Newspaper Clips

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3 PIO scientists in US honours list

Chidanand Rajghatta | TNN

Washington: Three distinguished scientists of Indian-origin — two inventors and a researcher — figure in a celebrated White House honours list this year, broadly underscoring India's continued contribution to American advances. Two of them are IIT-ians, alumni of the academically elite Indian Institute of Technology.

New York University's Srinivasa SR Vardhan, Purdue University's Rakesh Agarwal, and North Carolina State University's B Jayant Baliga are among the selected dozen to receive the National Medal of Science, and for Technology and Innovation, the highest honor bestowed by the United States government on scientists, engineers as well as inventors.

"Each of these extraordinary scientists, engineers, and inventors is guided by a passion for innovation, a fearlessness even as they explore the very frontiers of human knowledge, and a desire to make the world a better place," Obama said on Tuesday. "Their ingenuity inspires us all to reach higher and try harder, no matter how difficult the challenges we face."

DESI GEEKS

Scientists and researchers of Indian-origin have occasionally featured before in the White House honours list, but this is the first time that three have been recognized in a single year in a list typically dominated by US-born and US-educated geeks.

Business Standard ND 29/09/2011 P-10

IIT CAT 2013: Hard lessons for private coaching centres

SWATI GARG & M SARASWATHY
Kolkata/Mumbai

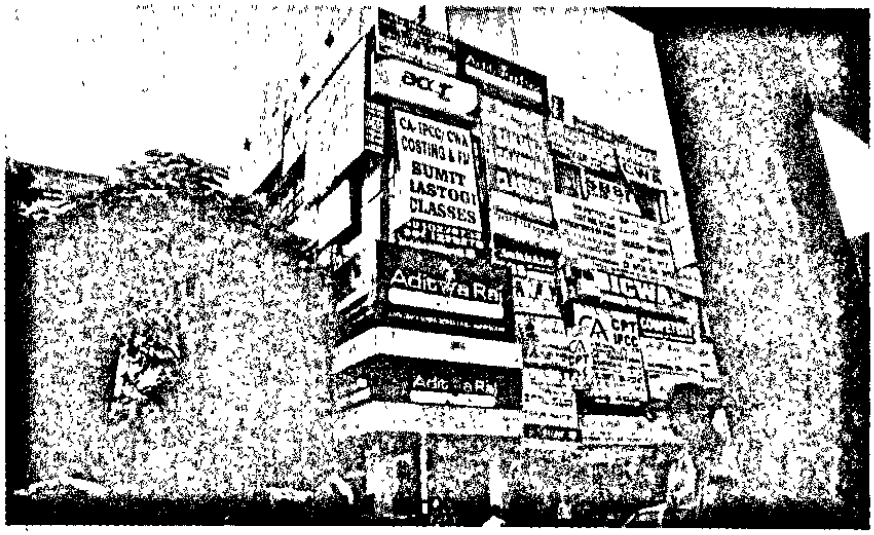
The proposed common admission test format for the Indian Institutes of Technology (IITs) and National Institutes of Technology (NITs), could prove to be a damper for the Rs 10,000-crore coaching industry.

Come 2013, the existing marking system will be replaced with one where the focus will be on the performance at the board exams. Candidates will be chosen, based on their ranks in the board exams and the number of students who appear for the exam under the concerned board. "For example, a student from CBSE would get more points for being ranked fourth, than a student from the West Bengal Board," said Gautam Barua, director, IIT Guwahati.

At present, IIT aspirants appear for the IIT Joint Entrance Exam (IIT JEE), which takes into account a student's capabilities in physics, chemistry and mathematics (PCM). Board exams or class-XII results do not play a role in the final marking system. A student has to, however, score a minimum 60 per cent to qualify for the examination. Over 1.5 million students appear for the exams every year.

He said the idea behind changing the exam format "was to strike at the root of the coaching system that has gripped the country". "We want these coaching classes to be transformed into schools," he said, adding that the new format will encourage students to earn merit at the Plus-2 level. "The best way to do it, would be by encouraging students to perform better at the board exams."

Coaching centres will, therefore, have to change their approach, said experts. For instance, Gautam Puri, managing director of Career Launcher, one of India's better-known coaching institutions, said students will focus more on the overall package of subjects rather than just the PCM combination. "The way students prepare for the exams will change. Instead of focusing on the PCM, they will study everything. It will directly impact residential coaching institutions, which offer the code for cracking the earlier PCM-based exam. This kind of a coaching system will not be needed for just an aptitude test."



Mushrooming of tutorials across cities, big or small, highlights the growing trend of students opting for coaching classes DALIP KUMAR

At present, there are three types of examinations to apply for an engineering course — the IIT JEE for IITs, the All India Joint Entrance Exam (AIJEE) for other government engineering colleges besides the IITs, and the state board engineering exams for state engineering colleges.

The residential coaching programmes that Puri refered to are estimated to be a Rs 400-500 crore industry in Kota, a small town in Rajasthan, with a burgeoning student population. Over 70,000 students arrive in Kota to prepare for the entrance exams. While coaching institutions like the Forum for IIT-JEE chose to downplay saying it is too erealy to pass a judgment on the potential impact of the change, others like Pramod Maheshwari, MD and CEO of Kota-based Career Point, echoed Puri's views.

"Now that Class XII board exam marks will also be taken into consideration, there will be a lot of competition to secure good marks in these exams. In this case, expert coaching will still be there. But, though the coaching modules would be modified as per the requirements, I believe there the business would be affected temporarily," said Maheshwari.

Others, however, said the new exam format will merely mean a change in the coaching syllabi. "The analysis that students study only for the exam and not for their boards is incorrect. Over the past five years, the average IITian has a board exam percentage of over 80 per cent. Good students will continue to look for help. As long as that happens, it will be business as usual," said P K Bansal, CEO, Bansal Institute. Kota-based Bansal Institute gets over 12,000 students every year an average and the annual fees per student is Rs 70,000.

The idea behind the change in the format, which was taken at the meeting of the IIT Council last week, was to curb the growing coaching culture. Terming the coaching system as a "racket", Sanjay Govind Dhande, director, IIT Kanpur, had observed that the entrance examination system had to change.

Mint ND 29-Sep-11 P5

LOW AWARENESS

Education subsidy plan misses target

By Prashant K. Nanda & Remya Nair

NEW DELHI

An ambitious scheme to make higher-education loans more attractive to poor students has failed to meet its target because of inadequate marketing and lack of coordination among various agencies.

The scheme, launched in 2010 by the human resource development (HRD) ministry, gives full interest subsidy (a student will not have to pay the interest for the loan he or she avails) to students from families earning less than ₹4.5 lakh a year.

The interest subsidy is valid for the length of the course the student is enrolled for as well as a moratorium of either one year or six months after employment, whichever is earlier.

An HRD ministry document says only 40% of the budgeted amount was used in FY2011. "In the previous financial year, a total of claim of sum of ₹203.28 crore was reimbursed to Canara Bank out of the total budget of ₹500 crore." *Mint* has reviewed a copy of the document.

Canara Bank is the nodal agency for the scheme, following a decision by the Indian Banks' Association. Other banks lending to students under the scheme can claim the subsidy from Canara Bank, which in turn gets reimbursed by the HRD ministry.

The HRD ministry has allocated a budget of ₹640 crore this fiscal for the subsidy scheme.

A ministry official said the scheme has not received enough attention because of poor awareness and lack of support from banks and state governments. "Till recently less than 15 states have notified a designated authority who can give students an income certificate," the official said, requesting anonymity. He refused to name the states.

The official added that though interest rates on education loan are higher than those for vehicle and home loans, some banks hesitate to sanction education loans, branding them "risky". Another official in the HRD ministry said the ministry has informed the finance ministry and IBA and "hopes to see a better result by the end of this year".

India wants to increase its higher education enrolment by nearly 30 million in a decade. Currently around 15 million are studying for college degrees in India, around 12.4% of those eligible. Of these, less than one-tenth take student loans, according to official data.

Geeta Bhukal, education minister of Haryana, said the scheme is good but needs publicity. "Many don't know how to avail (of the loans)," she said. However, the minister said that she is not sure whether her state has notified any designated authority for the scheme or not. "I need to check it."

A Central Bank of India official said many states are yet to notify a designate authority for issuing the income certificate. "It's a cumbersome process to lodge claims as data has to be collated from all the branches by the central office and then passed to Canara Bank," he said, requesting anonymity as he is not authorised to speak to media.

A Canara bank official, who too did not want to be named, said the figures are provisional as they had given banks time till 31 August to claim the subsidy. "We are providing sufficient publicity but the main issue is that many states are yet to notify the authority who can issue the income certificate to the eligible candidates", he said. "We are still collating the data and the final amount could be more than ₹200 crore", he added.

A finance ministry official said his ministry has asked "banks to promptly inform loan seekers meeting the income criterion that they are eligible for the subsidy. Most banks are doing it. But there are a few instances where this is not happening".

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Hindustan Times,
ND 29/09/2011 P-8

CHEAPEST PC LAUNCH ON OCT 5

NEW DELHI: HRD minister Kapil Sibal will launch the much-awaited ₹1,500 computer cum access device, labelled as the cheapest computer in the world, for students on October 5.

"The computer will be launched next month," Sibal said. The new device is a seven-year-old project of the HRD ministry, started after MIT proposed to sell $100 laptops for school education in India. The ministry had rejected the MIT proposal and said it could produce a cheaper computer and formed a committee to indigenously develop it.

Sibal said the new device, whose name will be announced at the launch, will perform all functions from browsing the web to gaming. "That's an enormously empowering tool," he said, while giving away the first IGNOU-instituted Rajiv Gandhi International Prize for technology to Azim Premji.

Sibal said IT does not help transcend boundaries but it is also an important tool to root out corruption. **HTC**

Hindu ND 29/09/2011
P-5

Food poisoning victims at IIT rejoin classes

Staff Reporter

MUMBAI: The Indian Institute of Technology, Bombay (IIT-B) authorities said on Wednesday that none of the 500-odd students affected by food poisoning is in a serious condition now.

"Most of them were sent back to the hostels soon after they were treated, but there are five-six students who are still admitted in the hospital and are undergoing treatment," said U.A. Yajnik, IIT-B Dean of Students' Affairs, talking to *The Hindu*.

He said their condition is stable now. "They will be discharged by Thursday," he added.

Looking into the causes

More than 500 students from hostels No. 12, 13 and 14 had complained of nausea, vomiting and dizziness after consuming food in the common mess meant for all three hostels.

They were immediately taken to the on-campus hospital where they were administered treatment such as rehydration, etc, authorities said.

"In fact, most of the students have rejoined classes today. We are still looking into the causes. We have no other information as yet," he said.

Hindu Chennai 28.09.2011 P-2

IIT-M festival set to "inspire the future"

Staff Reporter

CHENNAI: If focussing on research projects is one of the most important pursuits of engineering institutes, equally important is showcasing them in the public. This is exactly what IIT- Madras would do from Thursday. Nearly 30 live projects, research papers and working models of the Institute would be displayed for the first time, as part of Shaastra – 2011, a four-day technical festival.

The theme for the event this year is 'Inspire the future,' with a slew of events planned to discuss innovations that focus on the use of sustainable technology for social change, besides a whole range of technical events, quizzes, workshops and seminars. Announcing an array of new events that are planned as part of Shaastra this year, organising members said that this is the first time the Institute would collaborate with IIT- M Research Park, and will provide a platform for students who have innovative ideas to present them. "We want the impact to be felt beyond these four days," said I.V.S. Sandeep, secretary, co-curricular affairs of IIT-M. A highlight of the fest is an attempt to create a record by placing over 100 robots, developed by students, in a single loop.

The tech fest is slated to attract nearly 4,000 participants from different colleges across the country, and students of IIT- M have decided to deploy technology to manage the crowd. "We would hand over Shaastra passports this time with barcodes that would help us know who is going where. It would not help us organise better, but also plan for next year," said Vinay Sridhar, an organiser.

The budget of the tech fest this year is around Rs.80 lakh, with additional events in civil engineering and bio technology. Robotics, junkyard wards, gaming events and the regular features of Shaastra, besides the 3D mapping show and aero shows have also been scaled up this time, said the organisers.

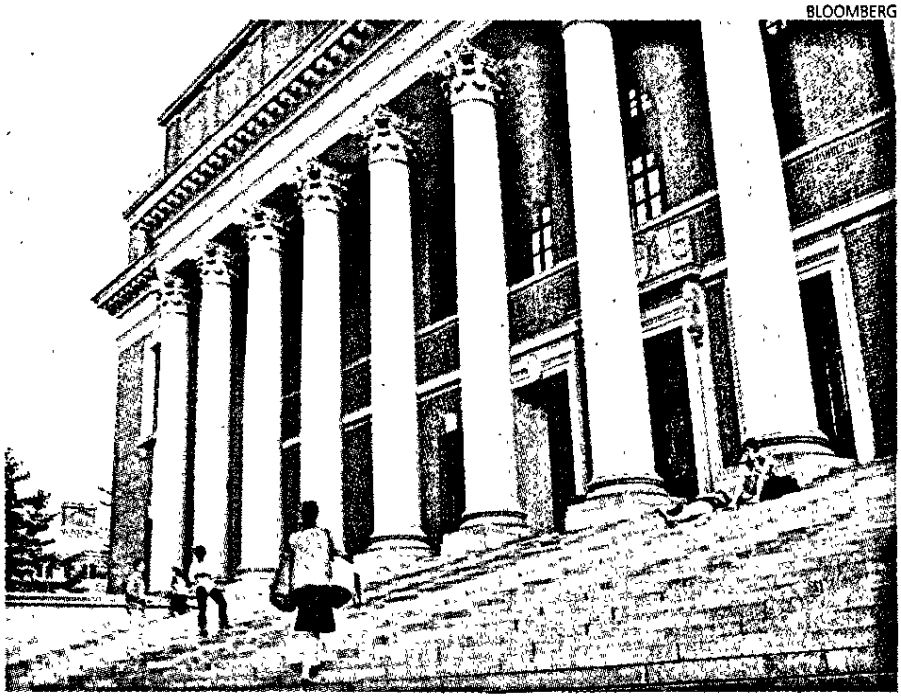
Besides, in an event 'Industry expo,' professionals from different companies would showcase company products and services giving a glimpse of what engineering is like in the real world. "All this would help the students experience engineering and technology in their own way," said Prathap Haridoss, advisor, co-curricular activities. K. Ramamurthy, Dean of Students, IIT-M participated in the meeting.

Business Standard ND 29/09/2011 P-10

MUMBAI CALLING: HARVARD PROVIDES THE ANSWERS

SANJAY JOG
Mumbai

BLOOMBERG



US-based Harvard University has, in principle, agreed to partner with the Maharashtra government to provide training for its elected representatives, bureaucrats, executives and academicians on issues relating to governance and development. This will be the first time Harvard University has agreed to be part of such a venture in Maharashtra.

The university expressed its desire in this regard during its recent interaction with a high-level delegation led by Maharashtra's minister for higher and technical education Rajesh Tope.

Sanjay Kumar, higher and technical education secretary, who was part of the delegation, told Business Standard: "We kept all four proposals for consideration of Harvard University which include training for elected representatives, propelling of a quality research programme in Mumbai University and other universities in Maharashtra, and the university's engagement in the development of a world class traning institute and using its expertise in the resource mobilisation for the education sector."

With Harvard University giving an "in principle approval" to take part in the project, the government will submit a detailed proposal which will be cleared by the university's board of directors. He said the state government would provide the necessary funds for the same.

Harvard University has also agreed to be associated in a capacity-building exercise for Mumbai University and other institutions in the state. "The objective is to build capacity of the stakeholders in higher education, including vice chancellors and academician administrators," said Kumar.

According to Kumar, Harvard University also responded positively to help the state government in setting up a world-class training centre. "Harvard University's in-principle approval is the result of the government's regular interaction with its officials."

THE UNIVERSITY HAS AGREED TO train MPs, MLAs bureaucrats, executives and academicians on governance and development

The move comes ata time when the Centre is yet to pass the Foreign Education Bill which would allow foreign universities to have campuses in India. Union human resource development minister Kapil Sibal had tabled the much-awaited Foreign Education Institutions (Regulation of Entry And Operations) Bill, 2010 in the Lok Sabha on May 3, 2010.

The Bill is aimed at regulating the entry and operation of foreign educational institutions which are imparting, or intend to impart, higher education in India. It will also permits foreign education providers to set up campuses in he country and offer degree courses. The Bill will not only bring in the much needed investment in the education sector, but will also draw foreign students and help India arrest brain drain.

Harvard has had a long association with India. Harvard Business School, for instance, has been conducting executive education or management development programmes in India since 2008, but out of five-star hotels. It has also been planning to have a classroom of its own for its executive education programmes. Indian corporate honchos, including Ratan Tata and Anand Mahindra, were reported to be helping the top institute find one.

HBS, which is ranked higher than all Indian B-schools, is looking for a permanent classroom is and that is likely to put more pressure on executive education programmes offered by Indian B-schools. On an average, such programmes comprise around 35 per cent of the revenue stream for most leading B-schools in he country.

Times of India ND 29/09/2011 P22

Let There Be Light

A scientific experiment seems to be at odds with Einstein's theory of relativity

Saswato R Das

News that an experiment at the European Organisation for Nuclear Research (CERN), the giant particle accelerator near Geneva, has obtained results at odds with Albert Einstein's theory of relativity has the scientific world abuzz with consternation. Could the great Einstein have been wrong?

Einstein is one of the most revered figures in science. As every schoolboy knows, he came up with the formula '$E=mc^2$' where E stands for energy, m for mass and c for the speed of light in empty space. Known as mass-energy equivalence, $E=mc^2$ is what underpins energy production in nuclear power plants; it explains how the Sun and other stars produce light, and why atom bombs are so devastating.

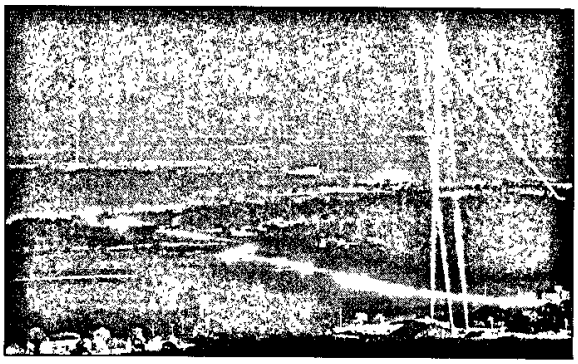
In 1905, Einstein also postulated that the speed of light – approximately 3,00,000 kilometres per second – was the ultimate speed limit in the universe. Nothing could exceed it. In fact, if one were able to do so, all sorts of strange things would happen. Time would flow backwards. You could leave on a faster-than-light journey one morning and return the previous evening. Your weight would be negative. Time travel would be possible. To prevent these seeming absurdities, Einstein disallowed any speed faster than the speed of light.

Over the years, some people (mostly crackpots) have tried to prove that Einstein was wrong and it is possible to travel faster than the speed of light. But no experimental data have borne out this possibility – until now.

The CERN physicists who noted the discrepancy with Einstein were part of a team called OPERA. Their experiment produced neutrinos, ghostly and electrically neutral particles that are byproducts of nuclear reactions. Neutrinos very rarely interact with other matter; only occasionally can we detect their presence. The CERN physicists fired a beam of neutrinos from Geneva to an underground cavern in Gran Sasso in Italy, where a giant detector monitors neutrinos. Over three years, they tracked some 15,000 neutrinos.

> The theory of relativity is the bedrock of modern physics. If it is proven inaccurate, all of modern physics will have to be reinterpreted. Textbooks will have to be rewritten

Here's what perplexed them. The neutrinos from CERN were reaching the detector at Gran Sasso 90 nanoseconds (a nanosecond is one-billionth of a second) faster than light takes to cover the same distance. It was not a huge difference, but a difference nonetheless, and it was at odds with Einstein. They checked and rechecked their results, looking for obvious sources of experimental error, but couldn't find anything that changed the results. So they let the world know what they had found.



The neutrinos' path: No speed breakers?

Physicists everywhere are perplexed. While no one is prepared to jettison Einstein right away, a nagging doubt that Einstein might be proved wrong has been introduced.

If it does turn out that the neutrinos are travelling faster than light, it will be a big deal. The theory of relativity is the bedrock of modern physics. If it is proven inaccurate, all of modern physics will have to be reinterpreted. Textbooks will have to be rewritten. Everything in physics from cosmology (how the universe was created and how it behaved in the first few seconds) to nuclear medicine will have to be revised.

The real test of a scientific theory is its ability to make testable predictions. If experimental observations differ from what is predicted by theory, either the theory is wrong or incomplete. The history of science is full of examples of even very successful theories being overthrown because of experimental results.

Such was the case with the view of the universe espoused by the Greek philosopher Claudius Ptolemy in the second century. Ptolemy believed that the Earth was at the centre of the universe, and the sun, stars and planets revolved around it once a day. Ptolemy's model seemed to work, and it found resonance in the Church's world view. As such, it became the accepted model, holding sway for some 1,500 years. Yet, it was dead wrong. What finally overturned Ptolemaic astronomy were Galileo's observations, coupled with the theories of Nicolaus Copernicus and Johannes Kepler.

Einstein himself benefited from an experiment that didn't agree with conventional scientific wisdom in the 19th century. Back then, it was widely believed by physicists that light waves needed a medium to travel, just as sound waves need air or water. This medium came to be called the "luminiferous ether". In the 1880s, Albert Michelson and Edward Morley set out to detect the ether. They reasoned that due to the Earth's movement around the Sun and the Sun's movement around the centre of the galaxy, the ether should be detected through a sensitive experiment that examined the speed of light in different directions. Yet, in spite of several attempts, Michelson and Morley found that the speed of light seemed the same whichever way they looked. This was a contradiction, and it implied there was no ether. In 1887, they published a paper to that effect, which motivated Einstein two decades later.

It is still too early to tell whether Einstein's theory of relativity is wrong. The CERN experiments need to be independently verified. Since measuring neutrinos is so difficult, statistical methods were used by the OPERA team, and these methods are under careful investigation. There could also be some experimental error that was inadvertently overlooked.

In the coming days and months, the best brains in physics will scrutinise the CERN results and seek to independently verify them. At the end of the day, scientists know that if repeated experimental results do not agree with Einstein's predictions, it is the experiments and not Einstein that will win.

The writer is a commentator on science and technology.

Indian Express ND 29-Sep-11 p2

President Patil's CERN visit to highlight Indian physicist's contribution

SHUBHAJIT ROY
NEW DELHI, SEPTEMBER 28

PRESIDENT Pratibha Patil will meet a group of Indian scientists at the prestigious CERN (European Organization for Nuclear Research) in Geneva when she visits Switzerland end of this month, and invoke Indian scientist Satyendra Nath Bose's contribution to the institution. Patil will be on a two-nation tour to Switzerland and Austria between September 30 and October 7.

Sources said the President is very keen to visit the famous institute, which last week made a discovery which — if proven true — could upset Albert Einstein's Theory of Relativity. If independently verified, the measurement of subatomic "neutrino" particles travelling faster than the speed of light would prove that one of the foundations of modern physics, Theory of General Relativity, was wrong.

"There are many Indian scientists in this institute, and the President and her entourage are looking forward to meet them... not to forget the tremendous contribution of Indian physicist Satyendra Nath Bose towards this experiment," said a senior government official.

In fact, of the three main past and present physicists behind the proton-smashing quantum physics experiment in Geneva, one of them is the Bose of the 'Higgs-boson' experiment — Satyendra Nath Bose. It is Bose after whom the sub-atomic particle 'boson' is named. It is widely known in the scientific circles that the US $10 billion Large Hadron Collider experiment in Switzerland last week could not have happened without Bose and Einstein.

Patil, who will be on a State visit to Switzerland from September 30 to October 4, will be accompanied by Swiss President Micheline Calmy-Rey for most part of the trip.

In Switzerland, she will hold wide-ranging discussions with the Swiss President and other members of the Federal Council (Swiss Cabinet). She will unveil the bust of Rabindranath Tagore at the University of Lausanne on October 4 and witness the signing of a MoU to set up a 'Tagore Chair' on Indian Studies between the university and the Indian Council for Cultural Relations. In Austria from October 4 to 7, she will meet President Heinz Fischer and her engagements will include meetings with Austrian Chancellor Werner Faymann and Speaker of Austrian Parliament Barbara Prammer. She will also go to Salzburg, which is the native place of world-famous composer Mozart, where a special concert would be organised in her honour.

A business delegation is accompanying the President. She and her counterparts will address joint business forum in both Switzerland and Austria. In both countries, she will meet the Indian community.

Pioneer ND 29/09/2011 P4

IGNOU confers Rajiv Gandhi prize on Premji

PNS ■ NEW DELHI

The Indira Gandhi National Open University (IGNOU) conferred the Rajiv Gandhi International prize for Technology in Education and Development on Azim Premji Foundation on Wednesday. The award was presented by the Union Minister for Human Resource Development and Communications and IT, Kapil Sibal to Azim Premji at the India Habitat Center in the capital.

This award was instituted by the University in its Silver Jubilee Year. This prize is given to an individual or an institution that has made significant contributions in education particularly educational technology, for development in developing countries across the world.

It comprises a cash component of ₹5 lakh and a citation. Azim Premji Foundation is the first awardee for the laurel.

Also, a book was released by the minister containing the silver jubilee lectures compiled by the Pro VC of IGNOU, Dr. Latha Pillai and Associate Professor Dr. Babu P Ramesh while, Mr. Azim Premji released a CD containing the interactive multi course study materials of the university.

Acknowledging the honour, Premji outlined three major experiences giving meaning to his contributions. Focusing on the basics of education through equity he said, "You can't build skyscrapers in air. We need a solid foundation to address the demands."

He emphasised upon the significant uses of IT in education and said that, "Currently, IT in education is used as a separate subject altogether. It can be integrated with the mainstream of education which would then prove far more useful in disseminating education among adults than children. Though children learn quickly, but what they require is good teachers."

"One area of use of IT which is not being exploited as yet is administration. IT has a huge applicability here which can help improve the area of governance," he concluded.

Prof. VN Rajasekharan Pillai, VC, IGNOU outlined various innovations like the Pan Africa network and the upcoming of an Institute of Sign Language Research and Training Centre for deaf people by the university.

COMPUTERS FOR EVERY SCHOOLCHILD: SIBAL

Kapil Sibal announced the launch of a tablet computer by next month in his bid to let children go beyond the boundary of classroom and teachers to acquire knowledge through IT. He said, "Soon, a 35 dollar computer will be made available to every child in school. The tablet shall help enhance the quality of learning of children."

He clearly said that, "We lack quality teachers in our system. One of the big initiatives in the 12th Five Year Plan would thus be to introduce national teacher education mission. It is only then that we would be able to get quality teaching and learning."

He also talked about his initiatives with Mr. Sam Pitroda, Advisor to the Prime Minister on Public Information Infrastructure & Innovations and Mr. Nandan Nilekani, Chairman of Unique Identification Authority of India (UIDAI) on connecting every gram panchayat in three years with optical fibre networks. "A bill for public service electronic delivery is also in the pipeline which shall enable the delivery of every bill, including your licence, passport etc online in five years."

Hindu ND 29/09/2011 P-14

Cheap, painless, needle-free vaccination device developed

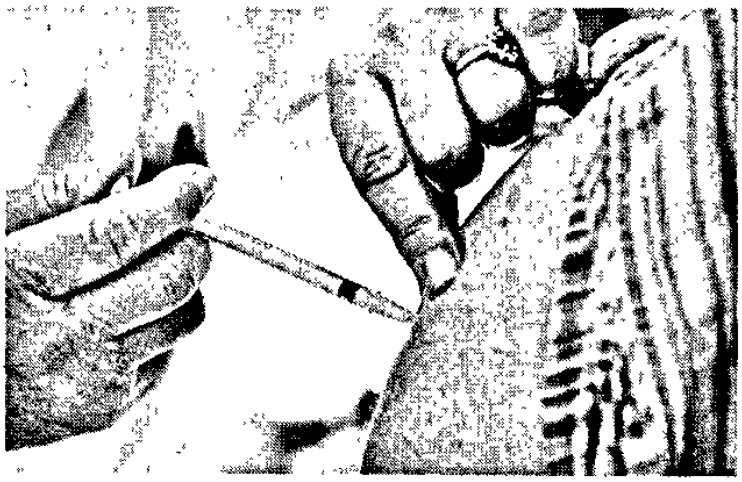
Good news for the needle-phobic.

Australian scientists have developed a cheap and painless 'needle-free' vaccination device that can be self-administered.

A team of 20 researchers led by Professor Mark Kendall, from the Australian Institute for Bioengineering and Nanotechnology at The University of Queensland, have developed the Nanopatch, a stamp-sized vaccine delivery device, that could make vaccination programmes globally simpler and cheaper.

The Nanopatch, having 20,000 micro projections per square centimetre, is designed to directly place vaccine into the human skin, which is rich in immune cells.

And unlike the needle and syringe, which places vaccine into the muscle — which has very few immune cells — the Nanopatch puts it to our immune sweet spot.



ON TARGET: *Unlike the needle and syringe, which places vaccine into the muscle — which has very few immune cells — the Nanopatch puts it to our immune sweet spot.* – PHOTO: AFP

"And by doing that we make vaccines work a lot better," Kendall told PTI.

"The Nanopatch potential lies in it being cheap, painless, very effective being transported without refrigeration — and can be given without the need for extensive training," Kendall said.

The removal of the need for refrigeration is achieved by dry-coating vaccine to the Nanopatch, which could have huge potential for developing countries like India, and many within Africa, he said.

The World Health Organisation estimates 50 per cent of vaccines in Africa do not work properly because the 'cold chain' has been broken.

In a pandemic, the reduced dose would also make it easier for governments to supply sufficient vaccine to the public, he added.

The new device is simple as it does not need a trained practitioner to administer the vaccine.

The Nanopatch has to be worn to just 2 minutes or even less, thus giving a pain-free immunisation, he said.

The vaccine could hit markets in next 10 years, Kendall said. The Nanopatch, described as a "vaccine utopia" has recently won Prof Kendall and his team the 2011 Eureka Prize for Excellence in Research by an Interdisciplinary Team.

The prize is part of the Australian Museum Eureka Prizes. — **PTI**

Hindu ND 29/09/2011 P-13

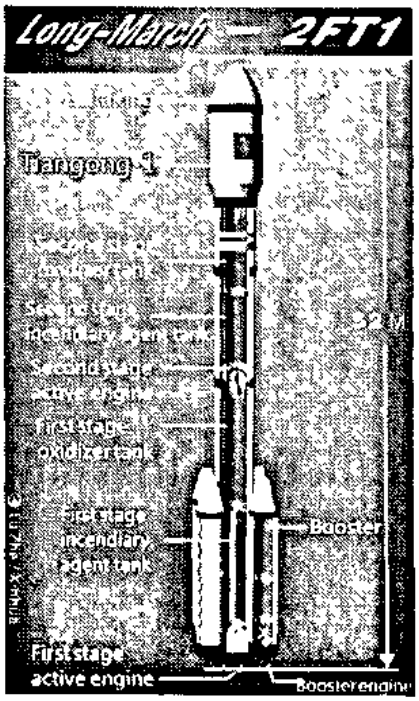
All set for China's space module launch today

JIUQUAN (GANSU): A spokesperson for China's manned space programme said on Wednesday that fuel had been injected into the Long March-2FT1 carrier rocket in preparation for launching the Tiangong-1 space module on Thursday as planned.

The Long March-2FT1 is the latest modified model of the Long March-2 rocket series and features a more powerful thrust force, said spokeswoman Wu Ping at a press conference at the Jiuquan Satellite Launch Center in northwest China.

The Long March-2FT1, given more than 170 improvements, is 52-metre long with a payload to low Earth orbit of 8.6 tonnes,said Mr. Wu.

The modifications came after an unsuccessful launch in August when a Long March-2C rocket failed to send an experimental satellite into orbit. Engineers conducted comprehensive technical evaluations and made modifications to Tiangong-1's Long March-2F carrier rocket, which shares most of its components with the failed Long March-2C.



The graphic shows the structure of Long-March-2FT1.– PHOTO: XINHUA

To contain the Tiangong-1 module, which is larger than China's Shenzhou manned spacecraft, the Long March-2FT1 has a larger nose fairing, according to Jing Muchun, chief designer of the Tiangong mission's carrier rocket system.

The shape of the rocket's boosters has also been modified to allow for greater fuel volume than the Long March-2F model, resulting in an increase in its thrust power, said the chief designer.

Compared with carrier rockets that the United States and Russia have used to launch Moon-landing vehicles and space station components, China's Long March rocket series is much less powerful.

For example, a carrier rocket must have a payload capacity of at least 20 tonnes to send one single part of the International Space Station into low Earth orbit. "China's manned space programme aims at building up a space station, so we need a more powerful carrier rocket," Jing told Xinhua at the launch center.

"Research and development on a new, bigger carrier rocket that burns more environmentally-friendly liquid-oxygen-kerosene fuels is in progress," he said. — Xinhua

Amar Ujala ND 29/09/2011 P-7

आईआईटी सीड चार दिसंबर को

मास्टर इन डिजाइन और पीएचडी के लिए परीक्षा

अमर उजाला ब्यूरो

- फाइन आर्ट्स व एमए पास भी हो सकते हैं शामिल
- 7 अक्तूबर तक आवेदन, 14 नवंबर जमा होंगे फ़ार्म

नोएडा। आईआईटी संस्थानों में मास्टर इन डिजाइन और पीएचडी के लिए होने वाले कॉमन एंट्रेंस एग्जामिनेशन फॉर डिजाइन (सीड) की परीक्षा 4 दिसंबर को आयोजित की जाएगी। इसके लिए ऑनलाइन रजिस्ट्रेशन 7 अक्तूबर तक जारी रहेंगे और फार्म 14 नवंबर तक जमा किए जाएंगे। खास बात ये है कि इस परीक्षा में बीटेक, बीआर्क, बी.डिजाइन जैसे पाठ्यक्रम के छात्रों के अतिरिक्त बीएससी, फाइन आर्ट्स और एमए पास छात्र भी शामिल हो सकते हैं।

ये परीक्षा आईआईटी कानपुर, दिल्ली, गुवाहाटी, बोम्बे और आईआईएससी बंगलूरू में संचालित पाठ्यक्रमों के लिए होती है। इसमें मास्टर इन डिजाइन इन डिजाइन, प्रोडक्ट डिजाइन एंड इंजीनियरिंग, इंडस्ट्रीयल डिजाइन, विजुअल कम्यूनिकेशन, एनिमेशन, इंट्रेक्शन डिजाइन, मोबेलिटी एंड व्हीकल डिजाइन और पीएचडी के पाठ्यक्रम शामिल है। इंटीरियर डिजाइन में स्नातक, 12वीं कक्षा के बाद डिजाइनिंग में 4 साल का डिप्लोमा, बीएससी या एमसीए के छात्र भी इस परीक्षा में शामिल हो सकते हैं।

प्रोडक्ट डिजाइन एंड इंजीनियरिंग और इंडस्ट्रियल डिजाइन के कोर्सों के दाखिले गेट के स्कोर पर भी लिए जा सकते हैं। ऐसे में इंजीनियरिंग और आर्किटेक्चर के जो छात्र आईआईटी गेट की परीक्षा दे चुके हैं या देने जा रहे हैं उन्हें सीड में न बैठने की छूट रहेगी। परीक्षा 4 दिसंबर को 2 से 5 बजे तक होगी, जिसके बीच में छात्रों को कोई ब्रेक नहीं दिया जाएगा। रिजल्ट 20 जनवरी को घोषित कर दिया जाएगा। तैयारी के लिए पिछले छह सालों के सीड प्रश्नपत्र जारी कर दिए हैं।