Business Standard ND 7/12/2014
P-11

Address IITs' faculty crunch

Quality of education is key

While India has a formidable higher education system, its quality has not kept pace with growth. Standards of higher education, in fact, leave a lot to be desired. However, in the bleak scenario that defines higher education, the IITs and the IIMs have stood out like beacons and undeniably found their place as the premier institutions of the country and their alumni have often done India proud. Thus it is disheartening to note that an acute faculty crunch continues to ail the centrally funded technical institutions. Apart from the 16 IITs, four Indian Institutes of Information Technology (IIITs) and 30 NITs face a shortage of teachers.

The paucity of teaching staff affects the student-teacher ratio adversely and defeats the very purpose of providing quality technical education. Not only does it limit the choice of subjects that students can undertake; it also impedes research, an area in which India's track record is rather dismal. Now as the new government is in an institution-building mood and is planning to set up more IITs and IIMs, it has to be remembered that infrastructure alone does not hold the key. The critical resource undeniably is quality teaching staff whose numbers must be adequate too. By 2020 India needs 1,000 universities and 50,000 colleges for educating 500 million people.

The Tribune, December 6

Hindustan ND 7/12/2014   P-1

आईआईटी प्रवेश परीक्षा में बोर्ड अंक सीमा घटाने की तैयारी

नई दिल्ली | मदन जैड़ा

आईआईटी में प्रवेश के इच्छुक छात्रों को मानव संसाधन विकास मंत्रालय कुछ और रियायत आने वाले दिनों में दे सकता है। आईआईटी में दाखिले के लिए बोर्ड परीक्षा में 75% अंकों की अनिवार्यता के प्रावधान को सरकार और सरल बनाने की तैयारी में है।

आईआईटी काउंसिल की आगामी बैठकों में इसके लिए प्रस्ताव आ सकता है। यदि ऐसा होता है तो उत्तर प्रदेश, बिहार, उत्तराखंड, झारखंड के छात्रों को इसका ज्यादा फायदा होगा। वैसे सभी बोर्ड के छात्रों के लिए नए नियमों से आईआईटी में जाने की संभावनाएं बढ़ेंगी।

मंत्रालय के एक वरिष्ठ अधिकारी के अनुसार मानव संसाधन विकास मंत्री स्मृति ईरानी ने शिक्षा को छात्रों के अनुकूल बनाने को कहा है। इसलिए यह दृष्टिकोण अपनाया जा रहा है कि जब कोई छात्र जेईई एडवांस जैसे कठिन टेस्ट को पास कर सकता है तो फिर बोर्ड परीक्षा में 75 फीसदी अंक लाने या बोर्ड के टॉप 20 पर्सेन्टाइल में स्थान पाने की अनिवार्यता क्यों हो? यूपीए सरकार में आईआईटी में प्रवेश परीक्षा के लिए एडवांस टेस्ट पास करने के अलावा बोर्ड के टॉप 20 पर्सेन्टाइल में छात्र के लिए स्थान पाना जरूरी था।

पिछले तीन सालों में करीब साढ़े ढाई सौ छात्र इसलिए आईआईटी में दाखिले से वंचित रह गए। क्योंकि वे बोर्ड के टॉप 20 पर्सेन्टाइल में स्थान नहीं पा सके। जबकि आईआईटी एंट्रेस टेस्ट की मेरिट से वे आईआईटी में दाखिले के योग्य घोषित हो चुके थे।

गौरतलब है कि 22 सितंबर को स्मृति ईरानी की अध्यक्षता में हुई बैठक में यह फैसला लिया गया था कि टॉप 20 पर्सेन्टाइल के अलावा छात्रों को 75% बोर्ड अंक लाने का विकल्प मिले।

आखिर क्यों पड़ रही है जरूरत?

- सीबीएसई जैसे बोर्ड में 85-90% अंक पाने वाले छात्र भी टॉप 20 पर्सेन्टाइल में जगह नहीं हासिल कर पाते हैं। इसलिए सरकार को बड़े पैमाने पर सुझाव मिले हैं कि 75% की सीमा को घटाकर 60 या इससे भी कम किया जाए
- पर्सेन्टाइल सिस्टम से पहले बोर्ड अंकों की सीमा 60% ही थी। अब फिर मंत्रालय आने वाले दिनों में इसमें कुछ और राहत देने पर विचार कर रहा है। हालांकि बोर्ड की अंक सीमा कितनी तय होगी इस पर फैसला होना बाकी है

परसेंटाइल बाधा दूर होगी

आइआइटी दाखिले के नियम किए जाएंगे आसान, दूर होगी अंकों की होड़

मुकेश केजरीवाल, नई दिल्ली

आइआइटी में दाखिले के लिए जल्दी ही नियम और आसान किए जा सकते हैं। इसके लिए 12वीं की परीक्षा में संबंधित बोर्ड से न्यूनतम अंकों की अनिवार्यता को उदार किए जाने की तैयारी है। अभी आइआइटी की प्रवेश परीक्षा पास करने के बावजूद इसमें वही छात्र दाखिला पा सकते हैं, जिन्हें अपने बोर्ड में शीर्ष 20 परसेंटाइल में जगह मिली हो या फिर 75 फीसद अंक आएं। जबकि कई राज्यों के बोर्ड की कठिन परीक्षा प्रणाली के चलते बहुत से छात्र प्रतिभाशाली होने के बावजूद अंक तालिका में पिछड़ जाते हैं।

केंद्रीय मानव संसाधन विकास मंत्रालय के एक वरिष्ठ सूत्र ने शनिवार को बताया कि इस संबंध में मंत्रालय को मिली शिकायतों के बाद नए सिरे से इस पर विचार किया जा रहा है। उन्होंने माना कि न्यूनतम अंकों की अनिवार्यता के मौजूदा नियमों को उदार करने

20 परसेंटाइल या 75% अंक हैं अभी अनिवार्य योग्यता

यूपी, बिहार जैसे राज्यों के बोर्ड के छात्रों को खास तौर पर लाभ

आइआइटी प्रवेश के लिए दो स्तर पर परीक्षा लेता है। मगर मुख्य प्रवेश परीक्षा में उत्तीर्ण होने के बावजूद कुछ छात्र दाखिला नहीं ले पाते। पहले इसके लिए सिर्फ 60 फीसद न्यूनतम अंकों की अर्हता थी। मगर बाद में प्रवेश परीक्षा को दो स्तरीय बना कर उनका अपने बोर्ड की परीक्षा में शीर्ष 20 परसेंटाइल के छात्रों में शामिल होना भी जरूरी कर दिया गया। सितंबर में इसमें थोड़ी ढील देते हुए तय किया गया कि अगर छात्र को अपने बोर्ड में 75 फीसद अंक हासिल हुए हों तो भी उसे योग्य माना जाएगा। नए नियम खास तौर पर बिहार, उत्तर प्रदेश जैसे राज्यों के बोर्ड के तहत परीक्षा देने वाले छात्रों की मुश्किलें आसान करेंगे, क्योंकि इन बोर्ड में अक्सर छात्रों को बहुत कम अंक आते हैं।

के लिए जल्द ही मंत्रालय की ओर से प्रस्ताव को अंतिम रूप दिया जा सकता है।

आइआइटी की अपनी परीक्षा पहले ही कड़ी

मानव संसाधन विकास मंत्रालय के सूत्र सितंबर के महीने में इस संबंध में किए गए बदलाव को नाकाफी बताते हुए कहते है,

'जब आइआइटी प्रवेश परीक्षा में छात्रों की इतनी कड़ी परीक्षा हो रही है तो फिर बोर्डों के नंबर पर इतनी निर्भरता क्यों रहे?' मंत्रालय इस बारे में कोई एलान करने से पहले आइआइटी काउंसिल की बैठक बुला कर विभिन्न आइआइटी के साथ विचार कर लेना चाहता है।

Hari Bhumi ND 7/12/2014 P-8

आईआईटी: बोर्ड परीक्षा के अंकों में छूट देगी सरकार!

एजेंसी. नई दिल्ली

आईआईटी में प्रवेश के इच्छुक छात्रों को मानव संसाधन विकास मंत्रालय कुछ और रियायत आने वाले दिनों में दे सकता है। आईआईटी में एडमिशन के लिए बोर्ड परीक्षा में 75 फीसदी अंकों की अनिवार्यता के प्रावधान को सरकार और सरल बनाने की तैयारी में है। आईआईटी काउंसिल की आगामी बैठकों में इसके लिए प्रस्ताव आ सकता है। यदि ऐसा होता है तो उत्तर प्रदेश, बिहार, उत्तराखंड, झारखंड के छात्रों को इसका ज्यादा फायदा होगा। वैसे सभी बोर्ड के छात्रों के लिए नए नियमों से आईआईटी में जाने की संभावनाएं बढ़ेंगी। मंत्रालय के एक वरिष्ठ अधिकारी के अनुसार मानव संसाधन विकास मंत्री स्मृति ईरानी ने शिक्षा को छात्रों के अनुकूल बनाने को कहा है। जब कोई छात्र

■ 75% अंकों की अनिवार्यता का प्रावधान होगा सरल

जेईई एडवांस जैसे कठिन टेस्ट को पास कर सकता है तो फिर बोर्ड परीक्षा में 75 फीसदी अंक लाने या बोर्ड के टॉप 20 पर्सेन्टाइल में स्थान पाने की अनिवार्यता क्यों हो? यूपीए सरकार में आईआईटी में एंट्रेस के लिए एडवांस टेस्ट पास करने के अलावा बोर्ड के टॉप 20 पर्सेन्टाइल में छात्र के लिए स्थान पाना जरूरी था। पिछले तीन सालों में करीब साढ़े ढाई सौ छात्र इसलिए आईआईटी में एडमिशन से वंचित रह गए, क्योंकि वह बोर्ड के टॉप 20 पर्सेन्टाइल में स्थान नहीं पा सके। जबकि आईआईटी एंट्रेस टेस्ट की मेरिट से वे आईआईटी में एडमिशन के योग्य घोषित हो चुके थे।

Navbharat Times ND 07.12.14 p-6

पढ़ाई की आजादी

यह एक नया प्रयोग होगा। जी हां, अगले साल से आईआईटी स्टूडेंट्स अपने इंस्टिट्यूट के अलावा दूसरे आईआईटी में भी पढ़ाई कर सकेंगे। स्टूडेंट्स एक-दो सेमेस्टर के लिए अपने मनपसंद आईआईटी में जा सकेंगे। इस दौरान स्टूडेंट्स जो क्रेडिट पाएंगे, उसे उनके मूल आईआईटी में भेज दिया जाएगा।

Dainik Jagran ND 7/12/2014 P-12

आइआइटी मद्रास में क्रिस की चेयर

नई दिल्ली : इन्फोसिस के सह संस्थापक रहे क्रिस गोपालकृष्णन ने आइआइटी मद्रास में कंप्यूटेशनल ब्रेन रिसर्च के लिए तीन चेयर स्थापित की है। क्रिस आइआइटी मद्रास के पूर्व छात्र रहे हैं। प्रत्येक चेयर के लिए क्रिस दस करोड़ रुपये की राशि देंगे। पहली 'प्रोफेसर महाबला डिस्टिंग्विज्ड चेयर इन कंप्यूटेशनल ब्रेन रिसर्च' की शुरुआत पिछले दिनों हुई।

ब्रिटिश पत्रिका ने जारी की 100 विश्वविद्यालयों की सूची

भारतीय विज्ञान संस्थान देश में पहले नंबर पर

चीन का पीकिंग विवि सूची में पहले नंबर पर

लंदन (प्रे)। बंगलुरु स्थित भारतीय विज्ञान संस्थान (आईआईएस) को भारतीय विश्वविद्यालयों में पहला स्थान मिला है। ब्रिटेन की प्रतिष्ठित पत्रिका टाइम्स हायर एजुकेशन (टीएचई) की ओर से जारी 2015 की सौ श्रेष्ठ विश्वविद्यालयों की सूची में आईआईएस 25वें क्रम पर है। चीन का पीकिंग विश्वविद्यालय पहले नंबर पर है।

यह सूची ब्रिक्स देशों के अलावा दूसरी अन्य उभरती अर्थव्यवस्थाओं के प्रमुख संस्थानों को लेकर बनाई गई है। सूची के अनुसार प्रमुख 40 विश्वविद्यालयों में भारत के चार विश्वविद्यालय हैं। इसके अतिरिक्त सात और विश्वविद्यालय प्रमुख 100 विश्वविद्यालयों का हिस्सा हैं। रैंकिंग के संपादक फिल बैटी ने कहा कि भारत के लिए यह अच्छी बात है कि प्रमुख 100 में उसके विश्वविद्यालयों को जगह मिली है। हालांकि उन्होंने यह भी कहा कि भारत के सामने उच्च शिक्षा में कई बड़ी चुनौतियां हैं। पूरी व्यवस्था में सुधार को राष्ट्रीय प्राथमिकता बनाने की जरूरत है।

टॉप पांच संस्थान

पीकिंग विश्वविद्यालय, चीन

सिंगुआ विश्वविद्यालय, चीन

मिडिल ईस्ट टेकनिकल विश्वविद्यालय, तुर्की

यूनिवर्सिटी ऑफ केपटाउन, दक्षिण अफ्रीका

एमवी लोमोनोसोव मॉस्को स्टेट यूनिवर्सिटी, रूस

अव्वल भारतीय शिक्षण संस्थान

सूची में आईआईएस 25वें, आईआईटी मुंबई 37वें, आईआईटी रुड़की 38वें, पंजाब विश्वविद्यालय 39वें, आईआईटी खड़गपुर 43वें, आईआईटी मद्रास 44वें, आईआईटी दिल्ली 56वें स्थान पर हैं। जवाहरलाल नेहरू विश्वविद्यालय नई दिल्ली 71वें, आईआईटी कानपुर 74वें, अलीगढ़ मुस्लिम विश्वविद्यालय 78वें और आईआईटी गुवाहाटी 98वें स्थान पर हैं।

शोध को प्रोत्साहन की जरूरत

बैटी के अनुसार अग्रणी विश्वविद्यालयों को प्रतिस्पर्धी बने रहने और वेतन देने के लिए अतिरिक्त पैसों की जरूरत है। इनमें ढांचागत सुधारों को निखारने और अध्यापन के साथ-साथ शोध कार्यों पर निवेश के प्रोत्साहन की आवश्यकता है।

Universities in BRICS, emerging economies: IISc is top ranked Indian varsity

London, Dec 6:

http://www.thehindubusinessline.com/industry-and-economy/education/iisc-is-no-1-indian-university-in-listing-of-institutions-in-brics-emerging-economies/article6667737.ece

The Indian Institute of Science (IISc) has emerged as India's new No 1 in the latest rankings for universities from BRICS and other emerging economies.

The Times Higher Education (THE) Rankings 2015 has placed Bangalore-based IISc at No 25 in the overall 100, topped by China's Peking University.

According to the latest rankings, India has four varsities in the top 40 — IISc, IIT Bombay (37), IIT Roorkee (38) and Chandigarh's Panjab University (39) — and seven more in the top 100.

"There is some good news for India as it has universities in the top 100, which is a good sign and it also has entirely new entrants arriving in the higher echelons of the table," said Phil Baty, editor of the Times Higher Education Rankings.

Baty, however, said there are "some major challenges for India's higher education system and there is clearly a national priority to improve quality across the system."

"These leading universities need special extra levels of funding to stay competitive and pay competitive salaries. They also need improvements to infrastructure and there is a need to invest more in research as well as teaching," he added.

The other seven universities that complete India's tally of 11 institutions in the 2015 list — up from 10 last year — are: IITs Kharagpur (43), Madras (44), and Delhi (56), Jawaharlal Nehru University (71), IIT Kanpur (74), Aligarh Muslim University (78) and IIT Guwahati (98).

Some 22 countries classified as emerging economies by FTSE have been analysed for the rankings, including Brazil, Russia, India, China, South Africa (BRICS).

China has dramatically strengthened its position as the number one nation of the emerging economies, matching its economic dominance with rapidly improving universities.

"The big story this year is that China dominate these tables so powerfully and has increased its dominance yet further," said Baty.

"India for example is some distance behind China and this should be a concern for India's future economic strength and its global competitiveness," he said.

The new annual tables are based on a comprehensive range of 13 separate, rigorous performance indicators used to create the definitive THE World University Rankings, covering all aspects of the modern university's core missions (teaching, research, knowledge transfer and international outlook).

The indicators have been specially recalibrated to better reflect the character and development priorities of universities in emerging economies.

The top five after Perking University is completed by China's Tsinghua University, Turkey's Middle East Technical University, University of Cape Town and MV Lomonosov Moscow State University, respectively.

Hindu ND 07.12.14 P-12

Good for the economy, bad for the environment?

Vidya Venkat

Whenever news about a fall in oil prices hits the headline, the first to cheer are car users. "I can save up to Rs. 2,700 every month now. That means I can put this money to better use elsewhere," a journalist-friend recently said with a sigh of relief.

Despite more pocket-friendly modes of transport available, my friend prefers to use her car to travel from her house in suburban Chennai to our workplace, which is a good 26 km away. Nothing can beat the comfort of hopping into a car right outside your doorstep compared with walking a good 10 minutes to reach the nearest bus stop or trekking up two flights of stairs at the local MRTS station (as the lifts are mostly dysfunctional) to get to work, is her argument for not patronising public transport.

But given India's climate change concerns — it is the third largest emitter of greenhouse gases — and the rising levels of pollution in our cities, can we afford to remain oblivious to the environmental costs of neglecting public transport?

"You can no longer depend on the economic argument alone when you discuss something like transportation. Private vehicle usage globally contributes to huge equity issues," Sujatha Byravan, adviser, Centre for Study of Science Technology and Policy, Bangalore, said.

Citing a World Development Report brought out by the World Bank, she said switching from SUVs to fuel-efficient passenger cars in the U.S. alone would nearly offset the emissions generated in providing electricity to 1.6 billion more people. "What that means is switching over to less fuel-guzzling modes of transportation can greatly reset the global imbalance in resource consumption."

For Chennai-based wildlife conservationist Shekar Dattatri, the news of oil prices crashing the world over gave a sinking feeling, as it would inevitably lead to more profligate use of motorised vehicles. "Cities like Chennai desperately need a much better public transport system," he said. Though many comfortable new buses have been introduced in the city, Mr. Dattatri feels that Chennai still has a long way to go. "Even if one wants to take a bus or a local train, there is no proper feeder connectivity to make the experience seamless. The minibuses launched by the Tamil Nadu government for connecting inner roads to main roads is a step in the right direction, but this service needs to be expanded," he said. He recalled how the Mayor of Bogota, Enrique Peñalosa, revolutionised public transport in his once-congested city to the point where even affluent car owners are happy to take buses, dramatically decongesting the roads and improving everyone's quality of life. "I'm still waiting for that to happen here," he said.

"The government should realise that oil prices are not going to go down indefinitely," Sudhir Chella Rajan, Professor at the Indian Institute of Technology (IIT), Chennai, said. "From a sustainability and reliability point of view, policy measures have to be made to encourage the use of public transport. Whatever benefits the current low prices of fuel provide must be actively invested back in improving amenities in local bus depots and railway stations and this must be done at the level of the city by the local government."

Geetam Tiwari, Professor, IIT, Delhi, and expert in urban transport and traffic planning, said, "From a planner's perspective, in urban areas, land is a scarce resource. Therefore, you cannot encourage unlimited demand for transport corridors. In a city like Delhi, you cannot devote more than 20 per cent of the area for travel. Therefore, whatever land area we have for travel must be used to accommodate more people rather than more vehicles and this can only be done by creating comfortable public transport."

Referring to the Bus Rapid Transit System (BRTS) in Delhi, a dedicated six-km corridor which was conceptualised using her research in the area of socially beneficial transportation, she said there was an elite bias towards the project as it did not benefit car users.

"The corridor has helped decongest the roads. However, the concept of an exclusive bus-only lane has not been well-enforced in Delhi by the traffic police as they allow cars to enter the lanes," she said. She pointed to the 2012 court judgment delivered in favour of the BRTS to argue why exclusive corridors for public transport ought to be encouraged.

"In Delhi, only 15 per cent of trips are by cars," she said, which shows how it is those using public transport that constitute the majority. "Nevertheless, car users form a vocal minority whose concerns dominate the press as well," she said. Addressing the element of aspiration often used to justify switching from public transport to cars, she said a day would come when private vehicle usage would be rendered unaffordable as we did not have enough space on the roads to expand any further.

And we do not even know how long the oil price drop euphoria is going to last...

Times of India ND 7/12/2014
P-1

Bizkids grab IITs' offer of deferred placements

Yogita.Rao@timesgroup.com .

Mumbai: The likes of Facebook and Oracle have been rolling out crore-plus offers at IITs, but not everyone's biting. Mechanical engineering student Vaibhav Antil, for instance, has caught the start-up bug and is keener to develop his mobile app-based idea around music than work for someone else.

▶**Premier IITs facing 37% faculty shortage, P 7**

Many IITs now have a fall-back option for students like him. To encourage them, IIT-Bombay has allowed Antil to be part of a deferred placement programme (DPP), which will allow him to return to campus for interviews in the next two years if his idea doesn't work out.

Engineering physics student Anurag Meena, who's developing a non-invasive drug delivery and diagnosis product, is also taking the DPP. Last year, only one student at IIT-B opted for the option; this year, 12 have, said placement manager Mohak Mehta.

IIT-Madras student wants to try luck in civils

IIT-Kanpur is offering the opportunity for the first time and six students have already opted for it. IIT-Madras is extending it to even students who wish to do a PhD, said officials.

The prototype of Meena's project with Professor Rohit Srivastava is being funded by the Tata Centre for Design at IIT-B. Of the 12 students, five are working on various projects for the Centre for Technology for Alternatives for Rural Areas (C-TARA) at IIT-B. Sandhya Seetharaman is working with C-TARA on a project that would require her to evaluate environmental safeguards in district rural roads plans under the Pradhan Mantri Gram Sadak Yojna.

"We tried spreading awareness on campus and sent regular mails to students. We wanted to brand it as a positive 'benefit' being 'awarded' to credible students. Once applications came in, we interviewed the students. Not everyone who applies gets an opportunity," said Mehta of IIT-B. Amruthkumar Hegde, a mechanical engineering student from IIT-Madras, and his friend Krishna Chaitanya, wanted to try their luck once with the civil services exam before appearing for their placement interviews. "I would like to see if I stand a chance in the all-India test. After a year, the institute will take a call on extension," he said.

Hindustan ND 7/12/2014
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ऑनलाइन कोर्स के लिए 20 हजार घंटे का ई-कंटेंट

नई दिल्ली | विशेष संवाददाता

मानव संसाधन मंत्रालय की वेबसाइट के जरिये ई-लर्निंग को बढ़ावा देने की योजना शुरू की गई है। मंत्रालय की वेबसाइट पर 20 हजार हजार घंटों के ई-लर्निंग कोर्स उपलब्ध करा दिए गए हैं।

मंत्रालय की योजना इस ई-कंटेंट के जरिये करीब दो सौ सर्टिफिकेट कोर्स शुरू करने की है। उसने हाल में 11 नए कोर्स इसमें शामिल किए हैं जो विज्ञान से जुड़े विषयों के हैं। मंत्रालय के एक उच्च अधिकारी के अनुसार, ई-लर्निंग को बढ़ावा देने का मकसद यह है कि कोई भी

लाभ

- मंत्रालय अपनी वेबसाइट के जरिये ई-लर्निंग को देना चाहता है बढ़ावा
- फोटोग्राफी, रॉकेट टेक्नोलॉजी जैसे दो सौ कोर्स शुरू होंगे

व्यक्ति अपनी जरूरत के हिसाब से इन कोर्स का फायदा उठा सके। ये कोर्स फोटोग्राफी से लेकर रॉकेट टेक्नोलॉजी तक से जुड़े हुए हैं। ये आईआईटी, आईआईएम से लेकर देश-दुनिया के जाने-माने संस्थानों के प्रोफेसरों के द्वारा तैयार किए गए हैं।

Times of India ND 7/12/2014   P-13

4.5cr waiting for govt jobs across India

TN Tops List Of Applicants At Employment Exchanges

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Chennai: R Vadivelu, a qualified technician in Theni district of Tamil Nadu, got a government job 30 years after he registered with an employment exchange. By the time he got the appointment letter, he was 58 years old and he worked for only 10 months before retiring.

Across India there are many like him, waiting patiently for a government job after registering with employment exchanges. According to the data presented in Parliament on Thursday, there are 4.47crore people registered with employment exchanges in the country. Despite being an industrialized state, Tamil Nadu tops states in the number of people waiting for government jobs. The state has 77 lakh people who have registered their names with employment exchanges. West Bengal comes second with 70.68 lakh people, followed by Uttar Pradesh with 60.70 lakh.

Vadivelu registered in an employment exchange in Madurai in 1987 and got an appointment letter in the middle of 2012. "I joined as a fitter in a government workshop in Theni and worked for 10 months and retired in 2013. Though I represented my case to several depart-ments and even to the assembly, I did not get any relief," said Vadivelu. He is not eligible for pension and hence the basic objective of landing a government job — financial security in old age — has been defeated.

"Whether the state is industrialized or not, people still clamour for a government job because of the security it offers. A person after entering government service need not fear about losing the employment and there is also financial security after retirement in the form of pension," said Jawaharlal Nehru University economist Prof Jayati Ghosh. Though there are many industries in Tamil Nadu, including those that are labour-intensive, not many jobs are created to absorb the labour force with basic education and low skills, she said.

Some states like Tamil Nadu have many vacancies in government departments and can also create more jobs. "The job structure currently in practice in government departments was designed in 1947. Since then the population and government functions have increased manifold but successive governments have not taken steps to change the structure and give opportunities to people willing to join government service," said Tamil Nadu Government Employees Association general secretary R Balasubramanian.

Most of those who have registered in employment exchanges have either finished their higher secondary or hold a degree. There are a few doctors and engineers too. Minister of state for labour and employment Bandaru Dattatreya, in a reply to a question in the Rajya Sabha, recently said: "The government has taken steps to enhance employability and employment in the country by promoting labour-intensive industries like construction, real estate, transport and tourism and establishing micro, small and medium enterprises."

IN THE QUEUE   (Nos. in lakh)

The number of people registered with employment exchanges in TN is way higher than that in other states

State	Registration
Tamil Nadu	77
West Bengal	70
Uttar Pradesh	60
Kerala	38
Maharashtra	25

Source: Union labour ministry

IISc Scientists Claim Vanadia Nanowires Can Help Combat Ageing in Humans

Nanowires made of vanadia can reduce cell damage in the human body, researchers from Indian Institute of Science (IISc), Bangalore have found.

http://gadgets.ndtv.com/science/news/iisc-scientists-claim-vanadia-nanowires-can-help-combat-ageing-in-humans-630780

This breakthrough can help develop drugs that prevent ageing, cardiac disorders, and several neurological problems like Parkinson's and Alzheimer's disease. Vanadium oxide or vanadia is a form of vanadium, an element found close to titanium on the periodic table.

Reactive Oxygen Species (ROS) are produced during normal cellular metabolism. When the level of ROS is elevated, normal redox state of cells is disturbed, leading to damage of cellular components, including proteins, lipids, and DNA.

Oxidative stress caused by ROS is responsible for various conditions ranging from a simple premature greying of hair to serious diseases like cancer, diabetes, arthritis, ageing and kidney disorders.

"Many of the antioxidant-based drugs used to control ROS, also produce ROS, though at small proportions. So we wanted to concentrate on a mechanism that mimics the natural detoxification pathways," say Professor G Mugesh and Patrick D'Silva, who led the research team.

In a paper published in Nature Communications, they have shown that vanadia nanowires actually mimic a natural antioxidant enzyme, according to a Gubbi Labs release.

ROS are helpful when their concentrations are optimal. They help in numerous biochemical reactions and act as critical secondary messengers in signalling pathways. They are also essential for the normal metabolism of the human body.

"The human body has numerous mechanisms to scavenge ROS, and specifically hydrogen peroxide. However, when people are suffering from a disease, the production of ROS shoots up, and the natural scavenging mechanisms are not able to cope with. In such cases, we may have to control ROS levels artificially," says D'Silva.

The IISc team has demonstrated that when the ROS levels are too much for the natural defence system to handle, vandia nanowires can control ROS accumulation and stop the resulting cell damage.

The entry of nanowires inside the cells is crucial because, the nanowires must get inside the cell to start their scavenging jobs.

Therefore, the researchers treated human cells from different organs and made sure through elaborate methodology that the nanowires could efficiently enter the cells. This clearly shows that vanadia nanowires possess detoxifying abilities for a variety of cells.

Interestingly, vanadia in bulk and foam form do the exact opposite: they enhance ROS levels; hence the nanosize of vanadia is critical for its function. "It is remarkable that the material that generates ROS in bulk and foam forms, can actually destroy them at nanoscales," says Prof G. Mugesh, elaborating on the significance of the research.

With the initial positive results, the discovery needs further studies before being translated into drugs that can be administered. "We have shown that nanovanadia works at the cellular level. Next we want to focus on administering it in animals, and see how it performs," say Mugesh and D'Silva.

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Mission successful: World's first flight using 'green diesel'

Washington: A Boeing aircraft has completed the world's first flight using 'green diesel', a sustainable biofuel made from vegetable oils, waste cooking oil and animal fats.

The company powered its ecoDemonstrator 787 flight test airplane on December 2 with a blend of 15% green diesel and 85% petroleum jet fuel in the left engine. "Green diesel offers a tremendous opportunity to make sustainable aviation biofuel more available and more affordable for our customers," said Julie Felgar, MD of Environmental Strategy and Integration, Boeing Commercial Airplanes.

"We will provide data from several ecoDemonstrator flights to support efforts to approve this fuel for commercial aviation and help meet our industry's environmental goals," Felgar said in a statement. Sustainable green diesel is widely available and used in ground transportation. Boeing previously found that this fuel is chemically similar to HEFA (hydro-processed esters and fatty acids) aviation biofuel, approved in 2011.

Green diesel is chemically distinct and a different fuel product than "biodiesel," which also is used in ground transportation.

With production capacity of 800 million gallons (3 billion litres) in the US, Europe and Asia, green diesel could rapidly supply as much as 1% of global jet fuel demand. "The plane performed as designed with the green diesel blend just as it does with conventional jet fuel," said Capt Mike Carriker, chief pilot for New Airplane Product Development, Boeing Test and Evaluation. PTI

SOARING HOPES

December 8

Virat Vaibhav ND 08/12/2014   p-1

शिक्षा | चुनौतियों से निपटने के लिए नई शिक्षा नीति तैयार कर रही है सरकार

नई शिक्षा नीति बनाने में जुटी सरकार

अवधेश कुमार

मंत्रालय के अनुसार सरकार एक नई शिक्षा नीति तैयार करने की दिशा में काम कर रही है जिसका उद्देश्य गुणवत्ता, अनुसंधान और नवाचार की कमी के कारण हमारी शैक्षणिक संस्थाओं को पेश आ रही चुनौतियों का सामना करना है।

नई दिल्ली। केंद्र सरकार एक नई शिक्षा नीति तैयार करने की दिशा में काम कर रही है जिसका उद्देश्य गुणवत्ता, अनुसंधान और नवाचार की कमी के कारण हमारी शैक्षणिक संस्थाओं को पेश आ रही चुनौतियों से निपटना है। मानव संसाधन विकास मंत्रालय के उच्चतर शिक्षा विभाग से प्राप्त जानकारी के अनुसार राष्ट्रीय शिक्षा नीति, 1986 शिक्षा के क्षेत्र में केंद्र सरकार की नीतियों के लिए मार्गदर्शक दस्तावेज रहे हैं।

विभाग के अनुसार पिछले 20 वर्षों में शिक्षा के परिदृश्य में प्राथमिक शिक्षा के प्रति अधिकार आधारित दृष्टिकोण माध्यमिक शिक्षा के प्रति सुलभता प्रदान करने के प्रयास, उच्च शिक्षा के पुनर्विन्यास तथा नवाचार परिवेश पर इसका प्रभाव और वैश्विक परिवेश में स्थापित तेजी से विकसित होती अर्थव्यवस्था में नई प्रौद्योगिकियों के आने के संदर्भ में नवोन्मेषी शिक्षा के माध्यम से कौशल विकास जैसे अनेक विषय सामने

■ सरकार एक नई शिक्षा नीति तैयार करने की दिशा में काम कर रही है जिसका उद्देश्य गुणवत्ता, अनुसंधान और नवाचार की कमी के कारण हमारी शैक्षणिक संस्थाओं को पेश आ रही चुनौतियों का सामना करना है।

आने से महत्वपूर्ण परिवर्तन सामने आए हैं।

मंत्रालय ने कहा, 'सरकार एक नई शिक्षा नीति तैयार करने की दिशा में काम कर रही है जिसका उद्देश्य गुणवत्ता, अनुसंधान और नवाचार की कमी के कारण हमारी शैक्षणिक संस्थाओं को पेश आ रही चुनौतियों का सामना करना है।'

आरटीआई के तहत शिक्षा के अधिकार के बारे में एक सवाल के जवाब में मंत्रालय के स्कूल शिक्षा एवं साक्षरता विभाग ने कहा कि संविधान के 86वें संशोधन अधिनियम ने संविधान में एक प्रावधान किया है जिसके तहत छह से 14 वर्ष तक का प्रत्येक बच्चा

प्रारंभिक शिक्षा पूरी होने तक निकटवर्ती स्कूल में निःशुल्क एवं अनिवार्य शिक्षा प्राप्त कर सके।

मानव संसाधन विकास मंत्रालय के स्कूल शिक्षा एवं साक्षरता विभाग ने बताया कि शिक्षा के अधिकार अधिनियम 2009 को लागू करने में सर्व शिक्षा अभियान कार्यक्रम मुख्य भूमिका निभाता है। यह सम्पूर्ण देश में स्तरीय बुनियादी शिक्षा की मांग को पूरा करने के लिए अपेक्षित कदम है, साथ ही इस कार्यक्रम के जरिए सामुदायिक स्वामित्व व्यवस्था एवं स्तरीय शिक्षा व्यवस्था के तहत सभी बच्चों में मानवीय क्षमताओं में सुधार लाने का एक प्रयास भी है।

विभाग ने बताया कि शिक्षा के अधिकार अधिनियम की धारा 12 (1) (ग) के अनुसार कोई विद्यालय अपने यहां पहली कक्षा में आसपास के दुर्बल और वंचित समूह के बच्चों को उस कक्षा की कुल संख्या के कम से कम 25 प्रतिशत की सीमा तक प्रवेश देगा और निःशुल्क एवं अनिवार्य प्राथमिक शिक्षा पूरा होने तक प्रदान करेगा। ■

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50% IIT-B job aspirants placed in 1st week

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Mumbai: More than 50% of the students who used campus placements at IIT-B got an offer by the end of the first week of this year's session.

At other campuses too, the first week closed on a high note with more students getting offers as compared to 2013. At IIT-B, around 15 students have been offered a crore-plus packages this year by Facebook, Oracle, Google, Microsoft, Samsung. E-commerce and start-up firms have hired maximum number of students this year across IITs.

At IIT-B, 700 students found placements by Sunday evening. In 2013, nearly 900 students were hired in the first phase that ended on December 19. "This year with an upbeat first week, the institute is planning to place
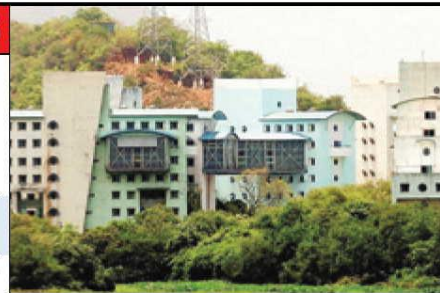
around 1,000 students by the end of the first phase," said placement manager Mohak Mehta.

"Sometimes students who don't find jobs lose motiva-

FEEL LIKE A MILLION BUCKS

> Oracle, Facebook, Google and Microsoft make plum offers at IITs. Oracle and Facebook offer stock options that take salary packages to Rs1.8cr and Rs1.4cr respectively. Google and Microsoft also roll out stock options in lakhs

> Almost all the IITs have more than 20 e-commerce firms and tech start-ups visiting campus

> Nearly 50% of the students who used IIT-B campus placements bagged a job by the end of the first week. In 2013, nearly 900 IITians were hired in the first phase that was spread over three weeks. This year, more than 700 were placed in the first week itself, excluding the pre-placement offers

> Total offers across IITs have gone up by 20-40% till the end of the first week

> Average salary packages have gone up by 10-15% across sectors

> Twelve students opted for deferred placements this year at IIT-B as compared to one in 2013

> A woman was among the three students who bagged a placement in Facebook

tion at this point due to the hype associated with placement season. We are trying to address this by calling our alumni to counsel students for the remaining sessions," said Mehta. At IIT-Madras by the end of Day five, 669 offers were made and 589 students got placements. Around 150 companies have visited the campus so far. There is a 25%

increase in the number of offers made at the institute this year, stated a release issued by the institute.

At IIT-Roorkee, 35% of the total batch have found employment. N P Padhy, professor in charge of placements, said, "The number of offers have gone up tremendously this year with 45-60 new companies visiting our campus. Several firms which got to other IITs usually do not come to IIT-Roorkee. This time we invited them using our alumni network." The domestic packages have gone up by Rs 2-4 lakh this year, said the professor. Oracle picked a couple of students from the campus with a Rs 1.8 crore package, including stock options.

According to Aditya Jain from IIT-Kanpur, start-ups were the highlight of this year's campus placements.

IIT-B fete to help design smart cities

MUMBAI, DHNS: On the lines of Prime Minister Narendra Modi's vision to build 100 smart cities in India, Techfest, the signature festival of IIT-Bombay will provide an opportunity to contribute towards this end.

The smart city challenge is a unique initiative to engage the youth in the development of their city and prosperity of its citizens. Techfest is slated for January 2-4 at the Powai campus here. "It aims at providing a strong sharing platform and offers a unique opportunity to get involved in the development of smart cities to exchange ideas and foster the new integrated approaches in India," Techfest spokesperson Aman Mantry said.

Techfest is associated with many government organisations like Mumbai Metropolitan Region Development Authority, City and Industrial Development Corporation of Maharashtra and Delhi-Mumbai Industrial Corridor Development Corporation (DMICDC). Mantry said that ideas presented by the participants shall be considered for implementation in the development of new smart cities along the DMICDC, a Central government undertaking.

IITians की पसंद PSU जॉब

■ वस, कानपुर : आईआईटी स्टूडेंट्स लाखों रुपये का सालाना पैकेज पाने के लिए जाने जाते हैं, लेकिन कानपुर आईआईटी के कई स्टूडेंट्स पीएसयू में नौकरी करना चाहते हैं। इस वजह से करीब 200 स्टूडेंट्स ने फर्स्ट फेज के कैंपस प्लेसमेंट में हिस्सा ही नहीं लिया है। प्लेसमेंट से जुड़े लोगों ने इसकी पुष्टि की है। इसके अलावा शनिवार देर रात तक 50 पर्सेंट यानी 650 स्टूडेंट्स को जॉब ऑफर मिल गए।

An early start to your global aspirations

PLANNING AHEAD Lisa Jain charts down some do's and don'ts for those who are aspiring to go abroad for higher studies

Many students who wish to study abroad start planning for it in only when they are in grade 12. But college applications require time, thought and effort, so aspiring high school students should try and begin the ground work much earlier, when they are in grades nine or ten. Starting early gives students a better understanding of what the college application process entails, and prepares them to deal with it more systematically, without getting overwhelmed. Students can create an action plan for themselves spanning 3-4 years and approach the college admission process in a planned manner.

Here is a rundown on what students in grades nine or ten can do to prepare for the college application process:

Develop a sense of self

Students should try and gain a better understanding of themselves – their interests, passions, skills, aspirations, dreams as well as limitations. An understanding of oneself can help students identify projects and activities they want to get involved in, and choose wisely, when building their profile. Developing this sense of self is also extremely important for writing good, insightful college application essays.

Start building your profile

Foreign universities, while making admission decisions, focus on many facets of a student's personality and life, and not solely on academics. Your experiences and achievements beyond studies are given a lot of importance, as they help admission officers gain insights into who you are as a person, and whether you'll positively contribute to their college community or not. It is extremely important for students to consciously build their profiles, and engage in activities, projects other than pure academics that will help in creating a strong application.

Narrow your focus

Some students believe they need a long list of extra-curricular activities to strengthen their application, but this isn't always a good strategy. Instead, you should involve yourself deeply in a small number of activities for a long time period (sports, arts, writing, research, community work etc.). You should create impact in whatever it is you choose to do. For example, work your way up to a leadership position, develop some skills, learn from failure and so on. You can't suddenly pick an activity in grade 12 and claim that you're really passionate about it. It will look superficial and probably is.

Don't ignore academics

Academic performance is the most important component of college applications. Students have a perception that only their grade 12 marks matter. What they don't realise is when they apply to college, their final exam results from grade 12 aren't even available. Universities look at a student's academic transcripts of four years (9-12), if not longer. Try your best to perform well in academics throughout high school and not just in the final year.

Hone your reading and writing skills

Being able to express yourself clearly through writing, reading through information critically and forming an opinion and carrying out independent research, are crucial skills needed at university and even in future jobs. Develop these habits when you are young and it will be of tremendous help to you in your future.

Prepare for standardised tests

Standardised tests such as SAT are a critical component of the undergraduate college application process. Students typically take these tests in grades 11 and 12, but they can begin preparing for them earlier, through options such as the PSAT/NMSQT (Preliminary SAT), a test conducted by the College Board, makers of SAT.

By taking the PSAT in grade nine or ten, students get an idea of what the SAT is. The PSAT score report gives students detailed feedback on their skill gaps. By identifying weaknesses early, students understand where to focus while preparing for the SAT or other similar tests.

Start researching colleges

Start conducting research to understand the different college options available to you. Which country do you want to apply to colleges in? Understand how the experience differs between countries – USA vs. UK vs. Singapore vs. Canada, and so on. If you are applying to the U.S., start understanding the different kind of college systems – public versus private, need-blind or otherwise and so on. Attend college fairs and learn about different universities and colleges from your seniors, friends and family who've been through the experience before. Starting this exercise early will make the college shortlisting process less stressful later on.

Once you have reached grade 11, you can do the following things:

Finish your standardised exams

Students should take their standardised tests (such as SAT) in grade 11. This is for two reasons – one, they are less burdened than they will be in grade 12, so it's good to take care of one crucial component of the application process early. Second, if they aren't happy with their test result, they'll still have enough time to retake the test.

If you also need to take additional tests such as SAT subject tests, you can consider completing these at the beginning of grade 12.

Explore college majors

Some students know exactly what they want to study at college, while others are not certain. It is normal to be confused with so many options at your disposal, so don't panic if you are a bit lost. Start reflecting internally on what you enjoy learning about, as this might sometimes determine which colleges you apply to, especially if you want to focus on a specific field of study instead of pursuing liberal arts or a more generic course of study. If you plan to pursue your studies in the U.S., most colleges don't expect you to declare a major in the first year – you have the liberty to study various subjects and decide your major later.

Start shortlisting colleges

Determine which factors will determine your choice of colleges. Is it the location, or the university's rank in your chosen course? Are financial aid and scholarships an important factor for you, or are you looking at a college where you can pursue a particular sport in a big fashion? Don't blindly look at rankings. Instead, shortlist around ten universities that meet your needs. If you do look at rankings, check the university's rank in the course you want to pursue, and not the overall ranking.

Finally, put all the pieces together in your grade 12. All the ground work you do in grades 9-11 will pay off in grade 12 and you will feel better prepared and confident. In the final year of school, you should:

■ Work with a college guidance counsellor to finalise the list of colleges you will apply to.

■ Attend college fairs, visit university websites, understand individual university requirements, application deadlines etc. If applying to the U.S., decide if you're applying ED (Early Decision)/EA (Early Action) to any university, and create a working timeline for yourself.

■ Writing essays takes time, and there are many to write. All your profile building efforts are crucial here. Give yourself time to perfect your essays. Start early with your drafts, get feedback, and keep improving till you're happy with the final outcome.

■ Fill in your applications, get your letters of recommendation, finish your financial aid documents and anything else the universities require.

College applications require discipline and effort. Make sure that you have a plan to tackle every component, and have a support system to help you through the process. If you do everything at the right time, you will find the process enjoyable and find little reason to stress.

Smart mouse created: Half of its brain cells are human

Corbis

London: Researchers have created mice with half human brains, making the animals smarter than peers.

The altered mice still have mouse neurons — the "thinking" cells —that make up around half of all their brain cells, but all the glial cells in their brains, the ones that support the neurons, are human, researchers said.

"It's still a mouse brain, not a human brain. But all the non-neuronal cells are human," said Steve Goldman of the University of Rochester Medical Center in New York.

Goldman's team extracted immature glial cells from donated human fetuses. They injected them into mouse pups where they developed into astrocytes, a star-shaped type of glial cell.

Within a year, the mouse glial cells had been completely usurped by the human in-

SUPER RODENT

terlopers. The 300,000 human cells each mouse received multiplied until they numbered 12 million, displacing the native cells.

A battery of standard tests for mouse memory and cognition showed that the mice with human astrocytes

are much smarter than their mousy peers, 'New Scientist' reported. In another experiment, Goldman injected immature human glial cells into mouse pups that were poor at making myelin, the protein that insulates nerves.

Many of the human glial cells matured into oligodendrocytes, brain cells that specialise in making the insulating material, suggesting that the cells somehow detected and compensated for the defect. This could be useful for treating diseases in which the myelin sheath is damaged, such as multiple sclerosis, said Goldman.

He has applied for permission to treat MS patients with the glial progenitor cells, and hopes to start a trial in 12 to 15 months. He is now grafting the cells into rats to explore further the affects of human astrocytes. PTI

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Pluto probe wakes up after 9-year slumber

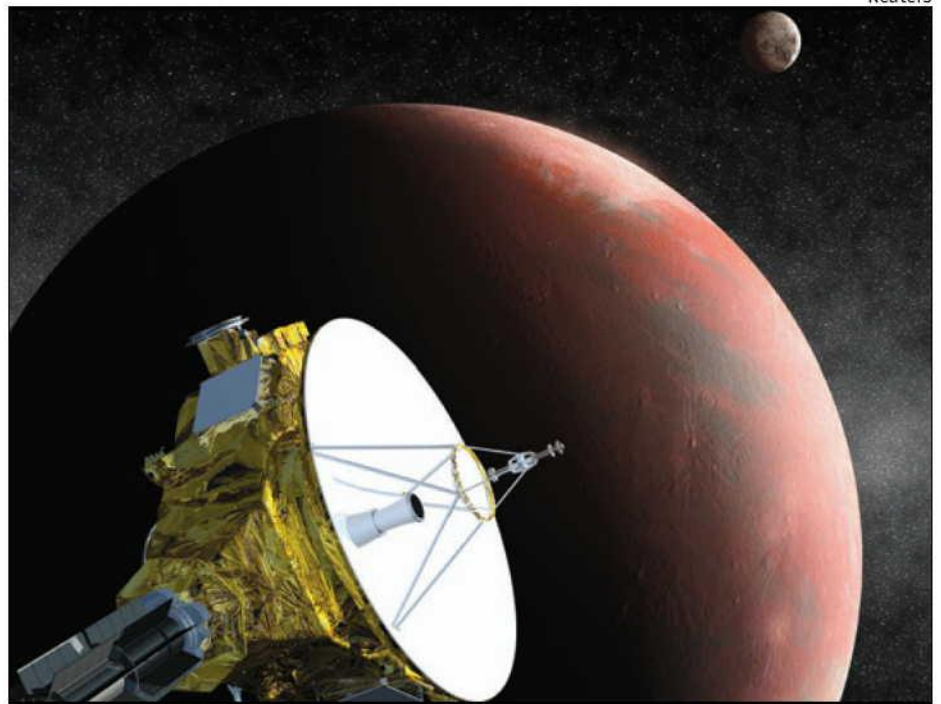## 'New Horizons' To Begin Exploration On January 15

Cape Canaveral, Florida: After nine years and a journey of 3 billion miles (4.8 billion km), Nasa's New Horizons robotic probe awoke from hibernation on Saturday to begin an unprecedented mission to study the icy dwarf planet Pluto and sibling worlds in its Kuiper Belt home.

A pre-set alarm clock roused New Horizons from its electronic slumber at 3pm EST (2000 GMT), though ground control teams didn't receive confirmation until just after 9:30pm (0230 GMT on Sunday).

New Horizons is now so far away that radio signals traveling at the speed of light take four hours and 25 minutes to reach Earth. The scientific observation of Pluto, its entourage of moons and other bodies in the solar system's frozen backyard begins on January 15, programme managers said. The closest approach is expected on July 14.

Pluto lies in the Kuiper Belt, a region of icy mini-planets orbiting the sun beyond Neptune that are believed to be leftover remains from the formation of the solar system some 4.6 billion years ago. It is the last unexplored region of the solar system.

"It's hard to underestimate the evolution that's taking place in our view of the architecture and content of our solar system as a result of the discovery ... of the Kuip-

HIBERNATION ENDS: An artist's impression of Nasa's New Horizons spacecraft, which will study the icy dwarf planet Pluto and its Kuiper belt home

er Belt," lead researcher Alan Stern said. Since its discovery in 1930, Pluto has been a mystery. Scientists struggled to explain why a planet with a radius of just 740 miles (1,190km) — about half the width of the United States — could come to exist beyond the giant worlds of Jupiter, Saturn, Uranus and Neptune. "We wondered why Pluto was a misfit," Stern said.

In 1992, astronomers discovered that Pluto, located about 40 times farther away from the sun than Earth, was not alone in the far reaches of the solar system, prompting the International Astronomical Union to reconsider its definition of "planet".

In 2006, with New Horizons already on its way, Pluto was stripped of its title as the ninth planet in the solar system and became a dwarf planet, of which more than 1,000 have since been discovered in the Kuiper belt. With New Horizons approaching Pluto's doorstep, scientists are eager for their first close-up look at this unexplored domain. REUTERS

IIT-ALLAHABAD TO HOLD SEVENTH SCIENCE CONCLAVE ON DECEMBER 8

ALLAHABAD: The Seventh Science Conclave, a congregation with Nobel Laureate, 30 prominent scientists and over 1000 participants from abroad as well as different states of the country, will commence under the aegis of Indian Institute of Information Technology, Allahabad from December 8 in the newly built auditorium at Jhalwa campus. The inaugural ceremony will take place at 9 am in the auditorium followed by delivery of lecture by Noble Laureate Robert Flyod Curl. He was awarded the Nobel Prize in Chemistry in 1996 for the discovery of the nano material buckminster-fullerence. Thereafter, J Bhattarcherjee, Asohok Sen , N Vedalchalam, Neeraj Jain will interact with thousands of participants at the different sessions to beheld at different venues of the institute.

DU signs MoU with UGC for uploading thesis on digital database

NEW DELHI: Delhi University will now be able to update thesis and dissertations of its research scholars on the UGC's digital database — 'Shodhganga repository'.

DU has recently signed a MoU with the University Grants Commission (UGC) in this regard.

'Shodhganga', a digital repository of thesis and dissertations of research being conducted by scholars in Indian universities, is a project of the UGC-Infonet Digital Library Consortium.

It is aimed at promoting the use of electronic databases and full text access to journals by the research and academic community in the country. It also facilitates keeping a check on plagiarism in research.

"We have signed an MoU with the UGC in this regard according to which all the thesis and dissertations submitted at DU after December 2, 2014 will be added to the repository," Ajay Kumar, Dean Research, DU said.

"We are setting up an Electronic Thesis and Dissertation (ETD) lab in the Central Library where all the thesis and dissertations will be digitised and their bibliographic records will be created for inclusion in UGC's Information and Library Network (INFLIBNET) catalogue," he said.

According to the MoU, the students will be submitting their thesis to their respective departments with a 'certificate of originality' and 'student approval form'.

"The departments will then check the documents for originality using a plagiarism detection software. The report of the originality check will then be forwarded to the examination branch which in turn will send it to the ETD lab," Kumar said. "Online availability of thesis through centrally-maintained digital repositories does not only ensure easy access and archiving of Indian doctoral thesis but will also help raise the standard and quality of research," he added.

The 'Shodhganga repository', launched by UGC in 2010 also offers grants to the universities for infrastructural development for the project's implementation.

Funds sanctioned for the project are meant to be utilised for setting-up of ETD Laboratory, extending access to anti-plagiarism software package and for digitisation of back lists of thesis available in the varsity. PTI