

Newspaper Clips

June 8-9, 2014

June 8

Economic Times ND 09/06/2014 P-13

Stink Operation

Uttam Banerjee not only wants to save water through his waterless toilets but also extract nutrients from urine

By Jyoti Pande Lavakare

Last week, I entered a men's urinal for the first time, in the mostly male bastion of the Indian Institute of Technology, Delhi (IIT-D), expecting the worst. I was escorted by an innovator who has a master's in industrial design from the same institute. Uttam Banerjee's start-up Ekam Eco Solutions is trying to find solutions for one of India's biggest problems – sanitation and organic waste management – and he has begun by installing low-cost, waterless urinals in his immediate surroundings.

The urinal he showed me was just off a crowded hallway that led to classrooms at one end and a cafeteria at the other – an area with obviously high footfalls – and one of the 600 that IIT-D has paid to have retrofitted with Zerodor, the waterless urinal technology created and patented by one of its own some years ago. Ekam is now trying to take this innovation to the market, and has already made headway with an impressive client list ranging from the Indian defence services to private companies.

The installation of one such waterless urinal pays for itself in water savings within just one month; IIT-D saves 200 litres of water a day per urinal

The tiny room marked "gents" at the IIT campus could have smelt like a gas chamber, but it was odour-free, barely even smelling like a toilet. Before Zerodors were installed in these urinals, Banerjee tells me, the entire area right up to the cafeteria smelt worse than an Indian Railways second class compartment toilet. But today, even at 9 am, a time when the campus was buzzing with activity, classes, meetings, the cafe was thriving, without any malodorous smells to drive away customers.

Ecological Sanitation

More importantly, Banerjee told me that the installation of one such urinal pays for itself in water savings within just one month; even earlier, if you take into account costs associated with water usage – electricity to pump that water, plumbing, maintenance, effluent treatment, among others. According to him, IIT-D saves 200 litres of water a day per urinal with each installation – that's around 120,000 litres a day. At present, only the IITs in Delhi, Kanpur and Gandhinagar have bought into this innovation, although the Indian armed forces



dor urinals at some locations.

"Male urinals consume on average, 8,333 litres of potable water in a month. Waterless urinals result in saving anything between 50,000 and 151,000 litres of water per urinal per year," Banerjee says. "We are working on the whole sanitation aspect of these. The dry operations of waterless urinals and touch-free operations reduce the spread of communicable diseases," says Banerjee. "People assume that water is needed to flush urine, but it isn't. In fact, when it comes into contact with water, urine releases ammonia, which is what causes the odour. But with our technology and Zerodor kit, we can completely do away with flushing and get rid of all odour."

urines at present," says Banerjee. "In fact, urine contains phosphorus, which we can extract. Phosphorus has many applications and is imported," he adds. Instead of importing phosphorus, India can harvest it from human, or later even animal, urine.

Cost Factor

Towards this goal, the Ekam team is in the process of developing the prototype of a phosphate-recovery reactor that can harvest nutrients from urine. With such a device, urine can be used for drip irrigation, called fertigation, by installing separate pipes from toilets to fields.

"We are trying to harvest nitrogen, potassium and phosphorus from human waste and put it to productive use for agricultural and industrial production. If you install a separate line for urine from the toilets to the fields and drip irrigate 5-6 inches below the soil, there will be no odour," Banerjee explains. He has set up a prototype of such a urinal kiosk at the National Institute of Rural Development, Hyderabad, at a cost of ₹1.5 lakh. Significantly one of their clients is Jain Irrigation, a BSE- and NSE-listed public limited company with revenues of \$850 million.

The best part about the Zerodor solution is that it uses no chemicals, sealants or gels and is low cost and low maintenance – and can be retrofitted in existing urinals. This makes Zerodor superior to its competitors. Installation of Zerodor urinals, according to Banerjee, costs anywhere between ₹2,500 and ₹3,500 depending on whether they are being freshly installed or retrofitted in existing urinals. Installing new Zerodor urinals has an additional advantage of saving on plumbing costs.

If Banerjee reaches his ambitious goal of fitting 1 lakh units by end-2014, and continues at that pace, perhaps one day the ubiquitous smell of urine in public spaces in India will become a distant memory. ■



The author is an independent columnist and writer

FALLOUT OF UKRAINE CRISIS

Medical students shun Russia for China

KALPANA PATHAK
Mumbai, 7 June

The Ukraine crisis, which left Indian medical students in the lurch, has led many students to look for new destinations to pursue their medical courses. Every year, about 11,000 Indian students go abroad to pursue medical education.

Educational consultants said they were advising students to opt for China, Philippines, Mexico and Brazil and avoid Russia. Admissions to medical colleges take place between August and November.

China and Russia are the most sought-after destinations for Indian students for the MBBS course, as these countries are cost effective. While it costs \$3,500-\$4,500 (₹21,00,000 to 27,00,000) a year in Russia for the five-year-and-eight-month MBBS course, at home the cost varies between Rs 50,00,000 and 80,00,000 for five years. The course costs over Rs 25,00,000 for six years in China.

The Indian mission in Ukraine has been facilitating the evacuation of 1,000 Indian nationals, particularly students, from the Lugansk region to Kiev.

The mission arranged 1,000 train tickets for Indian students and nationals in Lugansk. "Those Indian nationals and students who have booked railway tickets for later dates must travel June 3/4 and not delay their departure from Lugansk to a later date, as the situation may deteriorate further," the embassy said. "The mission has been evacuating students at its cost and we are not advising anyone go to Ukraine for studies," said an official from Victoria Education, Jalandhar.

There are approximately 2,500 Indian students pursuing medicine and engineering courses in Ukrainian universities, according to the Indian embassy website.

Among Indian students in Lugansk, 350 are from Kerala, 300 from Tamil Nadu, 150 from Andhra Pradesh, 60 from Punjab, 25 each from Jammu and Kashmir and Maharashtra, 20 from Uttar Pradesh and 10 from Gujarat. The total number from the other states is 200, according to an external affairs ministry statement. There is also a small Indian business community in Kiev.

According to consultants, there is an uncertainty over the future of these students. While a few agents said they could go back after the situation becomes normal, others said they were clueless about the future.

After graduation, these students have to clear a screening test in India. Generally, only 25 per cent are able to practice in India. Last year, however, 28 per cent students cleared the screening test.

CRISIS-HIT STUDENTS

- Every year between 10,000 and 11,000 Indian students go abroad to pursue their medical degrees
- Most Indian students prefer China and Russia as it works out cheaper. The cost of studying MBBS in Russia is around ₹21,00,000 to ₹27,00,000 for the five-year-eight-month course. In India the cost varies between ₹50,00,000 and ₹80,00,000 for the five year course. The course costs over ₹25,00,000 for six years in China
- Agents enrolling students to medical universities are advising them to avoid Russia and instead opt for China, Philippines, Mexico and Brazil because of the crisis in Ukraine
- The Indian mission in Ukraine is facilitating the evacuation of 1,000 Indian nationals, particularly students, in Lugansk and Kiev
- According to the Indian embassy website, approximately 2,500 Indian students are studying medicine and engineering in Ukrainian universities
- Among Indian students in Lugansk, 350 are from Kerala, 300 from Tamil Nadu, 150 from Andhra Pradesh, 60 from Punjab, 25 each from Jammu and Kashmir and Maharashtra, 20 from Uttar Pradesh and 10 from Gujarat
- The total number from the other states is 200, according to an external affairs ministry statement

"Our experience so far has been that students who study medicine in Russia find it difficult to pass our examinations. We are looking at how we could address the problem of students going abroad for a medical degree," said a senior official from Medical Council of India, on the condition of anonymity.

India needs 500 new medical colleges to produce one million doctors every year. However, at present, India has nearly 300 medical colleges with over 31,000 seats. Over 350,000 students sit for admission tests to these medical schools.

Jun 08 2014 : The Times of India (Delhi)
NEWS DIGEST

Scientists to lead teams abroad

All scientific delegations to foreign countries will be led by eminent scientists and not by ministers, the Centre said on Saturday.

Entrepreneurship is not the prerogative of IITs alone

http://articles.economictimes.indiatimes.com/2014-06-07/news/50404879_1_entrepreneurship-development-indian-angel-network-padmaja-ruparel

HYDERABAD: So far, only premier institutes like IITs have been teaching the basics of setting up own businesses. But [entrepreneurship](#) is now on the agenda of even second-rung engineering colleges, with many of them introducing it as a subject.

"While large companies hire against attrition, startups are best positioned to create new jobs," said Padmaja Ruparel, president, Indian Angel Network (IAN). Encouraging entrepreneurship runs beyond providing incubation centres, says Ajai Chowdhry, chairman of IIT-Patna and co-founder of [HCL](#). "Premier institutes have the best students and faculty.

During their course work they come up with interesting product ideas but there is little to nurture that," says the architect of the B Tech minor in entrepreneurship initiated at [IIT](#) Hyderabad in 2011 and now at IIT Patna. He says that he has been approached by autonomous universities as well as tier-2 colleges from Gurgaon and Bangalore for emulating the same.

"The idea is to get youngsters excited about entrepreneurship. Though there is a support system for encouraging entrepreneurs, no one tells youngsters how to go about entrepreneurship," says Ajit Rangnekar, dean, [Indian School of Business](#). The premier B-school has initiated the Technology Entrepreneurship Programme (TEP) offered as an elective to engineering students in the third and fourth year.

The programme is adopted by 26 engineering colleges across [Andhra Pradesh](#) on-board, will train students in business education and combine technical mentorship and prototyping with the support of faculty and business mentors. "We do not expect students to turn into entrepreneurs immediately after college as it is not the first career choice for many," says [Aruna Reddy](#), associate director of Centre for Entrepreneurship Development at ISB.

The two-year pilot programme in collaboration with the [AP Society for Knowledge Networks](#) has set a corpus of Rs 2.5 crore for seed [funding](#) business ideas selected at the end of the programme, apart from angel investors willing to participate.

Similar initiatives have been implemented by other states to encourage entrepreneurship among young graduates, such as the Student Entrepreneurship Scheme of [Kerala government](#) which incentivises student startups with incubation as well as 20% relaxation in attendance and grace marks for their initiative.

The Karnataka government's initiative to set up infrastructure facilities in tier-II and tier-III cities for development of satellite IT centres and incubators earmarks . 100 crore for VC funding for tech startups in the state.

HT Mumbai

IIMs strive for gender and cultural diversity

Apoorva Puranik

✉ apoorva.puranik@htcmumbai.com

MUMBAI: The Indian Institutes of Management (IIM) are trying their best to break away from the stereotype of admitting students who are mostly engineers and men.

In an attempt to make classrooms diverse, authorities have widened their admission criteria for the 2014-16 batch to include more women students, foreigners and those from non-engineering backgrounds.

At IIM Calcutta, for instance, women candidates short-listed for interviews were given three extra marks. Similarly, IIM Lucknow gave a 5% extra weightage to women candidates and those from non-engineering backgrounds.

"The IIMs are often considered to be parochial and not women-friendly. So, we have been trying to increase the intake of women. This year too, we gave extra weightage to candidates from non-engi-

BREAKING AWAY FROM CONVENTION

WOMEN STUDENTS

	2013-15	2012-14
IIM Ahmedabad	22%	17%
IIM Bangalore	26.38%	26.52%
IIM Kozhikode	53.69%	27.24%

neering backgrounds," said Anandya Sen, dean (academics) at IIM-C.

Officials at the admissions office of the institute said the new approach had yielded results, with almost 17% of the 2014-16 batch comprising non-engineering graduates and about 30% being women.

Although IIM Bangalore and Ahmedabad have not increased the points awarded to women aspirants, there has been a rise in women short-listed from 200 to 230 and 276 to 364, respectively.

— CONTINUED ON PG

IIMs strive for gender and cultural..

CONTINUED FROM P1

Ayush Gupta, a second-year student at IIM Bangalore said, "My institute has a more eclectic mix of students from diverse backgrounds and this makes for healthy competition. The number of exchange students coming in has also gone up from last year."

Others, like IIM Kashipur, are going the extra mile to attract women. Prospective women students are invited to visit the campus and hostel even before they confirm the admission. "The initiative has been taken to bring about gender diversity and to help prospective students make an informed decision," said NK Singh, admissions officer at the institute.

"The institute also offered to reimburse AC-tiket train fare from the students' home town to Kashipur and back."

IIM Rohtak has started an online mentorship programme to encourage candidates — especially those from abroad — to interact with senior students. Almost 2,000 students have been mentored through this programme, said P Rameshan, the director of the institute. He added that all major ranking agencies also take diversity into account while evaluating these institutes.

IIM Bangalore, Kochikode and Calcutta are also trying to expand their international faculty and students with the help of inter-

national B-school accreditation agencies. "Global accreditation brings us on par with other international institutes, encouraging renowned faculty from across the world to be associated with us. Student exchange programmes only helps expands diversity," said Debashish Chatterjee, director, IIM Kochikode.

However, many women are not pleased with this development. "Women are perfectly capable of making it to the IITs or IIMs on merit. Giving them extra marks or preference is unfair and puts a question mark on our capability," said one such woman candidate, who has received calls from all the top IIMs.

HT Delhi

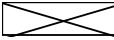
DWARKA PILOT PROJECT

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Water in Palam drain is being treated to secondary level through bio remediation. Treated water can be taken to either of the two green belts of DDA for further treatment through a soil bio technology of IIT. It will cost only ` 4 to ` 5 per kilolitre. Treated water can be disinfected either at the site or a nearby DJB water treatment plant. A pilot project of 1 MGD can be started by December at ` 3.5 crore. If successful, it can be upscaled to 10MGD.

IIT-G invites students for Technothon

TNN | Jun 8, 2014, 04.38 PM IST

 GUWAHATI: IIT-Guwahati (IIT-G) has invited students of classes IX to XII from across the country to take part in Technothon — a school championship organized by the institute as a part of its annual techno-management festival Techniche.

"Students will get a unique exposure in the championship where the focus will be on assessing the students with questions based on logical understanding and reasoning. They require no initial preparation while appearing in the prelims of Technothon. All that they need are spontaneity and out-of-the-box thinking," said Abhigyan, one of the organizers of the event.

The prelims will be conducted on July 13. Students, who would make through to the mains, will be invited to IIT-G from September 4 to 7 during Technichie to face a tougher challenge. About 200 students will be invited to IIT-G.

Students from over 150 centres from across the country participated in Technothlon.

It's MHRD's Punar Janma for India's Poorna Gnana

<http://www.newindianexpress.com/magazine/voices/It%E2%80%99s-MHRD%E2%80%99s-Punar-Janma-for-India%E2%80%99s-Poorna-Gnana/2014/06/08/article2265097.ece>



I am warmed up with a fresh round of disappointment with the outgone UPA's unsolicitously logodaedalist comment on the new HRD minister. Status check: many who are formally educated with degrees (including me) do not know the meaning of logodaedalist. Used in the recently concluded Spellbee finals, it means the clever use of words. I am not against being clever but insist on being solicitous. The proponents of the "degree-only HRD minister" seem to voluntarily suffer from selective amnesia. UPA must immediately recollect the outstanding misdeeds in the last 10 years—a triple-barrelled HRD ministry that saw three minsters in its two avatars with a one-bullet ammunition: "If you can't fix it, spoil it." Many have listened to Smriti Irani speaking in Parliament, TV shows, live panel discussions and are amazed by her well-researched preparations that leave no stones unturned. In her attitude to always be well prepared for the occasion lies my confidence that she will not do what UPA I and II did. In short, she will not push education to its abysmal nadir. My confidence gets doubled as she allows her performance to do the talking in response to her critics' avoidable superfluity. While I positively await her actions, there are certain UPA blunders that I am triply confident that Minister Irani will not commit.

The ministry will not allow the National Educational Policy die in cold storage, but will reheat it with modern gadgets to put India's education journey on proper track through a Higher Education Commission insulated from neo-modern (read Western) influence.

The ministry will not undermine the role of statutory bodies created by Parliament. For instance, the University Grants Commission—supposed to be the change agent for university education—was shamefully reduced to a silent bystander by UPA.

The ministry will not survive on policy rhetoric of RTE, SSA, etc. and other flagship schemes that were excessively glorified by the world's largest NGO—the erstwhile National Advisory Council. Such glorification resulted in school education being enrolment and not enlightenment-driven. Pratham's annual school education reports is testimony to this.

The ministry will not reduce teacher education to a mere body-shopping exercise, but find innovative mechanisms to create a coherent synergy among various stakeholders to strengthen the future of India—its school teachers.

The ministry will not massify professional education in the name of inclusivity, affordability and accessibility—the triple tataka mantra that ensured the disappearance of the fourth dimension—quality along with other forms of higher education, social sciences, arts and humanities.

The ministry will not give step-motherly treatment to polytechnic and vocational education but ensure coordinated development that can harness the non-formal but high-quality skills of millions of artisans and tradesmen who yearn for formal academic recognition.

The ministry will not take policy decisions based on 'expert inputs' from third innings academics who after their two full innings are ready to play as many academic T20s as possible and in the process strangulate progressive private higher educational institutions in the name of regulations and let scot-free erring public/private institutions.

The ministry will not charitably confer deemed university status to undeserving institutions by granting 'conditional deemed university status' subject to review after three or five years. No licensing authority issues a driving licence with a condition that the holder learns car driving in three to six months.

The ministry will not resort to legislative gimmicks through toxic pills (read bills) but use existing regulations and statutory enactments to clean the education mess.

Conclusion: Minister Irani is MHRD's punar janma for India's poorna gnana. vaidhya@sastra.edu

HT Lucknow

Courses to educate foreign students about India

NEW DELHI: Five Indian universities have been selected to conduct short-term courses to help enable foreign students, mostly from the US, understand and appreciate contemporary India and help foster international relations. University of Hyderabad, University of Calcutta, University of Mysore, Jawaharlal Nehru University and University of Delhi were selected as a part of the 'Connect to India Programme' announced by the ministry of human resource development and the University Grants Commission.

HT Jaipur

IIMs tweaking rules to get more women, non-engineers in fold

Apsara Purank

■ apsara.purank@hindustanintimes.com

MUMBAI: More women, more foreigners and more students from non-engineering backgrounds – the Indian Institutes of Management (IIMs) are trying to make their campuses more diversified with better gender parity.

To break the mould of being a bastion of engineering graduates, some of the IIMs have already modified admission norms for the academic year 2014-15.

“IIMs have been typecast as patriarchal and not women-friendly. We are trying to increase the intake of women candidates... the added weightage to gender diversity makes for a good decision,” said Anandya Sen, dean (academics) of IIM Calcutta.

For the purpose, IIM Calcutta modified the admission process once candidates were short listed for the interviews — the institute awarded three extra marks to women candidates at the interviews.

This year, a healthy 17% of the batch comprise non-engineering graduates while close to 28 % female candidates have been made final offers.

IIM Lucknow, on the other

FOR 2013-15

- Diversity in IIM batches
IIM Ahmedabad- Female candidates- 22%, non-engineering students- 5%
- IIM Bangalore- Female students- 26.38%, non-engineering students- 8.79%
- IIM Kozhikode- Female students- 53.69%, non-engineering students- 15.34%
- IIM Rohtak- Female students- 48%, non-engineering students- 27%

hand, gave a 5% weightage to non-engineering and women candidates to improve diversity in discipline and gender in its selection criteria.

Some IIMs are not just modifying admission criteria to bring more women and non-engineers to their campuses, they have also introduced programmes to attract female students to their campuses.

IIM Kashipur, for instance, invites prospective women students to visit the campus prior to confirming admission to check out the institute, campus and hostel facilities.

June 9

HT Kolkata

Decline in number of IIT seats, few courses scrapped

Varita Srivastava

varita.srivastava@hindustantimes.com

The total number of seats being offered for admission to IITs and Indian School of Mines, Dhanbad, through the Joint Entrance Exam (advanced) has declined this year. Some unpopular courses have been scrapped while three new ones have been added.

Some courses, including pulp and paper engineering at IIT-Roorkee, mining engineering with an MBA and petroleum engineering (dual degree) at the Indian School of Mines Dhanbad (whose entrance is also through the advanced JEE) have been discontinued.

However, some new courses have been added in IIT-Bhubaneswar, IIT-Hyderabad and IIT-Gandhinagar.

This year the number of seats has declined to 9,784 as against 9,887 from last year.

Experts believe that discontinuing unpopular courses can help reduce the number of seats going vacant. Last year around 250 IIT seats had remained vacant.

"Some of the courses in IITs are unpopular. Even if students opt for them, they don't pursue it with interest, and leave it that

way," said an IIT professor.

Other courses that have not found favour amongst students include mineral engineering with an MBA and ocean engineering.

"Students prefer mainstream engineering. While all courses have their own benefits and a well designed job market, too much specialisation at an undergraduate level is not preferred by students," said a former IIT director.



■ The pulp and paper engineering at IIT-Roorkee (in pic) has been discontinued.

HT.COM ND,09.06.2014, P-6

IIT Roorkee scraps unpopular courses



■ The pulp and paper engineering course at IIT Roorkee has been scrapped this year as it is very unpopular among students

HT FILE

Vanita Srivastava

Two very unpopular courses, one each at IIT Roorkee and ISM Dhanbad, have been scrapped this year.

Besides, the number of JEE (Advanced) seats on offer has also declined.

More than 1.19 lakh students on May 25 had appeared for the Joint Entrance Examination (Advanced) – the gateway to the Indian Institutes of Technology (IITs) and the Indian School of Mines (ISM), Dhanbad.

Official sources said pulp and paper engineering at IIT Roorkee and mining engineering with MBA at ISM Dhanbad had been discontinued.

The number of seats has also declined to 9,784 this year from 9,867 last year.

The reduction in the number of seats is partly because of the scrapping of these two courses while slight changes in the number of seats in some other courses have led to an overall reduction of 83 seats.

However, experts feel that discontinuance of these two courses will help reduce the number of seats which are going vacant.

“Some courses in the Indian Institutes of Technology are unpopular. Even if the students opt for these courses, they don’t pursue them with interest and leave the courses midway,” said an IIT professor on condition of anonymity.

Despite a mad rush for admission to the country’s premier engineering institution, around 250 JEE (Advanced) seats had remained vacant last year, largely because some courses are not popular at all among students. The total number of courses offered by the Indian Institutes of Technology is 216.

“Students prefer mainstream engineering. While all courses have their own benefits and a well-designed job market, too much specialisation at an undergraduate level is not preferred by students,” said a former IIT director.

Financial Express ND 9/06/2014 P-12

What the HRD minister must do

Rather than focusing on the creation of new IITs, the HRD minister must focus on providing good primary, secondary and even college education to the hitherto deprived rural masses on war footing



SHUBHADA
SABADE

India's new HRD minister approached the finance minister asking for grants to create eight new IITs across the country. While the honourable minister was caught in an unfortunate controversy over her educational qualifications, she had an excellent opportunity to show that she understands the country's most urgent HRD needs and Narendra Modi's aspirations for inclusive growth through poverty eradication; by announcing her intent to create educational infrastructure and drastically raise the enrolment ratio in the coming 100 days. Instead, she chose to push for eight more IITs despite being informed by the concerned departments about the problems with the existing IITs.

India has the largest young population in the world which can be turned into a demographic dividend by appropriate measures in education, training and skill development, thus also benefiting the country enormously. Hence, the HRD ministry becomes the most important portfolio today. If they fail to educate and train the hitherto deprived children, the same demographics can turn into a curse going forward with unemployed youth turning into criminals of sorts, putting enhanced burden on other ministries in the future. The nation's eyes are set on all the ministers during these 100 days and everyone expects them to fall in sync with each other and with Modi's vision of India.

Since many IIT graduates leave India, there is enormous brain-drain happening from these top-



notch institutions. Is it then wise to pour the taxpayers' money into new IITs at the cost of millions across the nation who are deprived of even basic education facilities? I believe 80% of Indian population doesn't even know what an IIT is. So, in 2019, when Modi faces the electorate again, can he boast of creation of eight more IITs; or the creation of extensive educational infrastructure across the country rendering the children of millions of poor and illiterate 'employable', thus raising their living standards? Remember, job creation and suitable manpower creation are two wheels of the same chariot that will ride today's poor towards tomorrow's prosperity.

India sure needs superior engineers, scientists, doctors, teachers, managers and so on. But focusing on one at the cost of others indicates a misplaced emphasis. So, how about focusing on providing good primary, secondary and even college education to the hitherto deprived rural masses on war footing without wasting the new academic year starting soon? (June—what an opportune timing for the

IS IT REALLY PRUDENT TO POUR THE TAXPAYERS' MONEY INTO NEW IITs AT THE COST OF MILLIONS ACROSS THE NATION WHO ARE DEPRIVED OF EVEN THE VERY BASIC EDUCATION FACILITIES?

new HRD minister!) As maximum efforts for primary education are under way, higher education can be provided across disciplines in phases after assessing the relative needs. So, within 100 days, the following things can be done urgently if the HRD minister puts in the same dedicated hard work that she put in before the elections.

- Repair the broken school buildings across the country;
- Create 'schools on wheels' and take these mobile schools to remote villages where new school building will take some time and engage good teachers asap;
- Install computers with the

help of ITC e-Choupal and keep videos, e-learning and MOOC courses ready to supplement or fill in for teachers. For all this, Shramdaan Shibirs (community service camps) can be organised on the lines of Vinoba Bhave's or Baba Amte's attempts wherein Modi can use all his charisma to appeal to his countrymen and women to come and take a few days to go stay in camps and help repair/maintain schools in villages. Rest assured, thousands of men and women will come forward for this effort. These volunteers will include educated people like doctors, engineers, lawyers, teachers, managers, officers, and also clerks, accountants and workers. Organisations and companies may be urged to give their select staff a paid leave to attend these Shramdaan Shibirs. Some may come for socialisation and fun and some for a good cause, but all will get involved in Modi's development process nationwide and toil together. If successful, the model can be replicated for other sectors such as healthcare. Come 2019, and these volunteers can become Modi's armoury.

But where will the money come from? Well, Shramdaan Shibirs don't cost much because the volunteers are obviously not paid, only directed and their stay and food is taken care of. All the existing mis-directed and costly subsidies can be removed to provide for the expenses of repairing/maintaining and later constructing new school buildings, and creating mobile schools. Also, tax-free bonds may be issued and people can even donate. A weak government needs the crutches of subsidies and freebies, not a powerful one such as Modi's. Nor does Modi wish to keep the underprivileged where they are, dependent on government doles, so as to capture their votes. Even the beneficiaries of subsidies have started understanding the game-plan and are now demanding jobs instead of freebies. They have self-respect and need a dignified living. Modi certainly understands it and has the mandate to fearlessly replace subsidies by education facilities.

If the HRD minister is very keen on doing something for higher education, she would do well to put an end to the notoriously scary ragging in IITs; remove the corrupt regulators in the education sector; free private education sector from counter-productive regulations; reduce caste-based reservations of seats and so on. Meanwhile, if industries adopt all villages in India, education will spread faster. Management institutes can organise such Shramdaan Shibirs; inculcate philanthropy and cater to the need of the hour by joining hands with the government if HRD ministry takes up such laudable initiatives towards nation-building at the bottom of the pyramid.

The author is faculty of Economics in SIMS, Symbiosis International University, Pune, and can be contacted at shubhada.s@sim.edu

Rebooting the education sector

Availability of finance for education needs the urgent attention of the new HRD minister

Ninad Karpe



THE new HRD minister Smriti Irani is staring at multifarious challenges in her office. For one, she needs to prioritise the gargantuan problems facing the education sector. If she succeeds in making an impact, she can truly make a big difference to this sector and ensure that India reaps the benefit of a demographic dividend of a large and young population. India is at the crossroads of opportunities and challenges and hopefully, the new minister will grab the opportunities and make some path-breaking changes.

The BJP manifesto had covered a wide range of topics on

skilling and education. Importantly, it had mentioned that public spending on education would be raised to 6% of GDP. Presently, it is around 3.2%-3.5%. If the new HRD minister manages to get a budget allocation of 6%, it can truly revolutionise this sector. By doubling the amount of funds, it can vastly improve access to the "last man in the line" and also the quality of education.

There is a huge shortage of teachers across all the sectors. As per an analysis done by Technopak in 2013, India requires a faculty totaling 1.16 million for all the Universities. As against this, India has a total faculty strength of 610,000, which means that there is presently a shortage of 350,000. In 2020, the shortage will rise to 1.38 million. The BJP manifesto has made a repeated

If the new HRD minister manages to get a budget allocation of 6%, it can truly revolutionise this sector. By doubling the amount of funds, it can vastly improve access to the "last man in the line" and also the quality of education



mention of shortage of teachers and the need to address it. We will have to wait for the execution plan that Irani rolls out for this.

So, what are the other initiatives which need the urgent atten-

tion of the new minister? Availability of finance for education needs urgent attention. In most developed countries, if a deserving student is unable to finance her education, she gets financing

on easy terms, without collaterals. In India, education financing is largely based on collaterals provided by the student—invariably, by her parents. This should stop. Collateral-free financing can be

made available if a robust framework of credit guarantee funds is made operational.

Our Prime Minister is known to be an innovative thinker and one who comes up with bold, original ideas. In this context, is it possible to conceive the idea of allowing "for profit" institutions in the education sector? Why not? In Gujarat, the Modi government has been aggressively pursuing privatisation, even in the education sector, and allowing "for profit" institutions will become a game-changer. It will allow flow of capital in this sector and improve the quality of education. Ultimately, the student will always have a choice of joining a "not-for-profit" institution or a "for profit" institution.

Skilling the youth and employment generation is a virtuous circle. The new minister should lay

emphasis on developing the human skill infrastructure. The human skill infrastructure involves recognition of skills, improving the quality of present vocational delivery mechanism, social acceptance, and interface with the industry for acceptance from the perspective of jobs.

If there is a moment in history when an HRD minister could reboot the education sector, it is now. A huge opportunity beckons to make paradigm changes which will impact vast numbers of Indians. With the mandate given by the people for the BJP, the opportunity for change is far greater than the challenges which the minister will face once she gets down to her work in the ministry.

The writer is CEO & MD, Aptech. Views are personal

Times of India ND 9/06/2014

IBM biggest spender on Indian temp talent

Shilpa Phadnis | TNN

Bangalore: IBM is the biggest spender on IT contract workforce hiring in India, and the expenditure is almost double that of the next biggest spenders. The New York-based technology company spends over \$150 million annually to hire contract IT staff which, according to estimates, translates into more than 15% of its overall workforce.

Accenture, Microsoft and Cisco spend over \$80 million each on maintaining a vast pool of contract workforce, while Cognizant, Oracle and HCL Technologies shell out over \$50 million each to augment their IT staff with contract resources that work as an extended IT team.

An email sent to IBM didn't elicit a response. The figures were obtained from a leading staffing firm that did

RECRUITING TECH TALENT	
Annual spending	Cos
Over \$150m	IBM
\$80m	Accenture, Microsoft, Cisco
\$50m-80m	Cognizant, HCL Technologies, Oracle
\$30m-50m	MacAfee, Tech Mahindra, Wipro, Citrix, Goldman Sachs, Intel, Motorola, Google, TCS
Up to \$30m	Infosys, Cap G, JP Morgan, ACS-Xerox, iGate

not want to be named. Contract employees are hired through staffing agencies or third-party IT vendors

IBM is estimated to employ close to 1.5 lakh people in India. It has been sharply increasing its India headcount and steadily reducing its US employee numbers. IBM employee organization Alliance@IBM puts the US figure for 2014 at 83,000, down from 1,27,000 in 2006.

Assuming most of the contract staff is junior staff with

an annual salary of about Rs 4 lakh, IBM will have over 22,000 people in this category.

"IBM's spend on contract staffing in India is smart given the talent base in India, and despite the rising cost structure. In the war for talent, skilled resources are needed across the world. India happens to have great depth for technology resources," said Ray Wang, CEO of Constellation Research.

IT and technology companies hire contract workers to

beat margin pressures, maintain lean benches, and facilitate just-in-time hiring in today's highly volatile market. Contract hiring provides quick access to skilled technical people and is a cost-effective alternative to supplement existing IT staff without incurring recruitment or training costs.

"Tech firms have seen cyclical business globally. A flexible workforce helps to manage an extended IT workforce at relatively lower costs. For some MNCs, it's a good way to show a reduced headcount," said Kamal Karanth, MD of US-based staffing agency Kelly Services India.

Moorthy Uppaluri, CEO of staffing solutions firm Randstad India and Sri Lanka, said, "The flexibility of having a contract workforce fosters incremental growth and allows companies to utilize their existing staff on strategic busi-

ness initiatives and core competencies. With such a virtual bench, there is no upfront cost commitment and you can bring more predictability to hiring budgets."

Karanth said contracts can last for three months to a year on a project basis and skillsets that are commonly outsourced include Java /J2E, testing and data-warehousing where employees get paid on an hourly basis.

Globally, the IT staffing market is a whopping \$180-billion industry. In India, this market has grown from a modest \$700 million in 2011-12 to about \$1.2 billion in 2013-2014. Statistics from the Indian Staffing Federation (ISF) showed that the industry employs 1.7 million flexi workers in India. The ratio of flexi staff to work force is 0.43%, considerably lower than in the US (1.8%) and Europe (1.6%).

Hindustan Times ND 9/06/2014 P-15

Patni, Indian IT's forgotten pioneer

TECH-IT-EASY

N MADHAVAN

NARENDRA PATNI, who died last week in the US aged 71, can be called as a pioneer at the least, and possibly the trendsetter, in information technology outsourcing.

The engineer educated in what is now IIT, Roorkee and later in the prestigious Massachusetts Institute of Technology (MIT) founded Patni Computer Systems (PCS) in 1972, and hired three people who left his company to start Infosys, which became India's first company to list on the Nasdaq. NR Narayana Murthy, S Gopalakrishnan and Nandan Nilekani are now household names in urban India, but Patni is not. Murthy last week paid tributes to Patni, calling him a "brilliant leader".

The technology industry, like history in general, is full

of ifs and buts. There are people who seed history, but there are others who go on to make it. For instance, it was Apple that invented the desktop home computer, but it was IBM that made it a worldwide rage in team with Microsoft.

It was Tata Consultancy Services (TCS) under Faqir Chand Kohli that ushered in the rise of Indian software programmers through what was called "body shopping" of engineers shipped to the US, now known more honourably as "onsite services" for clients. Patni started outsourced software services in the US and then developed a back-end in India, which is now known as "offshore services"—something TCS also perfected in the 1970s.

PCS, which fell a victim to a feud between Narendra and his brothers, was eventually acquired by iGATE Corp. If only Patni had made Murthy & Co his business partners instead of employees, perhaps the history of Indian IT would have been different.

n.madhavan@hindustantimes.com

Business Line ND 9/06/2014 P-15

Fall in Indian students studying in US

High cost, slowdown in job market cited as reasons

DEEPA NAIR

Mumbai, June 8

29-year-old Ravi Verma, decided to drop out of his plan of doing an MBA in the US, after reviewing the cost (which jumped significantly due to the depreciating rupee) and the overall return on investment.

Slowdown in the job market and opportunities in other destinations such as Singapore, New Zealand and Dubai has resulted in a continuous decline in the number of Indian students studying in the US.

According to the Educational Exchange Data released by the Institute of International Education, there has been a continuous decline in the last three years in the overall number of Indian students studying in the US.

Since 2009, the number of

undergraduate Indian students in the US has declined by 16 per cent to 12,740 in 2012-13 from 15,192.

Similarly, the number of graduate Indian students in the US declined by 20 per cent to 54,607 in 2012-13 from 68,290 in 2009-10. This is also corroborated by the decline in amount spent by Indian students on studies abroad.

The amount came down from about \$218 million in 2009-10 to \$125 million in 2012-13, according to the RBI data.

Student, work visas

Interestingly, during the period 2009-2013, the number of Chinese students in the US rose 85 per cent at undergraduate and graduate levels. Clay Hensley, Senior Director, International Strategy and Relationships at The College Board, which administers the SAT exam for undergraduate admission in the US, said: "All international students want their college experience to convert into a job. But



for Indian students that practicality seems even more important and in the US, a work visa does not necessarily come out of graduation in a US college. It's a completely different process for getting a student visa and a work visa, whereas in some countries it is integrated."

Similarly, after the removal of the post-study work visa for international students in the UK, data available from Higher Education Statistics Agency report shows a staggering 42 per

cent decline since 2010-11.

Destination New Zealand

A recent Assocham study points out that Indian students are also looking at countries such as Germany, Norway, Malaysia, France, Sweden, Denmark, Italy, and Ireland where education is considerably cheaper and part-time jobs are easier to secure.

New Zealand, for instance, has eased its work rights programme to allow students to work part-time, up to 20 hours per week, and full-time during scheduled holidays. That has helped see a 194 per cent increase since 2007, said Ziena Jallil, Regional Director, South Asia at Education New Zealand.

According to Vineet Gupta, Director at Jamboree, which helps student's clear proficiency tests such as GMAT/GRE/SAT/TOEFL/IELTS, the rise in entrepreneurial/job opportunities in India has seen many candidates coming back to India after studying abroad.

Hindustan Times ND 9/06/2014 P-10

Courses to educate foreign students about India

Vanita Srivastava

■ vanita.shrivastava@hindustantimes.com

NEW DELHI: Five Indian universities have been selected to conduct short-term courses to help enable foreign students, mostly from the US, understand and appreciate contemporary India and help foster international relations.

University of Hyderabad, University of Calcutta, University of Mysore, Jawaharlal Nehru University and University of Delhi were selected as a part of the 'Connect to India Programme' announced by the ministry of human resource development and the University Grants Commission.

The programme, in the form of summer schools, is likely to begin from the forthcoming academic session in June-July.

The courses will be related to economics and industrial development, science and technology, communication and information technology, Indian education, history, political processes, art and culture. Students will be taken to places of historical importance, participate in cultural programmes and learn yoga.

"Until now we have heard of Indian students leaving to study abroad. But now, foreign students will come to India," said Alka Sharma, registrar at the University of Delhi, who is the nodal officer for the programme.

Rashtriya Sahara ND 9/06/2014 P-3

चार वर्षीय डिग्री कोर्स को तीन का करने की तैयारी शुरू

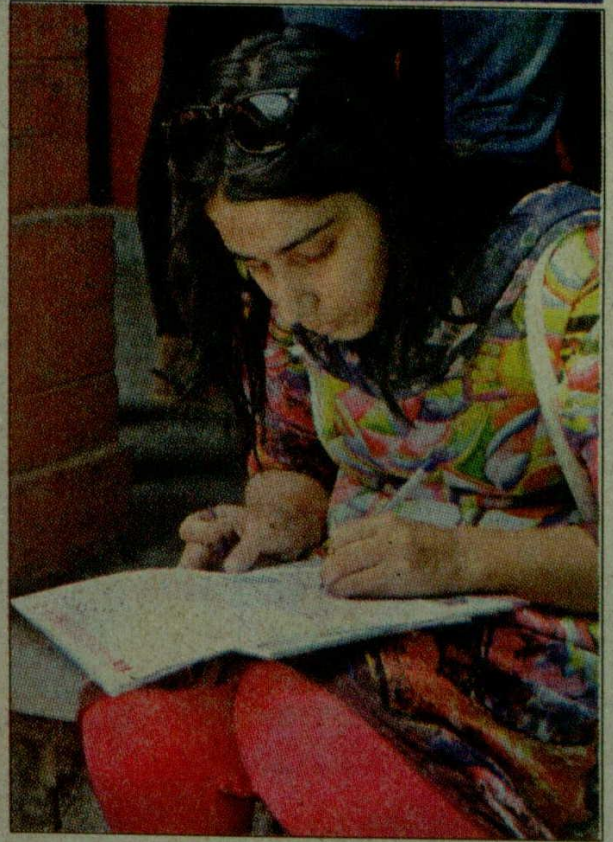
एचआरडी तैयार कर रहा रिपोर्ट, भाजपा के एजेंडे में रोलबैक रहा है शामिल

राकेश नाथ/एसएनबी

नई दिल्ली। दिल्ली यूनिवर्सिटी के चार वर्षीय डिग्री कोर्स को तीन वर्षीय में बदलने की तैयारी शुरू हो गई है। एचआरडी मंत्रालय द्वारा इस मामले में एक रिपोर्ट तैयार की जा रही है। सूत्रों के अनुसार मानव संसाधन विकास मंत्री स्मृति ईरानी के निर्देश पर यह रिपोर्ट तैयार की जा रही है।

उल्लेखनीय है कि डीयू में तीन साल की जगह चार साल का डिग्री कोर्स सेशन 2013-14 से लागू किया गया है। इसको लागू करने को लेकर शुरू से ही विरोध होता रहा है। भाजपा के एजेंडे में चार वर्षीय डिग्री कोर्स का रोलबैक शामिल है। अभी हाल ही में शिक्षकों व एबीवीपी छात्र नेताओं ने केन्द्रीय मानव संसाधन विकास मंत्री स्मृति ईरानी से मुलाकात कर शीघ्र चार वर्षीय डिग्री कोर्स के रोल बैक की मांग की है। सूत्रों की मानें तो श्रीमती ईरानी की ओर से मंत्रालय द्वारा चार वर्षीय डिग्री कोर्स को लेकर एक खास रिपोर्ट तैयार की जा रही है।

मंत्रालय के अधिकारियों को इस रिपोर्ट में उन सभी पहलुओं पर काम करने को कहा गया है, जिसमें चार वर्षीय डिग्री कोर्स को खत्म करने से होने वाली दिक्कतों को दूर किया जा सके। एबीवीपी के प्रदेश मंत्री साकेत बहुगुणा ने कहा कि हम चार वर्षीय डिग्री कोर्स को हटाने के लिए लगातार प्रयासरत हैं। वहीं डूसू अध्यक्ष अमन अवाना ने बताया कि डूसू के पदाधिकारी व डूसू ईसी के सदस्य सोमवार को चार वर्षीय डिग्री कोर्स के रोल बैक को लेकर केन्द्रीय मानव संसाधन विकास मंत्री स्मृति ईरानी से मुलाकात करने जा रहे हैं। उनसे चार वर्षीय डिग्री कोर्स को रोल बैक करने की मांग की जाएगी। बता दें कि चार वर्षीय डिग्री कोर्स के विरोध में केवल वामपंथी शिक्षक एवं छात्र संगठन व एबीवीपी ही नहीं, बल्कि एनएसयूआई के पदाधिकारी भी बीते तीन दिनों अनशनरत हैं।



Amity 'Solar Campus' offers interesting courses

Manash Pratim Gohain | TNN

New Delhi: Locally known as 'Solar Campus' thanks to the fully-functional solar cars its students have helped develop, this relatively new campus of Amity University in Gurgaon is introducing 20 new undergraduate courses this year, including two three-continent BTech and management courses.

Spread over 110 acres in the Aravalis, this green campus is offering an interesting mix of courses from foreign languages like German, French and Spanish to engineering disciplines like laser technology and opto-electronics. Popular courses like BCom and economics are new additions. June 18 is the last date of application.

With a focus on interdisciplinary programmes and research, the Gurgaon campus of Amity offers 72 undergraduate courses in management, engineering, sciences, humanities and social sciences. Interesting additions this year include the three-continent BBA (India, USA, UK), BSc in dietetics and applied nutrition and allied

WIDENING BASE

AMITY UNIVERSITY, MANESAR

Last date for UG course application | **June 18**
Forms available online & at 300 Axis Bank branches

► Introducing 20 UG, 2 dual degree (computer application and biotechnology) and 3 diploma courses



UG programmes **72**
Seats **2,500** (approx)

NEW UG COURSES

Commerce & management | 3-continent BBA (India, USA, UK), BCom (H)

BSc | Dietetics and applied nutrition; medical lab technology; audiology and speech language pathology; fashion design and technology; biological science; chemistry; forensic sciences

BTech | Mechanical and automation; civil; computer science; electronics and communication

Humanities & social sciences | Tourism

administration; journalism and mass communication; German; French; Spanish and PPE (philosophy, politics & economics)

Diplomas | Food and beverage service; food production; front office operation

Emerging areas | Applied sciences, architecture, biotechnology, commerce, economics, forensic science, language, law, liberal arts, nanotechnology, psychology and behavioural science

ADMISSION PROCESS

Humanities and social sciences | Personal Interaction and Class XII marks

Engineering and sciences | Admission will be based on entrance, personal interview and Class XII marks

► 100% scholarship for students (CBSE/ICSE/state board) with 93% aggregate & above and are eligible for direct admission (excluding physical education, fine arts and performing arts)

► 50% scholarship for those with 88% aggregate & above

health programmes like medical lab technology, audiology and speech language

pathology. Applications to courses can be made both online and offline.

"While the basic ideology of the Amity Group remains the same, what differentiates

Amity Manesar is offering an interesting mix of courses from foreign languages like German, French and Spanish to engineering disciplines like laser technology and opto-electronics

this campus is its interdisciplinary focus and research. For example, one of the interesting aspects is our outreach programme 'Mission Vision' through which our students of allied health programmes have saved 100 local citizens of this area from preventable blindness, taking education beyond the classroom. This will be Amity's first campus which is building a medical college and a hospital. The allied and public health programmes are a beginning of programme in medicine. Then there is unique programme like laser technology and opto-electronics, which is a very specialized engineering programme not available in other campuses," Aseem

Chauhan, chancellor, Amity, Gurgaon, said.

One of the largest private universities in Delhi/NCR, it also has a 20-acre sports complex and residential facilities. The university follows a flexible credit system where in students are allowed to design their own course and curriculum. "In keeping with global practice, our students are allowed a flexible credit system and they can design their own course. They can opt for highly specialized courses and pick their own majors and minors," said Chauhan.

Another highlight of this university is that it offers a unique 'three-continent programme. This year, the university has introduced a three-continent bachelor in business administration. "The three-continent programmes aimed at developing global leaders. We allow students to do part of the programme in our campuses in two other countries. The confidence graduates show on completion of the programme is one of its great benefits," Chauhan said.

manash.gohain@timesgroup.com

Gadkari's Ganga plan not new, NTPC already using waterway

Sanjay Dutta

,New Delhi:

TNN

Transporting Cargo On River Since October

A cargo corridor had taken off between Haldia and Allahabad along the Ganga in October last year, much before transport and shipping minister Nitin Gadkari's announcement on Friday of a Rs 6,000-crore plan to turn the holy river into a major waterway.

It was state-run generation utility NTPC that looked at Ganga as an alternative to overcome bottlenecks in transporting coal to its eastern powerhouses by rail. After being in the works since 2007-08, the route finally opened in October.

NTPC has two major power plants in the eastern region along the Ganga — Farakka (2,100MW) and Kahalgaon (2,340MW). The two plants require 30 million tonnes of coal if the plants are run at 90% of their capacity. Against the requirement, the company has supply allocation of 27 million tonnes of coal, which is mostly of poor quality. It imports coal to

make up for the poor quality and supply shortfall.

NTPC used to import coal at Haldia in West Bengal, and Paradip and Dhamra in Odisha for hauling it to its plants through rail. But traffic congestion delayed fuel delivery .

Hence, Farakka and Kahalgaon weren't able to meet their generation targets.

That is when NTPC got talking to Inland Waterways Authority of India, which was looking for firm cargo commitment to make its waterways plan viable. NTPC assured of moving an annual three million tonnes of coal on barges from Haldia to Farakka unit.

The plan took off in October, with Jindal ITF winning the global bid for waterways transport.

Buoyed by the success, NTPC recently started transporting turbines and generators weighing thousands of tonnes to Allahabad for its 1,320MW mega project in UP . Clean-up plan in a month, says Uma The Union ministries of water resource development, tourism, environment and forest, and shipping will come together to develop an integrated plan for cleaning up the river Ganga, said water resources minister Uma Bharti on Sunday, adding that a work plan would be readied in a month.

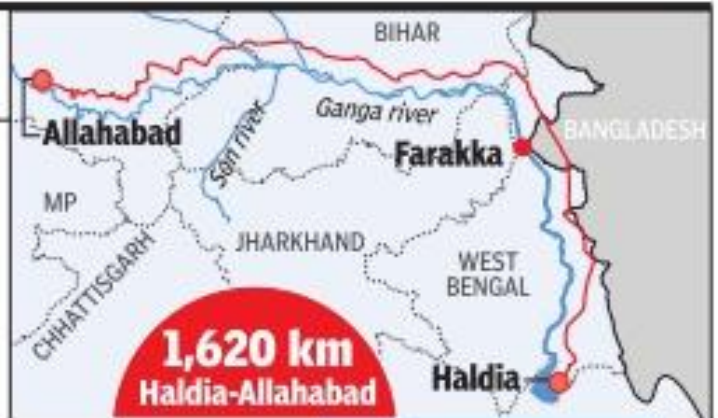
The Union minister, addressing a press conference in Haridwar, said a meeting of secretaries of the four departments was held in Delhi on Friday. A review of past projects will also be undertaken to learn from the mistakes made in their implementation, Uma said. She said institutions like IIT-Roorkee, which have evolved methods to maintain the flow of rivers without adversely affecting river-related development projects, would be part of the effort. TNN

RIVER IS THE WAY

NAVIGATION AIDS

- **Tribeni-Farakka**
- **Diamond Harbour- Kolkata**
(Lighted buoys, lights on country boats, lighted posts on the banks)

- **Bhagalpur and Swarupganj**
(Differential global positioning system reference stations)



1,620 km
Haldia-Allahabad

LEAST AVAILABLE DEPTH

Haldia-Farakka	3 m
Farakka-Patna	2.5 m
Patna-Varanasi	2 m
Varanasi-Allahabad	1.5 m

- **Minimum depth required for safe navigation of barges 2.5 m**
- **Depth shrinks in March and April** when water sharing between India and Bangladesh is in operation and India gets less water in a 10-day cycle

NTPC CARGO DEAL

- 3 million tonne** imported coal per year
- **Heavy equipment** to Allahabad for Meja power project

HT Jaipur

UGC asks for feedback on NET from stakeholders

Vanita Srivastava

✉ vanita@hwsolventforjournalism.com

NEW DELHI: In an effort to raise the bar of students seeking to crack the National Eligibility Test (NET) and revisit the exam to improve standards, the University Grants Commission has sought feedback from stakeholders on different aspects of the exam.

The exam, which is held twice a year to award junior research fellowship for PhD is a pre-requisite for the appointment of a lecturer in a college. The top 4,000 of those who qualify are awarded the fellowship. More than 60,000 candidates appeared for the exam in 2013.

A review committee was formed last year to have a re-look at the examination in toto. This included a re-look at the format of testing. Essentially, the committee will recommend changes on three aspects — pre-conduct, conduct and post conduct — of the exam. The recommendations will be put before the commission in November-December 2014 and if approved, they will be brought into force from June 2015.

"We have sought feedback from the stakeholders and will hold regional-level meetings in Kolkata, Bhopal, Chandigarh and Guwahati," DN Reddy, convener of the committee, said.

HT Kolkata

SOON, ROBOTS TO BEHAVE AS HUMANS?

Robots are good at computational tasks but fail miserably to walk, talk or recognise everyday objects. What if a robot could behave like a human? Scientists at University of California are working on a “neurotic” robot that can copy human behaviour. “We are trying to make the robot brain more like human brain,” said lead researcher Jeff Krichmar, a professor of cognitive science at University of California.

HT Jaipur

Harvard confirms antique book is bound in human skin

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Scientists of Harvard University have confirmed that a 19th century French treatise in its libraries is bound in human skin, the university said this week, after a bevy of scientific testing.

Arsene Houssaye’s “Des destinees de l’ame” (On the destiny of the soul) is part of the antique book collection of the university’s Houghton Library, which specializes in rare and antique works.

Harvard conservators and scientists used several methods to test the origin of the book binding material, using microscopic samples.

Through these tests, they were able to exclude the possibility that the book cover was made from the skin of a goat, a sheep or another animal.

“They are 99% confident that the binding is of human origin,” said a post on the library’s blog.

The conclusions confirm the veracity of a handwritten note in French found in the book, which said it was bound “in human skin parchment.”

“By looking carefully, you easily distinguish the pores of the skin,” added the note, written by a doctor who was a friend of Houssaye, who lived 1815-1896. “A book about the human soul deserved to have a human covering,” explained the doctor, Ludovic Bouland.

Bouland said the skin was taken from the back of a woman who suffered from mental illness and had died of a heart attack.

The doctor said he had another book bound in human skin in his personal collection that was tanned with sumac.

Harvard said that “Des destinees de l’ame” was the only book in its collection bound in human flesh.