

Newspaper Clips October 22, 2014

IIT Delhi bags top prize at the GITEX competition



Indian students shine at the GITEX Technology Week Student Lab competition with their innovative women protection device.

<http://www.arabiangazette.com/iit-delhi-bags-top-prize-at-the-gitex-competition-20141021/>

A team of five from the Indian Institute of Technology in Delhi bagged the top award at the GITEX Technology Week Student Lab competition for ProtectMe, a product which enhances women’s safety by combining a wearable device, control room and mobile app to alert authorities and potentially volunteers when the wearer is attacked, all while recording live audio-visual feeds.

Edging out more than 50 rival applications from universities across the Middle East, Africa, and South Asia, the Indian students — Paras Batra, Ayush Banka, Avinash Bansa, Chiraag Kapil, and Manik Mehta— won AED 30,000 under their newly founded “Leaf Lab team”.

“Violence against girls and women has become a global pandemic and, as the next generation of world citizens, we felt compelled to come up with a solution,” said Manik Mehta, Co-Founder, Leaf Lab. “The best part of being at GITEX was to get our concept validated from over 1,300 people within four days. A majority of them firmly told us we had created a very generic solution to a lot of problems – including child abduction – and that we should expand it beyond women’s security.”

Sponsored by the UAE Ministry of Presidential Affairs (MoPA), in association with Google for Work, the GITEX Technology Week Student Lab awards recognise and promote bright and innovative ICT students.

Abdallah Ourad and Omar Abduljaleel from the UAE's Khalifa University took second place and AED 20,000 for Tabibi/MedCare, an all-in-one digital nurse, while Abid Al Balushi from Al Musanna College of Technology in Oman received third place and AED 10,000 for 'A Real Time Interior Design Experience Through Online', an e-commerce website for interior design.

One of the GITEX Student Lab competition judges, Abdel Wahed Bendaoua, Head of Google for Work in Middle East and Africa, said: "We are happy to support the competition and encourage students at a young age to love learning and to become active creators of tomorrow's technology."

In addition to Bendaoua, judges included Ahmed Al Hassani, Head of Networks and Systems Unit, MoPA, and Majed Farouck Hanna, General Manager, Society of Engineers, UAE. Voting was decided 90 per cent by the judges and 10 per cent from GITEX visitors.

"We congratulate all the shortlisted Student Lab teams and especially the winners, whose innovative projects demonstrate how the strong ICT programmes in universities across the Middle East, Africa, and South Asia are fostering the next generation of technology leaders, who are leveraging mobile apps and connectivity to make the world a better place," said Trixie LohMirmand, Senior Vice President, Exhibitions & Events Management, DWTC.

No of female entrepreneurs at IIT-B's annual contest rising by the year

Written by [Mihika Basu](#) | Mumbai | Posted: October 22, 2014 6:10 am

<http://indianexpress.com/article/cities/mumbai/no-of-female-entrepreneurs-at-iit-bs-annual-contest-rising-by-the-year>

Pitched as Asia's largest business plan competition, "Eureka", organised by IIT Bombay's Entrepreneurship Cell (E-Cell), has seen an increase in the female-male participation ratio, which has risen from 1:7 last year to 1:5 this year, implying that women are increasingly looking at entrepreneurship as a viable career option.

The overall entries for the event, which is supported by the Department of Science and Technology (DST), have also witnessed an increase in number this year, going up to 7,100 entries from 6,000 last year.

Experts say that amid a difficult economy for the last few years, youngsters have been focusing more on creating their own start-ups and a platform like Eureka gives them an opportunity to pitch their business plans before investors, venture capitalists and reputed companies.

While the average age of the participants this year is 23 years, the maximum entries have come from Mumbai, Bangalore, Delhi-NCR, Jaipur and Pune.

"Youngsters are now keen on running their own ventures and these events give them a boost in terms of networking opportunities with potential partners as well as investors. While the overall prize money is Rs 45 lakh, the business track winner gets Rs 5 lakh, while the social track winner gets Rs 1 lakh," said an IIT Bombay faculty.

The education sector has seen the most increase in entries this year among all categories, with 32 per cent of females sending their entries in this segment.

“Overall, the top three sectors in which we saw most entries were technology (31 per cent), education (23 per cent) and services (21 per cent). There has also been a sizable jump in entries from tier-II and tier-III cities, from four per cent last year to 14 per cent this year, which is encouraging. Presently in its 16th edition, Eureka has been a launchpad for more than 40 successful start-ups,” says Sagar Sheth, E-Cell media manager.

According to the E-Cell team, the entries in the social track has increased by 28 per cent, signifying a national trend of social concern.

The institute further said the stakes went higher each year and the variety and number of foreign entries were a testimony to it. This year, it has received 21 international entries from Los Angeles, New Jersey, Netherlands, Dubai, Abu Dhabi, Andaman, Sri Lanka and Bangladesh.

IITs work on environment friendly cement

Researchers at India's top three IITs are working on a cement producing technique that is sensitive to the environment as well as the economy. Sanchayan Bhattacharjee reports

http://zeenews.india.com/news/education/iits-work-on-environment-friendly-cement_1488037.html

Professors at IIT-Delhi, IIT-Bombay and IIT-Madras along with Technology and Action for Rural Development (TARA), a social enterprise, have come up with a Limestone Calcined Clay Cement (LC3) which is significantly less harmful to the environment. According to their research paper, production of LC3 will reduce the clinker factors down to 40 per cent and emissions by 50 per cent as compared to Ordinary Portland Cement. Clinker is a combination of limestone, clay and other minerals which is extensively used during cement production. The average cement available in the market consists of 74 percent clinker.

Reduction of clinker is not the only benefit. “A lower quality of limestone and clay can now be used to manufacture this cement. This means that the limestone mines will have a longer life,” says Shashank Bishnoi, professor, Department of Civil Engineering, IIT Delhi.

In addition to being energy intensive and resource efficient, LC3 is also expected to save money. “In terms of capital investment, there will be huge savings. While a new clinker based factory will cost hundreds of millions of rupees, a LC3 plant will cost much less,” explains Bishnoi. Apart from these savings, even the production process will be economical depending on the location and raw materials available.

Currently, more than 30 tons of LC3 has been produced and a building has been constructed near Jhansi in Uttar Pradesh, to check the feasibility of the cement in constructions. The objective is to secure standardisation for the cement from the Bureau of Indian Standards. “The strength of the cement is easy to test, what takes time is checking the durability. We have to ensure that buildings constructed using this cement can withstand different geographic and climatic conditions,” says Bishnoi. As of now the project is a mix of basic and applied research. “While the IITs will focus on standardising the product, we will engage in discussions with the cement and construction industry to make them understand the need and benefits of LC3,” says Soumen Maity, general manager, TARA.

Although securing a standard for cement production is an arduous process, the benefits of this innovation are enormous. “The capacity of the cement industry doubles every decade. So in future, even if they take the LC3 production as a fraction of this expansion, the cumulative economic and environmental benefits will be enormous,” signs off Bishnoi.

India is the second largest consumer of cement in the world. According to a study conducted by the Confederation of Indian Industry (CII), the per capita cement consumption in the country is expected to touch 400 kg in 2015 as against 185 kg today.

Mint ND 22/10/2014 P-9

SPACE CONSTRAINTS

Govt plans new IITs, IIMs on smaller campuses

Move can help human resources development ministry tide over land scarcity, keep tabs on finances, say officials

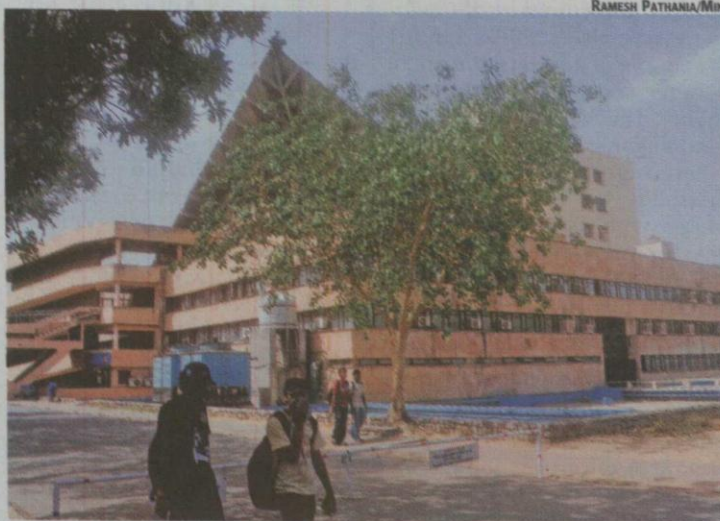
By Prashant K. Nanda
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NEW DELHI

Cost overruns caused by delays in construction are prompting authorities to take a fresh look at land requirements for Indian Institutes of Technology (IITs) and other new educational institutes, hoping to site them at smaller campuses and in a stipulated timeframe.

The human resources development (HRD) ministry believes that the move can help it tide over land scarcity issues and keep a check on the finances, two ministry officials said requesting anonymity.

Giving an example of the eight new IITs that came into existence since 2008, one of the officials said that when these institutes were planned during the 11th Five-Year Plan (2007-2012), the budget requirement was a little over ₹6,000 crore. Currently, the requirement is nearly ₹15,000 crore because of delays in building the campuses, which, in turn, are due to reasons



Reality check: Authorities believe the majority of the 43 central universities, except a few like Delhi University, are functioning with a disproportionately low number of students relative to the campus area.

such as the difficulties involved in getting 400-500 acres for each institution, the official said.

"That is a concern and we want to streamline this. The mindset that we need huge patches of land needs a relook. Vertical compact campuses should be looked at," the official said. "The concept of large campuses for universities needs a relook."

A move to cut land requirement will help genuine and professional players enter the higher education field, said Shalini Sharma, head, higher education at the Confedera-

tion of Indian Industries (CII), a business lobby. "Instead of an input driven model, the focus should be on output," Sharma added.

In fact, the ministry has already set up a land reform and infrastructure committee led by former education secretary M.K. Kaw to examine the matter, and its first meeting may take place as early as the first week of November.

The second official said a sum of more than ₹25,000 crore is needed for the new IITs and National Institutes of Technology (NITs) alone—nearly three times what was

estimated during the 11th Five-Year Plan that ended in March 2012.

Seven new Indian Institutes of Management (IIMs) and 17 new central universities, too, are facing similar constraints, forcing them to operate from temporary campuses, even though the National Democratic Alliance (NDA) government has promised to deliver more premier higher education institutions like IITs and IIMs.

Even if a state pledges land for campuses, acquiring such vast areas is not always possible. For example, IIT-Indore was awarded 502 acres by the Madhya Pradesh government. But with at least 198 acre of forest land included, it took almost three years to get forest and environment clearance, leading to delays in construction and the formal transfer of land to the institute.

There is also a view that existing institutions do not have enough students to justify their large campuses.

For example, Jawaharlal Nehru University (JNU) in Delhi has a 1,000-acre campus but only caters to around 7,300 students. Similarly, University of Hyderabad has around 5,000 students on its 2,000-acre campus, according to their websites. Authorities believe the majority of the 43 central universities, except a few like Delhi University, are functioning with a disproportionately low number of students relative to the campus area.

India has over 600 universities and 35,000 colleges, and wants to add several more to increase the higher education gross enrolment ratio (GER) from the current around 19% to 30% over the next six years.

ATTRACTING ATTENTION IN CAMPAIGN CALLED 'SHE' BOYS TIE STRINGS ON GIRLS' WRISTS TO BREAK STEREOTYPES OF WHO PROTECTS WHOM

IIT challenges gender roles with 'out-of-the-box' campaign

SHIKHA SHARMA
NEW DELHI OCTOBER 21

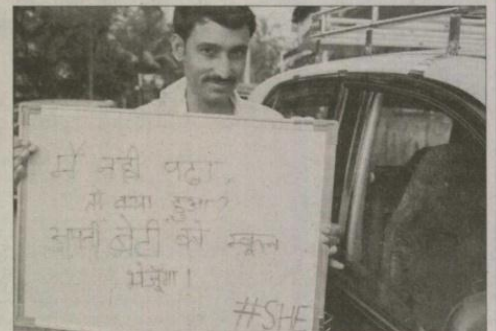
ON Raksha Bandhan this year, students of IIT-Delhi created a new tradition — boys tied girls *rakhi*.

"The idea was simple. The festival of Raksha Bandhan rests on this stereotypical belief that girls should be protected, and boys are duty bound to do it. We decided to reverse the roles and launched the campaign online. The response was tremendous," Yatin Nihalani, a student, said.

The idea was developed further and launched as a campaign for gender sensitisation — SHE. Developed by Nihalani and other students, the campaign is geared to go fight "deep-seated attitudes of



The rakhi initiative on IIT-Delhi campus; a poster of SHE campaign (right).



EXPRESS

sexism still prevalent in society".

"When we talk about women empowerment, there are bigger issues such as women's security, rapes, equality before law. There are other subtle things too—the assumed role a woman is expected to take, like that of cook, or a caretaker. Sometimes, even the women don't question it. With

the help of out-of-the box activities, our aim is to first engage and then draw attention to such issues," Nihalani said.

Though the students had designed campaigns since August, SHE was launched during the IIT annual fest Rendezvous.

IIT's campaign is not limited to the Delhi campus. Students

having already began taking it to Mumbai and the USA. "We try to attract attention through flash mobs, hashtag campaigns on Twitter, signboard campaigns on the ground and cyclathons," Abhishek, a member, said.

Students said they were planning to collaborate with the South Asian chapter of 'One Billion Ris-

ing'—a global campaign for women empowerment—to raise awareness by screening documentaries in various colleges.

"Being college students ourselves, we know how to get young people to listen. SHE is a step in that direction," Abhishek said.

SC tells AICTE and universities to be more 'responsible'

By Harish V. Nair In New Delhi

ANGERED by the growing number of "avoidable" cases related to disputes over the fixing of examination dates, counselling and admissions, the Supreme Court has asked universities and bodies like the All India Council for Technical Education (AICTE) to behave more "responsibly" and not according to their whims while showing scant regard for the future of students.

Reserving the sharpest strictures for AICTE, a bench headed by Justice Dipak Misra said: "The authorities who are in charge of giving approval, preparing syllabus, imparting education and carrying on such other activities are required to behave more responsibly. Lack of concern is only indicative of the beginning of destruction. This just cannot be allowed."

The bench added, "It is inconceivable that the authorities who are in charge of controlling the sphere of education to

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6 Law expects a rational perception, logical approach and a studied and well-deliberated decision from all authorities.

SUPREME COURT OBSERVATIONS

behave like errant knights justifying their own fanciful deeds. Law expects a rational perception, logical approach and a studied and well-deliberated decision from all the authorities."

The judges made the observations in response to a petition by some students seeking the extension of the schedule laid down by the Apex court in a recent case. Around 3,000 students, who had applied

for 830 seats offered by the Guru Gobind Singh Indraprastha University, were left in the lurch after the varsity closed the admissions and counselling to adhere to a deadline set by the SC. This was done following orders from AICTE. The court was furious that the process could not be completed even after a second time extension, forcing the students to approach the court to seek a further extension.



A petition was filed by a few students seeking extension of the schedule laid down by SC in a recent case.

Govt ups scholarship for scientists by 50%

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New Delhi: In what may motivate young scientists to continue their research work in India, without being lured by greener pastures abroad, the government on Tuesday announced hike of over 50% in the fellowship amount received by various categories of research scientists.

The hike, which comes into force from this month itself, could help curb brain drain by boosting the research environment in the country.

Nearly one lakh science research scholars and associates, working in different institutions across the country, will be benefited from this move of the ministry of science and technology that comes just two days ahead of Diwali.

Accordingly, the fellowship amount for research associate-III has been increased from Rs 24,000 to Rs 40,000, research associate-II from Rs 23,000 to Rs 38,000, research associate-I from Rs 22,000 to Rs 36,000, senior research fellow from Rs 18,000 to Rs 28,000 and junior research fellow

BATTLING BRAIN DRAIN

Research scholars' monthly fellowship goes up

	Earlier	Now
Research Associate-III	24,000	40,000
Research Associate-II	23,000	38,000
Research Associate-I	22,000	36,000
Senior Research Fellow	18,000	28,000
Junior Research Fellow	16,000	25,000

Figures in ₹

from Rs16,000 to Rs 25,000 per month, respectively.

In addition, the house rent allowance (HRA) as well as the medical benefits will continue to be available to all the categories of research scholars as per the central government norms or the norms of host institutions whichever applicable.

Entitlement for travel by AC-2 tier or AC-3 tier depending upon the category of research fellow or research associate will also be available to the young scientists. Besides, maternity leave for women research scholars will also be available to all categories of research fellows.

The central government also issued directions to the science and technology ministry to put

in place a "web-based fellowship assessment and disbursement mechanism" so that delays in disbursement of fellowship amount could be avoided.

Announcing the decision, Union minister of state for science and technology Jitendra Singh said, "Each ministry and agency can now use the guidelines to make requisite changes over their specific fellowship programmes and courses."

He also suggested that a hike in the fellowship amount should be undertaken periodically after due assessment and for this purpose the ministry would put in place a proper mechanism. The decision will put an additional burden of about Rs 750 crore on the exchequer.

IISc develops hand-held device to detect malaria

<http://www.deccanherald.com/content/437129/iisc-develops-hand-held-device.html>

Researchers at the Indian Institute of Science (IISc) have developed a portable hand-held device that can detect malaria within a short span of time and has the potential to aid the global fight against the disease especially in areas with minimal facilities where the disease might be rampant.

The conventional diagnosis involves collecting blood samples, subjecting them to clinical microscopy in a lab by experts with the results being available in a day or two. Such tests require lab equipment and experts, and consume much time. Other detection methods like Rapid Diagnostic Tests (RTDs) give fast but only qualitative results.

The device developed at IISc on the other hand gives both qualitative and quantitative results by automating the process of clinical microscopy, all within a device that can be held in one's hand. What's more, it does not require any skilled manpower to conduct the tests. The tests can be conducted by a layman.

Speaking to Deccan Herald, Dr Sai Siva Gorthi, Assistant Professor, Department of Instrumentation and Applied Physics, IISc and Principal Investigator of the project, said:

“We are not saying that we have invented a new means of detecting the disease. Clinical microscopy is still the gold standard of diagnosis. However, we have definitely found a faster and accurate way of doing tests so that they are no longer restricted to labs,” he said, adding that malaria can be diagnosed without the need for manual skilled human intervention.

A very small sample of blood - less than a drop - is used in the device that will test each cell in the blood. While a visual of the qualitative test is immediately available, the quantitative parasitaemia levels are processed in about 30 minutes.

The process

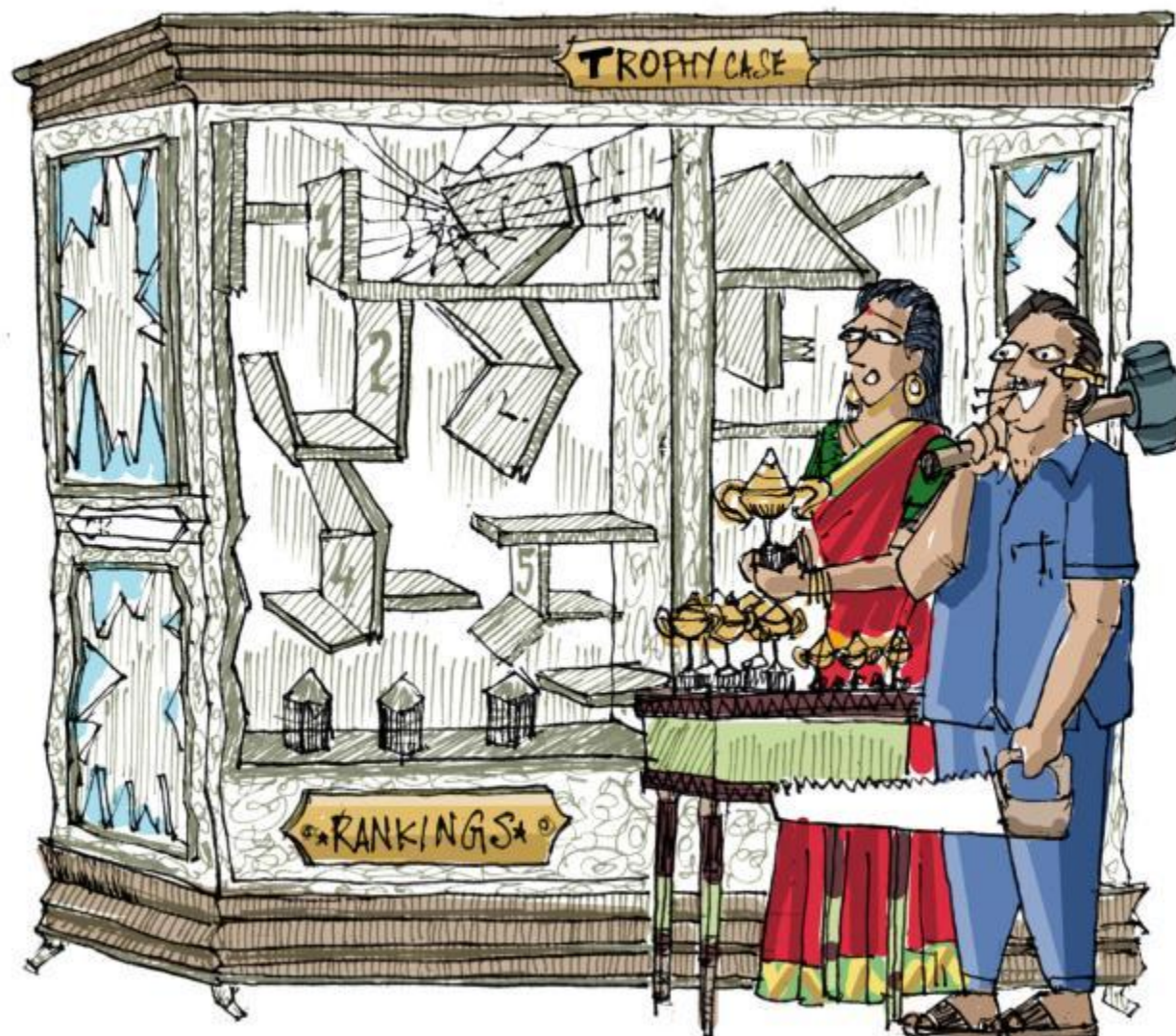
Explaining how the device works Dr Gorthi said: “The handheld instrument has a common optical reader...a replaceable microfluidic cartridge. Each time a new test is to be performed, these cartridges are pre-loaded with the required set of reagents to perform automated on-chip processing of the blood sample. Consequently, the affected blood cells display morphological features that are different from normal cells. So, just by looking at the cell images on the LCD display of the device, one can tell whether the cell is infected or not. The algorithms we have developed run on a smart phone-like platform and do this evaluation automatically,” he explained.

With modification to the device, it can be used as a “generic platform” that can give a diagnosis of other diseases that use clinical microscopy as a basis of detection, added Dr Gorthi.

Incubated at the Robert Bosch Centre for Cyber Physical Systems (RBCCPS) at IISc, the device got the ‘Best Innovator’s Pitch’ award recently, given by the Biotechnology Industry Research Assistance Council (BIRAC) under the Government of India. Dr Sai Siva Gorthi, said that the device might be in the market in three years.

According to World Malaria Report, 2013 of the World Health Organisation, the estimated need for diagnostic tests for suspected cases of malaria is more than one billion every year.

Getting real about rankings



<http://www.thehindu.com/opinion/op-ed/getting-real-about-rankings/article6524237.ece>

Creating a grading mechanism for Indian universities from scratch, particularly in a large, complex, and a disorganised system, is a massive challenge

Human Resources Development Minister Smriti Irani has announced that India will develop a national rankings system for its universities. In principle, this is a good idea. International rankings do not entirely suit Indian realities, and India has done abysmally in them. Further, providing benchmarks to measure the productivity of Indian universities and creating a sense of movement and competition among them is laudable.

An optimistic exercise

The challenge of actually creating rankings that will be based on real and relevant data is immense. It is worth thinking about the problems before plunging into uncharted territory. The experience of some other countries is not especially favourable. A few years ago, the Russians, stung by the poor showing of their universities in international rankings, created an international ranking system of their own. Unsurprisingly, Russian

universities did quite well. However, no one, even in Russia, believed the results of this ranking and the project disappeared. The Bertelsmann Foundation in Germany has been working for almost a decade on a non-ranking compilation of German institutions that has been widely praised. But it has taken a long time. Even the influential U.S. News and World Report ranking in the U.S., now in its 30th year, is regularly criticised for methodological and other failings. The goal of creating and implementing an Indian ranking, for release in December 2015, seems overly optimistic.

It is crucial to “get it right” the first time. If the Indian ranking system is seriously flawed in its design, methodology, data, or interpretation, it will be picked apart and immediately lose credibility. Creating a ranking from scratch — particularly for an academic system as large, complex, and in many ways as disorganised as India — is a massive challenge.

The challenges

Reports indicate that the main responsibility for developing the ranking, scope and methodology will be in the hands of the Indian Institutes of Technology (IITs). While they are distinguished, they are not universities but rather specialised technology institutions, and are unfamiliar with the broader university context. Further, they have no special expertise on higher education — a requirement to develop a good ranking system. A very substantial problem in India is the lack of data on many aspects of higher education. Even basic up-to-date statistical information is often lacking. Without reliable data on all of the aspects of ranking from all of the universities included, the rankings will have limited value.

Will the rankings include India’s 35,000 colleges? The vast majority of students attend these institutions. Almost all are affiliated to a university, but there are significant variations in quality, focus, and orientation among the colleges affiliated to any single university. Many will lack good data. It is impossible to generalise about more than one hundred colleges affiliated to a university. If the rankings include only universities, they will be of limited relevance to much of the public.

Some of the metrics that are proposed for measurement (such as ranking of social roles of universities) are impossible to measure. How will social roles be defined? Further, there is no data available, regardless of the definitions. Other global and national rankings have struggled with measuring teaching quality; no one has solved this dilemma. Some of the rankings use such proxies as the teacher/student ratio and similar relatively easy factors, but these do not measure actual quality.

All of the global rankings include publications and research funding as key productivity factors for universities. Most rankings count articles in internationally respected journals, included in the Science Citation Index or their humanities or social science equivalents. They then include citation rates and other criteria of actual use of the publications. The problem is that few Indian journals are included in the international indexes and there are no Indian equivalents that can be easily included. It would be possible to create such indices, but this will take both time and money. At present, there is no accurate way of evaluating either the scope or the influence of the publications of Indian academics.

Similarly, there are not easily available data sources for research funding or patent development, although these would be easier for universities to develop if careful criteria are put into place. The data collection challenges for universities will be quite substantial — there is only limited information currently available. In many countries, most universities have institutional research offices that are responsible for data collection and analysis and are able to provide information on a range of topics required by ranking agencies, quality assurance authorities, and the government. India does not have a tradition of institutional research — although building such offices is a key requirement of professionalising the work of universities. Internationalisation will be one of the criteria for excellence in the rankings. Indian universities are just now recognising the importance of internationalisation and will score poorly, at least in the short run. Few have a strategy to engage with the rest of the world, and the numbers of international students and staff in most institutions are quite small.

Will the private higher education sector be included in the rankings? A few of the private institutions are innovative and may score well, although most will not. These universities may have less data available than their public counterparts, and some may be reluctant to report accurate statistics.

A lost cause?

The idea of rankings is a good one. Rankings will stimulate the further professionalisation of Indian academe. Rankings will create a sense of competitiveness in the system; they will help build a differentiated academic system with a few internationally recognised research-intensive universities and a much larger number of institutions that will focus mainly on teaching. But implementation will not be easy. Those involved must be realistic about what is involved, what the costs will be, and how much time and energy will be required. If published reports and public statements are any guidelines, realism is not part of current thinking or planning.

(Philip G. Altbach is research professor and director of the Center for International Higher Education at Boston College, U.S.)

TECHNOLOGY

Tech marketing is the key for start-ups

Technology influences all aspects of business. Entrepreneurs need to leverage it

MANISH GODHA

The genesis of a start-up is when an entrepreneur sees an opportunity to build and deliver value to an audience.

Tech start-ups owe their existence to the fact that technology today influences all aspects of lives of people and businesses in fundamental ways. What many entrepreneurs (and technology visionaries) ignore is that for most people, the specifics of hardware, software and myriad mechanisms of how they come together are irrelevant (of course, to a degree that varies enormously). The primary concern is how to avail of technology to solve particular problems in the context of our everyday lives.

Costly mistake

This is where technology marketing is the key in ensuring smooth adoption/use and communicating value. Start-ups do recognise the importance of marketing. Many invest in digital and traditional advertising, for example. In most cases, however, marketing is thought to be a support function, sales enablement is near absent and communication is an afterthought. Thus many start-ups make a costly mistake of creating products and businesses which are disconnected to the audience, or at-least are not dynamically harmonized to the realities of the market. Marketing is central to the business

of a start-up. He or she has to get involved and influence the entire gamut consisting of complexities and dynamics of the tech business today. Perhaps, the entrepreneur has to be primarily a technology marketer. Start-ups, today, belong to the world characterised by the convergence of B to B and B to C, daily changes in decision making, and products and services on a sometimes daily release cycle.

Constant launch

The key skills thus are, how to manage the chaos by using some basic frameworks to get to market quickly and effectively, and quickly generate audience and decision making profiles to enable technology sales. In addition, it is becoming critical to optimally leverage the power of the "constant launch" mentality to rise above the noise.

Another interesting aspect is the convergence of B to B and B to C. Technology decisions that businesses make are increasingly driven by how individuals/end-users use technology.

More and more consumer technology is entering the business environment and the adoption and value realisation of any technology is dependent on how these individuals experience technology. Many

a tech start-ups have been founded on this very premise. Therefore tech marketing cannot focus merely

at the point where technology is bought or sold. For technology to be of real use beyond the "bling effect", its true value has to be communicated simply, effectively, and with clear regard to how individuals make decisions, whether for their personal lives or their business lives. As business grows, it is not unusual to see chaos creeping in and incoherence setting in. Tech marketing, with all its good intent, can end up alienating the customer with multiple messages, dated product information, and irrelevant content.

The key challenge for a start-up is to reach its audience and communicate the value of its offerings effectively. Thus tech marketing is about building awareness amongst the target audience, and at the same time is responsible to ensure effectiveness of various campaigns and high returns of marketing spend.

A right approach to is about bringing the multiple aspects of technology production and usage together to ensure that the value of technology is realised. Effective tech marketing is thus dependent on a deeper involvement in the business of technology and in the business of the technology user. It is a value-first approach, enabled by bringing together dissimilar skills. It is, for all businesses, and especially for a start-up, a critical ingredient for success and growth.

The writer is founder and CEO, Advaiya, a technology and marketing services company



बड़े खतरे में
तब्दील हो रहे
मरकरी प्रदूषण
से निपटने
के लिए ठोस
नीति की
अपेक्षा कर
रहे हैं
जयराम रमेश

प्रदूषण की नई चुनौती

लंबे समय से प्रदूषण की समस्या से जूझ रहे उत्तर प्रदेश के सोनभद्र जिले में सिंगरीली क्षेत्र के लोगों के लिए अंततः अब जाकर थोड़ी बहुत राहत मिलने की उम्मीद जगी है। यहां पर बड़ी तादाद में निजी और सार्वजनिक क्षेत्र की औद्योगिक इकाइयां तथा विद्युत पैदा करने वाले उद्योगों का समूह है। यह इलाका देश में सर्वाधिक विद्युत उत्पादन और खनन वाले क्षेत्रों में शुमार है। कुछ आकलन के अनुसार जहरीले मरकरी अथवा पारा का उत्सर्जन करने वाले देश के उद्योगों में 17 प्रतिशत उत्सर्जन केवल इस इलाके से होता है। स्थानीय आबादी को लेकर किए गए आधिकारिक और गैर-आधिकारिक, दोनों ही तरह के अध्ययनों से पता चलता है कि यहां के लोगों के खून में मरकरी का स्तर बहुत अधिक है। इसी तरह उनके बालों में भी इसका प्रभाव नजर आता है और इसके चलते उनके स्वास्थ्य में कई तरह की विसंगतियां उत्पन्न हो रही हैं। इस तरह के प्रदूषण से होने वाली बीमारी विशेषकर र्वास संबंधी होती है।

दिसंबर 2009 में आइआइट्टी, दिल्ली और पर्यावरण तथा वन मंत्रालय के केंद्रीय प्रदूषण नियंत्रण बोर्ड ने संयुक्त अध्ययन के बाद घोषित किया कि सिंगरीली क्षेत्र देश के 43 सबसे अधिक प्रदूषित औद्योगिक क्षेत्रों के शीर्ष क्रम में शुमार है। इस गंभीर समस्या को देखते हुए निर्णय किया गया कि सफाई-स्वच्छता की विश्वसनीय योजना पर क्रियान्वयन किए बिना इस क्षेत्र का और अधिक विस्तार नहीं किया जाएगा। इस प्रतिबंध को एक एक्शन प्लान के आधार पर हटा लिया गया। लेकिन यह बात अलग है कि जिस एक्शन प्लान के आधार पर इस प्रतिबंध को हटाया गया वह कभी फलीभूत नहीं हो सका। यहां मरकरी के उच्च प्रदूषण की समस्या आज भी बरकरार है। मरकरी मानव स्वास्थ्य के लिए बेहद हानिकारक है। यही कारण है कि पिछले माह ही भारत अंततः मिनामाटा कन्वेंशन ऑन मरकरी पर हस्ताक्षर करने को राजी हुआ। इस समझौते को पूर्ण रूप लेने में तकरीबन छह वर्षों का समय लगा और इसका नामकरण एक जापानी शहर के आधार पर किया गया जो 1950 से ही घातक

मरकरी के प्रदूषण और इसके जहरीलेपन का पर्याय रहा है। मरकरी प्रदूषण विभिन्न प्रकार के ज़ोतों अथवा माध्यमों से बढ़ता है। अभी भी मरकरी का खनन कार्य जारी है। हालांकि यह विशेष रूप से चीन और कुछ मध्य एशियाई देशों में होता है। दस्तकारी में इसका बहुतायत में उपयोग होता है और अक्सरों से स्वर्ण कणों को अलग करने के लिए छोटे स्तर पर स्वर्ण खनन के दौरान इसका इस्तेमाल किया जाता है।

मरकरी का इस्तेमाल रासायनिक और पेट्रोरासायनिक उद्योगों में होता है और घरेलू जरूरत की चीजों जैसे सीएफएल और थर्मामीटर आदि में भी इसका इस्तेमाल किया जाता है। जिन संयंत्रों में कोयले का इस्तेमाल होता है अथवा उसे जलाया जाता है उससे भी वातावरण में मरकरी का उत्सर्जन होता है। उद्योगों से ज्ञात ज़रूरत की चीजों जैसे सीएफएल और थर्मामीटर आदि में भी मरकरी की उपस्थिति होती है जो बाद में पानी में फैलता है और नदियों तथा समुद्र तक पहुंचता है। इस प्रकार यह मानव खाद्य पदार्थों में पहुंचता है और मछली के माध्यम से भी हमारे शरीर में पहुंचता है। यही वे कारण हैं जिसने 1950 में जापान के मिनामाटा में एक आपदा का रूप लिया। प्रदूषित स्थलों में पुरानी खदान, अपशिष्ट भरावक्षेत्र तथा कूड़ा फेंकने वाले स्थान शामिल हैं। ये मरकरी प्रदूषण फैलने के महत्वपूर्ण स्रोत हैं। सिंगरीली से इतर बात करें तो तमिलनाडु के कोडाइकनाल हिल स्टेशन पर भी यह बहुत ही चिंता का विषय है। यहां पर थर्मामीटर का निर्माण करने वाले कारखानों की

मौजूदगी है। इन कारखानों को पोंड कंपनी ने 1983 में अमेरिका से यहां पर स्थानांतरित किया और बाद में 1998 में हिंदुस्तान लीवर ने इसका अधिग्रहण कर लिया। मार्च 2001 में इस फैक्ट्री को तब बंद किया गया जब राज्य प्रदूषण नियंत्रण बोर्ड ने इन्हें बंद करने का आदेश दिया। इसके बाद कंपनी ने यह आश्वासन दिया कि वह बंदीकरण के बाद व्यावसायिक सुरक्षा के साथ-साथ उपचारात्मक अन्य मानदंडों का पालन करेगी, लेकिन सिविल सोसायटी के कार्यकर्ताओं समेत कुछ गैर सरकारी संगठन निरंतर इसके खिलाफ संघर्षत रहे हैं। चार वर्ष बाद दिसंबर 2011 में मद्रास हाईकोर्ट द्वारा गठित विशेषज्ञ समिति ने कंपनी के पक्ष में अपनी रिपोर्ट सौंपी, जबकि केंद्रीय श्रम और रोजगार मंत्रालय ने मद्रास हाईकोर्ट को एक अन्य रिपोर्ट सौंपी जिसमें उसके पूर्व कर्मचारियों ने खुद पर मरकरी के दीर्घकालिक हानिकारक प्रभावों का उल्लेख किया था। यह मामला अभी भी लंबित है।

कोडाइकनाल और सिंगरीली के अतिरिक्त ओडिशा का गंजम एक अन्य क्षेत्र है जहां मरकरी प्रदूषण खतरनाक स्तर पर पहुंच चुका है। इस बारे में कुछ विशेषज्ञों ने इसके खतरनाक पहलुओं पर ध्यान आकर्षित करते हुए बताया है कि भारतीय संदर्भ में मरकरी के संचयन के मामले में कीटनाशकों का प्रयोग सर्वाधिक खतरनाक है। मरकरी के प्रदूषण जिनमें आर्सेनिक, कैडमियम, क्रोमियम और सेलेनियम को भी जोड़ा जा सकता है, का उच्च स्तर पंजाब के भटिंडा जिले में पानी

की सतह पर देखा जा सकता है। पंजाब का यह शहर कैसर संभावना की दृष्टि से खतरनाक क्षेत्र के तौर पर उभरा है। आगामी दशकों में इनका तेजी से विस्तार होना स्वाभाविक है। इन वजहों से यह आवश्यक हो जाता है कि भारत अब कोयला आधारित विद्युत संयंत्रों के साथ साथ कोयला खदानों के मामलों में मरकरी उत्सर्जन के मानदंडों का सख्ती से पालन सुनिश्चित करे। इस संदर्भ में मिनामाटा समझौते के तहत भारत के पास पांच वर्षों का समय है, जबकि वह इन्हें नियंत्रित करे और नए विद्युत संयंत्रों में इनका उत्सर्जन घटाए या कम करे। इस क्रम में मौजूदा विद्युत संयंत्र अधिकतम 10 वर्षों तक इनका उत्सर्जन कर सकेंगे। लेकिन हमें इतना अधिक इंतजार करने की आवश्यकता नहीं है। हमें मरकरी रहित तकनीक की ओर अग्रसर होना है और सीएफएल से मरकरी मुक्त एलईडी तकनीक पर जोर देना होगा। मिनामाटा समझौते को लेकर आलोचना की जाती है कि यह एक कानूनी प्रक्रिया अधिक है, जो राजनीतिक दृष्टि से बहुत अधिक महत्वपूर्ण है, लेकिन इसके प्रभाव को कम करके नहीं आंका जाना चाहिए।

अंततोगत्वा इस बात की भी आवश्यकता है कि भारत मरकरी के अतिरिक्त विद्युत संयंत्रों से निकलने वाले सल्फर डाइऑक्साइड के उत्सर्जन के मानदंड को भी सख्ती से लागू करने की दिशा में कदम उठाए। भारत एकमात्र बड़ा देश है जिसके पास ऐसे किसी मानदंड का अभाव है। सिंगरीली जैसे स्थानों पर यह स्वास्थ्य संबंधी एक अन्य बड़ी समस्या है। सल्फर डाइऑक्साइड उत्सर्जन के मामले में भारत दुनिया का दूसरा सबसे बड़ा देश है। इसका एक प्रमुख कारण देश में कोयला आधारित विद्युत उत्पादन की प्रणाली है। तथ्य यही है कि सल्फर डाइऑक्साइड वातावरण में लंबे समय तक बना रहता है। सल्फर डाइऑक्साइड हमारी र्वास प्रणाली में आसानी से समा जाती है। इस प्रदूषण का हमारे स्वास्थ्य पर हानिकारक प्रभाव पड़ता है, जो दूसरी अन्य गंभीर बीमारियों को जन्म देती है।

(लेखक पूर्व केंद्रीय मंत्री हैं)

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जरूरी कदम

♦ यह आवश्यक है कि भारत अब कोयला आधारित विद्युत संयंत्रों के साथ साथ कोयला खदानों के मामले में मरकरी उत्सर्जन के मानदंडों का सख्ती से पालन सुनिश्चित करे

Breakthrough surgery reverses paralysis

Belgian Firefighter Who Suffered Spine Damage Can Now Not Only Walk But Also Drive

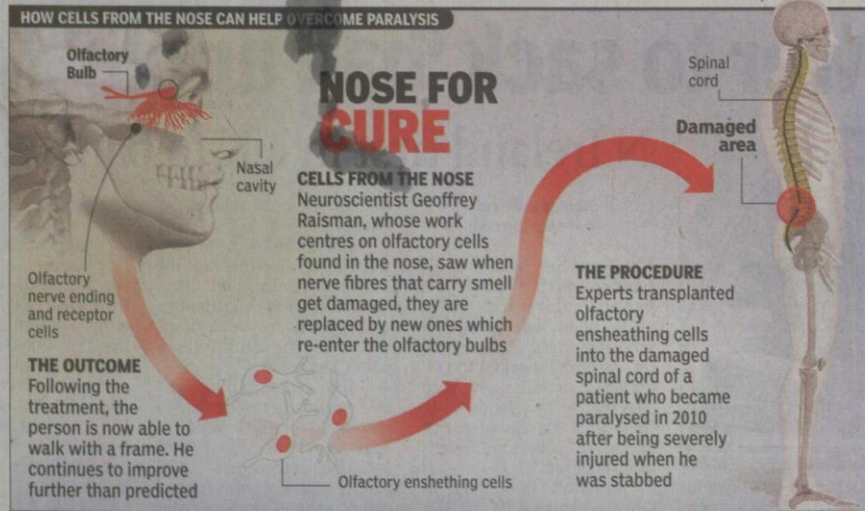
Kounteya.Sinha@timesgroup.com

London: In a medical breakthrough, a man who was paralysed from the waist down due to a fractured spine has been able to get up from his wheelchair and walk, offering hope to millions disabled by spinal cord injuries.

A joint team of British and Polish doctors have for the first time ever reversed a complete spinal paralysis by using nerve-supporting cells from the nose of Darek Fidyka, a Bulgarian firefighter who was injured four years ago and has been in a wheelchair since, to create a pathway along which the broken tissue was able to regrow.

Fidyka was left paralysed during a knife attack but is now feeling the sensation and muscle control to his legs restore. The 38-year-old can now not only walk with a frame but also drive a car.

The treatment has also helped recover Fidyka's bladder and bowel sensation and sexual function. Doctors involved in this breakthrough are now trying to raise £10 million to fund surgery in Poland for 10 similar patients so that the technique can be refined.



The surgery was performed by a Polish team led by Dr Pawel Tabakow from Wroclaw Medical University while the discovery of the technique was made by Professor Geoffrey Raisman from the University College London's institute of neurology.

The path-breaking surgery involved transplanting olfactory ensheathing cells (OECs) from the nose to the spinal cord.

Once relocated to the spinal cord, they enabled the ends of severed nerve fibres to grow back and join together.

"The patient is now able to move around the hips and on the left side, he's experienced considerable recovery of the leg muscles. He can get around with a walker and he's been able to resume much of his original life, including driving a car. He's not

3D printer used to save man's foot

Melbourne: In a first, doctors in Australia have used a 3D printer to help build a 71-year-old man a new heel bone and save him from losing his leg to cancer.

Doctors used scans of Len Chandler's left heel bone to create a 3D image of his right one. They then used the 3D version to help construct an exact replica of the bone, the calcaneus, where a tumour had taken over, the Herald Sun reported.

Patients with advanced cancer in the calcaneus often lose the leg below the knee as it is too difficult to replace the highly complex bone. Chandler can already carry more than half his body weight following the groundbreaking surgery in July. PTI

dancing, but he's absolutely delighted," said Raisman.

Fidyka said walking again was an incredible feeling. He added "When you can't feel almost half your body, you are helpless. But when it starts coming back, it's like you are born again".