

Newspaper Clips

December 30-31, 2012

December 30

Hindustan Times , ND 30/12/2012 p-8

Bills stuck, govt opts for UGC push to reforms

EDUCATION With 14 reform bills pending in Parliament, HRD ministry plans using UGC and AICTE Acts to allow entry of foreign varsities without legislative tangles

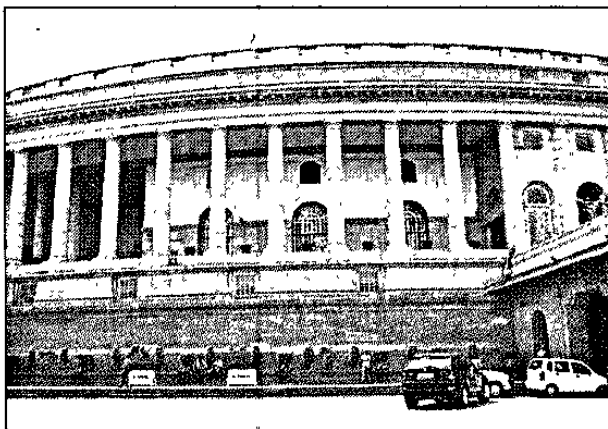
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NEW DELHI: All colleges may soon have to get accredited, and foreign varsities will be able to offer joint degrees with Indian universities without the enactment of laws that make accreditation mandatory and allow the entry of foreign institutions into India.

With 14 bills aimed at a plethora of higher education reforms stuck in different stages of parliamentary approval, the UPA has decided to try and use existing laws to draw up regulations to circumvent the logjam.

The human resource development (HRD) ministry has asked the University Grants Commission (UGC) to issue regulations that will make it mandatory for all colleges and varsities to get rated by a recognised accreditation firm. Only last week, the All India Council for Technical Education (AICTE) had announced that it was creating a new accreditation agency — called the Indian Board of Accreditation (IBA) — in addition to the National Board of Accreditation (NBA), currently the country's only technical education rating agency. "We are trying to move towards making accreditation mandatory," HRD minister MM Pallam Raju



told reporters while announcing the creation of the IBA.

Recently, both UGC and AICTE also came out with regulations that create a mechanism allowing foreign universities a foothold in India — giving them the opportunity to ink agreements with Indian varsities.

Bills to create a National Accreditation Regulatory Authority, which will make it mandatory for universities to get rated by licensed accreditation firms (including private ones) and allow as well as regulate foreign educational institutions in India, are stuck in Parliament.

Repeated disruptions derailed the functioning of both Lok Sabha and Rajya Sabha in the last two sessions, and the com-

WITH COMING BUDGET SESSION FOCUSING ON ECONOMIC BILLS, THERE WON'T BE ENOUGH TIME FOR EDUCATION BILLS

ing budget session is likely to focus on economic legislations. The 2013 budget will be the UPA's last full budget before the 2014 Lok Sabha polls. "It is unlikely that we may be able to devote a lot of effort in getting the education reform bills passed in the budget session," a senior government official said. "And waiting any longer is useless both because it will take time for these reforms to show results... there

ON THE HOUSE MENU

- National Accreditation Regulatory Authority for Higher Educational Institutions Bill
- Prohibition of Unfair Practices in Technical Educational Institutions Bill
- Medical Educational Institutions and University Bill
- The Educational Tribunals Bill
- National Academic Depository Bill.
- Foreign Educational Institutions (Regulation of Entry and Operations) Bill

is no guarantee that the Lok Sabha polls won't be advanced."

But not all major reforms can be carried out without legislation. A bill to create a single overarching higher education regulator instead of multiple bodies that govern medical, dental, nursing, technical, legal, architectural and general higher education institutions cannot be bypassed.

The UGC Act — despite its many powers — cannot be the substitute for a landmark bill that aims to punish institutions and officers that cheat and mislead students. Even moves to allow foreign universities into India and make accreditation mandatory will gain more teeth with laws backing them, not just regulations.

Business Standard, ND 30/12/2012 p-1

IIT-JEE registrations jump record 25%

Coaching institutes eye similar increase in revenues

KALPANA PATHAK & M SARASWATHY
Mumbai, 29 December

In its new avatar, the Joint Engineering Examination (JEE), has seen 1.4 million candidates registering for the 2013 examination, a record 25 per cent jump on last year's 1.1 million.

Come April 2013, JEE, taken for admission to the Indian Institutes of Technology (IITs), would be held in two parts — Main and Advanced. Students applying to the IITs would have to take JEE-Main. The new test is an amalgamation of the All India Engineering Entrance Examination (AIEEE) and IIT-JEE. The Main exam would be equivalent to AIEEE, and the Advanced to IIT-JEE.

Industry experts say the rise in numbers is the result of many states doing away with their state-level engineering exams. Besides, the Ministry of Human Resource Development has allowed a second attempt at board exams in 2013 to the students who have already appeared in 2012.

This is to ensure they are able to make it to the 20 percentile eligible to write the

Advanced IIT-JEE 2013 test. Of the total number of students who take JEE Main, only the top 150,000 would be eligible to sit the JEE-Advanced test, which would be held a few weeks after the Main exam.

For admission to IITs, based on the JEE-Advanced, a student should be among the top 20 per cent scorers in his/her respective

Class XII board. Until 2012, a student scoring 60 per cent in his/her Class XII board was eligible for a seat in the IITs. There are 32 boards in India with different patterns of examination and evaluation.

While JEE-Main will be administered by the Central

Board of Secondary Education, JEE-Advanced will be given by IITs. Admission to National Institutes of Technology and Indian Institutes of Information Technology would be based on JEE-Main scores. Also, deemed universities, after fixing a minimum percentage criteria, could use JEE-Main scores to admit students.

The change in the examination pattern also means more moolah for the IIT-JEE coaching institutes.

Kota-based Career Point, for instance,

has increased its fee from ₹70,000 to 80,000 a year for the next academic year.

"Enrolments at institutes have gone up. We have increased fees by 10-14 per cent," said Career Point Founder Director & CEO Pramod Maheshwari. The listed coaching institute expects 20,000-25,000 students to enrol next year, compared to 15,000 this year. Its stock closed at ₹172.80 on the Bombay Stock Exchange on Friday.

Triumphant Institute of Management Education (TIME) Director Manek Daruwala also expects a 25 per cent rise in revenues next year. He, however, adds the increase in fees would be linked to inflation.

Institutes are also spending on beefing up infrastructure and recruiting additional staff to cater to increased enrolments.

Chandan Dikshit, planning & strategy head at Rao IIT Academy, says the enrolments at his institute have increased 40 per cent this year. Though the fee structure has not been changed, the institute expects revenues to go up 20-25 per cent next year.

A committee, under professor Idi Chandy of IIT-Madras, established a correlation between performances at schools and IITs, inferring students did better in schools. So, to promote school education and to dilute the coaching culture, the human resource development ministry had been considering changing the IIT-JEE format.

Experts say IIT-JEE registrations have risen because many state-level engineering exams have been done away with

Dainik Jagran, ND
30/12/2012 p-12

विश्व में चमकने को बड़े कदम

जागरण संवाददाता, कानपुर : विश्व में चमकने की कवायद में भारतीय प्रौद्योगिकी संस्थान (आइआईटी) की कोशिश जारी है। इसके लिए विदेशी विशेषज्ञों से भी नियमों का मूल्यांकन कराया जाएगा। पहले चरण में मामला नियम तक सीमित रहेगा तो दूसरे चरण में पाठ्यक्रम को भी देखा जायेगा।

सर्वे की रिपोर्ट को मानें तो एशिया के सर्वोत्कृष्ट शैक्षिक संस्थानों की सूची में संस्थान जहां 36वें स्थान पर था वहीं देश में नंबर वन रहा। प्लेसमेंट व फैकल्टी के बूते संस्थान 2010 में शीर्ष पर था तो 2011 में भी अक्वल रहा है। शोध, विदेशी संकाय सदस्य व छात्र, परास्नातक शिक्षा का स्तर आदि मानकों 100 अंक पाकर हांगकांग यूनीवर्सिटी ऑफ साइंस एंड टेक्नोलोजी ने एशियन यूनीवर्सिटी रिजल्ट 2011 में प्रथम स्थान हासिल किया तो भारत से 74.9 अंक पाकर आइआईटीके ने 36वां स्थान पाया। एक चैनल के सर्वे को मानें तो संस्थान की साख, प्रवेश प्रक्रिया, पाठ्यक्रमों की स्थिति, पढ़ाई का माहौल, शिक्षकों की विशिष्टता, अवस्थापना सुविधाएं, दूसरे देशों से समायोजन, शोध की सुविधाएं, प्रयोगशालाओं का स्तर, छात्रावासों में सुविधाएं, प्लेसमेंट व नए कोर्स जैसे 12 बिंदुओं पर आईआईटी ने 6 में पहली रैंक पाई। ओवरऑल में उसे पहली रैंक मिली। यही नहीं आईआईटी के एक्सटेंशन सेंटर के लिए नोयडा में शिलान्यास हो गया तो अमेरिका में भी आफिस खुल गया। इसी कड़ी में पहले चरण में नियमों को रिव्यू किए जाने का प्रस्ताव है, अगले चरण में पाठ्यक्रम में भी बदलाव की संभावना है।

आइआईटी की गुणवत्ता और बढ़ाने के लिए रिव्यू कमेटी काम कर रही है। जरूरत पड़ने पर संस्थान के बाहर से भी विशेषज्ञों की मदद ली जा सकती है।

December 31

Indian Express ND 31/12/2012 P12

Teachable moments

Tapping the IIT graduate student body to teach undergraduates may be a win-win solution

THE IITs are the proud centrepiece of our public educational system, but it is a truth long acknowledged that they struggle against the same limits that other institutions do, including qualified staff shortages. Constrained for resources and adequate faculty, the IITs may be contemplating a system where their postgraduate and doctoral students teach undergraduates. The IIT council will discuss the proposal next month. Given the serious shortage of teaching staff, and the cumbersome recruitment process, it makes sense for these schools to look within and fill their own needs.

This move fits in with the pattern at many research universities, where a graduate student often teaches introductory courses or becomes a teaching assistant for undergraduate courses. They are likely to be paid a stipend for their work. Given that many of these doctoral students will seek professional employment in universities, this provides them with a valuable apprenticeship opportunity. Currently, they have little exposure to their roles as future faculty. It may also allow classes to be taught in sections,

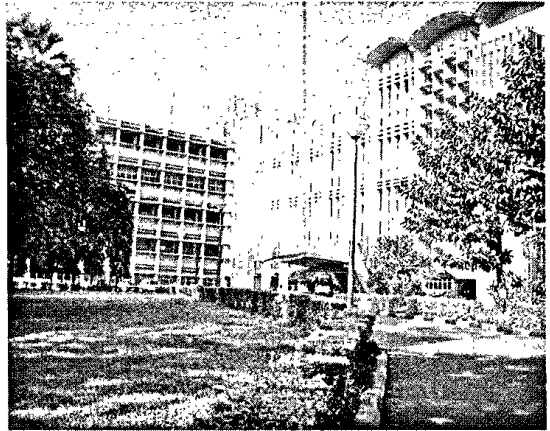
with greater attention to individual students. Academic inputs from young, professionally focused graduate students could also, hopefully, inject more dynamism into teaching. BITS Pilani has already experimented with teaching assistants, and IIT could use these learnings, if the plan is implemented.

The IIT council meeting is also likely to make a decision on the proposed fee hike, from the current Rs 50,000 a year. An increase in fees has been widely recommended for the BTech and postgraduate programmes, given the expected returns of an IIT education. The idea is to make the institutions financially independent in terms of operating expenditure, and leave only scholarships, infrastructure and capital expenditure to the government. Of course, this hike will still come nowhere close to covering the actual cost per student. To make sure this does not exclude any student, there will be scholarships available, as well as special loans that require no collateral or guarantee by a guardian. Greater freedom from the government's purse strings would give these schools latitude to set their own agenda.



The Indian Institutes of Technology, including IIT-Delhi (above) & IIT-Bombay, will be ordered to carry out a green audit on Jan. 7.

IITs look West to go green



By **Ritika Chopra** In New Delhi

IN THEIR age-old tradition of leading by example, the Indian Institutes of Technology (IITs) are now set to launch an aggressive drive to go green.

Although the 13 elite tech schools have individually been pursuing the green cause through research initiatives and awareness programmes, on January 7 the IIT council — the highest decision-making body — is expected to direct all IITs to compulsorily carry out a green audit of the institutes, establish a “green office” dedicated to undertaking and monitoring green initiatives and encourage the use of green technology in construction of buildings within the campus.

In addition to this, the tech schools will also be asked to consider the inclusion of topics on or related to green technology in their academic curriculum.

According to the agenda of the IIT council meeting, this idea has been proposed because tech schools in Europe and America have already adopted the sustainability agenda and are taking steps to reduce their carbon

footprint and it's time that the IITs also embrace this example.

This idea was also mooted by the Anil Kakodkar Committee in its report on the IITs. The committee felt that working on environmental issues such as pollution-control technologies will serve as one of the reasons for IITs to engage more with the society.

“This was suggested by the standing committee which held its meeting last month and now will be taken up by the council as it's the final authority to



— GAUTAM BARUA, IIT-GUWAHATI DIRECTOR

“Standing panel suggested it and it will now be taken up by the council as it's the final authority to issue an advisory”

issue an advisory collectively for all IITs,” said IIT Guwahati director Gautam Barua, who added that this idea would probably go through without any opposition.

Currently, the six new IITs have been more aggressive in using green technology as they are in the process of setting up their permanent campus. For instance, IIT-Jodhpur has set up a solar field to meet most of its energy needs and IIT-Mandi is also using green technology to build its campus.

The idea was also mooted by the Anil Kakodkar Committee in its report on IITs

everyone agrees on the importance given to this issue. “This is not really something that a body like the IIT council should deliberate upon especially when there are bigger things such as our institutes not featuring on the international rankings to worry about. Postgraduate education at the IITs is not of the desired standard and maybe that should be the focus of the council,” said Sanjay Dhande, former director of IIT-Kanpur.

In addition to this, the council meet is set to deliberate on a number of other pertinent proposals such as whether to approve an 80 per cent hike in the annual tuition fee of all the IITs from ₹50,000 per annum to ₹90,000 per annum.

In an effort towards greater transparency and accountability, the IITs are considering an external peer review by eminent people from academia and industry every five years. Each IIT will also be expected to conduct an internal audit of every department. That apart, the council will also consider the proposal to allow postgraduate and doctoral students teach undergraduates at the premier IITs.

However, not

HT Mumbai

Alumni gift IIT-B ₹2 crore for development centre

HT Correspondent

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MUMBAI: Alumni of the 1987 batch from the Indian Institute of Technology Bombay (IITB) have pledged Rs 2 crores to three projects for the benefit of their alma mater. The batch of 1987, which had gathered at the institute on the occasion of Alumni Day on Sunday, is reuniting on the silver jubilee of its graduation.

The alumni will be contribut-

ing to setting up a technology and development consultancy cell as a centre for training engineers to deal with development issues and incorporate development as a research agenda.

The legacy project is an annual tradition at the institute where the silver jubilee batch announces a contribution meant as a token of appreciation and a way of helping the institute achieve its goals with additional funding.

“As development progresses, the design, analysis, monitoring and evaluation needs of society needs the services of professionals who are trained in both engineering and governance, policy and other inter-disciplinary skills,” said a release from the institute.

The programme will be geared towards training engineers in interdisciplinary design issues to tackle development problems, among other things.



■ Members of the batch of 1987 present the cheque to IIT-B director Devang Khakhar on Sunday.

31 Dec 2012, Hindustan Times (Mumbai)

Gadgets that will blow your mind

IIT-B and VJTI to exhibit innovative gizmos with artificial intelligence and aerodynamic capabilities next week

MUMBAI: For those with a fascination with the world of technology, IIT-B and VJTI will soon offer a rare glimpse into the world of machines. Techfest - the annual technological festival of the Indian Institute of Technology Bombay (IITB) will feature exhibits, games, competitions, performances and a lecture series from January 3 to 5. More than 50 exhibits will be on display, brought from different parts of the world.

The event will also host a lecture series comprising of a many luminaries including Nobel Prize winners Amartya Sen (who won for Economics in 1998) and Eiichi Negishi (who for Chemistry in 1996) and Rakesh Sharma, the first Indian to be in outer-space. Sharma will speak on ‘Should India Invest In A Manned Space Programme?’ The lecture series will also host Jocelyn Goldfein, the director of engineering at Facebook, who introduced the concept of news-feeds on the site.

The tech fest will also feature multiple competitions and workshops, night-time performances by international magicians, as well as a “silent disco”.

Besides IIT-B, Veermata Jijabai Technological Institute (VJTI) will also be hosting Technovanza which will exhibit exciting new devices from January 6 to 8.

Exhibits, put together by students, include Blind Navigation, a contraption strapped on to the body to help the visually challenged navigate their environment; Car Automation, a device that keeps drivers from sleeping; and the Agriculture Automation that helps farmers measure temperature and humidity.

Varsities need to reinvent themselves: President

MUMBAI: Reflecting on the changing role of universities, technology and teachers, president Pranab Mukherjee delivered the convocation address at the University of Mumbai's convocation ceremony at the Fort campus on Sunday morning. He spoke on the need for universities to reinvent themselves and "deliver relevant knowledge and actionable skills".

"Universities will need to reinvent themselves as enablers of society rather than gatekeepers of higher education," said Mukherjee. "The youth of our nation should be empowered to take our great nation forward in leaps and bounds."

He spoke on the need for teachers to re-engage themselves with technology.

Though the president did not allude to the Delhi gangrape incident, vice chancellor Rajan Welukar made a mention, along with instances of violence against women. "It is time for all of us to reexamine ourselves," said Welukar, after reading out



■ (Left) President Pranab Mukherjee with (right) vice chancellor Rajan Welukar at the University of Mumbai's Fort campus on Sunday.

the university report for the year and pointing to value education as an important tool.

Degrees were conferred on 1,64,235 students, of which 4,651 got a first class with distinction. Of these 2,515 were girls.

Gold medals were presented to 51 students from across departments and disciplines. Of the total who received degrees for this academic year, 31,840

were post-graduates. Faculty-wise, 19.9% were from arts, 12.4% from science, 42.2% from commerce, 12% from technology, 10.2% from management and 3.1% from law. Chief minister Prithviraj Chavan said, "Let us take a pledge to make the university rank higher than what it ranks today and the government of Maharashtra will be with you." **BHAVYA DORE**

Times Of India ND

31/12/2012 P-17

Aakash-3 with SIM slot coming soon

Himanshi Dhawan | TNN

New Delhi: Imagine a tablet that can diagnose your heart



TECH THIS

rate? Or web-cam, text-book with audio notes in your mother-tongue and SIM card slot, all available within the existing price band.

Researchers and professors at the IIT, Bombay, are working hard to equip the third edition of the low-cost tablet Aakash

with newer apps and more open source software than ever before. About 50 lakh Aakash 3 tablets are expected to be rolled out in the next phase, the global tender for which may be floated in February.

According to committee members engaged in developing the third version of Aakash, the endeavour will be to make the product as indigenous as possible and involve multiple vendors. "Our aim is to imbibe the usage of tablets in the education system and create an ecosystem for this. We have distributed Aakash tablets to 250 colleges across the country and asked them to come up with newer ways to use the device," said Deepak B Phatak, committee member and a professor in IIT- Bombay's Department of Computer Science and Engineering. Aakash 3 will have a faster processor supporting both Linux and Android operating systems and come with advanced memory, he said. "It could also have a SIM card slot so that people can use it as a communication device," Phatak said.

Aakash-2 to come loaded with apps, courtesy IIT-Bombay

SHIVANI SHINDE
Mumbai, 30 December

A few months ago, the Marathwada Institute of Technology, Aurangabad, got in touch with the Spoken Tutorial team at the Indian Institute of Technology-Bombay (IIT-B). The former had been approached by a company, which wanted to hire students specialising in PHP (a language designed to produce web pages).

The institute did not have the course in its syllabus. "They approached the Spoken Tutorial team. More than 30 students from the college took the course and of these, six were hired," said Kannan M Moudgalya, a professor at IIT-B.

Spoken Tutorial is an audio-video tutorial that explains an activity performed on a computer, with an expert explaining the working of the software by demonstrating it on the screen. This is now available on Aakash-2 tablets.

The ministry of human resource development (MHRD) has said 100,000 tablets are expected to be delivered to engineering institutes by

the end of March 2013. IIT-B is making sure that education applications are made available to students through these tablets. Over 200 teachers and students have been working for the last six months to port all projects that have been developed under the National Mission on Education through ICT over the last three years on Aakash-2.

Spoken Tutorial; Talk to a Teacher; e-Yantra systems; virtual labs; educational animations, free and open source software for science and engineering; and development of design content are among the many applications being made available on the tablet.

One of the most ambitious projects of MHRD, Aakash tablets are supposed to change the way education is being delivered in India. So far, 20,000 Aakash (including Aakash 1 and 2) have been distributed to engineering students.

"By the end of March, the government would have procured 100,000 tablets. Of these, 40 tablets each will be given to 250 colleges. We have trained around



COMING OF AGE

- Aakash-1 was launched last year
- This April, IIT-B was given the Aakash-2 project's responsibility
- Spoken Tutorial; Talk to a Teacher; e-Yantra systems; virtual labs; educational animations, free and open source software for science and engineering; and development of design content are among applications to be available on the tablet

12,000 teachers across these colleges on the use of Aakash," said professor Deepak Phatak, head of the project at IIT-B.

Aakash-1 was launched by MHRD in October 2011. In April

2012, IIT-B was given the responsibility of the project. "When we came on board, the first thing we asked for was upgrade in the hardware," added Phatak. He is hopeful that the subsequent versions — Aakash 3 and 4 — would have higher processor speed.

Aakash-3 is also likely to be equipped with a SIM slot. About 5 million Aakash-3 tablets are expected to be rolled out in the next phase, the global tender for which may be floated in February. Other than creating applications for Aakash, IIT-B has gone a step ahead and built a Linux operating system for the tablet. The Aakash-3 would have a faster processor and support both Linux and Android.

These applications will enable a student or a teacher to access courses developed by IIT-B for free. For instance, Spoken Tutorial allows a student to take tutorials remotely, without help. So far, 1,000 tutorials have been created on various topics, of which 350 are originals. Till date, 100,000 students have accessed these tutori-

als. "While we create tutorials in English, we are also dubbing them into regional languages. Our aim is to have all tutorials in 32 languages mentioned in the Constitution of India recognises," said Moudgalya.

Similarly, the Industrial Design Centre at IIT-B has created 100 courses—50 are available online. "So far, we have 10,000 page views per day and 700 people visit the website per day. The courses have been made in such a way that a student can understand concepts and process of 2D animations and other design aspects. All these are available on Aakash-2 as well," said professor Ravi Poovaiah.

IIT-B is also making sure that the connect between the teacher and student is not lost in a computerised teaching environment. For this, IIT-B has developed an app called Clicker, which allows the teacher to see if the concept that has been taught is understood by taking automated quiz in every 30 minute of a lecture. This application also allows teachers to track a student's progress.

LOOKING AHEAD 2013 : TECHNOLOGY

Five tech CEOs to watch in 2013

The heads of Apple, Microsoft and HP, plus Infosys and Wipro's IT business at home, would be keenly watched as they handle some steep challenges



TIM COOK



STEVE BALLMER



MEG WHITMAN



S D SHIBULAL



T K KURIEN

SHIVANI SHINDE

This was clearly the year of information technology (IT). We saw the launch of a dazzling array of devices. Tech users were on tenterhooks as a patents war between Apple and Samsung led to uncertainty, Microsoft took a plunge and entered the hardware segment, while Google managed to show the world how a high-end smartphone could be economical, too.

And, 2013 seems action-packed for the sector, with the role of leaders at the helm of some companies certain to dictate trends. We will talk about five chief executives in the technology space, who would be scrutinised for each move they make.

Apple, the company grabbing the most headlines in 2012, will continue to do so next

year. For Timothy Cook, the 52-year-old chief executive officer (CEO), it was a crucial year, having just succeeded Steve Jobs after the latter's death. For Cook, among the four runners-up to *Time* magazine's annual "Person of the year" designation, the highlight was when Apple's stock hit an all-time high of \$700 a share, up from \$300 when Jobs died in October 2011 (it has since come down). Importantly, Cook successfully launched the iPhone5 and iPad Mini. Within three days of launch, Apple sold five million iPhone5 sets. And, in the case of the iPad Mini, within three days of its launch, three million had been sold.

Already, all this is so last year. Cook has a more formidable task ahead. This includes the growing acceptance of Android smartphones, Samsung finally overtaking Apple,

and Microsoft taking baby steps towards a collaborated computing environment. Critics say neither the iPhone5 or the iPad Mini brought forth any new innovation.

With Apple projected to have won 230 million iPhone users by the end of the year, customer growth will start to ebb because it is approaching saturation point, Andy Hargreaves, an analyst at Pacific Crest Securities, told *Bloomberg News*. In 2013 the device war will get stronger and Cook might have to battle with Google, which in 2012 launched the Nexus tablet and Nexus 4 smartphone. Both got great reviews and also proved a high-end smartphone could be competitively priced.

Cook cannot afford another

flasco as Apple's Map navigation. He will also have to keep an eye on Microsoft. This was the year when Steve Ballmer, CEO, said Microsoft was a device and services company. From his annual letter to shareholders, it appears he's clear that hardware is going to be Microsoft's future.

Hence the biggest news of 2012, the launch of Windows 8, will play into 2013 as well. It's too early to write off Windows 8, based on the dismal sales performance during the holiday season and its inability to perk personal computer sales. A lot hinges in Microsoft on Windows 8's success; it would make Microsoft stay relevant in the shift towards mobile devices.

In 2013, Ballmer should focus on the Windows 8-based

Surface RT, the first personal computer Microsoft itself produces and sells, and its pricing, and try to get some place in the fast-growing tablet market. How he does it and how the software giant stays relevant in a falling PC market will be tracked. The race seems to get tougher in the enterprise segment, Microsoft's playground for years, with falling PC sales and bring-your-own-device getting mainstream.

Hewlett-Packard (HP) is one company which needs to come out of the choppy water it has been sailing in for some years. A yet-again writedoff of \$8 billion has put CEO Meg Whitman's effort to bring stability to the company in the limelight. This year saw the company write off almost \$16 billion — \$8 billion on the acquisition of EDS in 2008 and \$8.8 billion on the acquisition of Autonomy. And, it is still grappling with the merger of its PC and printer division. She has already said the turnaround would take four to five years.

Whitman will have to take tough decisions if HP is to regain glory in the PC market, which it lost to Chinese manufacturer Lenovo. Year 2013 will also see HP getting into the tablet market.

India

Analysts say HP's woes can be positive for Indian IT services companies. Closer home, two CEOs would be watched for

their strategy on bringing out their firms from restructuring struggles. S D Shibulal, CEO of Infosys and T K Kurien at the helm of Wipro's IT business.

Especially with the news that 2013 would be a better year on IT budgets, the Street is expecting both CEOs to give some good news.

Both companies have lost to peers which have managed to report double-digit growth despite a difficult macro environment. In 2012, Infosys not only lost its bellwether position but stopped issuing quarterly forecasts, for the first time. As the year comes to an end, it said it might be unable to manage even five per cent growth for FY13.

Year 2012 saw Shibulal taking some bold steps. Though

small, they go against what the company has said so far. One is an expressed change in pricing. If it comes about, the top management is preparing to come off the high-margin strategy. Shibulal also announced the acquisition of Lodestone, while also saying the word 'conservative' should be removed from Infosys.

Kurien had focused on client mining and it seems to work. Wipro has managed to increase the count of its \$100-million clients from one to nine. It has also chosen to tread the inorganic route by acquiring in select areas such as analytics and oil & gas. But Kurien will need to focus on deal volumes. As with Infosys, though the company has won deals, the numbers are not reflected in its revenue.

Kurien will complete two years at the helm in February. The first year was all about getting the company into shape, which meant several exits. Many are hoping 2013 (FY2014) will be about getting business and winning big-ticket deals.

As Kurien himself told *Business Standard* in an interview: "We have laid out a strategy and are now in execution mode. What we are doing today is in line with the target we had set for ourselves four quarters earlier. I am neither excited nor depressed over our performance this quarter. For me, the most important concern is whether our strategy is playing out. I would be depressed only when we fail to execute our strategy." We shall wait to see the results.

2013: India's second wind

Martin Feldstein explains why the Indian economy is going to come back, and soon

The Indian economy is coming back. After several years of disappointing performance, the authorities are shifting to policies aimed at boosting the annual growth rate closer to the roughly nine per cent level that India achieved from 2004 to 2008.

That won't be easy. India has many handicaps and lacks many of the things that are needed to sustain rapid growth.

Although India has outstanding universities and technological institutes, the primary education system is disastrously poor. The caste system and labour laws prevent an efficient labour market. The policy of quotas for lower castes and for members of certain "scheduled" tribes affects educational institutions and government employment. Populist policies that transfer scarce budget funds to hundreds of millions of rural men and women end up encouraging them to withdraw their labour services, driving up wages and undermining international competitiveness.

True, bureaucratic rules are not nearly as constraining as they were during the pre-1991 "license raj". But business activity remains bogged down by myriad restrictions and a frustratingly slow judicial system, which, together with a complex system of price subsidies, encourage widespread corruption at every level of government.

Moreover, India's infrastructure is inadequate for a modern economy. With too little electricity, blackouts are common. Ports are inefficient, roads are congested, and traffic is astonishingly chaotic.

And, while India urgently needs to reform its tax system, spending policies and regulation, political change is difficult in a multiparty federalist democ-

cracy of 1.2 billion people spread over a large subcontinent. The current government is a fragile multiparty coalition. The Congress party leads the government, but lacks a majority in both chambers of Parliament. Coalition infighting and the prospect of a national election in 2014 further complicate efforts to enact reform legislation.

And yet, despite everything, India's economy did record roughly nine per cent growth for several years, and even now is growing by nearly six per cent annually, behind only China and Indonesia among major economies.

One key to India's economic success is a large population of technically educated entrepreneurs, who are creating new companies and building a modern middle class. A high rate of private saving and strong inflows of capital from abroad have supported investment in plant and equipment. The Indian states have substantial policy discretion and often compete to attract businesses and achieve rapid economic growth.

The main ingredient needed to achieve faster sustained growth is increased investment. Reducing the budget deficit - by limiting government spending and combating a culture of tax avoidance - will increase total domestic savings available to invest. Convincing foreign direct investors that India is a reliable destination will increase the inflow of long-term funds.

Fortunately, the recent threat of a downgrade of India's sovereign credit rating - which would have made it difficult to finance the current account deficit - has led to a government reshuffle and a shift in policies. The key political change was the appoint-

ment of a new finance minister, Palaniappan Chidambaram, whose selection by Prime Minister Manmohan Singh and Congress party leader Sonia Gandhi sent a strong positive signal to the Indian business community and to financial markets.

Mr Chidambaram, a Harvard-trained lawyer who has held the finance portfolio twice before, is committed to increasing growth and to adopting pro-market policies. He knows what needs to be done - and is pushing his political colleagues to do it.

One sign of progress is that a new Cabinet committee, chaired by Dr Singh, will review large private investment projects that have been held up by regulatory issues or other legal barriers. Breaking this logjam will be important, both in itself and for the message that it conveys to domestic as well as foreign investors.

Likewise, India's recent decision to allow large foreign retailers like Walmart to enter the market reflects an encouraging change of attitude that is important beyond the specifics of the particular firms that will now come to India. And legislation will soon create the opportunity for expanded foreign ownership in the financial sector.

On the fiscal front, the shift from a complex system of state-level indirect taxes to a national goods and services tax (a type of value-added tax) will improve efficiency and raise revenue. Lowering the subsidy for diesel fuel was politically difficult, but will reduce both the fiscal deficit and excessive use of diesel products.

Government investment in infrastructure, both alone and in partnership with private firms, will also directly benefit growth and attract larger inflows of foreign investment.

Finally, the remarkable plan to enrol every Indian adult in a programme using fingerprint identification as a substitute for bank debit cards will allow more efficient distribution of funds to poor villagers and the urban poor. More than 300 million Indians have already been enrolled.

All of this is an enormous undertaking - one that confronts innumerable potential impediments, both economic and political. But I am betting that India is rising again: millions more will be lifted out of poverty in the coming years, while the increasingly prosperous Indian middle class will expand further.

The writer is an emeritus professor of economics at Harvard. Project Syndicate 2012

India doubles supercomputing ability with new additions

Ajay Sukumaran
Bangalore, Dec 30

INDIA has doubled its supercomputing capabilities over the past year by adding at least 12 new machines that have put cities such as Bhopal, Indore and Ludhiana on the country's supercomputing map. The combined capability of the country's top systems has crossed 1 petaflops (1,000 trillion calculations a second) for the first time, according to "Top Supercomputers-India", the

latest list compiled by the Indian Institute of Science (IISc).

India lags behind countries such as the US and China in boosting its supercomputing capabilities and building faster machines, which has prompted the government to commit ₹5,000 crore over the next five years to build an ecosystem of supercomputers. The ability to crunch enormous amounts of data is critical to scientific research in climate modelling, aerospace and drug discovery, in addition to sectors such as tele-

INDIA LAGS BEHIND COUNTRIES SUCH AS THE US AND CHINA IN BOOSTING ITS SUPERCOMPUTING CAPABILITIES AND BUILDING FASTER MACHINES, WHICH HAS PROMPTED THE GOVT TO COMMIT ₹5,000 CRORE OVER THE NEXT FIVE YEARS TO BUILD AN ECOSYSTEM OF SUPERCOMPUTERS

com and finance.

While the combined computing power on the IISc list has increased from 404 teraflops in December 2011, experts

point out that the challenge is to ramp up more rapidly.

"The effort is commendable, but we are growing at the same rate as technol-

gy is. Even to stay where you are, by Moore's law you should have doubled," said N Balakrishnan, associate director, IISc, which is co-ordinating the national initiative on supercomputers announced earlier this year. The proposal is to have a four-tier network of machines across the country which would ensure that at least 25% of the scientific population has access to a supercomputer. The Department of Science and Technology would be able to finalise on a structure to oversee the mission in a cou-

ple of months, Balakrishnan added.

This year's growth is mainly attributable to the installation of the country's fastest supercomputer at the Bangalore-based Centre for Mathematical Modelling and Computer Simulation (CMMACS), which has a Linpack benchmark performance speed of 303.9 teraflops. Besides, the Indian Space Research Organisation's system, which was built in mid-2011, figured in the list only this year after its Linpack performance value was evaluated.

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31/12/2012

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P-21
Japan eyes
asteroid study
for its space
mission in '14

New York: Building on its successful first round-trip mission to space rock Itokawa, Japan's space agency is readying to launch an ambitious new asteroid sampling probe in 2014.

The new space mission, Hayabusa2 is aimed at the asteroid 1999 JU3, a large space rock about 3,018 feet in length.

The mission is due to arrive at the asteroid in mid-2018, loiter at the space rock and carry out a slew of challenging firsts before departing the scene at the end of 2019, Space.com reported.

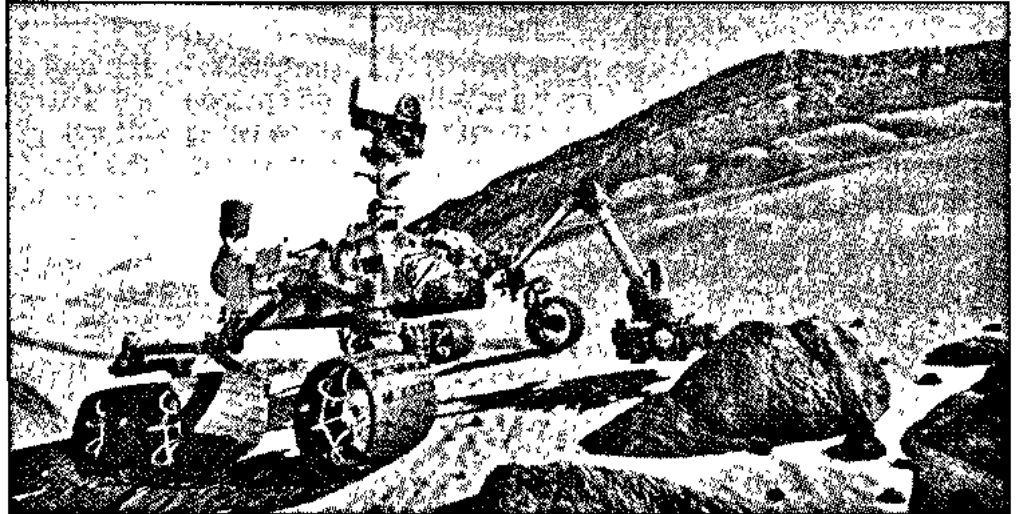
The Hayabusa2 spacecraft is scheduled to return to Earth with samples of asteroid 1999 JU3. The probe's name is Japanese for "Falcon2".

Officials with the Japanese Aerospace Exploration Agency (JAXA) said Hayabusa2, like its Hayabusa predecessor, will also involve a significant level of international cooperation.

The initial Hayabusa mission launched in May 2003 and returned samples of Itokawa — the first asteroid samples ever collected in space — in June 2010. Hayabusa2 is expected to stay with 1999 JU3 for 18 months, allowing ample time for observation and careful sample collection. P11

P-21
*Curiosity's next task:
Trek Mars mountain*

NASA/JPL-Caltech



NEW YEAR'S ROAD MAP

Pasadena (California): Since captivating the world with its acrobatic landing, the Mars rover Curiosity has fallen into a rhythm: Drive, snap pictures, zap at boulders, scoop up dirt. Repeat. Topping its to-do list in the new year: Set off toward a Martian mountain — a trek that will take up a good chunk of the year.

The original itinerary called for starting the drive before the Times Square ball drop on December 31, but Curiosity lingered longer than planned at a pit stop, delaying the trip. Curiosity will now head for Mount Sharp in mid-February after it drills into its first rock.

"We'll probably be ready to hit the pedal to the metal and give the keys back to the rover drivers," mission chief scientist John Grotzinger said. The road trip comes amid great expectations. After all, it's the reason the \$2.5 billion mission targeted Gale Crater near the Martian

equator. Soaring from the center of the ancient crater is a 3-mile-high peak with intriguing layers of rocks. Curiosity's job is to figure out whether the landing site ever had the right environmental conditions to support microbes. Scientists already know water flowed in the past thanks to the rover's discovery of an old streambed. Besides water, life also needs energy, the sun.

What's missing are the chemical building blocks of life: complex carbon-based molecules. If they're preserved on Mars, scientists figure the best place to hunt for them is at the base of Mount Sharp where images from space reveal hints of interesting geology. It's a six-month journey if Curiosity drives nonstop.

But since scientists will want to command the six-wheel rover to rest and examine rocky outcrops along the way, it'll turn into a nine-month odyssey. AP

Times Of India ND 31/12/2012

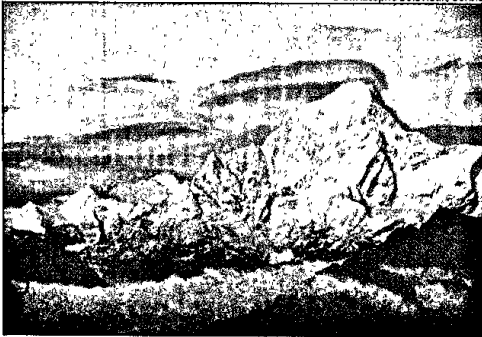
P-21

Experts warn of massive quakes in Himalayas

Temblors Of 8.5 Magnitude Predicted; Areas Along Range, Like India, Face Devastation

Singapore: In what can have huge implications for countries like India, scientists have warned of massive earthquakes of the magnitude 8 to 8.5 on the Richter scale in the Himalayas, especially in areas with their surface yet to be broken by a temblor.

A research team led by Nanyang Technological University (NTU) in Singapore has discovered that powerful earthquakes have left clear ground scars in the central Himalayas. This ground-breaking discovery has huge implications for the area along the front of the Himalayan Moun-



MOUNTAIN OF DISASTER?

tains, given that the region has a population density similar to that of New York City, researchers said in a statement.

Paul Tapponnier, a leading neotectonics scientist, said that the existence of such devastating quakes in the past means that quakes of the same magnitude could happen again in the region in future, especially in areas which have yet to have their surface broken by a temblor.

The study showed that in 1255 and 1934, two great earthquakes ruptured the surface of the earth in the Himalayas. This runs contrary to what

scientists previously thought.

Tapponnier said that by combining new high resolution imagery and state of the art dating techniques, they could show that the 1934 earthquake did indeed rupture the surface over a length of more than 150 km, essentially south of the part of the range that harbours Mount Everest.

This break formed along the main fault in Nepal that currently marks the boundary between the Indian and Asian tectonic plates — the Main Frontal Thrust fault.

Using radiocarbon dating of offset river sediments and

collapsed hill-slope deposits, the researchers managed to separate several episodes of tectonic movement on this major fault and pin the dates of the two quakes, about seven centuries apart.

Massive earthquakes are not unknown in the Himalayas, as quakes in 1897, 1905, 1934 and 1950 all had magnitudes between 7.8 and 8.9 on the Richter scale, each causing tremendous damage. But they were previously thought not to have broken the earth's surface — classified as blind quakes — which are much more difficult to track. **en**