Newspaper Clips
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'Aadhaar-enabled DBT is more demanding than DBT'

The future of the Aadhaar scheme is uncertain under the new Bharatiya Janata Party-led government at the Centre. **REETIKA KHERA**, an economist and assistant professor in the humanities and social sciences department at Indian Institute of Technology, Delhi, speaks to **Manavi Kapur** about the fate of Aadhaar and the possible alternatives to it

Was Aadhaar necessary for the transfer of welfare benefits?

Aadhaar (or UID), is the unique number generated by the Unique Identification Authority of India (UIDAI). Cash transfers refer to the form of the transfer — cash versus kind. Think of the public distribution system — the government can either provide subsidised food (an "in-kind" transfer) or it can give cash so that people can buy the food themselves (a "cash" transfer). Cash transfer programmes include government schemes such as old age pensions, maternity entitlements and so on, which are very welcome.

On Direct Benefit Transfer (DBT), there is more confusion. For some (like me), DBT is just another word for electronic transfers — that is payments through accounts linked to CORE banking (which is the norm for us). For others, DBT is actually "Aadhaar-enabled DBTs" — electronic transfers plus linking (or "seeding") bank accounts and databases of welfare beneficiaries using Aadhaar. For yet others, DBT is the new proposed design for transferring subsidies: the subsidy on, say, kerosene is credited into your account and kerosene is bought and sold at the market price.

I welcome DBT (or electronic transfers), as it provides a huge safeguard against corruption. The only drawback is that rural access to banks and post

offices linked to core banking is still very poor.

What are the loopholes in Aadhaar, both as an identification mechanism and as a tool for distributing welfare monies?

The main problem is that its benefits in welfare schemes were always exaggerated. For instance, the National Rural Employment Guarantee scheme was premised on the belief that wages are paid in cash, which are prone to corruption. In fact, since 2009, payments are routed through bank and post office accounts. Wage payments through banks with core-banking provide as good a safeguard against corruption as Aadhaar can. Post office payments remain vulnerable to corruption, and the solution lies in modernising post offices.

Where did Aadhaar fail in DBT that the government wants it removed? Why would it have not worked? Is it merely politics driving this decision?

Head to Head

If Aadhaar is going to be replaced by a more sinister project, the debate is far from over

For DBT you need all beneficiaries to have a core banking account. That is where the focus should be — expanding the modern banking sector, especially core banking in rural areas. DBTs do not need Aadhaar.

What the government had in mind when it spoke of DBT is actually "Aadhaar-enabled DBT" to transfer cash or subsidy. That requires three things: a modern banking sector to which beneficiaries have access; Aadhaar number for all beneficiaries; and seeding bank accounts with Aadhaar. Only when all three are in place, can Aadhaar-enabled DBTs proceed. Eight months after DBT was launched, 56 per cent of beneficiaries had a bank account; 25 per cent had an account and Aadhaar; but only 9.6 per cent had all three. This caused havoc — it made Aadhaar compulsory for cash transfers, leading to exclusion on a massive scale. For example, many elderly people stopped getting their pension in Jharkhand. Other Aadhaar pilots have also failed — NREGA payments (in Jharkhand) and LPG subsidy transfers (Karnataka).

Aadhaar-enabled DBT is a more demanding system than DBT, without any added benefits. From the point of view of DBT, the removal of Aadhaar is a welcome step. But if Aadhaar is going to be replaced by a more sinister project, the debate is far from over.

The data already collected will be vulnerable to misuse. What are the ethical and logistical challenges in collection and storage of such private biological parameters?

Important among the objections against Aadhaar is the creation of a centralised database of residents that could be linked to other databases such as those created by "security" agencies. In this sense, UID and National Population Register (NPR) create an infrastructure that can be misused.

Can the existing Aadhaar be modified for *bona fide* use? If not, what is a possible alternative?

Aadhaar was clear that it was for all residents. NPR, however, is based on citizenship. That is the real danger of merging Aadhaar with NPR. It will become an exercise in harassing poor people. If registration in NPR is made compulsory, and people are required to prove their citizenship, it will formally create a category of "second class" citizens. It is not difficult to guess who will fall into that category.

For a longer version of this interview, visit mybs.in/c3c7d

Nai Duniya ND, 29.09.2014, P-5

तोते की तरह एक ही बात बोलता हूं ताकि जागरूकता फैले:राष्ट्रपति

- युवाओं को दी जनसंख्या लाभांश की उपमा
- टॉप यूनिवर्सिटी में देश का संस्थान नहीं होने की बात कही

इंदौर (ब्यूरो)। शनिवार देवी अहिल्या विवि के स्वर्ण जयंती वर्ष दीक्षांत समारोह में राष्ट्रपति प्रणब मुखर्जी ने एक बार फिर देश के विश्वविद्यालयों को कमजोर रैंकिंग का मुद्दा उठाया। श्री मुखर्जी ने बोले कि मैंने 2012 में आईआईटी में पहली बार यह सवाल पूछा था कि दुनिया की टॉप-200 यूनिवर्सिटी में हमारे देश का कोई नाम क्यों नहीं है। तब से अब तक तोते की तरह बार-बार यह बात दोहराता हूं। क्योंकि मैं इस बारे में जागरूकता लाना चाहता हूं।

दीक्षांत भाषण से पहले श्री मुखर्जी ने विवि की 2012 बैच के मेधावी विद्यार्थियों को स्वर्ण पदक भी प्रदान किए। समारोह के मंच पर राज्यपाल रामनरेश यादव, लोकसभा अध्यक्ष सुमित्रा महाजन, मुख्यमंत्री शिवराजसिंह चौहान मौजूद थे। लोकसभा अध्यक्ष श्रीमती महाजन ने यूनिवर्सिटी की पूर्व छात्रा के रूप में राष्ट्रपति का स्वागत किया। उन्होंने कहा कि विवि सबसे ज्यादा आदिवासी जनसंख्या वाले जिलों से जुड़ा है। समारोह में कुल 61 छात्रों को स्वर्ण व रजत पदक प्रदान किए गए। 13 पीएचडी उपाधि धारकों को राज्यपाल ने उपाधि प्रदान की। एमबीबीएस की छात्रा ईशू दीक्षित को अलग-अलग विषयों में कुल आठ स्वर्ण पदक मिले।

ब्रिलियंट कन्वेंशन सेंटर में आयोजित कार्यक्रम में राष्ट्रपति, मप्र के मुख्यमंत्री व राज्यपाल

'स्कूल चलें हम अभियान' में शामिल हुए प्रणब मुखर्जी

इंदौर। शाम को ब्रिलियंट कन्वेंशन सेंटर में 'स्कूल चलें हम अभियान' कार्यक्रम राष्ट्रपति प्रणब मुखर्जी के मुख्य आतिथ्य में हुआ। करीब ढाई हजार बच्चों की मौजूदगी में अभियान का शंखनाद हुआ। राष्ट्रपति ने इस अवसर पर बच्चों को शिक्षा का महत्व समझाया।

IIT global meet in Hyderabad to lay thrust on R&D

The event will take place from December 19-21
BS Reporter | Hyderabad
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http://www.business-standard.com/article/current-affairs/iit-global-meet-in-hyderabad-to-lay-thrust-on-r-d-114062900607_1.html

The annual conference of IIT alumni worldwide this year would offer greater thrust on establishing India as a global hub for research and development.
The 12th edition of global IITians meet, Pan IIT Hyderabad Alumni Meet, would take place from December 19-21 in the city with the Telangana government as it main sponsorer.
“The event is a nicer combination of IITians networking and discussing the innovation agenda for the country. Also, we may have a discussion on government partnership aimed at creating a change at the grassroot levels,” said IIT alumni Santanu Paul, who is CEO and MD of Talent Spring.
The event will see participation of 3,000 IITians including global Indian CEOs, managing directors and venture capitalists. Last year, while the event happened in Houston in the US, it is for the first time it has come to the city.
Announcing the event at the Indian School of Business here today, dean Ajit Rangnekar urged the IITians to explore opportunities to repay to the country and the humanity at large. “the commitment to the country is fulfilled only when the IIT gets well known for its social work and impact on society as it had on the Silicon Valley in the US and elsewhere,” he said.
Suneet Singh Tuli, CEO of Datawind, maker of the popular Akash tablet, said technologists could play a huge role in seeing a smarter India in the next five years.

IIT Roorkee committed to rebuilding lives in Uttarakhand: Director

http://zeenews.india.com/news/uttarakhand/iit-roorkee-committed-to-rebuilding-lives-in-uttarakhand-director_943683.html

New Delhi: A year has passed since Uttarakhand was ravaged by floods, but the Himalayan state still lies in shambles. Hoping to avoid future disasters, IIT Roorkee is studying the "dynamic behaviour" of the rivers, which have changed their course, to adopt suitable measures, says its director Pradipta Banerji.

The institute is also planning to channelise the skills of local artisans to develop new design paradigms.

Highlighting that some of Uttarakhand's rivers like Alaknanda, Mandakini, Asiganga and Bhagirathi have undergone "major morphological changes" in the last few years due to cloud bursts and consequent flooding, Banerji stressed on the need for studying their unpredictable behaviour.

"Rivers have shifted from their due course due to bank erosion, while at other locations, severe aggradation and degradation in the river beds have occurred. IIT Roorkee has identified that there is a need for studying the dynamic behaviour of the river so that suitable measures could be adopted for protections of river banks and structures," Banerji, a recipient of the National Science Talent Scholarship in India, told IANS in an e-mail interview.

He added that researchers at the institute's department of civil engineering are addressing issues like assessment of floods in Uttarakhand's major rivers in view of cloud bursts; carrying out detailed studies for the reaches of rivers in proximity of habitations using satellite images; and also identifying critical and vulnerable sites along

the rivers in respect of bank erosion, shifting of rivers, inundation, aggradation and degradation.

"A pilot study has already been carried out for protection of Tiloth bridge at Uttarkashi, and based on the results of the study it has been recommended to provide an additional bay of length 35m to ensure safety of the bridge against the morphological changes," Banerji disclosed.

Banerji, who joined IIT Roorkee as director in October 2011, added that this would ensure that the bridge remains protected from the ravages of the river, ensuring safety of local people and easy access to facilities in that area.

He stated that the institute's focus is to develop a "holistic design-based approach and to provide solutions to problems in Uttarakhand".

"The solutions to these problems include improvements in water, ecosystem, local produce, crafts and the quality of life of people in the state," Banerji told IANS.

He added that the institute, which has domain expertise in the areas of science, engineering and technology, aims at "integrating the outcomes of research in these areas for the benefit of the state and its people".

But how does the institute intend to explore and optimally use the skills of local artisans to develop new design models?

"The basic objective of IITR's design school is to preserve the local heritage of the Himalayan state and in turn generate means of livelihood for local artisans and craftsmen. Traditional knowledge will be documented and also integrated with contemporary design innovations to produce and develop marketable prototypes," he said.

He explained that this includes creation of a directory of artisans, convergence of local craftsmen, preservation of Himalayan ecology and produce, inventory of local materials and ensure a wider dissemination of the generated knowledge base.

"Several projects are already in process that incorporate modern design methods with traditional crafts," Banerji told IANS.

A B.Tech graduate from IIT Delhi himself, he welcomes the Narendra Modi government's focus on skill development as he feels that skills and knowledge are the "driving forces of economic growth and social development" for any country.

He said IIT Roorkee faculty was part of many of the Skills Mentor Councils set up by the labour and employment ministry to improve vocational training in India in various sectors of the economy.

"In addition, a construction technology innovation centre is being set up in IIT Roorkee by the ministry, to work with vocational training institute students and graduates to create innovative technology and processes for application in the construction industry," he said.

"The overall mission of IIT Roorkee is to manage the conflict between the aspirations of the people of Uttarakhand and the needs of the tourism industry on one side and the water resources and the fragile Himalayan ecology on the other side, by developing sustainable solutions that address all the axes mentioned above," he added.

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IIM-A to board: Contribute to building conservation under CSR

VINAY UMARJI
Ahmedabad, 28 June

In a first, Indian Institute of Management-Ahmedabad (IIM-A) has asked members of its board of governors to contribute towards conserving buildings, following the new corporate social responsibility (CSR) norms.

Recently, the Ministry of Corporate Affairs had amended the list of CSR provisions under section 135 of the Companies Act, 2013, saying donations to IIM-A's building conservation was CSR activity, among other steps.

At a meeting of IIM-A's board on Friday, Director Ashish Nanda requested board members to contribute and spread the word among peers for donations for the institute's campus building and classroom restoration activities. Nanda said the ministry's move was good news for the institute. He also shared with board members clarifications regarding CSR provisions under section 135 of the Companies Act, 2013, released by the ministry vide a circular (general circular 21/2014) on June 18.

"The institute had sought a clarification from the ministry and their response unequivocally confirms donations to IIM-A for the conservation and renovation work on which we are embarking will be covered under CSR provisions. I requested board members to use their good offices and contacts to encourage organisations to use funds earmarked for CSR spending towards this valuable activity, which preserves and maintains the heritage of extraordinary buildings of international importance," Nanda said.

In an annexure to the ministry's circular, it was mentioned a clarification had been sought on whether: a) donations to IIM-A for conservation of buildings and renovation of classrooms would qualify as 'promoting education' and, therefore, be eligible for compliance of companies with CSR; and b) donations to IIM-A for conservation of buildings and renovation of classrooms would qualify as 'protection of national heritage, art and culture, including restoration of buildings and sites of historical importance' and, therefore, be eligible for compliance of companies with CSR. The circular clarified this was so.

A board member said, "The director informed us about the new CSR norms and asked us to pitch in and spread the word among peers, which we will gladly do."

The trend of board members donating for campus and infrastructure projects at institutes is prevalent in the western educational institutions such as Harvard and Stanford. "Such a move has already been taken several times by B-schools in western markets. Though we haven't decided yet, we will think about asking our board members for contributions," said a director another IIM.

Recently, IIM-A had roped in Mumbai-based Somaya & Kalappa Consultants as conservation architect for Louis Kahn buildings, while London-based architecture consultant Peter Inskip + Peter Jenkins Architect Ltd was named conservation consultant for the restoration study.

Pioneer ND 29/06/2014 P-1

Scrapped FYUP leaves BTech, BMS students in lurch

IKNOOR KAUR ■ NEW DELHI

With the scrapping of the controversial Four-Year Undergraduate Programme (FYUP), the fate of over 3,000 Delhi University students, who had enrolled themselves in BTech and Bachelors in Management Studies (BMS) courses last year, hangs in balance. As these two new courses, along with FYUP, did not get necessary statutory approvals, uncertainty prevails over the status of these courses.

Meanwhile, the Delhi University announced that the admissions process will commence on July 1 with cut-off being expected to be out on Monday night. The second cut-off list will be released on July 4.

While BTech was a completely new course introduced with FYUP in 2013, BMS was offered after combining three existing courses — BA (Honours) in Business Economics (BBE), Bachelor of Business Studies (BBS) and Bachelor of Financial and Investment Analysis (BFIA).

The University Grants Commission (UGC) Standing Committee had recommended in its first meeting that students already under the BTech and BMS programmes must be given the degree as per what they were promised.

Since the Ordinances under FYUP is no longer stay, BTech naturally will go. However, we have proposed for them (students) to get the degree as per what the university promised them during admission. The university is legally bound to do so
— MEMBER OF THE UGC STANDING COMMITTEE

A member of the UGC Standing Committee said on the condition of anonymity, "Since the Ordinances under FYUP is no longer stay, BTech naturally will go. However, we have proposed for them (students) to get the degree as per what the university promised them during admission. The university is legally bound to do so."

The UGC Standing Committee is likely to meet on Monday to deliberate and take a decision on the matter regarding the enrolled BTech and BMS students.

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Scrapped FYUP leaves BTech...

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These deliberations will however carry on for the next week. Admission will take place nonetheless with a total of eight cut-off lists being released. Admissions will close on July 22.

EC member Abha Dev Habib further elaborated, "Suggestions have been given to the Standing Committee of UGC for DC-I and BMS students that papers should be redistributed, Applied Courses and Foundation Courses be removed and concentration be put on DC-I and DC-II courses so that they finish 18 papers of DC-I and 6 papers of DC-II by the end of third year and leave with Honours degree. For BTech, it has been suggested that papers be rearranged so that students who wish to save their one year can leave with Honours in Applied Courses in three years after completing 18 papers in DC-I and those who want BTech may continue for fourth year. The University on priority basis should rework the course content as much as possible to make them meaningful BTech degrees. This is necessary as the course neither follows UGC guidelines nor has AICTE approval."

The new admissions will dissect these courses back to what they were. Instead of BTech Psychological Science, there will be Applied Psychology and instead of BMS, there will be three courses BBE, BBS and BFIA. Thus, students who have already appeared for the BMS entrance examinations will not suffer and be admitted to any of these three courses.

Earlier in the morning, hundreds of students of Delhi University staged a protest outside the HRD Ministry and submitted a representation demanding that the six BTech courses introduced in the last academic session should not be scrapped.

The Ministry has assured that students' interest will be kept in mind and University Grants Commission would be coming out with a statement on this issue. BTech students also staged a protest in North Campus of DU and took a rally from the VC's residence to his office.

Some students tried to enter the VC's office, but were stopped from doing so by Delhi Police and Rapid Action Force (RAF) personnel. The agitating students demanded that their course should not be converted to B Sc.

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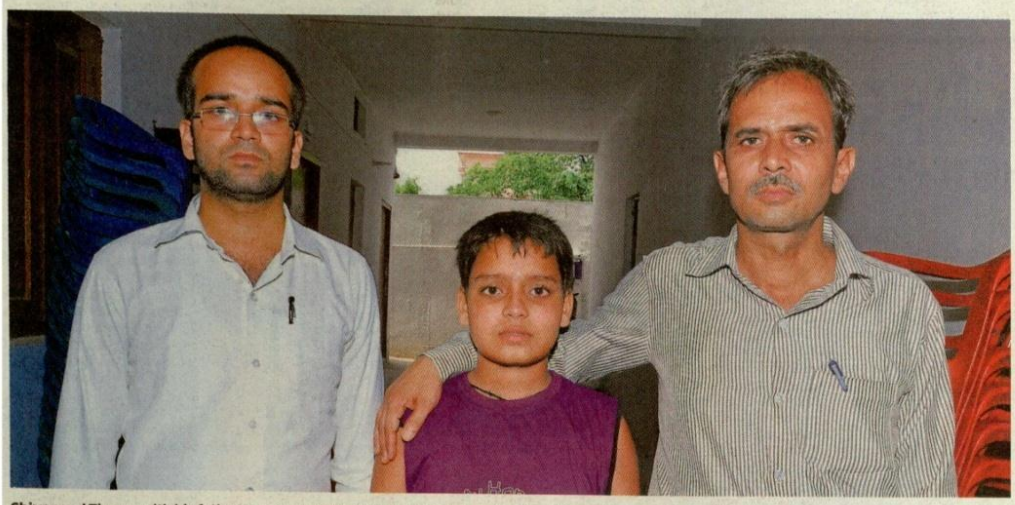
Shivanand Tiwary is miles ahead of his peers

Destiny takes a curious turn



Shivanand Tiwary with his father Kamla Kant Tiwary (right) and elder brother Vikash Kumar Tiwary (left). MOHAN PRASAD

Shivanand Tiwary of Bihar has cleared Class XII and JEE of the IIT at the age of 14

When he was barely a five-year-old boy, he could recite all the 700 shlokas of the Bhagwad Gita and "chaupaees" (verses) of Tulsi Ramayana. This earned him the honorific "Bal Sant". By the time he was in Class VI, he could solve mathematics of Class XII. At the age of 14, he not only cleared Class XII examinations but also the prestigious joint entrance examination (JEE) of the IIT.

Meet the born genius Shivanand Tiwary of Sasaram in Bihar whose stupendous academic skills has made India in general and Bihar in particular proud of this child prodigy. Shivanand passed Class XII with 93.4 per cent marks and has scored 2587 in the IIT-JEE in his first attempt.

His father Kamla Kant Tiwary, a priest from Dharampura village in Rohtas district, says the exceptional qualities of Shivanand were noticed at a tender age. "I used to perform puja and give religious discourses at the house of my "jajman" (clients). Shivanand, unlike his peers, was not too keen on playing or interacting with other children. He often accompanied me when I went to perform pujas. At the age of four, I noticed that he had an exceptional quality to grasp quickly. When he was five, everyone told me that his Sanskrit pronunciation was far better than mine. Since he was more interested in satsang (a form of prayer), I did not discourage him. But I wanted him to pursue studies too. In 2009, I shifted from Dharmapura in Nokha block to Sasaram to eke out a better living and give better education to my two sons Shivanand and Pankaj," Tiwary told *Deccan Herald*.

Younger brother Pankaj Tiwary

"It was at Sasaram that destiny took a turn for better. Shivanand, then in Class VI, used to sit by my side whenever I gave religious discourses. A vernacular Hindi daily wrote an article in 2010 on how a small child could recite all the 700 shlokas of the Bhagwad Gita. MK Jha , the vice-principal of a local school, found that Shivanand could solve mathematical problems of Class XII. He suggested that the child should be taught in English medium. In the meantime, UP Singh, the director of the Narayana Coaching Institute (which grooms children for preparing IIT and other exams), came to know about the exceptional qualities of Shivanand through the vernacular daily," Shivanand's father recalled.

Singh took the wonder child to Delhi where Shivanand passed Class X with the special permission of the examination board. "Even in Delhi, the coaching institute arranged a separate room and a cook for Shivanand when he expressed his desire that he would perform puja and satsang after the study hours," Kamla Kant recounted.

Born on December 7, 1999, Shivanand said that till five years back, he was not much inclined towards studies except that he loved solving mathematics problems. "In 2010, somebody suggested that I should aim for IITs and I got the help from Narayana Academy to pursue my dreams," he said, adding that he had devoted a lot of time in reading about the life and works of Swami Vivekanand, besides, Ramayan, Mahabharata, Bhagwad Gita and "puranas" too.

"I am keen to correlate science with spirituality," said the young boy. He, however, wants to make another attempt at the JEE to improve his rank. Asked whether he would like to give any suggestion to those who want to get into IITs, Shivanand's mantra was: "Try the weekly test as much as possible. That's the best way to gauge one's strength and weakness."

Shivanand wants to pursue research in physics. "I want to become a scientist so that I could serve my country," averred the boy. Talent appears to be a gift for the family. Even his younger brother is a wonder kid. Shivanand wants to groom his younger brother Pankaj who is also a child prodigy.

"Pankaj is in Class V, but he solves mathematical problems taught to students studying in classes VIII and IX. Since Pankaj's English is weak, he faces problem in understanding the question. But the same coaching institute is taking car of that," Kamla Kant averred.

However, the name of Shivanand will not figure in the national record for cracking the IIT-JEE at a very young age. The honour is still in the name of another Bihar boy Satyam, who at 12 cleared the IIT examination and secured 8137th position. Dissatisfied with his ranking, Satyam tried again in 2013 and got 679th rank. Son of a farmer in Badahara block in Bihar's Bhojpur district, Satyam had cleared his class X when he was 10.

Prior to Satyam, it was Tathagat who completed his matriculation at the age of nine, BSc degree at 10, M Sc degree at 12, and a doctorate from IISc, Bangalore, at the age of 21. The Patna-born child prodigy of yesteryears Tathagat Avtar Tulsi joined the IIT, Mumbai, in 2010 as the youngest faculty member.

Tathagat's story is no different. At a tender age of seven, Tathagat used to give a whole lot of lecture on Albert Einstein's "photo-electric effect". This stunned everyone. Having skipped Intermediate (Class XII), he directly appeared for B Sc (Physics Honours) at the age of 10 and also completed Masters in Science (with prior permission from court) at the age of 12. Eventually, he received his doctorate in "quantum computing" from the Indian Institute of Science, Bangalore. With this, he joined the select mathematicians and physicists who secured their PhD at 21. They include John Forbes Nash Jr, the MIT mathematician who got his PhD in mathematics at 21. Time magazine had named Tathagat as one of the seven most gifted youngsters.

Abhay Kumar in Patna

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Brothers brave the odds to crack tough IIT entrance examination

A small one-room space for five adults to live in is by any standard uncomfortable, if not claustrophobic. Apply any geometry you may wish to, but as night settles after a long arduous day, there's little space to even step out from one of the tightly-packed sagging beds crammed in this pint-sized area they love to call a home.

This is the place where brothers Amit and Sumit grew up and studied. But it's not about the everyday ordeals that this family of five encounters in the face of penury and helplessness. It's about the triumph of these two teenage poor brothers who cracked the famed IIT entrance examination not once, but twice despite the appalling conditions they have lived in.

Their father Jitender Kumar sells tea on the roadside in Jalandhar in Punjab and struggles to make ends meet. Ask him, and he can't figure out what's really changed in the manner people now see a tea vendor. One notion gets a quick burial. Chaiwalas still live different destinies, whatever may have been the outcome of the glamour that this general election brought to the image of a tea vendor rising like a phoenix.

Both brothers, who often double up as workers at their father's roadside tea shop, cracked the IIT Joint Entrance Examination even last year. As fate would have it, the family did not have anywhere close to the money needed to pay for the course fee. Their total life-long saving wouldn't add up to close to even the first year fee needed for one child.

Kumar couldn't afford to overlook the horrors of a rainy day. As options dried up, the choice wasn't hard to make. Both Amit and Sumit dropped the plan to join an IIT for want of funds last year.

But that wasn't the end of their grit. The two brothers again sat for the examination this year in May, and cracked it yet again. Talking to *Deccan Herald*, younger brother Sumit said when results were out, they weren't sure whether to celebrate or worry.

Another one year of income from the roadside tea vend was only enough to feed the family. It was back to where it started, but that wasn't what it was meant to be. Volunteers, good Samaritans have pitched in to fund the education of the two boys. About Rs 3 lakh has been generated to aid their education in IITs.

The results of counseling will be out on July 1, Amit said. "I hope we get to study in one of the IITs. It means a lot for us. My family's condition will change for good if we excel in life. This is the only way," he told *Deccan Herald*.

At the one-room rented unit, mother Manju Devi, an illiterate, is largely unaware of what an institution like IIT is. She isn't even sure how cracking the examination would help her sons. But she knows one thing very clearly–that something good has happened, which is why after decades of a life in isolation, there is sudden rush of government officials, bankers and people from all over willing to lend a helping hand out of the blue. Poverty, for once, has a brighter side. "My sons are our hope. We can only pray they live their dreams," she told *Deccan Herald*.

Amit and Sumit in front of their father's tea stall at Jalandhar in Punjab.

Life has already started to change. Manju Devi says she hadn't even seen a VIP or a minister in her entire life, until recently.

On Thursday, the proud mother accompanied her two sons to a function at a local school in Mohali, near here, where Punjab Education Minister Dr Daljit Singh Cheema was the chief guest. Her sons were special invitees for the event.

The family hails from Sitamarhi in Bihar. This year Sumit secured 809th rank while Amit has got 2014th rank in the entrance examination.

However, Jitender Kumar is not sure of what's in store for them. Two decades ago, he migrated from Bihar to Punjab.

"For years, my father pulled the rickshaw. He then worked as a peon. Later, as the company shut, Papa put up a push cart on which started to sell tea," son Sumit said.

Sumit says his father had a yearning to save money after last year's fiasco when he could not pay even some part of the fee for us to join the IIT. Kumar worked overtime so that he could save some money. But destiny had different designs.

Just two weeks before the examination this year, as Kumar was crossing the road holding tea in glasses to serve commuters, a speeding biker hit him from behind. An injured Kumar helplessly saw his desire fall like a pack of cards. Whatever little he had saved for his sons, he says, was spent on his treatment.

Still worse, with the father on bed, Sumit and Amit spent more time at the tea vend than studying for the examination that was just days away. "We still would study for more hours each day," they said.

For them, everything now appears in place. State Bank of India local branch has decided to sanction the loan for the brothers. The bank had also opened their accounts and deposited Rs 5,100 in each of the accounts. The bank would handle all the expenses of Sumit and Amit when they go to New Delhi and Dhanbad for counseling.

Persuaded by the Punjab Education Minister, an educational group in Punjab, pitched in with a contribution of Rs 1 lakh to help the boys realise their dream to study. A doctor couple from Mandi Gobindgarh in Punjab and their friends and relatives has raised Rs 80,000 towards their education. Punjab National Bank employee Satbir Singh had donated Rs 20,000. A beginning has been made.

Gautam Dheer in Chandigarh

June 30

IITs to share expertise with other engineering institutes

Gauree Malkarnekar,TNN | Jun 30, 2014, 12.28 AM IST

http://timesofindia.indiatimes.com/home/education/news/IITs-to-share-expertise-with-other-engineering-institutes/articleshow/37483422.cms

PANAJI: Directors of Indian institutes of technology (IIT) on Sunday, at their closed-door meeting with Union human resource development (HRD) minister Smriti Irani in Goa, discussed in detail the possibility of each IIT extending its expertise to other engineering institutes located in their vicinity.

The 'retreat' in Goa was summoned by Irani, who, along with the IIT directors, remained tight-lipped about the proceedings of the day-long meeting.

Goa chief minister Manohar Parrikar, an IIT alumnus, too joined in the discussions for a couple of hours before sharing a meal with the minister and the directors.

Parrikar, before leaving the meeting venue at Dona Paula, said, "IITs are nuclei of technology education. The directors spoke about making IITs the hub of technical education and developing knowledge-sharing network and mentoring other engineering institutes located nearby. They want to extend their expertise to other colleges."

The IITs want to build on the plan by expanding their technical education quality improvement programme (TEQIP) for the purpose.

Sources said that the IIT directors also sought enhanced financial assistance from the central government for further strengthening of the institutes and to boost specialized research at each of the premiere institutes. They also discussed ways to improve mechanisms of academic appraisal and review rankings of the IITs.

Irani flew in to Goa especially for the retreat that lasted from 9am to 5pm on Sunday, after which she immediately flew out of the state.

Parrikar, responding to questions by reporters, said the IIT directors welcomed the Union HRD ministry's plans of setting up new IITs in states that do not have an IIT. Goa is among states that are expected to get an IIT.

"Some directly link setting up of an IIT in Goa to how many Goan students will actually be able to make it to the institute. But that is not correct. Imagine the synergy created with the setting up of such a premiere institute and imagine the linkage the IIT will provide for local engineering colleges," Parrikar said.

IIT directors want incentives to attract PG students

Gauree Malkarnekar, TNN | Jun 29, 2014, 02.03AM IST

http://timesofindia.indiatimes.com/home/education/news/IIT-directors-want-incentives-to-attract-PG-students/articleshow/37416727.cms

PANAJI: Directors of Indian institutes of technology have decided to approach Union human resource development (HRD) minister Smriti Irani to provide incentives to attract students, including more international students, to pursue post-graduate studies at the IITs.

Putting their minds together on Saturday to discuss ways to take IITs forward, the directors-in Goa for a retreat called by the minister to discuss problems faced by the premiere institutes and their possible solutions-used the opportunity to perfect their presentations to be made to Irani, who was unable to attend day-one.

At the closed-door, five-hour-long meeting at the International Centre Goa, Dona Paula, the directors, said sources, also spoke about asking the government to better utilize the results of in-depth research done by IIT students in different areas, including the pollution of River Ganga.

Sources said the directors will also speak to Irani about mentoring institutes of higher education other than IITs to "promote an ecosystem of high-quality engineering education".

Irani is expected to join the deliberations on Sunday. She will spend the entire day with the directors, and the high-profile group will be joined for lunch by Goa chief minister Manohar Parrikar, an IITian himself.

The directors will discuss with Irani ways to engage IIT alumni further for development of the institutes and the need for more industry-academia collaborations in areas of research, technology transfers, setting up of incubation centres and research parks, resource sharing, adjunct faculty, etc.

"The directors spoke about how they should get more such opportunities for discussion on a common platform. They have decided that each director will speak on the decided topics for around 5 minutes. Outstanding examples in each decided area will be presented before the minister, followed by any challenges in the area and feasible solutions. It was decided that discussions should be kept to the point by each director so that the retreat is utilized to discuss wide and diverse points," said a source.

Amid criticism that Irani does not possess the required qualifications to be a HRD minister, the minister impressed IIT directors in the first week of June by calling them for a discussion and by scheduling the retreat in Goa. tnn

IIT 2014 Global Conference to be held on December 19 at Hyderabad

HYDERABAD: The IIT 2014 Global Conference, an annual meeting of IIT alumni worldwide, is scheduled to be held here from December 19 to December 21.

To be held in the city for the first time, the conference would see participation of more than 3,000 IIT alumni working in diverse fields around the world, its organisers said here today.

The event would be co-hosted by the Pan-IIT Hyderabad Alumni Association and IIT Hyderabad with the support of the

Government of Telangana, they said. Started in 2002, this is the 12th edition of IIT Global Conference and past editions have been held in major cities of the US and India, they added.

Develop satellite for SAARC nations: Modi tells scientists

IndiaToday.in Chennai, June 30, 2014 | UPDATED 12:50 IST

http://indiatoday.intoday.in/story/pslv-launch-in-sriharikota-isro-narendra-modi-witness-1-369179/1/369179.html

This is a "global endorsement of India's space capability", said Prime Minister Narendra Modi after the successful launch of an Indian rocket that carried five foreign satellites.

Modi said: "Congratulations to everybody."

"I feel specially privileged to witness this event in person," said Modi who clapped as the Polar Satellite Launch Vehicle-C23 (PSLV-C23) - standing around 44.4 metres tall and weighing around 230 ton - tore into the bright morning skies with orange flames fiercely burning at its tail.

The rocket's main luggage is the 714 kg French earth observation satellite SPOT-7.

Piggybacking on the main luggage are the four small satellites viz: 14-kg AISAT of Germany; NLS7.1 (CAN-X4) and NLS7.2 (CAN-X5) from Canada each weighing 15 kg; and the 7-kg VELOX-1 of Singapore.

He described it as "global endorsement of India's space capability".

10:37 am: India's space programme is a perfect example of my vision of scale, speed and skill: PM.

10:36 am: Can we also think of developing, a state-of-the-art, interactive, digital Space Museum: PM.

10:36 am: Technology is central to development. It touches one and all, and is an important instrument of our national progress: PM.

10:36 am: I have got to meet four generations of scientists and this is a big sign of progress: PM.

10:35 am: I was very pleased to meet our young scientists here. I admire their work and their achievements: PM.

10:35 am: India has the potential, to be the launch-service provider of the world. We must work towards this goal: PM. **Also read:** **Indian rocket costs less than Hollywood movie 'Gravity': Modi**

10:34 am: Continued progress in space must remain a national mission. We must keep enhancing our space capabilities: PM.

10:33 am: I also ask you, to enlarge the footprint of our satellite-based navigation system, to cover all of South Asia: PM.

10:32 am: Today, I ask our space community, to take up the challenge, of developing a SAARC satellite: PM.

10:31 am: India's space program, is driven by a vision of service to humanity. Not by a desire of power: PM.

10:31 am: I urge Department of Space, to proactively engage with all stakeholders, to maximise use of space science in governance and development: PM.

10:30 am: Accurate advanced warning, and tracking of Cyclone Phailin, saved countless lives recently: PM.

10:29 am: Satellite communication channels, often end up being the only mode of communication: PM.

Prime Minister Narendra Modi witnessing the launch of PSLV-C23.

10:28 am: GIS technology has transformed policy planning, implementation. Space imaging enables modern management, conservation of water resources: PM.

10:26 am: Technology has a critical role in realising the vision of a Digital India - the power of 125 crore connected Indians: PM.

10:25 am: Such technology is fundamentally connected with the common man. As a change agent, it can empower and connect, to transform his life: PM.

10:23 am: I congratulate the scientists. This 'Sadhna' (penance) you have done in the lab has the power to change the lives of millions of people: PM.

10:22 am: Our space journey has come a long way from the humble beginnings: PM.

10:20 am: We are proud that our programme is indigenous. Generations of scientists have worked to make India a self-reliant space power: PM.

10:18 am: Our ancestors had conceived of ideas like 'Shunya' (zero) and 'flying objects', long before others: PM.

PM Narendra Modi at Satish Dhawan Space Centre in Sriharikota.

10:17 am: This is a global endorsement of India's space capability: Narendra Modi.

10:15 am: I feel specially privileged to witness the launch in person: Narendra Modi.

10:13 am: PM Modi congratulates scientists for successful launch of PSLV-C23.

09:55 am: Prime Minister Narendra Modi lauds ISRO for successful launching of PSLV-C23.

09:54 am: PSLV C23 rocket carrying five satellites, including French Earth observation satellite SPOT 7, lifts off from Sriharikota.

09:53 am: PSLV-C23 is carrying five satellites from four countries - France, Germany, Canada and Singapore.

09:52 am: PSLV-C23 lifts off from Sriharikota in PM Narendra Modi's presence.

09:45 am: Countdown for PSLV C-23 underway at Satish Dhawan Space Centre.

09:40 am: PM Narendra Modi reaches Satish Dhawan Space Centre at Sriharikota to witness PSLV launch.

An Indian rocket carrying a French earth observation satellite and four other foreign satellites blasted off from the rocket port.

Exactly at 9.52 am, the rocket - Polar Satellite Launch Vehicle-C23 (PSLV-C23) - standing around 44.4 metres tall and weighing around 230 ton tore into the bright morning skies with orange flames fiercely burning at its tail.

The rocket port is around 80 km from Chennai.

Prime Minister Narendra Modi, Andhra Pradesh Governor E.S.L. Narasimhan, Chief Minister N. Chandrababu Naidu, Union Minister Venkaiah Naidu, space scientists and other invitees at Indian Space Research Organisation's (ISRO) rocket mission control room intently watched the rocket's upward flight with one way ticket.

This is the first space mission of the Modi-led National Democratic Alliance (NDA) government.

The five satellites are being launched under commercial arrangements that Antrix Corporation - ISRO's commercial arm - has entered into with the respective foreign agencies.

ISRO officials are hoping that the agency's around 20 minute crucial space mission will turn out to be a grand success.

As per the mission plan, the rocket will first spit out its heaviest and costliest luggage - SPOT-7 - around 18 minutes after the blast off.

India had launched another French satellite SPOT-6 in 2012. The latest in the SPOT family of satellites is the SPOT-7.

The ejection of SPOT-7 will be followed by AISAT (German), NLS7.1, NLS7.2 (both from Canada) and VELOX-1 (Singapore).

Starting from 1999 India has launched 35 foreign satellites till date using its PSLV rocket. The successful launch of five satellites Monday would take the tally to 40.

India began its space journey in 1975 with the launch of Aryabhatta using a Russian rocket and till date, it has completed over 100 space missions including missions to moon and mars.

Read more at: http://indiatoday.intoday.in/story/pslv-launch-in-sriharikota-isro-narendra-modi-witness-1-369179/1/369179.html

Hindustan ND 30/06/2014 P-15

आईआईटी छात्र के कोर्स को अमेरिका ने सराहा

नई दिल्ली | विशेष संवाददाता

अमेरिका में बसे एक भारतीय आईआईटीयन ने सुरक्षित ड्राइविंग को लेकर दुनिया भर में अभियान छेड़ा हुआ है। वे सभी भारतीय भाषाओं समेत दुनिया की सभी प्रमुख भाषाओं में सुरक्षित ड्राइविंग को लेकर एक ऑनलाइन कोर्स चला रहे हैं। अपनी तरह का यह पहला और अनोखा कोर्स अमेरिका समेत पश्चिमी देशों में खूब लोकप्रिय हो रहा है। वे चाहते हैं कि भारत में भी इसे लोकप्रिय बनाएं। इसके लिए वे आईआईटी दिल्ली से बातचीत कर रहे हैं।

अमेरिका के मिनिसोता प्रांत के एडेनप्रेयरी में रहने वाले विजय दीक्षित ने बताया कि सड़क हादसे में दो साल पूर्व उनकी बेटी की मृत्यु हो गई थी। इसके बाद उन्होंने बेटी के नाम पर श्रेया दीक्षित फाउंडेशन बनाकर सड़क हादसे रोकने के लिए जागरुकता अभियान शुरू कर दिया। फाउंडेशन की वेबसाइट **shreyadixit.org** पर सुरक्षित ड्राइविंग को लेकर एक कोर्स है। कोई भी व्यक्ति इस कोर्स को मुफ्त कर सकता है जो करीबन सभी भारतीय और प्रमुख विदेशी भाषाओं में उपलब्ध है। कोर्स से पहले करीब 30 प्रश्न साइट पर पूछे जाते हैं। इनके जवाब के आधार पर कोर्स करने वाले की ड्राइविंग का स्तर तय होता है और फिर उसकी जरूरत के हिसाब से उसे जानकारी दी जाती है। बाद में फिर उसकी ड्राइविंग का आकलन होता है।

दीक्षित ने कहा कि आईआईटी दिल्ली की टीम उनके संपर्क में है। दिल्ली आईआईटी हाल में सड़क हादसे में अपने छात्रों की मौत के बाद इस दिशा में कुछ गंभीर प्रयास करना चाहता है। इसी सिलसिले में उन्होंने आईआईटी के लोगों के साथ बातचीत की है।

Millenium Post ND 30/06/2014 P-4

2 IITians open tea cafe chain in NCR

Currently, there are five cafes with the theme 'Experiments with Chai' in Gurgaon and Noida and five more would be opened by the end of this year

NEW DELHI: Quitting high flying jobs in the US, two IITians have joined hands to start a tea cafe chain 'Chaayos' in the NCR region and are looking to raise venture capital to open nearly 50 odd stores across the country.

Currently, there are five cafes with the theme 'Experiments with Chai' in Gurgaon and Noida and five more would be opened by the end of this year.

'We already have raised one round of angel investment of over Rs 2 crore from Powai Lake Ventures, led by Zishaan Hayath who is an angel investor. We are planning to go in for institutional round towards end of this year,' said Nitin Saluja, founder of Chaayos.

The chain plans to add another 50 cafes in the next two years by covering at least two more cities and increase penetration in Delhi NCR region. 'We are targeting cities with lots of young population,' he said.

Talking about USP of Chaayos, Saluja, an IIT Bombay graduate, said that they give customer the flexibility to customise their chai in their own way.

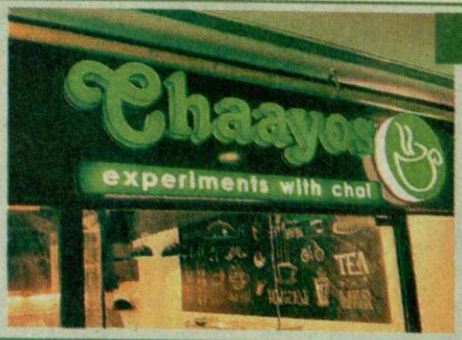
'Customers can customize their chai in over 12,000 ways depending on the various add-on choices they make,' he said.

The chain's co-founder, Raghav Verma, an IIT Delhi graduate, said the chai cafe offers over 25 interesting tea flavours and some delightful tea-snacks.

'We have wide range of varieties. It starts from traditional desi-chai to Kangra tea to unique aam-papad and hari-mirch-chai,' Verma said. 'Since India is a tea-drinking nation and we believe that Chaayos can grow to over 1000 cafes in next few years,' said Saluja.

In order to allow patrons to enjoy its chai at their homes, the chai chain is also looking to sell merchandise including *adrak-tusli chai, desichai*, green tea, *chai masala* and *chaimug*.

'We will be selling our merchandise from our outlets, starting next month,' he said. PTI



TEA TIME

- The chain plans to add another 50 cafes in the next two years by covering at least two more cities and increase penetration in Delhi NCR region.
- The chain's co-founder, Raghav Verma, an IIT Delhi graduate, said the chai cafe offers over 25 interesting tea flavours and some delightful tea-snacks.

Rashtriya Sahara, ND 30/06/2014 P-16

आईआईटी के 2 छात्रों ने चाय कैफे खोला

नई दिल्ली। आईआईटी से पढ़ाई कर निकले दो विद्यार्थियों ने अमेरिका में मोटी तनख्वाह वाली नौकरी की पेशकश ठुकरा कर एनसीआर में एक चाय कैफे श्रृंखला 'चायोज' शुरू की है और देशभर में इस तरह के करीब 50 स्टोर्स खोलने के लिए पूंजी जुटाने की संभावना तलाश रहे हैं। वर्तमान में गुड़गांव एवं नोएडा में पांच कैफे परिचालन में हैं और इस साल के अंत तक और पांच कैफे खोलने की उनकी तैयारी है।

- अभी गुड़गांव एवं नोएडा में पांच कैफे चल रहे हैं। साल के अंत तक और पांच कैफे खोलने की तैयारी है
- दो करोड़ रुपए जुटा चुके हैं। साल के अंत तक संस्थागत निवेशकों से पूंजी जुटाने की योजना

चायोज के संस्थापक नितिन सलूजा ने कहा, हम जिशान हयात की अगुवाई वाले पोवई लेक वेंचर्स से पहले ही दो करोड़ रुपये की पूंजी जुटा चुके हैं। हमारी योजना इस साल के अंत तक संस्थागत निवेशकों से पूंजी जुटाने की है। चायोज की खासियत के बारे में आईआईटी, बांबे के स्नातक सलूजा ने कहा कि वे ग्राहक को उनके तरीके से चाय बनाने की सहूलियत देते हैं। श्रृंखला के सह संस्थापक एवं आईआईटी दिल्ली के स्नातक राघव वर्मा ने कहा कि चाय कैफे 25 से अधिक दिलचस्प फ्लेवर की पेशकश करता है। **(भाषा)**

IIT Kharagpur pips other IITs in Asian university rankings

TNN | Jun 30, 2014, 12.45 AM IST

http://timesofindia.indiatimes.com/City/Kolkata/IIT-Kharagpur-pips-other-IITs-in-Asian-university-rankings/articleshow/37484081.cms

KOLKATA: At a time when engineering hopefuls seem to be preferring Delhi or Mumbai over Kharagpur when it comes to choosing IITs, here's something that's bound to bring back some cheer — and hopefully some students — to the country's oldest IIT.

IIT-Kharagpur (Kgp) has aced its peers in a prestigious annual ranking of Asian universities. The Times Higher Education (THE) rankings, Asia, 2014, has just been released and IIT-Kgp has not only figured in the top-50 but also managed to beat all the other IITs, which have all figured in the top-100.

The best slot among Indian universities/institutions has been bagged by Punjab University, which has ranked 32 in the top-100 list. Interestingly, this university did not make it to the rankings last year. With a rank of 45, IIT-Kgp is the next best Indian institution. While it is a good show, it has slipped from last year's rank of 30. Interestingly, none of the other IITs made it to the top-100 last year.

"We are delighted at the outcome of the survey. These matter a lot in the academic world these days as they help to shape up students' perceptions of institutions," said P P Chakraborty, director of IIT-Kgp. "We hope to get the best IIT-JEE candidates since the admission process will definitely be buoyed by the survey results."

IIT-Kanpur has followed IIT-Kgp with a long gap of 10 positions, with a rank of 55, while IITs Delhi and Roorkee have been tied at the 59th slot. There is a long gap after this, and the next entrants are IIT-Guwahati (at 74) and IIT-Madras (76).

In a double delight for the state, Jadavpur University (JU) has tied with IIT-Madras at the 76th position. Jawaharlal Nehru University (JNU) is the last entrant from India at the 90th position.

There were 13 carefully calibrated performance indicators against which the higher educational institutions were judged by THE this time. The heads were: teaching and learning environment leading to transfer of knowledge; research volume, income and reputation; citations that the institution has received for its research and academic influence; income from the industry through innovations; and each institution's international outlook.

Financial Express ND 30/06/2014 P-12

Reforming higher education

There is a strong case for making Indian universities more accountable and this accountability is not to the govt or to the regulator, but to the society at large

C RAJ KUMAR

The new Modi government has committed itself to reforming the higher education sector. Smriti Irani, the Union HRD minister, has begun her work in all earnestness and is conscious of the aspirations and expectations that the government has generated. But there are big challenges facing the Indian higher education sector.

Quality, excellence and faculty: First, we must raise the quality of our universities by promoting research and publications. Not even a single Indian university got featured in the top 200 universities of the world in all major rankings and this is a serious concern. Second is the issue of attracting quality faculty. There is a crisis relating to faculty recruitment and retention in our universities. Even the central universities are facing difficulty with 35-40% of their faculty positions remaining vacant. Third, there is an urgent need to increase the capacities of the higher education sector. This will involve significant investment in higher education; we need to build more colleges and universities, but that should not lead to any reduction in quality. This balancing act of maintaining the quality of education while increasing the quantity of institutions is a critical challenge.

Public, private and the regulator: The existing dichotomy between public sector efforts and private sector initiatives in the higher education space needs to be dismantled. The yardstick to measure the quality and effectiveness of higher education institutions in India should not be based on whether it is public or private, but through benchmarks that are universally applicable. There is a need for radical regulatory reform in the higher education sector, and an examination of the powers and functions of all regulatory bodies. The regulations should focus on creating an enabling environment for the higher education sector to grow in which public, private and international institutions can thrive—all with a view to advancing the goals of excellence in higher education. The need for internationalisation and global opportunities in education and research for our students and faculty has to be promoted by the government. Further, we need to address the issue of increasing the gross enrolment ratio from 18% to more than 30%, and this calls for substantial investment in higher education.

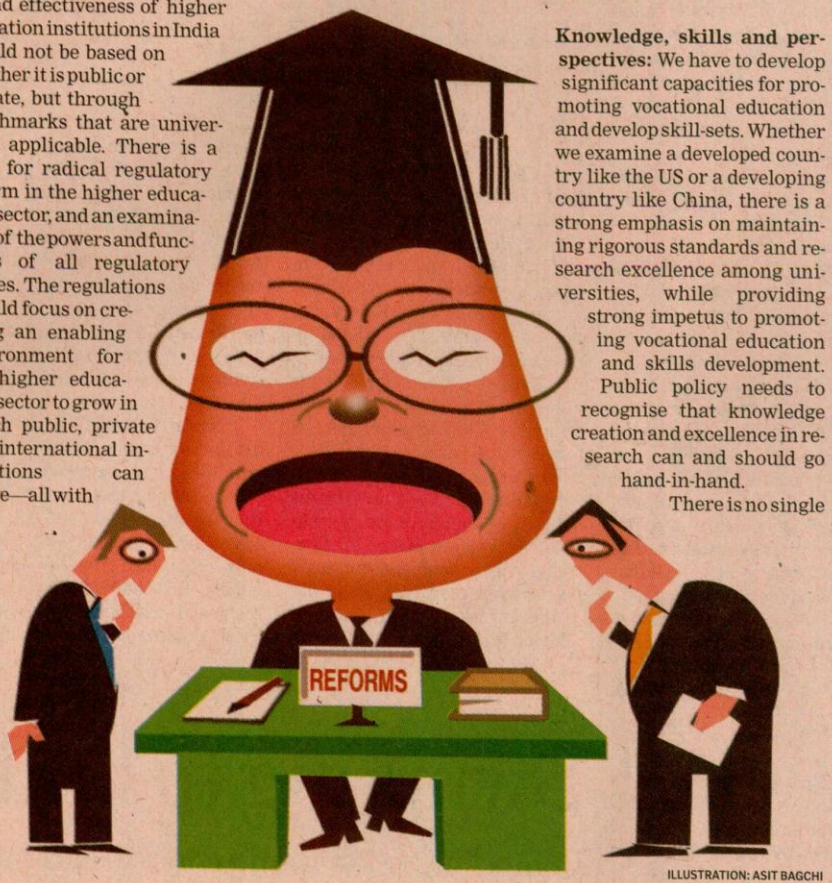


ILLUSTRATION: ASIT BAGCHI

Knowledge, skills and perspectives: We have to develop significant capacities for promoting vocational education and develop skill-sets. Whether we examine a developed country like the US or a developing country like China, there is a strong emphasis on maintaining rigorous standards and research excellence among universities, while providing strong impetus to promoting vocational education and skills development. Public policy needs to recognise that knowledge creation and excellence in research can and should go hand-in-hand.

There is no single answer as to how we can transfer knowledge from university to industry. We must understand the importance of collaboration between academia and the industry. Unfortunately, these two worlds have been operating independently with a fair amount of indifference and scepticism of the other. This has not helped in any form of knowledge transfer. We need to facilitate conversations between academia and industry. It is also necessary for industry to recognise that universities are about creating ideas and promoting innovation, but not all of them can be driven by industry demands and market expectations. This balancing act is critical.

Universities and economic growth: The experience of many countries has shown us that innovation and research in universities contributes to the creation of new opportunities and the growth and development of many industries. Many countries in South East Asia are shining examples of this. There is no doubt about the fact that universities have to redefine their role in India, but this is not only in relation to their contribution to economic development, but also in relation to their social, cultural and intellectual development of the nation. There is a strong case for making Indian universities more accountable and this accountability is not to the government or to the regulator, but to the society at large.

Experience has shown us that innovation and research in universities contributes to the creation of new opportunities and the growth and development of many industries. Many countries in South East Asia are shining examples of this

Prof C Raj Kumar, a Rhodes Scholar, is the founding vice-chancellor of the OP Jindal Global University

Financial Express ND 30/06/2014 P-12

Investing in technical education

In the upcoming Budget, the country needs major investments on the ICT front

PAVAN CHAUHAN

India has over 550 million people below the age of 25, which is the median age. Census figures depict that 33% of the population is between the age group of 0-14. These numbers illustrate that the number of students needing both primary and secondary education in India alone exceeds the American population. This also hints at the number of students who will be needing higher education in the next decade and the sheer size of the Indian education market.

At present, there are 11 million students in the higher education system and this represents only 11% of the 17-23 age group. The government expects escalation of this to at least 21% by 2017. This target still falls short of the world average. India is now emerging as a knowledge-based economy and human capital is becoming its major strength. These factors, however, highlight the severe inadequacies of India's infrastructure for delivery of education, particularly higher and vocational education.

In the upcoming Budget, the country needs major investments on the ICT front, considering the fact that the world is moving to digital classrooms and 80% of US-based colleges use technology heavily especially in engineering and medical education. It makes way for recorded lectures, digital submission of assignments and online student forums. ICT can be used to find, develop, analyse and present information, and also to model a situation and solve problems.

Over the last many years, India's public expenditure on education has ranged between 3.26% and 3.85%, but in this Budget this has to increase. Further, private participation has enough scope in the higher education sector as the government resources are not enough to meet these targets. The Budget should focus on evolving a PPP model for higher education.

Changes are also needed in the regulatory framework adopted by the government that governs FDI. While the government has now allowed 100% FDI in education through the automatic route, the AICTE regulations for foreign universities and the not-for-profit clause continue to be a major entry barriers for foreign capital. Working around some of these regulations in the Budget can benefit higher education.

A recent boost for Indian engineers came when India became a member of the exclusive Washington Accord. It will help create equivalence of engineering degree programmes and allow Indians to practise engineering in other member nations. The 220 tier-1 institutes in India that have been short-listed by the National Board of Accreditation (NBA) include IITs, NITs and BITS Pilani, besides many autonomous and deemed universities. These institutes will have to apply afresh to NBA and undergo extensive verification of their programmes for their engineering degrees to be considered at par with those of member countries. This is a great development as Indian engineering students can now freely work abroad without clearing any qualifying examination.

A trained workforce can truly galvanise the economy. The government's another focus area in this Budget should be on skill development and creation of competent ITIs, so that more trained workers enter the economy. For India to maintain its competitive advantage, the educational institutions need to produce industry-ready candidates and a good starting point can be re-looking at the course-content and the structure of our technical institutions so that they are in tune with current industry standards and latest developments.

The author is MD & founder, Meritnation

Financial Express ND 30/06/2014 P-8

EMPLOYABILITY OF ENGINEERING STUDENTS

It's time to focus on the real problem

Uma Ganesh

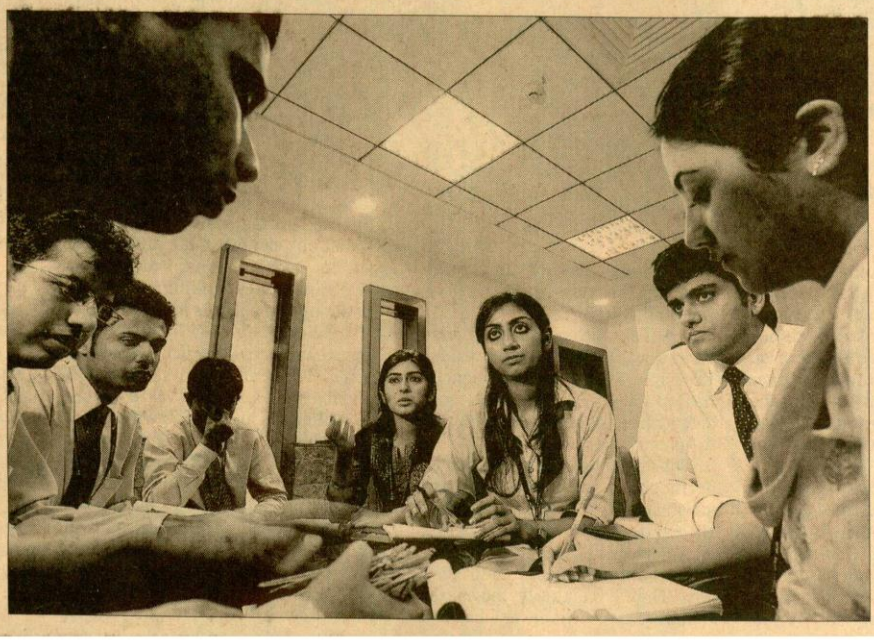
THE PROBLEM of employability of the youth is a burning issue which has caught the attention of the Prime Minister of our country who plans to support an aggressive apprenticeship initiative that would lend more power to the efforts of NSDC and other State government programmes. A lot of well researched data is available at our disposal to plan and implement scalable programmes to take advantage of the demographic dividend of the country. Industry associations and consulting companies have carried out extensive research about engineering education and the quality of output and have been indicating that corporates find 25-30% of the graduating students employable. This has left us to often wonder about the fate of the rest of the students and how do they cope with the demands of employability and the communities that they are part of. In this column, we will examine the various segments of students who finish their education, develop an understanding of their profiles and aspirations to be able to plan for their employability needs.

Based on the studies conducted with the engineering colleges, it has been observed that typically amongst the engineering students, approximately 25% of the students are those who are not successful in all the semesters and therefore by the time they reach the seventh semester when most campus placements begin, they are not considered for placement. These students on an average take two additional years to clear their backlogs. During this time, some of them manage to find jobs in small companies. Others complete their education and seek opportunities in areas not necessarily related to engineering education but in all sorts of unrelated areas starting with retail sales to becoming administrators and contact centre agents. These students require special attention and vocational training support while they are in the college as well as when they are outside the system so that even if they migrate to unrelated areas, they go with the right skills and ability to build successful careers.

Recruitment policy of most companies is to consider for selection only those candidates who have successfully cleared all semesters. Amongst the group of 30% students who receive offers, atleast 5% of them after accepting the offer, prefer to go abroad for higher studies. Colleges which they belong to help them in honing their communication and business skills and help them improve their employability quotient so that corporates view them as capable of being productive in their environment. Further development in their careers is partly addressed by the corporates and these individuals have the adequate exposure and opportunity to equip themselves with the cutting edge skills.

Some interesting facts emerge about the remaining 45% students. With the setting up of multiple engineering colleges in the length and breadth of the country there are not only seats available (around 15 lakh seats) for those who are interested to pursue engineering education but due to proximity of these colleges to their places of residence, government support for tuition fee for almost 40-50% of the students enrolled in the colleges and loan facility being available for others, lowering of minimum marks (as low as 45% in some cases) access to engineering education has become relatively easy. As a result a segment of families enrol their wards into engineering colleges not necessarily with the aim to find jobs after education but to provide them with the good education and exposure leading to improved social standing in their communities where many of these students are first time college goers. These families have access to reasonable income and pursue their own businesses or agriculture activities and prefer that their wards join them after their education to carry on their activities in their towns or villages.

It is estimated that atleast 20% of the candidates fall into this bracket in the colleges located in rural and semi rural areas. It is important to identify this group of students early in their academic cycle in the second or third semester and provide them with the knowhow and tools to build entrepreneurial businesses or be self employed or support them in modernising and scaling their family businesses with the requisite skills. The potential to expand their income base and create employment opportunities for others is huge with this segment alone if there is a careful thought given to grooming and coaching the candidates.



We are finally left with 25% of the engineering graduates who are possibly not found suitable for employment with the corporate sector during their campus recruitment process. Atleast 15% of them manage to find jobs on their own with other firms at almost 80% average salary within 6 months of leaving the campus or go in for higher education. Another 10% manage to find jobs with the government, banks, teaching and other businesses over a one year period. This is another segment which requires direction and help with the right training which would open the right doors for them in segments where there is shortage of skilled engineers.

The key take away from all this slicing and dicing is that it is important to look beyond the oft quoted percentages of lack of employability of engineering graduates and segment them carefully to arrive at cluster specific customised interventions that can lead to gainful rewards. In addition to this, the responsibility of designing and implementing systematic interventions should be led by the specialists within educational institutions who have the requisite training and background or else educational institutions should partner with specialist training organisations to deliver on this crucial agenda.

The writer is CEO, Global Talent Track, a corporate training solutions company

Hindustan Times ND 30/06/2014 P-4

face to face

MM ANSARI, UGC member

'UGC just followed Centre's diktat on four-year programme'

Aloke Tikku
atikku@hindustantimes.com

NEW DELHI: The University Grants Commission has been at the centre of the controversy around Delhi University four year undergraduate programme (FYUP). UGC member Professor MM Ansari tells HT why there was a need to be worried. Excerpts:

The FYUP has been finally rolled back. Was it such a bad idea?

DU had tried to modernise its undergraduate degree programme on the pattern of a few universities in India and abroad. It was launched quickly to address issues such as shortage of skilled persons, establish closer linkages with the job market and to integrate the Indian higher education systems with the global practices. I don't think it was a bad idea. But there were deficiencies pointed out which were ignored due to political and administrative support provided to DU by the HRD ministry and UGC.

So the decision to roll back too is more about politics than academics?

During Delhi elections, political parties made promises to scrap the FYUP. And the HRD ministry has delivered on this promise. The entire controversy has been fuelled by political consideration and interference of parties in power. And, the regulator, the UGC, has been used as a political pawn by different government regimes. This demonstrates how politicisation of university campus led to dropping the FYUP.

And the UGC played along with the HRD ministry?

It must be noted that UGC has acted at the behest of HRD ministry, which used its emergency powers to direct UGC under Section 20(1) of the UGC Act to ask DU to scrap FYUP. The UGC secretariat complied with MHRD diktat as a good post office does, without taking the full Commission in confidence. The legality of this action of UGC may be disputed.

This appears to raise questions of autonomy of institutions?

The UGC Act of 1956 is still operative, which empowers HRD ministry to issue directions to UGC. There are umpteen cases where this clause has been used for political reasons despite promises to re-structure the UGC. Until this happens, university as well as UGC autonomy would remain a mirage.

This controversy sets a dangerous precedent for 700 universities and 40,000 colleges, whose academic leaders may not muster courage, to carry out educational reforms, needed to improve the responsiveness of educational institutions to manpower requirements of the knowledge intensive economy and the society.

Times of India, ND 30/06/2014 P-2

Let current BTech batch continue, UGC tells DU

Varsity To Take Permissions From UGC, AICTE For Course

Akshaya Mukul | TNN

New Delhi: The University Grants Commission on Sunday told Delhi University that students enroled in BTech programmes in computer science, electronics, food technology, instrumentation electronics and polymer science can continue with the course.

However, this is a one-time gesture so that "no prejudice is caused to the interest of such students. Colleges with BTech programmes will not be able to give admission in these courses this year as the four-year undergraduate programme stands scrapped. This is the second time in recent years when DU will have a course with a short life. In 1997, bachelor in information science and bachelor in information technology was started but scrapped in 2001.

UGC's decision comes in the wake of protests from

PTI

BTech students who faced uncertainty after FYUP was scrapped on Friday. On Saturday, they protested outside HRD ministry and met officials. Students were assured their career will not be put under any threat.

However, UGC sources point out that the commission might have taken a considerate view though the state of BTech courses in DU colleges is pathetic. "BTech courses are being run since the past year without any clearance from the All India Council for Technical Education. Colleges do not have the required infrastructure to run engineering courses. Colleges were told that AICTE approval will be taken directly by the university administration. But it was never done," a senior official said.

He said private engineering colleges with similar state of infrastructure and without AICTE approval would have faced action. "These colleges have escaped scrutiny because they are affiliated to DU. Starting BTech courses without any entrance test is unfair on children who go to proper engineering institutes," a source said.

UGC has directed DU that colleges which admitted students last year in BTech should "obtain appropriate approval of the regulatory bodies like UGC and AICTE and ensure students admitted in these programmes are not put to any disadvantage".

Most students welcome order but some feel like guinea pigs

TIMES NEWS NETWORK

New Delhi: Most BTech students, who've been protesting for over a week, are pleased with University Grants Commission's recommendations to Delhi University. DU had converted the applied science courses from 'BSc' into 'BTech' ones under the four-year undergraduate programme (FYUP).

"The current batch is saved," says Shobhit Agarwal who's studying BTech in computer science at Hansraj College. He's especially happy that UGC has advised the university to get the approvals needed for the course.

Dhawal Kumar, studying the same subject at Shaheed Sukhdev College of Business Studies, is "satisfied with the decision". "I don't care what they do with the previous batch or the coming one. All I wanted was a decent degree so I can become eligible for GMAT/GRE and do my master's. If our course gets approved, that will only improve our prospects."

Shivam Jain, also a computer science student, at Maharaja Agrasen College, is happy but not entirely. While Agarwal knows it's "not feasible", Jain was hoping BTech would be "continued for the upcoming batches as well". "If we are the only batch, we'll become the guinea pigs. Nobody will give us a job," he argues.

SAFE FOR NOW

At the time of joining, he had been told by DU that the course was equivalent to an engineering degree. "I knew these courses weren't AICTE-approved but assumed that the approvals will be obtained in the next year. I made a blunder by taking admission in DU," he says.

While colleges have been instructed to obtain AICTE approval for this batch alone, that may turn out to be a challenge. As an All India Students' Association statement points out, an AICTE approval means upgrading labs, starting workshops on college premises. "I don't really know what needs to be done. I'll have to study the norms and procedures, see the modalities," says P Hemalatha Reddy, principal, Sri Venkateswara College, which runs a BTech course in electronics.

Hindustan Times ND 30/06/2014 P-4

UGC letter adds to chaos over B Tech

APPROVAL Colleges directed to get approvals by AICTE for the technical courses they were running

Mallica Joshi
mallica.joshi@hindustantmes.com

NEW DELHI: The University Grants Commission's (UGC) letter to Delhi University (DU) regarding BTech colleges has posed questions that no one seems to be sure of.

In relation to BTech courses, the UGC's letter states, "The colleges under DU which admitted students in academic year 2013-14 for these programmes may, whenever required, obtain appropriate approval of the regulatory bodies such as UGC and AICTE so as to ensure that the students admitted in these programmes are not put to any disadvantage."

The letter puts the onus of taking approvals on the colleges. Yet, it was not the colleges that turned these courses from BSc degrees to B-Tech degrees.

"We are under direct administrative control of the university. We have never in the past sought approval for any course from anybody other than the university. We will have to get more clarity.," said Sunil Sondhi, principal, Maharaja Agrasen Colege.

Others agree. "I don't understand what to make of the letter. Will colleges have to run around to get approvals for B-Tech courses? In case of DU, it is the central authority that takes care of all approvals since the same curriculum is taught in all colleges. Yet, the letter says that colleges will have to get approvals," said a college principal who runs B Tech computer science in his college.

The issue, however, does not end there. "When approval for a B Tech course is sought, there are a few minimum requirements that must be in place beforehand. The biggest of these is the infrastructure. Do the university colleges have enough well-equipped laboratories to get approval? Even if these labs are built, will they be put in place only for one batch? If approval has to be got, why can it not be for future batches as well," said a DU teacher who teaches B-Tech electronics. The university, it seems will have to iron out a lot of problems before remnants of FYUP are either completely erased or brought in with consensus and adequate approval.

MINT ND 30/06/2014 P-22

A VISIBLE HAND
NARAYAN RAMACHANDRAN

THE LURE OF A QUICK FIX

After years of dithering, there seems to be an air of breathless urgency about the actions of the government in Delhi. For a country exhausted by inaction, this has been widely welcomed. Prime Minister Narendra Modi announced a 10-point plan for good governance; the Union minister for urban development Venkaiah Naidu announced 100 smart cities; health minister Harsh Vardhan in his controversial vision document advocated holistic health facilities for all of India and human resources development minister Smriti Irani announced elite colleges in each state.

With such ambition and desire for speed, it was inevitable that the government will begin to look for shortcuts in implementing these programmes. The first of these became evident when Irani said that the technical institutes would be Indian Institutes of Technology (IIT's) and the Indian Institutes of Management (IIMs). On closer scrutiny, it appears that one of the main reasons the expansion of technical institutes will be in the form of IITs and IIMs is that they will be outside the bottle-necking jurisdiction of the University Grants Commission (UGC) and the All India Council for Technical Education (AICTE). This alternate route to get something done appeared to have been vindicated in short order when the UGC started a public row with the Delhi University. In announcing the IITs and IIMs, Irani revealed her preference for speed over the much tougher alternative of reforming the UGC/AICTE.

> When a parallel track to ensure priority and speed becomes the main track, then everything gets gummed up

Surprised by a monthly inflation number, a similar parallel track solution was announced last week, by the prime minister himself. Modi suggested that hoarders should be tried and convicted in fast-track courts. Now, Modi knows a thing or two about essential commodities. On behalf of several state chief ministers he presented a report in 2010 on mitigating food inflation to then prime minister Manmohan Singh. There were many sensible structural solutions in that report including reforming the Agricultural Produce Marketing Committees Act and setting up a coordination mechanism between the Union and state governments.

Frustrated by the speed and quality of public service delivery, Indians have always been fascinated by the potential of *tatkal* (instant) services. Then railway minister, Nitish Kumar, first introduced the *tatkal* railway ticket booking scheme in 2002. It was hugely popular because this parallel track idea was backed up by a revolutionary and robust Internet reservations platform that was capable of handling the demand. Since then the *tatkal* system has undergone many changes to discourage misuse but the demand and continued misuse have overwhelmed changes in supply. Of late, thousands of Indians requiring to travel at short notice, hover over their computers at 8.01am hoping to get lucky with their keystroke for making *tatkal* rail reservations. Similarly, *tatkal* passports have become the only way to get or renew passports in any reasonable timeframe. The normal process takes so long that a majority now use the *tatkal* process to merely get a passport.

When the parallel track, that is supposed to ensure priority, speed and reliability, becomes the main track then everything gets gummed up. Speedy justice has had a similar track record. As recommended by the 11th Finance Commission, 1,734 fast track courts made their debut in India in 2001. Their objective was to clear up the thousands of cases that the judiciary was buried under. Three Finance Commissions later, most of these fast track courts have been disbanded for want of money. Data is sketchy but while disposal rates have been high, conviction rates at these courts have not been demonstrably better than that of normal courts. It is not enough to merely set up new courts. India does not have enough judges to clear up backlogs. It does not have enough judges with specialization suitable to clearing up complex cases. Legal process technology is mired in the dark ages. And the police process and investigative rigour that is required to enhance conviction rates has simply not improved over the years. When process infrastructure and human capital are in short supply, it must mean that other cases have slowed down to accommodate the need for high profile fast tracks.

As the Modi government sets about achieving its objectives, the history of fast-track courts in particular, holds valuable lessons. Some political points can indeed be scored by setting up fast track courts. But much relative harm has also been done. When you prioritize a rape case or a hoarding case in a fast track court, you are inevitably deprioritizing a murder case or a terrorism case. Debatable speed, questionable justice.

Endowed with a luxury of a majority mandate and a full term, it would behove the government to look beyond the quick fix and tackle tough but real underlying issues. The history of quick fixes in India has proven to be neither "quick" nor a "fix" unless accompanied by robust infrastructure—people, process and systems – to deliver on the solution. Modi has shown that he is capable of thinking through solutions to complex issues (reliable 24/7 power for instance). For India's sake, he must resist the lure of a *tatkal* solution.

P.S. "*Festina lente*—make haste slowly" was Augustus Caesar's motto.

Narayan Ramachandran is chairman, InKlude Labs.

Comments are welcome at narayan@livemint.com. To read Narayan Ramachandran's previous columns, go to www.livemint.com/avisiblehand

Times of India, ND 30/06/2014
Education Times P-2

New centre

Times News Network

IIT Bombay recently launched a Centre of Excellence in Steel Technology (CoEST) which will focus on creation of high quality manpower for the steel industry and focused R&D in the sector.

The centre, sponsored by the ministry of steel, was inaugurated by G Mohan Kumar, secretary, ministry of steel, government of India.

Anil Kakodkar, chairman, Board of Governors, IIT Bombay, expressed his hope to see India as a leader in a broader arena of steel beyond just some niche steel used in nuclear energy where India is currently a leader.

CoEST's objectives and activities will include performing industry-relevant research and development on various aspects of steel technology; developing highly-skilled manpower for the steel industry; providing consultancy to the industry; organising training programmes for refreshing and updating knowledge of steel industry manpower; organising international conferences on steel technology and networking with other organisations involved in steel technology.

The centre will primarily concentrate on three core areas — process metallurgy and process modeling; thermo-mechanical processing with emphasis on microstructure-property correlations; and corrosion, coatings and surface engineering.

Times of India ND 30/06/2014
P-4

Speed of light slower than thought, says US scientist

Washington: A US scientist claims to have found evidence that suggests that the speed of light as described by Einstein's theory of general relativity is slower than has been thought. The theory suggests light travels at 299,792,458 metres/second in a vacuum.

The claim by physicist James Franson of the University of Maryland is based on observations made of the supernova SN 1987A, which exploded in 1987. The arrival of the photons was later than expected by 4.7 hours. Scientists at the time had said that this may be because the photons were from another source.

Franson has proposed that this may actually be because light slows down as it travels due to a property of photons known as vacuum polarization — where a photon splits into a positron and an electron for a very short time before recombining back into a photon. That should create a gravitational differential, Franson noted, between the pair of particles, which would have a tiny energy impact when they recombine — enough to cause a slight bit of a slowdown during travel.

This would have occurred many times with many photons on a journey of 168,000 light years, the distance between us and SN 1987A, and could easily add up to the 4.7 hour delay, Franson said. PTI

Times of India ND 30/06/2014 P-11

Lack of anatomy training haunts medical grads

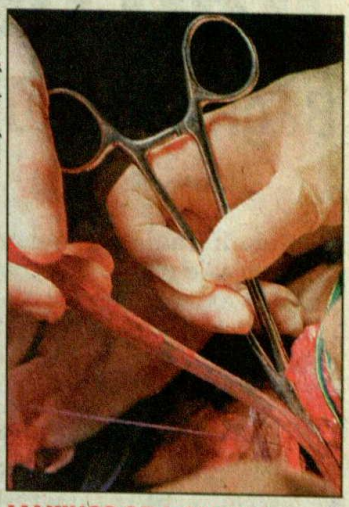
Charlie Cooper & Lucy Anna Gray

Medical students are leaving university with a "worrying" lack of anatomical knowledge, top surgeons have warned, with many never having dissected a body and some qualifying as doctors without seeing a cadaver.

Experienced surgeons also said it was "alarming" that at least two UK medical schools, Plymouth and Exeter, now have no cadaver-based teaching whatsoever in their core curriculums. There are also concerns that a lack of confidence in anatomy is putting medical graduates off applying for post-graduate surgical training. Some warn that the problem could soon result in a UK-wide shortage of surgeons.

The Royal College of Surgeons (RCS) has drawn attention to two worrying trends. For the past two years, Britain has failed to fill all of its training places for new surgeons, not for want of applicants, but because many candidates did not meet minimum standards. Secondly, a survey of 1,000 medical graduates from 13 universities, carried out by the RCS earlier this year, found that more than half cited "poor anatomy teaching at medical school" as a reason for not pursuing a career in surgery.

Shelley D. Spray/Corbis



MAKINGS OF A CRISIS?

Vishy Mahadevan, a professor of anatomy at the RCS, said he was "very concerned" by the status of anatomy teaching in the university curriculum. "Whereas anatomy was once regarded as essential to the study of medicine, the time allocated to its study in the present day is substantially less than in the past," he said. "We are seeing an increasing number of doctors in their early surgical training who do not feel confident in their clinical abilities, and they attribute this to an inadequate understanding of anatomy." THE INDEPENDENT

Mail Today ND 30/06/2014 P-11

REUTERS

The saucer-shaped device at the US Navy's base in Hawaii.

Nasa test-fires new vehicle for Mars missions

NASA has successfully launched a saucer-shaped vehicle high into Earth's atmosphere to test future Mars landing technologies that could help humans set up an outpost on the Red Planet.

The space agency launched its Low-Density Supersonic Decelerator (LDSD) test vehicle on Saturday from the US Navy's Pacific Missile Range Facility on the island of Kauai in Hawaii.

The test was designed to help NASA engineers get their first good look at how equipment designed to slow the descent of heavy spacecraft through the Martian atmosphere performs at high speeds in Mars-like conditions.

Poor weather conditions pushed the flight, originally scheduled for early June, back multiple times and causing a delay of nearly a month, SPACE.com reported. The whole process ended with the vehicle's splashdown in the Pacific 30 minutes after it was released from the balloon.

Although the first part of the test went well, the vehicle's huge parachute failed to deploy properly. But, the LDSD engineers likely won't view that as a disaster. "From what we know,

Poor weather delayed the flight by a month

the test was successful," Shannon Ridinger, a NASA spokeswoman said.

The LDSD project is developing and testing a 30.5 metre-wide parachute and two saucer-like devices called Supersonic Inflatable Aerodynamic Decelerators (SIADs).

One SIAD is 6 metres wide, while the other measures 8 metres across. Both devices are built to fit around the rim of atmospheric entry vehicles like the one that carried NASA's Mars rover Curiosity in August 2012, slowing them down by increasing their drag.

A SNEAK PEEK

- Test was designed to help Nasa take a look at how high-speed equipment performs in Mars
- The device weighs 3,175 kilograms
- The 20-foot device was carried by a 30.5 metre-wide parachute

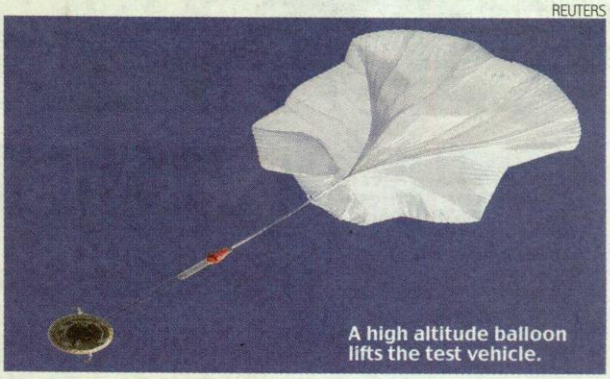
The test called for a huge balloon to carry the 3,175 kilogram test vehicle, which was equipped with the big chute and the 20-foot SIAD, up to an altitude of 37 kilometres.

The balloon would drop the craft, whose on-board rocket motor would kick on and boost it to Mach 4 (four times the speed of sound) and 55 km up.

Researchers said, the thin air at such heights is a good analog for the Martian atmosphere, which is just 1 per cent as dense as that of Earth at sea level.

If the test had gone perfectly, the SIAD would have inflated and the chute deployed, taking the craft down to a soft splashdown. *PTI*

REUTERS



A high altitude balloon lifts the test vehicle.

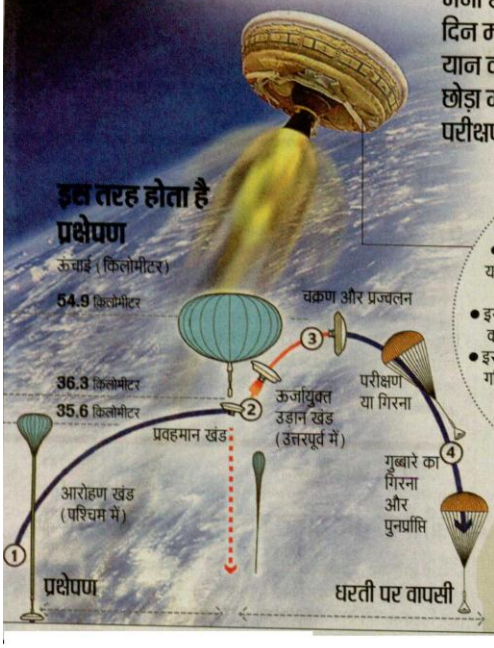
Hindustan ND 30/06/2014 P-15

अंतरिक्ष यानों के उतरने की नई तकनीक का परीक्षण

मंगल पर ले जाएगी नासा की उड़न तश्तरी

अमेरिकी अंतरिक्ष एजेंसी नासा ने सफलतापूर्वक पृथ्वी के वायुमंडल में एक परीक्षण यान भेजा है। इससे उस तकनीक का परीक्षण किए जाने की संभावना है जिसकी मदद से एक दिन मंगल ग्रह पर उतरा जा सकता है। लो डेंसिटी सुपरसोनिक डिसीलेरेटर नामक इस यान को शनिवार को हवाई द्वीप स्थित अमेरिकी नौसेना के प्रशांत मिसाइल प्रक्षेपण केंद्र से छोड़ा गया। इससे पहले खराब मौसम के कारण कई बार प्रक्षेपण को टालना पड़ा था। पहले परीक्षण की तारीख जून की शुरुआत में ही रखी गई थी।

इस तरह होता है प्रक्षेपण



लोडेंसिटी सुपरसोनिक डिसीलेरेटर

- उड़न तश्तरी जैसी आकृति है इस परीक्षण यान की जिससे जोड़ा गया है हीलियम से भरा गुब्बारा
- इसका इस्तेमाल अंतरिक्ष में भेजे जाने वाले रॉकेट को महासागर में उतारने के लिए किया जाएगा
- इसमें परीक्षण के लिए दो नए उपकरण लगे हैं, जो गति नियंत्रित करने व लैंडिंग में मदद से जुड़े हैं
- यान में लगा गुब्बारेनुमा पैराशूट का आकार किसी फुटबॉल स्टेडियम जितना लंबा-चौड़ा था

परीक्षण आंशिक रूप से रहा सफल

- यान की गति को नियंत्रित करने के लिए लगाए गए पैराशूट ने परीक्षण के दौरान सही तरीके से काम किया
- लेकिन इसे महासागर में उतारने के लिए लगाया गया पैराशूट समुचित समय पर अच्छी तरह खुल नही पाया
- इसलिए परीक्षण अभी आंशिक तौर पर सफल रहा, पर इससे भावी परीक्षणों के लिए बेहतर सुराग मिले
- नई तकनीक के परीक्षण के लिए जो ऊंचाई तय की गई है वह मंगल के ऊपरी वायुमंडल के समान है

परीक्षण की इस खामी से हमें काफी कुछ सीखने को मिला है। इससे अगले परीक्षण में ज्यादा बेहतर तकनीक के इस्तेमाल की वजह मिली है और यह परीक्षण के पूरी तरह से सफल होने से भी ज्यादा अहम है।
डैन कोटा, इंजीनियर, नासा (कैलिफोर्निया)

30 मिनट में पूरी हो गई परीक्षण की पूरी प्रक्रिया गुब्बारे से यान से छोड़े जाने के बाद

30.5 मीटर चौड़े पैराशूट का विकास व परीक्षण किया जा रहा है इस योजना के तहत

36,576 मीटर की तय ऊंचाई पर पहुंच गया था यान प्रक्षेपण के बाद, पर इसकी लैंडिंग सटीक नहीं रही

चार दशक से कोशिश जारी

1970 के दशक से ही मंगल ग्रह पर उतरने के लिए पैराशूट प्रणाली का उपयोग करने की दिशा में प्रयासरत है नासा

02 तश्तरीनुमा नए उपकरण लगे हैं यान में, जिनका नाम सुपरसोनिक इन्फ्लेटेबल एयरोडायनामिक डिसीलेरेटर है

06 मीटर चौड़ा है एक सुपरसोनिक इन्फ्लेटेबल एयरोडायनामिक डिसीलेरेटर जबकि दूसरे की चौड़ाई है आठ मीटर

स्रोत : एजेंसियां