Won’t change our stand: IIT-D director

TOI’s Akshaya Mukul spoke to R V Shevgaonkar, director, IIT-Delhi. Excerpts:

Did the JEE (Main) and JEE (Advanced) serve the purpose of a single entrance examination?

IITs never agreed to a single entrance test. All along, ours was a different system from AIEEE. We’ve always maintained that logical reasoning can’t be tested through an objective test but through subjective questions. We did not want to mix Class XII results with the JEE (Advanced) score. So, we agreed to give weightage only to the top 20 percentile of each board. Intellect is equally distributed and the Class XII marks reflect board marks only, not intellect.

Seventy-nine students who could’ve got IIT seats have been turned away because the Boards got the 20 percentile calculations wrong. What went wrong?

There is a mistake in understanding. The Boards did the calculation voluntarily. On top of that, they calculated it on the basis of those who appeared instead of those who passed the Class XII examination. Right from the beginning, the JEE website has been saying 20 percentile has to be on the basis of those who passed the test. So we had to recalculate.

What happens to students who have lost out?

It is unfortunate. But nothing can be done now.

You met with the HRD minister also on this.

Yes. But we’ll not change our stand. If we do anything now it’d be seen as being subjective.

Do we see any changes from next year?

We can look into the 20 percentile criterion as well as number of students who can appear for JEE (Advanced).

What about single exam?

Personally, I think it would not work. The example being given is of SAT/GRE. But these tests are about score, not ranking. In an entrance examination, ranking is everything.

Testing Times 2013 Highlights

How tinkering with a system that worked hit students

The present system was adopted as per the wisdom of the IIT council and it’s for them to see what is fair and what is not

— PALLAM RAJU
MOS, HRD MINISTRY

It was clear from last year that percentile will be calculated on successful candidates of respective boards. Percentile calculation was supposed to be done by the Council of Boards of School Education, but several calculated it on their own

— HC GUPTA
JEE ADVANCED PROFESSOR IN-CHARGE

Trust Deficit

217 students refuse to join IITs. Fear new IITs not up to mark. General category seats too going vacant, forcing the authorities to opt for a second round of allotments

Code Error 20#

79 students who qualified to IITs denied admission when they reached IIT campuses. Payments already made. Confusion between Boards and IIT: top 20 percentile of Twelfth who appeared or who passed Board exam?

These 79 held top ranks in IIT JEE Advanced. Madras zone (Andhra Pradesh) | 35 affected, Kharagpur zone | 19, Kanpur zone | 14

Wrong Cut-off

Andhra Pradesh first to issue percentile cut-off. Of total 530 marks in Class XII board exam, top 20 percentile cut-off set at 476 marks for general category, should’ve been 487

Final Count

1.2 lakh students appeared for JEE Advanced
21,110 qualified for 9,885 seats
2,392 women candidates qualified
14,336 called for counseling
NO ENTRY: EXAM THAT FAILED IIT

- Admission system overhauled apparently in bid to reduce burden on students and make school-leaving results (Board marks) matter
  - A two-step admission process followed: The JEE main and the JEE Advanced
  - Top 1,50,000 of those who qualified in JEE Main took JEE Advanced
  - The JEE Advanced gives you chance at getting into one of the 16 IITs. Total 9,885 seats
  - Those who didn't make it to JEE Advanced stood a chance to study at the IITs, NITs and Central Funded Technical Institutions (CFTI)
  - CBSE conducted JEE-main, IIT-Delhi conducted JEE-advanced

- Passing IIT tests not enough, final rank decided by clubbing Board results
  - A student had to be among top 20 percentile in his Board
  - To bring Board results from all Boards (CBSE, state, others) into a standardized format, qualifying students' Class XII results from all Boards tossed around in a math mixie

- This normalization process formula was prepared by Indian Statistical Institute
  - Explaining formula & normalization for lay persons failed. Beyond few steps, the complicated process stops making sense
  - Experts also foxed by sheer abnormalities in final ranking that defy common sense, logic and sense of fairness
  - Final ranks showed students who had made it to IIT because of good ranking in IIT Advanced test hadn't actually got in
  - The other big-data problem was different interpretations of the 20-percentile qualifier

NOW WHAT?

- Students, parents fuming, PIL filed. Admissions not stayed
- Authorities stand firm. Say these teething troubles
- HRD ministry yet to decide on reviewing changes in IIT JEE
- IITs say changes were brought about in haste and have complicated matters

- Normalization formula to be revisited as some analysts believe there need to be more 'fields' or 'queries' to create the standardized measure and hence the ranking of the Boards
- Coaching institutes say normalization process makes it difficult for deserving candidates
- IIT alumnis to begin agitation July-end to protest new system
‘New formula robbed me of a second chance’

Nishant Gupta scored 91.1% in Class XII of Andhra Pradesh Board and was allotted civil engineering in IIT-Bombay. His dream score came crashing down after the double blow of the normalization process and the 20-percentile rule. He spoke to TOI. Excerpts:

How did you get to know that the IIT dream is over?
On the night of July 3, I got to know that I won’t be getting into IIT. The first cut-off announced by the Andhra Pradesh Board was 476 out of 530. This was later revised. Finally the JEE announced the score of 487 as the cut-off. My score was 483.

What was your reaction?
I didn’t know what to say. I’ve no hope of getting into any engineering college this year. I didn’t take admission in NIT, expecting to get into IIT. I even gave up admission to BITS, Pilani where I’d got mechanical engineering.

How have your parents taken it?
My parents are telling me to appear for the examination next year. But since the eligibility criterion will not change I don’t want to sit for it again. The government can do just about anything. Next year I’ll try to get into Vellore Institute of Technology.

Do you think the idea of a single examination has worked?
No. Instead of one there are three examinations now: The Class XII exam, JEE (Main) and then there is the JEE (Advanced). Exactly the opposite has happened.

What would you suggest?
If the government wants to place so much emphasis on Class XII results it should give at least 5% quota to Board toppers. Also, instead of a cut-off of 60% in Class XII as was the criterion till last year, it should be made 80%. Students will then have a fixed target.
IIT (Ab)Normalization: How they got it wrong

Experiment Goes Awry: Students Pay Heavily For Botch-Up

Kapil Sibal wanted his stint as HRD minister to be memorable. He wanted to leave behind an enduring legacy. He proposed sweeping changes in the education system.

In the nearly three-and-half years he was at the helm, the most effective change he undertook was confined to examinations: The CBSE Class X board examination was made optional. Then, after lengthy deliberations, a single examination for engineering was mooted.

Students, who spent their summers taking one entrance test after another, lapped up the idea. By putting the emphasis on the Class XII results, the government wanted to restrict the coaching centres' hold on the system. But there were enough detractors too.

States, though supportive, weren't willing to yield ground. Only Gujarat and Nagaland agreed. Haryana and Uttarakhand were already part of the earlier All India Engineering Entrance Examination and went along. The IITs, fearing a drop in quality, weren't keen to be integrated with a larger system. A complicated normalization process was devised to bring all boards on a par. The idea was to factor in Class XII result with JEE (Main) scores for admissions to NITs and central government technical institutes.

The IITs still had their say. Only 1.5 lakh of those who cleared JEE (Main) could take JEE (Advanced) for IIT admissions. Of these, only 1.2 lakh finally appeared. A high JEE (Advanced) score wasn't enough for an IIT seat. The extra factor was the stress on the Class XII result. A student had to be in the top 20 percentile of his/her Board result. Instead of a single examination, a complicated two-tier system was created in a rush.

Since June, it's been chaos. The single exam dream went awry. Students couldn't crack the normalization formula till the JEE (Main) scores came. Those with high JEE (Main) marks and reasonably high Class XII scores — by today's standard 90% isn't a good enough Board score — found their ranks had slipped. Litigations began.

The 20 percentile factor became contentious because Boards got their calculations wrong. They calculated it on the basis of total students who had taken the state's Class XII exams, whereas it had to be on the basis of the number of students who had passed. Many like Nishant (see interview) suffered. Cut-off percentages jumped, especially in Andhra Pradesh, barring 79 students from a possible IIT seat. IIT-Delhi director R V Shevgaonkar said the Boards overstepped their brief. "It's unfortunate but nothing can be done."

CBSE chairman Vineet Joshi said the confusion was because it was the first year. Stress on Boards marks had thrown up interesting results, he added. "Preliminary analysis of data reveals this year NITs will have a bigger representation of women and those from rural and semi-rural backgrounds." The new system should continue. "But genuine concerns should be addressed."

Joshi hopes from next year more states would join in. Joshi's eventual dream: A single examination that can be taken more than once in a year to improve scores.

Shevgaonkar, though not critical of normalization, favours IITs having their own entrance test. But the confusion and tears of students being brushed aside as teething problems could have been avoided with transparency and deliberation.
Is AICTE doing something about involving industries?

We are coming up with a list of 50 institutions on a normative basis to promote research. They will provide 5,000 sq ft of their campus area to industries around the institute. We will gather information on the specific tie-ups that institutes have with industry to promote research. Based on that we will classify institutions as maybe the first 20-30 and promote them actively with collaborations with the industry. We will start with the engineering sector and will extend the scheme to management.

Will industry be a part of this? And will students be able to find jobs?

This whole process has been on for two years and we have formed sector-specific meetings. Industry sectors have created the content. The auto content has been created by companies like Mahindra & Mahindra and Ashok Leyland. In the telecom sector, we are talking to Nokia. In the IT sector, Microsoft is on board. In fact, the whole training is to be provided by the industry and industry associates.

Coming to technical education, there is a lot of excess seat capacity, how is AICTE dealing with that?

There are two problems, one, institutes in the rural sector are unable to attract the best teachers or set up good infrastructure and, consequently, students and two, even within the cities, there are vacancies, though less. There is another trend at work. In a given year, students perceive a particular branch to be of importance and rush there, creating vacancies in other branches.

So how do you increase the input?

These are initiatives that need to be taken by state and central governments. I believe that setting up of a financial corporation by a state and central initiative is essential. They should give soft loans to students at the input level, identify them and push them into the education system, either formal or vocational. That would enable your economy, GER and employability to go up.

B-schools say AICTE is forcing them to accept Common Management Aptitude Test (CMAT)!

We have not. The problem is today you have 20 management entrance exams plus with a host of institutions conducting their own examination. Every exam has a prospectus that costs a minimum of $5,000. How many students can afford this? Besides, how many exams can I give? So all we have said is every institution should accept a CMAT. We will be conducting this test twice every year.

Admission to engineering colleges in India is still plagued with corruption and high capitation fees. What should be done to correct the situation?

We have 20-25 per cent vacant seats at the entry level in most engineering colleges. There is a state level fee committee, headed by a retired high court judge and every institute gets its accounts examined.

We have a regulation for an ombudsman, every university should have an ombudsman, and every institution should have a grievance committee.

What happens in reality is that all parents want their child to get admission in a city college, therefore seats in distant colleges remain vacant and overcrowding in city-based engineering colleges gives rise to malpractices.

It’s a tug-of-war between givers and takers. Convenience therefore gets priority over regulation and all parties: students, parents, and institutions overlook regulations. If caught, however, the repercussions are bound to be severe.

The supply-demand scenario today needs to be assessed correctly. It’s not only the education sector. We have to map the industry sector as well. So that we can create a win-win situation that will truly help increase our GDP.

---

2 varsities in EU Namaste scheme

IIT Guwahati and Assam University, Silchar have been included in European Union’s Networking and Mobility Actions for Sustainable Technology and Environment (NAMASTE) scheme.
Nalanda varsity set for a new life

By Giridhar Jha in Patna

THE ancient Nalanda University—known for its educational excellence across the world for centuries—is all set to rise like the proverbial phoenix.

The new university in Bihar will start its academic activities next year. Vice-chancellor Gopa Sabharwal said the two post-graduate courses in the School of Ecology and Environment Studies and the School of Historical Studies would kick off in 2014.

Two PG courses will kick off next year

Academic excellence, however, will not be the sole objective. The university seeks to foster closer ties with all the neighbouring villages. The ancient university was first set up as a learning centre where villagers used to provide meal to the monks who studied there. Now, it’s payback time. The new university will offer courses that will facilitate development of these villages.

In 2008, Bihar CM Nitish Kumar faced protest from farmers while acquiring land for the university. Farmers said they would not part with their ancestral land unless the govt gave them money on a par with prevailing rates.

The decision of chancellor Amartya Sen to appoint Gopa Sabharwal had also raised the hackles of many academicians in Bihar who alleged that she was not qualified enough to hold such an important post.

Nalanda varsity set for a new life

The master plan of Nalanda University was designed by Vastu Shilpa Consultants.

Nitish Kumar had entrusted the task of identifying the 200 ancient villages that were linked to the ancient university on the Patna-based KP Jalsawal Institute.

The UPA has, of late, accelerated the construction work of its ambitious ₹2,194-crore university. At a recent meeting chaired by PM Manmohan Singh, the Union cabinet gave its nod to many privileges and immunities to the varsity for its efficient functioning. Among other things, it also exempted its vice-chancellor and academic staff from taxation in a bid to attract the best of talents from across the globe.

In May 2013, the board of governors had approved the master plan designed by Ahmedabad-based Vastu Shilpa Consultants, which won an architectural design competition to get the project.
**War on malaria: Be invisible to mosquitoes**

Scientists Develop A Colourful Patch That Makes Bugs Unable To Detect User For 48 Hours

**Washington:** Researchers, including an Indian-origin scientist, have developed the world’s first lightweight patch that can make people ‘invisible’ to pesky mosquitoes and could prove key in the battle against malaria.

The affordable patch is a colourful sticker, small enough to be worn virtually without notice.

Once worn, it provides the user with up to 48 hours of protection from mosquitoes.

The technology hampers mosquitoes host-seeking behaviour, was identified at the University of California, Riverside in 2011, and has led to the development of the product that blocks mosquitoes’ ability to efficiently detect carbon dioxide, their primary method of tracking human blood meals.

The initial research was performed in the laboratory of Anandasankar Ray, an associate professor of entomology, and was featured in the journal Nature.

Ray’s lab identified volatile odour molecules that can impair, if not completely disrupt, mosquitoes’ carbon dioxide detection machinery.

Called the KiteTM Mosquito Patch, the product marks a significant advance in the global fight against mosquito-borne diseases such as malaria, West Nile virus and dengue fever.

The patch delivers mosquito-repelling compounds in a simple, affordable and scalable sticker that can be used by individuals in regions impacted by malaria and other mosquito-borne diseases.

Estimated to cost a fraction of existing repellents, Kite is applied to clothing and can be used by people of all ages, including infants and pregnant mothers.

“I am very excited to see how Olfactor Labs has rapidly taken our initial discovery to a product that can have great value in the war against mosquitoes and disease,” Ray said. “I am most impressed that they have designed something affordable and convenient for use in Africa and around the world. I am rooting for this to become a game changer in lowering incidence of malaria, dengue, filariasis and other dangerous diseases,” said Ray.

Ray’s technology is the culmination of years of development work on a class of odour molecules, all of which are non-toxic compounds approved for human consumption by the US Food and Drug Administration. “The Kite Mosquito Patch isn’t just another mosquito product, but a powerful alternative to most products on the market, enabling people to live normal lives with a new level of protection against contracting mosquito-borne diseases,” said Michelle Brown, the chief scientist and vice president of Olfactor Laboratories.
‘BITS-Pilani has the right formula for Board results’

Yash Mehrotra scored 191 in JEE (Main) and 92.1% in AP Board. Normalization put paid to his hopes of a seat in an NIT. He’s finally joined a private IT college in Noida. He spoke to TOI. Excerpts:

Were you expecting normalization to end your dreams?
No. The normalization formula came after the Class XII result. Before that we’d thought with my Class XII marks and JEE (Main) score, I’d rank in the 10,000-range. But normalization changed all that.

YASH MEHROTRA

JEE (Main) Marks: 191
AP Board Percentage: 92.1%
JEE (Main) Percentile: 38.74
AP Board Percentile: 86.78
After Normalization, Yash’s Board marks: 90.05
40% Normalized Board Marks: 36.07
60% JEE Main Score: 114.60
Total Normalized Score: 158.62
Yash’s Rank: 33,581
Expected rank without Board normalization: Approx 12,000
Status: Didn’t get any seat in Central Counselling

Will you appear for the exam next year?
No point unless normalization’s removed. This year, students from Andhra Board had no chance of getting a rank within 20,000 without a 97% in class XII. In my school, barely 10 out of 200 students were within 20,000. I’m hugely disappointed.

What changes should be made?
Overemphasis on Class XII could result in neglecting JEE (Main). Normalization shouldn’t be used. Now engineering aspirants will study English or French to score additional marks. Instead, cut-off should be used like IITs, Pilani does.