Newspaper Clips
June 16-17, 2013

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Times Of India ND 16/06/2013   P-1

Prep classes to fill up IIT quota seats

Hemali Chhapia | TNN

Mumbai: Hamstrung by the lack of qualified candidates to fill up the mandatory quota seats, IITs may have to not only lower cut-offs for the reserved category but also restart the year-long preparatory courses first introduced in the 1990s.

▶ **A smaller pool, P 11**

These 'prep classes', as they are known, are special coaching classes for reserved category students who fail to make the grade despite a substantial lowering of the cut-off marks. These students are taken in when there are not enough candidates to fill up the reserved category seats.

'IITs have a smaller quota pool this year'

▶ **Continued from P 1**

This year, the IITs are likely to fall short of reserved candidates making the cut. The possibility of the IITs falling short of quota students was reported by TOI when the JEE Main results were declared on May 7.

"I think we might have to conduct a preparatory course this year," said JEE (Advanced) chairman H C Gupta. For quota students who fall short of the mark, the IITs generously reduce cut-offs and conduct special coaching for them for a year. The arrangement started in the mid-90s. Last year, there were more than twice the number of SC and OBC candidates who took the JEE.

"But this year, the IITs had a smaller pool to pick from," said an IIT director.

For full report, log on to www.timesofindia.com

Rashtriya Sahara ND 16/06/2013

P-11

आईआईटी कानपुर के दीक्षांत समारोह में भाग लेंगे प्रणब

कानपुर . राष्ट्रपति प्रणब मुखर्जी आईआईटी कानपुर के दीक्षांत समारोह में भाग लेने के लिए आगामी पांच जुलाई को वहां जाएंगे। जिला प्रशासन और आईआईटी प्रशासन ने राष्ट्रपति की यात्रा के मद्देनजर व्यापक तैयारियां शुरू कर दी है। कानपुर के जिलाधिकारी समीर वर्मा ने शनिवार को बताया कि राष्ट्रपति कार्यालय से पांच जुलाई को उनके आईआईटी कानपुर के दीक्षांत समारोह में शामिल होने की औपचारिक सहमति मिल गई है। उन्होंने बताया कि राष्ट्रपति के आगमन को लेकर शुक्रवार को लखनऊ में मुख्य सचिव ने कानपुर के प्रशासनिक अधिकारियों की बैठक बुलाई तथा मुख्य सचिव ने कार्यक्रम की तैयारियां समय से पूरी करने और सुरक्षा के व्यापक इंतजाम करने के निर्देश दिए।

आइआइटी में तैयार हो रहा हवा-धूप से चलने वाला चार्जर

आविष्कार

◆ भारतीय प्रौद्योगिकी संस्थान, मंडी के विद्यार्थियों की अनूठी खोज

विनोद भावुक, मंडी

हिमाचल प्रदेश के मंडी स्थित भारतीय प्रौद्योगिकी संस्थान (आइआइटी) के विद्यार्थियों ने भविष्य की तकनीकी चुनौतियों को देखते हुए ऐसे अहम डिजायन तैयार किए हैं, जो न केवल कम लागत वाले हैं, बल्कि दैनिक जरूरतों को और बेहतर विकल्प देंगे। विद्यार्थियों ने कम लागत के थ्रीडी प्रिंटर का डिजायन तैयार करने के साथ ही हवा व धूप से मोबाइल चार्ज करने की विधि भी खोज ली है।

विद्यार्थियों ने संस्थान के कमांद स्थित परिसर में ओपन हाउस के दौरान मॉडल प्रदर्शित किए हैं। इनमें रेल हादसों पर अंकुश लगाने के लिए स्वचालित ब्रेक सिस्टम, स्वचालित व्हीलचेयर, धूल सोखने वाली मशीन, पानी छिड़कने वाले यंत्र, इंटेलीजेंट पार्किंग सिस्टम, ऑटोमेटिक पेपर रिसाइकलर, पर्वतीय क्षेत्र में बीज बोने के लिए रोबोट, अंधे लोगों के लिए ऑटो नेविगेशन उपकरण, होम ऑटोमेशन सिस्टम प्रमुख हैं।

आइआइटी में तैयार...

मंडी आइआइटी के निदेशक टीए गोंजालविस का कहना है, 'विद्यार्थियों द्वारा प्रदर्शित मॉडलों ने विशेषज्ञों को प्रभावित किया है।'

उडी प्रिंटर को प्रथम पुरस्कार: विद्यार्थियों द्वारा निर्मित 3डी प्रिंटर की लागत बाजार में फिलहाल उपलब्ध प्रिंटरों के मुकाबले कम है। ओपन हाउस में जज इस मॉडल से खासे प्रभावित हुए व इसे प्रथम पुरस्कार के लिए चुना गया। विशेषज्ञों के अनुसार इस प्रिंटर से 3डी पिक्चर भी प्रिंट की जा सकेगी।

मोबाइल चार्जिंग में क्रांति : संस्थान के इंजीनियरों ने हवा व धूप के उपयोग से चलने वाला हाइब्रिड मोबाइल चार्जर बनाया है। इस चार्जर की खासियत है कि इससे घर के अंदर बैठे हुए भी मोबाइल चार्ज किया जा सकता है। यह इस तरह से डिजायन किया गया है कि सीधी धूप के बिना भी मोबाइल चार्ज हो सकता है। ओपन हाउस में इस डिजायन को दूसरा पुरस्कार मिला।

गृहिणियों की समस्या दूर : सेल्फ क्लॉथ रैक व फोल्डिंग मशीन और थ्री इन वन

कमांद (मंडी) स्थित आइआइटी में थ्रीडी प्रिंटर के मॉडल के साथ छात्र　　जागर

वैक्यूम क्लीनर व फर्श ड्रायर जैसे उत्पाद तैयार कर संस्थान के छात्रों ने गृहिणियों की समस्या दूर कर दी है। सेल्फ क्लॉथ रैक व फोल्डिंग मशीन अंधेरा अथवा नमी होने पर खुद ही कपड़े रैक में डाल देगी और उसे फोल्ड भी खुद करेगी। सफाई के समाधान के लिए बनाए गए थ्री इन वन सॉल्यूशन में ऑटोमेटिक मशीन बिना किसी मदद के खुद सारी सफाई कर देगी। इसे रिमोट से नियंत्रित किया जा सकता है। ऑटो ट्रैस कंपेक्टर एक स्वचालित मशीन है जिससे कचरे के आकार को रोलर के माध्यम से कम किया जा सकेगा। यह कार्यालय परिसर, कॉलेज परिसर और घरों में इस्तेमाल किया जा सकता है।

Business Standard ND 16/06/2013   P-1

Google goes ballooning to get entire planet online

ASSOCIATED PRESS
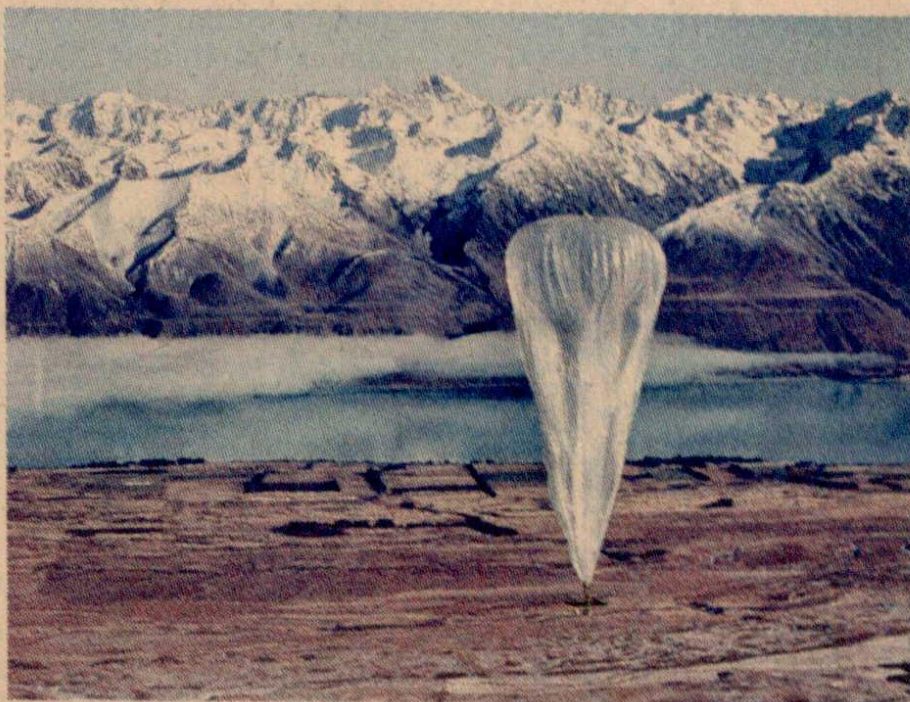Christchurch, 15 June

Google is launching internet-beaming antennas into the stratosphere aboard giant jellyfish-shaped balloons, with the lofty goal of getting the entire planet online.

Eighteen months in the works, the top-secret project was announced today in New Zealand, where up to 50 volunteer households are already beginning to receive the internet briefly on their home computers via translucent helium balloons that sail by on the wind 12 miles above Earth.

While the project is still in the very early testing stage, Google hopes to eventually launch thousands of the thin, polyethylene-film inflatables and bring internet to some of the more remote parts of the globe, narrowing the digital divide between the 2.2 billion people who are online and the 4.8 billion who aren't.

If successful, the technology might allow countries to leapfrog the expense of installing fibre-optic cable, dramatically increasing internet usage in places such as Africa and Southeast Asia.

"It's a huge moonshot, a really big goal to go after," said proj-

In this June 10 photo released by Jon Shenk, a Google balloon sails through the air with the Southern Alps mountains in the background, in Tekapo, New Zealand PHOTO: AP/PTI

ect leader Mike Cassidy. "The power of the internet is probably one of the most transformative technologies of our time."

The so-called Project Loon was developed in the clandestine Google X lab that also came up with a driverless car and Google's web-surfing eyeglasses.

Google would not say how much it is investing in the project or how much customers will be charged when it is up and running.

The first person to get Google Balloon internet access this week was Charles Nimmo, a farmer and entrepreneur in the small town of Leeston who signed up for the experiment.

Technicians attached a bright red, basketball-size receiver resembling a giant Google map pin to the outside of his home.

In a successful preliminary test, Nimmo received the internet for about 15 minutes before the 49-foot-wide transmitting balloon he was relying on floated out of range.

Oxford breaks 10-yr rule, includes tweet

London, June 15: "Tweet", "dad dancing" and "geekery" are three of more than 1,200 new or revised words in the latest version of the Oxford English Dictionary (OED) released on Friday.

The dictionary said in a quarterly update on its website that it had expanded its entries for "follow" (verb), "follower" (noun), and "tweet" (noun and verb) to include social media terms that have exploded in the past six years. According to the dictionary, "tweet" is now a posting on the social networking service Twitter as well as its more traditional meaning: a brief high-pitched sound.

"This breaks at least one OED rule, namely that a new word needs to be current for 10 years before consideration for inclusion," said the OED's chief editor John Simpson in a statement. "But it seems to be catching on."

"Crowdsourcing", "flash mob", "geekery" and "dad dancing" also earned a place in an OED now containing 823,000 entries.

"Crowdsourcing" is defined as the practice of obtaining information or services by soliciting input from a large number of people, typically via the Internet and often without offering compensation.

A "flash mob" is a large group of people organised by means of the Internet, or mobile phones or other wireless devices, who assemble in public to perform a prearranged action together and then quickly disperse. Watchers of *The Big Bang Theory* hit US TV show will recognise "geekery". It's meaning has been updated from a rarely used term for bizarre circus acts in favour of an obsessive devotion to or knowledge of a particular subject or pursuit and also the state of being a geek or "geekiness".
                                                    — *Reuters*

June 17

Building future scientists

TIMES NEWS NETWORK

Computer scientists have made a working model of multi-million pound cloud computing technology using just Lego bricks and a handful of £20 mini-computers. The University of Glasgow's Raspberry Pi Cloud project links together 56 Raspberry Pi computer boards in racks made from Lego, which mimic the function and modular design of commercial cloud computing infrastructure.

In recent years, cloud computing has become increasingly popular, with major corporations such as Google, Amazon and Microsoft making huge investments to provide software and hardware resources to business and home computer users over the internet. However, cloud computing service providers maintain a great deal of secrecy over how their systems work beyond the software available to end-users, making it difficult for computer science researchers and students to develop practical understanding of cloud infrastructure.

Dimitrios Pezaros, Jeremy Singer, Posco Tso and David White of the University's School of Computing Science developed the Raspberry Pi Cloud project to broaden access to cloud computing research and education. Singer said: "The introduction of the Raspberry Pi last year offered us for the first time the opportunity to affordably build a small, portable and energy-efficient network of computers which could act as a platform for cloud comput-

> Cloud computing service providers maintain secrecy over how their systems work beyond the software available to end-users

ing research and teaching. For an initial investment of less than £4,000, we have been able to build a Linux-based system which allows researchers and students complete access to a working cloud computing infrastructure at a tiny fraction of the cost of its commercial equivalent. The Raspberry Pi Cloud gives us a major advantage over other universities because we can now offer students hands-on experience with cloud computing hardware and software and give them a unique skill-set that they can take into the job market."

Undergraduate student Richard Cziva, from Hungary, has been developing a web-based interface to control the Raspberry Pi Cloud as part of his final-year project. "I think the Raspberry Pi Cloud is a valuable tool for teaching and I'm pleased I have been able to build a very practical understanding of how cloud data centres work and are controlled," he said.

Fewer students challenge IIT-JEE scores this year

Bhavya Dore

■ bhavya.dore@hindustantimes.com

THE JEE TIMETABLE

JUNE 17: Deadline for viewing answer sheet and applying for review

JUNE 23: Results of JEE-Advanced

JUNE 24 TO JUNE 30: Online choice filling for candidates who qualified

JUNE 24, 25: Registration for architecture aptitude test for eligible students

JUNE 30: Architecture aptitude test for interested candidates who are eligible

JULY 4: Release of first round allocation results

MUMBAI: Only 46 students this year have so far sent in requests for reviewing their Joint Entrance Exam (JEE) Advanced answer sheets after these were put up on the website on June 14.

After the IITs display the optical response sheets of students online, it allows them to see if there have been any discrepancies in how the computer has picked up their responses and totalled the scores.

Students have until 5pm on Monday to send in their requests.

Around 1.27 lakh students had appeared for the exam on June 2, which will determine entry to the Indian Institutes of Technology (IITs). Last year,

258 students had filed requests for reviewing their questions.

The IITs started the practice of putting up students' answer sheets two years ago with an opportunity to file reviews in a bid for greater transparency and to give students a chance to air their complaints.

Of the 46 requests as of 5.30pm on Sunday, about 50% were valid, said officials. "There might be fewer requests this year because we have used two kinds of technologies: scanning and image extraction and this might mean the number of errors in reading responses has reduced," said HC Gupta, chair-

person for JEE 2013.

In May, around 1,500 out of 9 lakh students had sent in requests for reviewing the JEE-Main answer sheets. JEE-Main was the first stage exam, from which the top 1.5 lakh candidates could appear for the JEE-Advanced.

Results of JEE-Advanced will be announced on June 23. Successful candidates will need to log in and give their choices for courses offered by the 16 IITs and ISM, Dhanbad, from June 24 until June 30.

The first round of seat allocations will be released on July 4.

SUBJECT WISE
★ ★ ★

As the Asian sub-continent makes giant strides in the field of science and technology, India continues to register a steady progress in this sector. This progress is leading to growing employment opportunities for science students across the country.

Affirms Rajendra Shinde, vice-principal (science), St Xavier's College, Mumbai, "In science, different subject combinations offer an interesting mix of opportunities for students. A look at the hiring trends shows that a biology graduate can be considered for a vacancy in a pharmaceutical company. Having said this, you need to keep in mind that a mere graduate degree will not help you secure a job. The number of job opportunities available will increase manifold only if you have a postgraduate degree in your field of specialisation."

Suhas Pednekar, principal, Ramnarain Ruia College, Mumbai, adds: "Graduation is not enough to get a good job. So students usually opt for a PG degree. While those with an inclination to-

Science can open doors for a range of employment opportunities across fields.
Ruchi Chopda reports

Infinite Options

Graduation is not enough to get a good job. So students usually opt for a PG degree. While those with an inclination towards research try to opt for a PhD, others pursue management or additional diploma courses

SUHAS PEDNEKAR,
Principal, Ramnarain Ruia College, Mumbai

POPULAR STREAMS
■ IT/ computer science
■ Life sciences
■ Nanotechnology

EMERGING AREAS
■ Horticulture
■ Clinical research
■ Bioinformatics
■ Forensic science

PIC: SOHAM PISAT, GRAPHIC: VAIDEHI AHER

NEXT WEEK
Find out about study abroad options in science, along with course details, emerging trends and student testimonials

wards research try to go for a PhD, others pursue management or additional diploma courses. Many a time, chemistry and mathematics students take up jobs in banks, although the job is not directly connected to their degree." Other allied options that chemistry students can explore are organic and analytical jobs in the R&D department of pharma or chemical companies. Fellowships with research institutes such as Tata Institute of Fundamental Research (TIFR) and Bhabha Atomic Research Centre (BARC) can be a good option as well.

Those with a major in mathematics or statistics can look for jobs in scientific research, design survey, bodies that conduct various censuses, government regulatory bodies, departments of commerce and evidently banks, investment and stock market companies. With options in oil exploration, land studies, soil conservation, water exploration and archaeology, the field of geology also offers good avenues.

Adds Madhuri Pejaver, dean, faculty of science, University of Mumbai, and principal BN Bandodkar College of Science, "Students can enter the education sector after graduation by opting for a BEd degree after completing their Bachelor's or Master's. To be able to teach at the college level, they have to clear either the National Eligibility Test (NET) or State Eligibility Test (SET). Options for those with

a graduation in any of the applied science streams such as microbiology, botany, biotechnology, bioinformatics and zoology include research in medicine. A lot of research in applied biology in hematology, muscle-related problems and genetic diseases is being conducted by various hospitals across the country. Students can find employment with these hospitals too. A profession as a scientist is an enticing option too."

Says CNR Rao, national research professor and Linus Pauling research professor and honorary president of the Jawaharlal Nehru Centre for Advanced Scientific Research in Bangalore, "In terms of academic positions alone, we need a few thousand scientists in various IITs, IISERs and other institutions in the next couple of years. Today, salaries of scientists are quite good. Furthermore, there are new opportunities for appointments. The creation of Ramanujan Fellowships has helped to get bright people back to India to take up faculty-type positions in major institutions even in the absence of vacancies."

Salaries offered vary depending on the industry and company you work for, along with your degree. Graduates can expect salaries ranging between Rs 15,000 and Rs 20,000 per month. For Master's students, this figure goes up to Rs 25,000 and for doctoral candidates, up to Rs 40,000.

Though experts unanimously point towards a trend of preference for professional courses such as engineering and medicine, they opine that a BSc and an MSc degree is equally good to get a job. After all, which other stream allows you to be in touch with Nature while giving you the opportunity to contribute to the advancement of the nation.

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