blamed the engineering colleges for not producing employable graduates. There have been a number of reports that indicate various shortcomings. The quality of the teaching staff has a direct bearing on the quality of education imparted in any institution, and in this a number of such colleges have been found lacking.

Any decline in the number of students will surely impact the institutions set-up to educate them. What is now needed is for various educational administrators to address various issues that plague their institutions. They need to remember that market forces will allow only the fittest and the most able to survive. Now that it is a buyer's market, students need to carefully select the institutions that will provide them the best environment and equip them for the future.

## **IIT Bombay announces a pan-India challenge on robotics**

IIT Bombay has announced the launch of 'E-Yantra' – a pan-India challenge on robotics. Interested participants can register at <http://www.e-yantra.org/register> to participate in the challenge. E-Yantra presents the students with a robot developed at IIT-Bombay and encourages them to develop solutions to pre-set tasks using these robots. The competition is open to all undergraduate students of engineering. Each group will programme a given robotic platform to solve a given problem with the given resources in a 12-week duration. The experience will be taken to the next level through a national robotics competition where students from all over India will participate in theme-wise solving of tasks. This climaxes in a final competition at the IIT Bombay Techfest in January 2013. There is a selection process following which upto 120 teams of a maximum four members in each will be selected and put through the necessary training to take part in the initiative. Log onto [www.e-yantra.org](http://www.e-yantra.org) for registrations and details of the online test.

## **JNU rated country's best university**

**NEW DELHI:** Jawaharlal Nehru University is the best university in the country, according to the National Assessment and Accreditation Council which has given the university a grade of 3.9 out of 4, the highest grade awarded to any educational institution in the country.

"We had to submit an evaluation report from every School of the university. The NAAC people were here from June 18 to 20," said JNU faculty member and evaluation co-ordinator Chandrashekar.

## **IIT Guwahati's Technothon for school students**

The Indian Institute of Technology Guwahati is organising an international school championship, Technothon, to 'promote logical thinking over hardcore academics' among for students. The contest is open to students in Class 9 and 10 (junior squad) and Class 11 and 12 (hauts squad). It has two rounds - a written preliminary stage which takes place in schools all over India in July, and main which is conducted at IIT Guwahati, amongst the top qualifiers from the prelims. It is an "enthralling competition of mental aptitude, logical skills and overall dexterity - in which students compete in teams of two." For further details, visit <http://www.technothon.techniche.org/>

# Decoding mighty Brahmaputra's DNA

**Amit Bhattacharya | TNN**

New Delhi: Everything about the Brahmaputra is so grand it seems inevitable that the river's fury would be larger than life. Experts say the river is prone to flooding due to natural reasons. Yet it's possible to tackle its fury to an extent.

The basin's topography, water flow and seismicity play a part in the flooding. Dr Rajiv Sinha, an IIT Kanpur geologist who specializes in river systems, points to three reasons for the river going on spate.

The first is the river's character. It flows for about 1,600km through Tibet picking up sediments, then barrels down into the Assam Valley where its tributaries bring in more sediments. This leads to heavy silting. "Imagine a bucket of water into which you pour sand. As the bucket fills up, it holds less water. That's what happens to Brahmaputra," Sinha said. Anup Mitra, former water resources secretary, Assam, adds that the river carries the world's highest sediment load. "Yellow River had that distinction till recently. But China has cut the sediment load."

The second reason for flooding is reduction in the river's slope because of silting. "With silting more in some areas, the river moves laterally at points, flooding fresh areas typically during a high-flow period."

Third, the river flows through an unstable seismic zone where the basin characteristic is ever-changing. "Upper Assam's basin is bound by the Himalayas in the north and Naga-Patkai Hills in the south. Both are rising, but the Himalayas are moving up faster. This gives a southward tilt to the basin," Sinha said. A paper by

Sinha and Siddhartha K Lahiri says Brahmaputra's channel belt in upper Assam has widened 44% from an average width of 9.7 km in 1915.

Assam has a long history of flood control too. "India's first flood control department was set up in Assam in 1964," Mitra said. Many anti-flood structures were built in the 1950s, 60s and 70s, and have outlived their utility. Mitra pointed out that the problem needs inter-state coordination, promised by the Centre after the severe 2004 floods: a Northeast Water Re-

## WHY A RIVER RUNS ROUGH

- Manmade constrictions obstruct natural flow
- Unusually heavy silting chokes the river basin
- The Brahmaputra basin's tilt increasing towards the south
- River is young, its drainage path prone to landslides
- Area receives excessive rain during monsoon
- River course subject to frequent tectonic activity
- Brahmaputra valley narrow, has limited area for habitation
- Population density. Most sandbars (chars) encroached
- Deforestation, shifting cultivation & land misuse play a role
- Erosion of banks, causing instability at nodal points

sources Authority. "That hasn't happened," said Mitra.

Site-specific measures won't work. "River management must be an integrated strategy that looks at each aspect of the river, its catchment areas, and develops a model to predict how the river could move."

# New changes to affect higher education: DUTA

**NEW DELHI, DHNS:** Delhi University Teachers' Association's has slammed the proposed changes to be implemented soon in the university, saying they will have a negative impact on government's higher education policies.

The changes include four-year graduation, BTech in Humanities with an option to pick and choose subjects and the Meta University project which is scheduled to start this July where students can choose courses from DU, Jamia Milia Islamia, Indian Institute of Technology (IIT) and Jawaharlal Nehru University and make a degree for themselves.

In a 'report' released on Tuesday, DUTA termed the changes as commodification of the higher education system.

"In the Meta University project no information has been given about the postgraduate courses. The teaching community has been ignored as these proposals weren't even discussed with the teachers before being announced in the media," said a DUTA member.

The report said no detailed vision paper on the proposed major overhauling of the existing system of undergraduate and postgraduate teaching at the university and the new academic programmes has come out till date.

DUTA said no concept papers have been discussed in the academic council. They have neither been circulated in the departments and colleges, nor are they available on the varsity website.

**The changes include four-year graduation, BTech in Humanities with an option to pick and choose subjects**

"The level of higher education is generally measured by its enrolment ratio. The gross enrolment ratio (GER) measures the access level by taking the ratio of persons in all age group between 18-23 years enrolled in various programmes. India GER was 12.6 per cent in higher education (in 2007)," said the report.

The US has 81 per cent, the UK has 54 per cent, Japan 49 per cent, Malaysia 27 per cent and China 23 per cent gross enrolment ratio.

The DUTA document claimed that changes in higher education structure will affect marginalised sections of the society the most. Especially women, Dalits and the economically underprivileged, are being rendered even more vulnerable than before, it said.

"Their access to socio-economic transformation through quality and inexpensive education is being put under a cloud of doubt," said the report.

It added that the six education bills pending in Rajya Sabha will open doors for private players in the higher education scenario in state and Central universities, subsequently making it costly and inaccessible for many.

# Jharkhand parties join tribals protest against land for IIT, IIM

**RANCHI, IANS:** Two opposition parties in Jharkhand - the Congress and the Jharkhand Vikas Morcha Prajatantrik (JVMP) and ruling alliance partner, Jharkhand Mukti Morcha on Tuesday lend support to tribal villagers protesting against the government.

They were up in arms against the government for regaining possession of 227 acres of land for building an IIT, an IIM and a law university which had been illegally occupied by them for farming.

Former chief minister and JVMP president Babulal Marandi sat on a one-day fast at Morabadi ground in Ranchi, protesting the state govern-

ment's move to acquire land and baton charges by police against villagers last week.

The Congress on Monday had staged a sit-in demonstration in front of Raj Bhavan. "The agriculture land should not be acquired forcefully," Stephen Marandi, a Congress leader said on Tuesday.

The BJP finds itself in a catch-22 situation as its key alliance partner JMM is against forceful land acquisition.

"The issue should be resolved amicably instead of the use of force," said Jharkhand agriculture minister and BJP leader, Satyanand Jha.

The government had acquired 227 acres of land at Na-

gri situated around 20 km from Ranchi more than 50 years ago. The land was used by the villagers for farming as it was not used by the government.

When the state government last year decided to build IIT, IIM and a law university, villagers started protesting against the move. They moved the Jharkhand High Court against the state government.

The high court passed the judgement against the villagers in April this year and directed the state government to expedite the work on the land.

After the setback, the villagers moved the apex court in June but it also refused to hear the case.