IIT Panel Firm on Need for Fee Hike

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NEW DELHI

A government panel tasked with mapping out the future of Indian Institutes of Technology has reiterated the need to increase the tuition fees of undergraduate students, five months after its recommendation of a five-fold hike in charges was turned down by Human Resource Development Minister Kapil Sibal.

If the IITs have to ramp up their research capability, funding would have to be an important aspect, the HRD ministry-appointed committee, headed by Anil Kakodkar, said in its report submitted last week.

In January, the committee had suggested a five-fold hike in tuition fees. It also suggested to provide greater financial support to transform the IITs into centres of excellence and research. However, at the IIT Council meeting then, Sibal had expressed his misgivings about the fee increase, describing it as a deterrent for students. As chairman of the council, Sibal asked Kakodkar to reconsider the suggestion. The recommendations presented to the minister last week are more or less on the same lines as those made in January. Sources said Sibal continues to have qualms about higher fees but is willing to have a debate on the issue.

The committee has called for increasing the number of engineering PhDs from 1,000 a year to 10,000 by 2024-25. To scale up the PhDs-to-faculty ratio has to increase. The committee has recommended increasing the ratio to 0.6, to be scaled up to 1. Consequently, the faculty strength too has to be beefed up as the target number of PhDs would require a faculty strength of 16,000 by 2020-25.
Parts of Earth core melting: IITian

G S MUDUR

New Delhi, May 18: Research by an Indian scientist has shown that the Moon-sized ball of solid iron in the Earth's deep interior is simultaneously melting and freezing, overturning the prevailing view that it has only been freezing.

Bino Sreenivasan at IIT Kanpur has used mathematics and seismic data to study the Earth's inner core, a zone of mystery 5000km beneath its surface that has been postulated for decades as pure solid.

The findings, to be published in the journal Nature on Thursday, provide new insight into the inner core which is surrounded by the liquid outer core — a spherical shell of molten iron in vigorous convective motion that gives rise to the Earth's magnetic field.

Since its formation about 4.5 billion years ago, the Earth has cooled from the inside out, causing its molten iron core to freeze and solidify. Scientists have believed that the inner core is growing at about 1mm per year as iron freezes and turns solid.

But when Sreenivasan and his colleagues from the University of Leeds in the UK studied heat transfer between the inner core and the outer core, they found that in some regions under the Earth, the inner core is not cooling, but warming — and melting.

"We don't see uniform freezing across the entire inner core," Sreenivasan said. "Beneath two large regions of Africa and the Pacific, where the core does not lose enough heat, we see warming and melting," he said.

The scientists used a computer model of convection in the outer core and archived global seismic data and showed that the flow of heat at the boundary of the core and the mantle was influenced by the makeup of the mantle.

"Two independent lines of evidence show melting," Sreenivasan told The Telegraph.

The researchers believe their findings will explain puzzling seismic observations and provide a better understanding of how the core gives rise to the Earth's magnetic field which deflects a significant amount of cosmic radiation and makes life on Earth possible.

"The standard view has been that the inner core is freezing all over and is growing progressively," said Sebastian Rost, a co-author of the study at the Institute of Geophysics and Tectonics at Leeds. "But the new flow of heat from core to mantle ensures that there is still overall freezing of the outer core and it is still growing over time but by no means is this a uniform process," Rost said in a statement issued through the university.

The intense pressure and high temperatures in the Earth's interior have kept them beyond the reach of direct scientific observations. Scientists believe the temperatures in the deep interior range from 4000°C to 8000°C.
IIT panel proposes to steer girls towards Engg.

Girls may receive higher ranks than boys with identical total marks in the Joint Entrance Examination (JEE) if the government accepts a sensitive new proposal to improve the gender balance on IT campuses.

A human resource development ministry panel under former human resource development chairman Arif B. Kalamkar has proposed changing the way students are ranked in the JEE so as to increase the number of girls at the premier engineering schools.

One in every 100 students selected into the IITs through the JEE in 2010 were girls. Only one in every 100 students who takes the JEE is a girl, the Kalamkar panel has concluded after studying years of data from the intensely competitive examination.

If the proposal is accepted, a girl student will get average jump of at least 10 ranks. The HRD ministry is studying the recommendations and will set up a blueprint for the future of the IITs — and the panel’s report will be examined by the IIT Council.

The IITs at present rank students with the same total marks in the JEE by seeing who has higher marks in the subject outside of physics, chemistry and maths — where all students have performed worst. If the trend still persists, the IITs then look at scores in the subject with the second-lowest cut-off — a reflection of overall student performance in that subject — to try to resolve the imbalance.

Students with identical total and individual subject marks are given some years given the same rank, and other years separated by a random process like their date of birth. The procedure is specified in the prospectus.

The panel has suggested that girls from each group of students with the same total score be automatically segregated and ranked higher than boys in the group. The panel has also recommended that the government reimburse 60% fees for selected girls.

Sibal initiates a new IT policy

FOR MADE-IN-INDIA Focus to encourage developing and manufacturing IT products

Manoj Gairola
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NEW DELHI: For the first time, the government is formulating a National IT Policy and National Electronic Hardware Policy.

Communications and IT minister Kapil Sibal has asked the secretary of the Department of Information Technology (DIT) to formulate the policy. The IT policy will focus on developing IT products in India.

In order to increase manufacturing in India, the minister has also asked the department of information technology secretary to formulate National Electronics Policy. The aim is to encourage manufacturing in India.

India is considered as an IT superpower. The size of Indian IT industry is $76 billion. However, almost all the revenue comes from software services and BPO, said an official of DIT. “We are not able to move up in the value chain and launch our own software products. Through the new policy such issues will be addressed.”

“India takes pride in its IT and telecom. However, the fact is that there is no made-in-India software and there is no made in India IT and telecom equipment. Everything is imported,” said SK Singh, former CMD of VSNL (now Tata Communications).

Similarly, the demand for telecom equipment in India was $54.76 billion in 2009-2010, according to telecom regulatory authority of India (TRAI).

This is projected to grow to $96.514 billion in 2015.

Out of this, Indian products could meet only 9% of the demand. If we consider the foreign telecom companies manufacturing products in India, their contribution goes up to 13%.

On Indian manufacturing. This means that about 97% of the demand of telecom equipment is met through import. Similarly, all electronic equipment and component are imported in India.

The National Hardware Policy will focus on all the Electronic products including telecom and IT hardware. The national IT policy and the national electronics hardware policy are expected to be finalised by the end of this year, said sources.

A FIRST IN INDIA

$76 bn
Size of the Indian IT industry by end FY 2011

19%
Growth in the IT industry in FY 2011

• There is no significant Made in India software, even though the country is considered to be an IT superpower. Most of the revenue of IT industry comes through software services.

• Demand for telecom equipment in India was $54.765 billion in 2009-2010 and this is projected to grow to $96.514 billion in 2015.

• Out of this, Indian products could meet only 9% of the demand. If we consider the foreign telecom companies manufacturing products in India, their contribution goes up to 13%.
Soon, device that can read minds

Vision-Related Brain Signals Decoded

London: Imagine a machine that can read what is going on in your mind. Well, it may soon be a reality as scientists claim to have successfully decoded brain signals related to vision. Researchers from the University of Glasgow said they were able see how the brain tuned into different brainwave patterns to code different visual features.

Philippe Schyns, who led the study, said: "How the brain encodes the visual information that enables us to recognise faces and scenes has long been a mystery. It's a bit like unlocking a scrambled television channel. Before, we could detect the signal but couldn't watch the content; now we can," the Daily Mail quoted him as saying.

For their study, the researchers showed six volunteers images of people's faces displaying different emotions such as happiness, fear and surprise. In a series of trials, parts of the images were randomly covered so that, for example, only the eyes or mouth were visible.

Participants were then asked to identify the emotion being displayed while electrodes attached to the scalp measured the volunteers' brainwaves. The scientists were able to show that brainwaves varied greatly according to which part of the face was being looked at.

"Beta" waves, with a frequency of 12 hertz, carried information about the eyes, while four hertz "theta" waves were linked to the mouth. Information was also encoded by the phase, or timing, of the brainwave, and less so by its amplitude, or strength.

Schyns said: "What we have done is to find a way of decoding brainwaves to identify the messages within." Schyns said the study revealed how the brain tuned into different brainwave patterns to code different visual features.
**Solar storms to wreak havoc in 2013?**

**London:** The intensity of solar storms is expected to peak in 2013 and may devastate critical infrastructure like satellite communications, navigation systems and electrical transmission equipment, a top scientist has warned.

Kathryn Sullivan, assistant secretary of the US National Oceanic and Atmospheric Administration, said countries should prepare for "potentially devastating effects" from solar storms which are caused by massive explosions on the sun.

Solar storms, according to scientists, release particles that can temporarily disable or permanently destroy fragile computer circuits, the *Daily Mail* reported.

Dr Sullivan, a former Nasa astronaut who in 1984 became the first woman to walk in space, told a UN weather conference in Geneva that "it is not a question of if, but really a matter of when a major solar event could hit our planet".

She is not the only expert to issue a warning about the threat posed by solar storms.

In February, astronomers warned that mankind is now more vulnerable to such an event than at any time in history — and that the planet should prepare for a global Hurricane Katrina-style disaster. A massive solar eruption, they said, would send waves of radiation and charged particles to earth, damaging satellite systems used for synchronising computers, airline navigation and phone networks.

If the storm is powerful enough it could even crash stock markets and cause power cuts that last weeks or months, experts told the American Association for the Advancement of Science. The chances of a disruption from space are getting stronger because the sun is entering the most active period of its 11 to 12-year natural sunspot cycle.

The world got a taste of the sun’s explosive power in February when the strongest solar eruption in five years sent a torrent of charged plasma hurtling towards the world at 580 miles per second. The storm created spectacular aurorae and disrupted radio communications. Space storms are not new. The first major solar flare was recorded by British astronaut Richard Carrington in 1859. —PTI

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**Turf war delays national intelligence grid project**

**TIMES NEWS NETWORK**

New Delhi: Fate of the ambitious national intelligence grid project (NATGRID) of the home ministry is hanging in the balance due to “turf war” among various stakeholders and it may lead to the exit of the team which has drafted the model.

“The Detailed Project Report (DPR) was ready in December 2010. A note on the project was prepared and circulated to all ministries concerned and views were taken. But unfortunately, no date has been given for a presentation of the draft report before the CCS,” a source privy to the development said.

NATGRID will have access to about 21 categories of databases like railway and air travel, income tax, bank account details, credit card transactions, visa and immigration records in the country.

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The project will facilitate robust information sharing by security/intelligence agencies including IB, RAW and military intelligence and law enforcement agencies to combat terror threats at home and abroad. As per the initial plan, access to the combined data will be given to 11 agencies, which include various central intelligence agencies and the National Investigation Agency among others. The idea was floated after the November 26, 2008 Mumbai terror attack. Many feel that had NATGRID existed, Lashkar-e-Taiba operative David Headley would not have had a free run prior and after the 26/11 attack.

Sources said that since NATGRID will function under the home ministry, it is believed that there is a fear among other stakeholders — mainly finance and defence ministries — which feel the home ministry will have uninterrupted access to all information under their jurisdiction. “Due to this turf war, the whole project is heading for collapse,” a source said.

Nearly 40% staff of the over 100 people working for the project have left due to the uncertainty. The term of chief executive officer Raghu Raman, who has been getting a remuneration of Rs 10 lakh per month, is set to expire this month-end.
DU logs on to connect with students on *Facebook*

ROHINEE SINGH □ NEW DELHI

Bitten by the social networking bug, Delhi University is soon going to have an account on the popular site *Facebook*. In a bid to remain connected to the students, the DU Vice Chancellor is likely to open a new email account that will exclusively look at emails from the students. Both accounts are likely to be created and announced next week.

"Since this year the admission process has changed, admission-related queries are already pouring in from all over, it is going to be just another gateway to provide additional inputs to the aspiring candidate," informed a University professor.

DU Vice Chancellor Dinesh Singh is also likely to announce his new email address before the admission process begins. The new email will help the V-C to interact directly with the students. "Though the V-C has an official email id, but this one is being created especially to address the concern of the students especially pertaining to admissions. The V-C does receive mails from students there too, but this is a newer proposition," the professor added.

Currently there are some accounts in the name of Delhi University and University of Delhi on *Facebook*. But these are not used by the university management. The Delhi University Proctor's Office and other members do put some information and development related to university on their personal accounts, but the university management does not have any page like this.

The chaos over the implementation of the semester system had kept the management of the university very busy, so much so that the information brochure, which is generally prepared by this time of the year is still in the process of being finalised. "In a situation like this, a social networking site loaded with information will certainly benefit the aspiring candidates," added the professor.

However the big question on who is going to manage this account is yet to be decided. It may be handled by the Information Technology department of the university. "Only after the Vice Chancellor returns to office, the details on timing and managing the account will be worked out," the professor informed.

The V-C who is out of the country is likely to join office from Monday.
Prez speaks against menace of ragging

STRONG STAND Patil says institutes must eliminate the "hideous" practice

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NEW DELHI: President Pratibha Patil on Thursday came down strongly against ragging, asking the chiefs of premier academic institutions including those of IITs and IIMs to see that the "reprehensible and hideous" practice which is "vitiating" the educational atmosphere is completely eliminated.

She called for creating "zero tolerance" to the menace that affected lakhs of students.

"I am sure you will vigorously work towards it with all sincerity," she told her audience that included, among others, V-Cs and representatives from 58 central universities who had gathered to see her launch a unique initiative.

Until now, the President has either been inaugurating or participating in seminars. But in a first, on Thursday Patil held one at Rashtrapati Bhavan on 'Universalisation of Roshni—a green innovation for sustainable urban habitats'.

Roshni is a green initiative developed by Rashtrapati Bhavan which Patil now wants to take to other institutions and areas, including building capacities of people. And if her exhortation to heads of institutes was any indication, making a living space more liveable also involved tackling issues like ragging.

"While we discuss nature-friendly agendas to improve the external environs, I want to take advantage of the presence of heads of premier educational institutions, to digress a little and particularly emphasise the need to concurrently instill internal harmony in their sylvan surroundings," she said.

Union ministers Farooq Abdullah and Kamal Nath and Delhi chief minister Sheila Dikshit, who shared the dais with her, assured to take her initiative forward.
JNU bans junk food, campus rises in protest

Manish Pratik Gehlot | TNN

New Delhi: Junk food is under attack at Jawaharlal Nehru University with the Campus Development Committee (CDC) reiterating its four-year-old decision to ban eatables like packaged wafer and fruit juices, carbonated drinks and other food items like burgers and hot dogs in the dhabas on the premises.

The office of the assistant registrar (estate) had sent a notice last week to all the 13 odd eateries on the campus, but top officials of JNU administration claim they know nothing about it. Even vice-chancellor S K Sopory said he was not aware of the decision of the CDC. Other officials were yet to get a copy of the notice.

Assistant registrar (estate) PS Chahar said, “We have reiterated the 2007 ban on the junk food after the human resource development ministry in 2007 banned the sale of such products in all educational institutions. During a surprise raid conducted recently, we found that the canteens on the campus were selling junk food items and, therefore, we asked them to stop the sale or face action.”

“During an external audit, it had been pointed out that such products were being sold on the campus despite a ban and, therefore, we have decided to enforce the ban,” Chahar added.

Faculty members, students and owners of various canteens said in unison that the sale of such items was never stopped and was not being done secretly.

Meanwhile, the student community has called for an all-organization meeting to discuss the issue. Both the ultra-left All India Students Association (AISA) and the Congress-backed National Students’ Union of India (NSUI) condemned the move. “Is this a joke? We are not in schools, and JNU is a campus of adult students and they know what is good for them and what is not. This is an attempt to make the small-time dhaba owners suffer — already the food here is much subsidized. The JNU administration has also doubled the water bills for these eateries,” said Iqbal Singh, NSUI general secretary of JNU unit.

Saying that this move by the JNU administration is undemocratic and autocratic, Sucheta De, AISA general secretary unit at JNU, said the student community was not consulted before taking the decision. “We have called an all-organization meeting to take stock of the matter. Even if JNU/SU is not there, all other students’ organizations are active on the campus, and the university cannot do whatever it wishes by citing a four-year-old MHRD’s notification.”

The most unhappy lot is obviously the dhaba-owners. The owner of one of the very old dhabas said, “Packaged drinks and snacks are preferred by students and such items sell the most. Moreover, we will not be allowed to sell fresh fruit juice at market prices, as the administration wants us to sell it at subsidized rates.”