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Why the new IITs are losing appeal among top students and recruiters

<http://economictimes.indiatimes.com/industry/services/education/why-the-new-iits-are-losing-appeal-among-top-students-and-recruiters/articleshow/48011768.cms>

NEW DELHI: Aspiring computer engineer Nirant Patil was ranked 4,499th in the recent all-India joint entrance examination (JEE Advanced), which meant he did not make the cut for his preferred stream of computer science in top Indian Institutes of Technology (IITs). Left to choose between one of the newer IITs and other institutes, he opted for the International Institute of Information Technology, Hyderabad.

"The course at the IIIT Hyderabad is more reputed than the same one at a less prominent IIT," said the student from Bengaluru. "The only way I would choose to study at another IIT would be if I would be able to take a branch transfer after the first year from a lesser-known IIT to an older IIT."

Patil is not alone. While the number of operational IITs has risen to 18 in 2015 from seven in 2007, new IITs — despite their premium 'IIT' tag — are losing favour both among top students and recruiters, as teething troubles such as poor infrastructure, paucity of faculty and lack of role models persist. Students who do well in JEE but fail to get into one of the older IITs would rather go to National Institutes of Technology (NITs) or top private engineering colleges than a relatively new IITs.

Since 2008, 11 new IITs have started operating — in Indore, Mandi, Ropar, Patna, Jodhpur, Hyderabad, Gandhinagar, Bhubaneswar, Varanasi, Palakkad and Tirupati. The last two start their first batches this year.

But most of them are still to build the infrastructure and all face an acute shortage of faculty, which now reflect on their ability to attract students and recruiters. "Faculty shortage is a problem that all the IITs are currently dealing with. This will surely hit the new IITs but all the institutes have to find a way out," said Bhaskar Ramamurthi, director at IIT Madras. Beginning 2008, old IITs went through about 50% expansion in student intake over a period of seven years while faculty intake could never match this pace, he said.

Across IITs there is a 30%-40% paucity of faculty, as ET reported last month. This does not get reflected in student preference at old IITs due to their placement track records and alumni, but is a critical factor for the newer ones that have not yet built an ecosystem around them.

"Due to shortage of faculty and absence of infrastructure, we see very few students opting for new IITs," said RL Trikha, director at entrance coaching institute FIITJEE that has 25,000 students enrolled with it. "In fact, we brief and counsel our students, if given a choice between a new IIT and an established NIT or even an IIIT (Indian/International Institute of Information Technology), to rather to go with the latter," he said.

There are 30 NITs and around 18 IIITs in the country. Out of the total 10,006 seats on offer across IITs (and Indian Schools of Mines, Dhanbad) for the academic year 2015-16, 5,816 seats are on offer at the top IITs of Bombay, Delhi, Kanpur, Madras, Kharagpur, Roorkee and Guwahati.

While most top recruiters flock to these premium institutions year after year, many of them avoid the new ones. Bain & Company India, which recruits from IIT Delhi and Mumbai among IITs, expects this to remain the case in the near-to-medium future.

"We find that a number of brilliant students from both these excellent institutions meet our current hiring needs, along with students from the three IIMs of Ahmedabad, Bangalore (Bengaluru) and Kolkata," said Gopal Sarma, the Bain consulting partner who oversees recruiting in India. "However, given that our consulting operations in India are expanding robustly, we are open to the idea of assessing other older IITs such as Madras in the future, should the need arise," said Sarma who also heads Bain's Infrastructure consulting practice in India.

Shalini Pillay, head of people, performance & culture at auditing and consulting major KPMG in India, said it would take a few years to establish connect with newer IITs and that they would never displace the old IITs. "Over the years, we, at KPMG have built relationships with IITs (old), NITs and other institutes like BITS Pilani. Our preference would be to go to these institutes for placements based on our relationship," she said.

According to Sarthak Raychaudhuri, vice president, HR, Asia South at Whirlpool Corporation, the advantage of the older IITs is that the chances of knowing what one will get in terms of talent is a lot higher than the new institutes. Also, he said, the newer IITs have a disadvantage in the sense that there is no surety of the faculty and facilities there. "The new IITs definitely have a few more years to go," Raychaudhuri said.

Experts say the new IITs will take at least a few years to establish, and those in small towns may take a decade. "They will take a long time to get established. Students who want to join IITs want the results in three-four years," said Satya Narayanan R, founder and chairman of CL Educate. "In new IITs, there is no role model, no legacy, no ecosystem," he said.

Anurag Sharma, dean at IIT Delhi, agreed that the new institutions take at least 5 to 6 years to mature. "It happens to all the institutes in this stage," he said. Sharma also pointed out that each new IIT was given to an old IIT to mentor and that it depends on the mentor to decide whether the new IIT is ready to be launched. "In the case of IIT Delhi, we decided to take another year to formally launch IIT Jammu. The allocation of land took some time. This was purely IIT Delhi's call," he said.

Manindra Agrawal, dean of faculty affairs at IIT Kanpur, feels students preferring to go with NITs and even IIITs instead of a new IIT is only a temporary phenomenon created to due to widespread expectation that new IITs would establish fast, which did not happen.

Some officials at old IITs say it's just a matter of time before the new ones catch up. "IIT Hyderabad, a fairly new IIT, has managed to have the best faculty-students ratio among all IITs in the country," said Pradipta Banerji, director at IIT Roorkee. "Every IIT will have to devise their own strategy to face the challenges. As of now, the old institutes do have an upper hand when compared to the newer IITs as simply they started off earlier. But remember, they too faced similar challenges in their younger days," he said.

IIT-Roorkee expels 73 under-performers

Admission Pact Leaves Students No Recourse

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Dehradun: In an unprecedented action at any IIT, the institute at Roorkee expelled 73 students whose performance was not up to the mark after their first-year of the B Tech programme. These students scored less than 5 CGPA (cumulative grade point average) in their exams and were expelled late on Wednesday.

At the time of admission, the parents of these students had signed a declaration stating that their poor performance could result in their removal from the institute: this is unlike any other previous instance at an IIT. In the past, students have been expelled from IITs but taken back eventually, except in one instance each in IIT, Kharagpur and IIT, Kanpur.

On Thursday, a meeting was called by the institute to consider the mercy appeal of students. It was attended by over 160 senior officials, including professors, heads of departments and the director. A decision was then taken to expel the students.

A former director of IIT, Kharagpur, recounted that in 2006, around 15-20 first year students were expelled on account of poor performance. This decision was taken by a panel that evaluated undergraduate students. The director, however, eventually overturned the decision to expel the students and re-admitted them.

Sources told **TOI** that IIT Roorkee's move occurred after second-semester examinations ended in May. Many students who fared badly were called for a meeting with college authorities and told to pull up their socks.

During counselling sessions, many students admitted that they were finding it



IIT Roorkee's move occurred after the second semester exams in May

difficult to cope with the academic workload. Institute officials said a few students claimed they had not given much attention to studies as they were "enjoying the first-year of college".

“ I have scored a little over 4.5 CGPA, but even then, I have been asked to leave. It is not fair. What will I do now? My whole academic year has gone to waste

ONE OF THE EXPELLED STUDENTS

In mid-June, poor performers were sent a notice of expulsion. They were given time to file what the institute termed a "mercy appeal".

Many students affected by the decision refused to speak with **TOI**, saying they were still in shock. A few said it was an "unjustified decision" and that they were never warned that scoring less than 5 CGPA would result in expulsion. "I have scored a little over 4.5 CGPA, but even then, I have been asked to leave. It is not fair. What will I do now? My whole academic year has gone to waste," said one expelled student.

Student body representatives said the institute had acted in haste and should reconsider the decision.

"Students should not be removed from college like this. Many of them come from vernacular-medium backgrounds and it is difficult for them to comprehend certain subjects. They should have been given time to adjust to the academic environment in the institute," said Rajveer Choudhary, treasurer of the IIT Roorkee Students' Affair Council.

The institute's registrar, Prashant Garg, when contacted, said the decision was justified. "The IITs are premium institutes and the rules regarding under-performance were clearly notified to students at the time of admission. These 73 students could not attain the required credits and had CGPAs lower than 5, which qualifies for expulsion."

Garg added, "The decision was taken after considering their mercy appeal, which was rejected on Wednesday. We acknowledge that the number of students expelled is huge but we will ensure that preventive measures are taken and that there is no need to expel even a single student on the grounds of poor academic performance next year."

As their parents have already signed a pact saying the students could be expelled for poor performance, these students are now left with no recourse, said a source.

जोधपुर, पाली, सीकर, बीकानेर, अलवर, बाड़मेर, नागौर और गंगानगर संस्करणों से...

सूरज की गर्मी से ऊर्जा पैदा करेगी आईआईटी जोधपुर

सोलर सैल के मुकाबले ऊर्जा की एफिशिएंसी 60 फीसदी तक होगी

जोधपुर @ पत्रिका . भारतीय प्रौद्योगिकी संस्थान (आईआईटी) पेट्रोलियम कम्पनी इण्डियन ऑइल और भारत हेवी इलेक्ट्रिक लिमिटेड (भेल) के साथ मिलकर सूरज की गर्मी यानी सोलर थर्मल तकनीक को विकसित करने जा रहा है। इस तकनीक से सूरज की गर्मी (हीट) का इस्तेमाल ऊर्जा पैदा करने में किया जाएगा जो वर्तमान तकनीक से 60 फीसदी तक एफिशिएंट होगी। इस



क्या है सोलर थर्मल तकनीक

सूरज से हमें रोशनी (लाइट) व गर्मी (हीट) के रूप में ऊर्जा मिलती है। वर्तमान में सोलर पैनलों में रोशनी का इस्तेमाल कर ऊर्जा पैदा की जा रही है, जिसे सोलर बैटरी में संग्रहित भी किया जाता है, लेकिन इसकी एफिशिएंसी 20 फीसदी से भी कम है। इस ऊर्जा को अधिक समय तक स्टोर भी नहीं किया जा सकता। सोलर थर्मल तकनीक में सूरज की गर्मी का इस्तेमाल ऊर्जा पैदा करने में होगा। बड़े बड़े पैनलों के जरिए सूरज की गर्मी को एक बिन्दु पर केन्द्रित करके उसे किसी द्रव में ट्रांसफर

किया जाएगा। इस गर्मी को अपनी इच्छा के अनुसार कहीं पर ट्रांसफर करके बिजली पैदा करने, टर्बाइन चलाने, उद्योगों में पदार्थों में गर्म करने में उपयोग हो सकेगा। जो पदार्थ सूरज की गर्मी को ग्रहण करेगा उसका तापमान 750 डिग्री सेल्सियस पहुंच जाएगा। आईआईटी ने फिलहाल 400 डिग्री तक की सफलता प्राप्त की है। सोलर थर्मल तकनीक का एफिशिएंसी स्तर 60 फीसदी तक होगा। आईआईटी ने अपने नए कैम्पस में इसकी टेस्टिंग फैसिलिटी विकसित की है।

तकनीक को जोधपुर में पुख्ता करने के लिए आईआईटी ने इजराइली कम्पनी इनर-टी टेक्नोलॉजी के साथ एमओयू किया था, जिसने सोलर थर्मल तकनीक पर डीपीआर बनाकर सौंप दी।

डीपीआर में आईआईटी, आईओसी और भेल को सोलर थर्मल तकनीक के लिए टेस्टिंग फैसिलिटी विकसित करने की हरी झंडी दे दी है। बुधवार को आईआईटी में डीपीआर रिपोर्ट पर दो दिवसीय कार्यशाला भी आयोजित की गई। आईआईटी के निदेशक प्रो. सीवीआर मूर्ति ने गुरुवार को संवाददाता सम्मेलन में बताया कि

प्रोजेक्ट पर करीब 120 करोड़ रूपए की लागत आएगी।

क्या होगा टेस्टिंग फैसिलिटी में

निदेशक प्रो. मूर्ति ने बताया कि देश में शैक्षणिक संस्थानों, आर एण्ड डी और उद्योगों ने सोलर थर्मल की तकनीक विकसित की है, लेकिन उसकी गुणवत्ता व बैचमार्क की टेस्टिंग फैसिलिटी कहीं उपलब्ध नहीं है। आईआईटी जोधपुर इन सभी तकनीकों की टेस्टिंग करके एक नई तकनीक विकसित करेगा, जिससे पूरे देश में लागू किया जाएगा।

No interference from MHRD: IIT Kharagpur Director

http://www.business-standard.com/article/pti-stories/no-interference-from-mhrd-iit-kharagpur-director-115070901251_1.html

IIT Kharagpur Director Partha Pratim Chakrabarti today said there was "no" interference from the Union Ministry of Human Resource Development (MHRD) with the autonomy of the higher education institute.

"There is no interference. We are getting what we want," Chakrabarti told reporters here when asked about the MHRD interference.

When asked about budget cuts, he said they have discussed it with the Ministry and were hopeful of getting more grants.

Earlier in May, IIT-Madras had derecognised a students' group following a complaint that it was critical of Prime Minister [Narendra Modi](#).

The incident had triggered protests from political parties who claimed it was due to the MHRD interference.

Last year IIT-[Delhi](#) Director Raghunath K Shevgaonkar's resignation had also triggered a controversy.

Solutions can come from the slums

Urban planning that involves the people and alternative service providers gives far better results than top-down efforts from the government, finds an IIT-M study

Thillai Rajan A. and Sriharini Narayanan

In Tiruchirappalli, Tamil Nadu, the responsibility of managing and maintaining a set of more than 160 community toilets was handed over by the Tiruchirappalli City Corporation to a federation of women self-help groups. A post-programme field survey of 803 households revealed that the community participation had resulted in the public toilets being far better maintained, with improved community hygiene, reduced open defecation and an increased number of toilet users than has been the case with similar public toilets elsewhere. The same results are seen with NGOs working in Chennai slums in Kalyanapuram, Sivarajapuram, Semmanchery, Thuraipakkam, and Kodungaiyur, where the community has been involved in water and sanitation programmes.

Clearly, wherever slum development programmes have involved the community at various levels, it has generated a sense of ownership over the project, and has helped ensure its success.

As the government tries to promote the concept of Swachh Bharat, the road ahead might be to use less government interventions and more community participation. And one of the places where the work has to begin is in the rapidly mushrooming number of slums. With unprecedented urbanisation, city slums are growing at an alarming rate. According to Census 2011, the slum population in India makes up 18.3 per cent of the total urban population. In absolute terms, the slum population is projected to increase from 93.1 million in 2001 to 104.7 million in 2017.

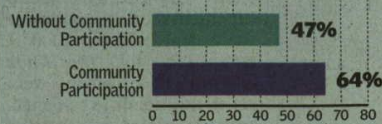
One of the characteristic features of a slum is the lack of access to basic services as compared to non-slum areas. The glaring inequality between slums and other city settlements can have serious repercussions on the societal fabric. Robert McNamara, World Bank President from 1968 to 1981, said, "If cities do not begin to deal more constructively with poverty, poverty may begin to deal more destructively with cities." Unfortunately, providing access to basic services in slums is progressively becoming a political agenda rather than a social one. The dramatic victory of the Aam Aadmi Party in the Delhi Assembly elections this year is proof of that.

While everyone agrees that living conditions in slums need drastic improvement, the big question is how to achieve this. The Millennium Development Goals (MDG) demand fresh approaches that can ensure universal access to basic ser-

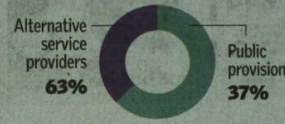
OBVIOUS SOLUTIONS



PERCENTAGE OF POSITIVE OUTCOMES



INSTANCES OF COMMUNITY PARTICIPATION



vices. A recent study conducted by Indian Institute of Technology-Madras (IIT-M) has used 248 instances collected from various slum development initiatives to analyse just what works in urban planning and what does not. The results were interesting and insightful.

Easing access

Traditionally, all urban planning has adopted a top-down approach, attempting to solve the problem of access to basic services by simply providing the services and the connections to them. While this method serves the needs of political book-keeping, a more holistic approach is needed for long-term results. Access is not just about providing connections, but also about the services being affordable, adequate and durable. Further, the residents of slums should not be expected to spend laborious time and effort to access basic services. The IIT-M study showed that the involvement of alternative service providers such as non-governmental organisations and community-based organisations (CBOs) in service delivery showed far better results than the traditional route.

Why is this so? The findings from the study provided several explanations. In the traditional public provision model, the planning and positioning of infrastructure is quite ad hoc. This results in overuse of infrastructure, which leads to disrepair or abandonment of the infrastructure itself. In contrast, NGOs and CBOs use a bottom-up approach to plan-

By paying adequate attention to the needs of the community, alternative service providers have adopted innovative and cost-effective designs to provide better access to service

ning, construction and maintenance of infrastructure. This model vastly improves access. By paying adequate attention to the needs of the community, alternative service providers have adopted innovative and cost-effective designs to provide better access to service. And, most important, there has been an effort to maintain the facility to ensure that infrastructure is always available. For instance, Mahila Milan, the National Slum Dwellers Federation, and the Society for the Promotion of Area Resource Centres have joined hands in Mumbai to adopt cost-effective designs and materials to create well-ventilated toilets with sufficient running water and lighting.

All projects by alternative service providers have not been equally successful. Why do some projects have better outcomes than others? The analysis shows that wherever there has been greater community participation, the results have been positive. Second, such projects have simultaneously trained the commu-

nity members in planning, design and maintenance of the infrastructure, so that they may take over the running of the projects over time.

Rights of the informal

Without security of tenure and legal status, slum residents cannot demand the provision of basic services from the government. And, according to the 2011 Census, 36 per cent of all slums are "informal" or "unrecognised", denying their occupants the most basic government infrastructure. What goes unrecognised is the fact that these people might be illegal settlers but they are rightful citizens of the country. Government agencies hesitate to provide any form of infrastructural access to such slums since it could lead them to claim *de facto* tenure security. Slum residents, for their part, cannot and do not invest their own resources in building infrastructure because there is always the impending threat of displacement. They opt instead for illegal connections that are expensive and unreliable.

This is where alternative service providers play a big role. They can work in informal slums and low-income groups, since their involvement does not affect or confer legal status on the slums. In some cases, they have in fact leveraged their position to negotiate with the government authorities to seek legal connections that could eventually change the status of the slums.

The government has an ambitious target of making India slum-free by 2020. Under the Rajiv Awas Yojana, which comes under the Jawaharlal Nehru National Urban Renewal Mission, and some other programmes, more than \$20 billion dollars was planned as investment to realise this goal. The World Bank, for one, doesn't seem to think this is possible — it estimates that long after 2020, nearly 200 million Indians could be living in slums, up from the current 90 million. This prognosis makes it all the more urgent that instead of relying on tried and tested methods, we try new approaches. While the top-down approach to urban planning may be necessary, it is not sufficient in itself. It needs to additionally take advantage of the complementary strengths of NGOs and the wider community to get better results. Such a partnership approach may not give speedy results, but it can create lasting facilities. And that's what finally matters.

(Thillai Rajan A. is a Professor, Department of Management Studies, IIT Madras, and Sriharini Narayanan is a Project Officer at IIT Madras.)

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Nasa spacecraft reveals Pluto's 2,000km 'heart'

Washington: Nasa's New Horizons spacecraft has beamed back the most detailed image yet of Pluto, taken by its Long Range Reconnaissance Imager, showing a large heart-shaped bright area measuring some 2,000km across the dwarf planet's surface.

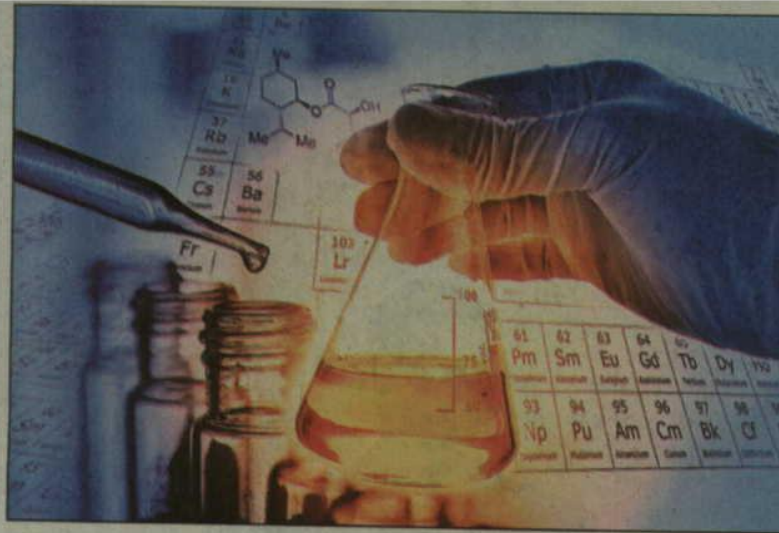
After more than a nine-year, three billion mile journey to Pluto, the spacecraft's flyby sequence of science observations is officially underway, Nasa said. The view is centered roughly on the area that will be seen close-up during New Horizons' July 14 closest approach. This side of Pluto is dominated by three broad regions of varying brightness. Most prominent is an elongated dark feature at the equator,



FLYBY: Pluto viewed from New Horizons' Long Range Reconnaissance Imager

informally known as "the whale", and a large heart-shaped bright area measuring some 2,000km across on the right. Above those features in the image is a polar region that is intermediate in brightness. PTI

HT.COM ND 10.07.2015 P-8



■ The initiative would first be launched in the North East SHUTTERSTOCK

NE to get first model science lab

HT Education Correspondent

To inculcate scientific temperament among students, the government on Thursday proposed to set up 'model science labs' across the country, beginning with the North East region.

The aim is to ignite passion and nurture a spirit of enquiry and creativity for mathematics and science in students between 6 and 18 years of age.

The initiative would be launched through the Department of Science and Technology (DST), HRD Minister Smriti Irani said, while addressing a gathering of students through video-conferencing during the launch the Rashtriya Avishkar Abhiyan programme here.

"Let us begin with North East by setting up one model lab for school children. Once we set up the model science labs in every district of the North East, in con-

junction with the Department of Science and Technology, we can go beyond and establish across the country," she said.

The programme will be conducted through intervention of existing programmes such as the Sarva Siksha Abhiyan, Rashtriya Madhyamik Siksha Abhiyan programme and through other schemes of higher education.

Former President of India, APJ Abdul Kalam, launched the programme in the presence of Minister of State of Human Resource Development, Ram Shankar Katharia, Minister of State for Development of North Eastern Region and Department of Space, Jitendra Singh and Science and Technology Minister Harsh Vardhan.

Lauding the initiatives of IT giants such as Google and Intel in the mission, Irani said that phase II of the programme will be launched in January, targeting the higher education sector.