

Newspaper Clips

February 20-21, 2011

Times Of India ND 20/02/2011

P-24

'It's disturbing that Isro, Sarabhai's legacy, is being targeted'

Three days ago, the Union Cabinet annulled the Isro, Antrix-Devas agreement on leasing out transponders on two proposed satellites of the country's space agency. This, after the deal came in for considerable criticism. So what does Isro's former chairman G Madhavan Nair have to say about events so far? Not a lot, he tells Prashanth G N, explaining that people don't seem to have understood certain technicalities and he's greatly pained at the accusations. Excerpts:

Was spectrum given away free? Was the lease undervalued?

■ Nowhere in the world is there a specific charge for spectrum. Spectrum charges are integrated with lease charges of a transponder and the government of India, the space commission, Isro and Antrix are in line with this. There's a world of difference between the cost of satellite spectrum and terrestrial spectrum. Satellite-based spectrum costs about a thousand times less than ground-based spectrum. There is no question of undervaluing satellite spectrum. It's economics and that distinction has not been made in the discussions.

How can one understand the following figures - Rs 67,000 crore and Rs 15,000 crore? The government supposedly got them for auctioning spectrum?

■ That is ground-based, not satellite spectrum. The latter doesn't fetch that kind of money. There's a perception that Devas would also use terrestrial spectrum but this was not explicitly mentioned nor was a fee fixed for it...

■ That's wrong. The agreement was only about space-based segment, not terrestrial spectrum. Even if the agency was to use terrestrial spectrum, it had to first get permission from the department of telecommunications. Without it, there's no question of utilizing it and it would be charged a licence fee.

Was the government aware that two major satellites were to be utilized for the services of a private agency?

■ Isro and the space commission got all the necessary approvals for building and launching satellites and mention was made to the Cabinet that a fairly large share of satellite capacity would be utilized by private service providers, though no specific names were mentioned.

A figure of 90% of the capacity of the satellites to be used by a private agency has been put forward...

■ The numbers are tricky as satellite capacity assessment varies based on needs and the nature of assessment itself. Satellite capacity sharing is a complex arrangement. Isro and the space commission undertake assessment of national and strategic needs continuously. At that time, a collective assessment of national and strategic needs was made and it was decided that whatever capacity of satellite would be necessary for those needs would be retained by Isro and the remainder leased out to private service providers. Isro supposedly did not initiate bids in

2005 to lease transponders and spectrum. Is that right?

■ Isro has not given preference to any particular company. The collective assessment in 2005 was that no other private agency in the country brought to Isro that kind of novel technology and innovation. It's because the technology itself was so specialized that only three countries in the world had it -- the US, Russia, South Korea. This agency, which had US experts, was familiar with the technology. Not many others

FOR THE RECORD

G MADHAVAN NAIR

seemed to have it and they didn't come.

What was the novel technology offered by Devas?

■ It's the delivery of a range of communication services to any receiver on any mobile platform via satellite/satellite beam. This sounds simple but the technology is very difficult. It is one thing to receive such services within a fixed receiver, but entirely different when the receiver is mobile. With this technology, you would get services (audio, video, data) even as you are travelling in a car, bus, truck, etc. At that time, there were only three countries with this capability. Isro felt it could deliver services such as disaster management, SOS calls, emergency communications, etc. with this technology.

How are such agreements arrived at? Surely there's scope for something to go wrong?

■ It's not the decision of one individual. The K N Shankara Committee spent two years reviewing all aspects to ensure everything was all right. The committee is headed by a highly reputed technical man. Then there are separate teams -- technical, administrative, financial, legal -- which examined all issues before preparing a draft.

What happens after an agreement is ready?

■ After repeated reviews, it's put up to the Antrix board which collectively has to approve it. There is an eight-member board and a minimum of three members have to approve it. No meeting is held without a minimum of three members. The company secretary ensures that. Only after the board approves it does the chairman, also chairman of Isro, come into the picture. Isro is perhaps the only public organization in the country with such clearly laid-out processes. No individual can bypass the process. There are adequate safeguards built into the organization.

Are you clear that nothing was amiss in the Antrix-Devas agreement?

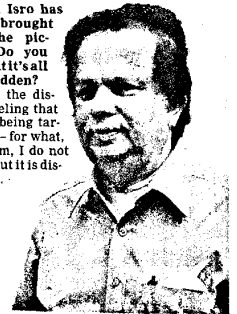
■ I'm very clear that nothing is amiss. Even if there are some generalities, specific explanations of these are made in documents. Every word, sentence and decision is clearly explained, segregated and accounted for in a series of documents. Nothing is left to chance. Are you disturbed by what you've heard and seen over the past two weeks?

■ I'm very pained and hurt that muck and mud is being thrown at an institution painstakingly

built on integrity over the past 50 years. It's tragic that there has been no analytical understanding of the issue. Hard facts have been glossed over in the entire episode. All 16,000 members of Isro are one big family and the legacies of legends like Vikram Sarabhai and Satish Dhawan live through each and every individual. I request everybody to examine the issues carefully and analytically. Space is so complex that you cannot reduce its understanding to a few sentences or positions.

With the 2G issue raging, Isro has been brought into the picture. Do you feel that it's all very sudden?

■ I get the distinct feeling that Isro is being targeted -- for what, by whom, I do not know. But it is disturbing.



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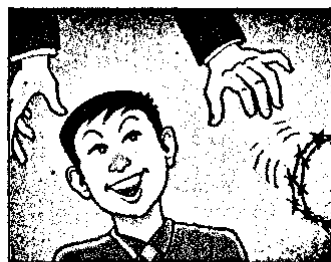
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Brokers trade JEE toppers in race for credit

Anahita Mukherji & Shoeb Khan | TNN

Mumbai/Jaipur: That the IIT coaching sector is one of the country's most profitable is well known. But there is also a cottage industry that feeds off coaching classes, one that deals with the buying and selling of top rankers at the joint entrance exam (JEE). For over a month, TOI tracked one such "broker" trading in students, a man named Vishnu Agarwal from Kota, a dusty town in Rajasthan that has become the IIT coaching capital of India. He "sells" top rankers from one class to another for a fee.

Agarwal's modus operandi is simple. He first zeros in on the brightest students from the best-known IIT coaching classes who are most likely to clear the JEE. He then approaches other coaching classes in Mumbai, Hyderabad and Delhi and offers them the op-



portunity to administer their test series to these students. Once the JEE results are declared, the coaching class can include those who appeared for their test series as part of the total number of students from their institute who made it to the IITs. The test series is free of cost for students, who are sometimes even paid to write these tests. The coaching class pays Agarwal for the service.

Agarwal even claims that, for Rs 6 lakh, he can provide new entrants in the IIT coaching sector with the entire academic plan of

well-known coaching classes such as Bansal in Kota. According to Agarwal, around 1,000 coaching classes in India use Bansal's content, much of which is provided by him. He claims he has clients in Bihar, UP and Chattisgarh, among other states.

He operates from a plush locality in Kota's Talwandi colony, with three cell phones and a laptop. One of his mobile numbers is registered in Mumbai while the other number is registered in Kota. He would not reveal the third number.

The matter came to light when Agarwal contacted IITians Pace, a popular coaching class in Mumbai, and offered to "sell" Pace some top-rankers from the biggest names in Kota's coaching industry. TOI worked alongside Praveen Tyagi, MD of IITians Pace, to expose Agarwal. Our reporters approached him from Mumbai and Jaipur.

Tyagi first put TOI's Mumbai correspondent on a conference call with Agarwal, where he discussed his business model and how he would produce top rankers for Pace's test series.

TOI then phoned Agarwal from Mumbai posing as Tyagi's secretary, Sonal, and discussed plans to take the deal forward. The conversation was recorded. Agarwal said he could provide 30-40 candidates from three coaching classes in Kota (Bansal, Resonance and Vibrant) who would definitely score a rank below 100 at the JEE. Each of these students would come at a price of Rs 10,000. He said he could also provide a few extra students who would probably make it to the IITs, but with a rank above 100. These, he said, would cost only Rs 5,000 per head. He said that in addition to his own fee, he would also have to pay students some money to appear for the tests.

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India's premier research body to have own commercial arm

TIMES NEWS NETWORK

New Delhi: The country's premier scientific research body, Council of Scientific and Industrial Research (CSIR), is working on setting up its own commercial arm. Science and technology minister P K Bansal says it is essential to take path-breaking research that CSIR is doing to the people.

"We should have a commercial arm of CSIR so that people can benefit from the research that they are doing. It can be in the form of a Public-Private Partnership or an initiative of only CSIR but I feel it is very important to take science to the masses. Right now, there are small groups that work in laboratories towards adoption of technologies but no umbrella forum for

Beyond the pharma sector where CSIR has come up with a number of low-cost drugs that have been adopted by companies, other research derivatives have rarely made it to the market

it," Bansal said at a function here on Saturday.

His words echo what the Planning Commission had told CSIR some time back. Science and technology secretary S Brahmachari said: "We had formed the Vijay Kelkar Committee to look into the issue right after the recommenda-

tion. That report has come in and we will soon take it up. It (commercial arm) will be a professional body and not a PSU."

Beyond its presence in the pharma sector where CSIR has come up with a number of low-cost drugs that have been adopted by companies, the other research derivatives from the council have rarely made it to the market. They include low-cost computers Sofcomp and Mobilis that created a stir some years ago.

"They were not taken up but after the price of computers fell drastically," Bansal said. One notable exception in this is the tractor technology that was adopted by the private sector and has now been spun into a company with an annual turnover of Rs 2,000 crore, Bansal added.

Economic Times ND
20/02/2011

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IIM Indore average salary rises to ₹14 lakh

MAHIMA PURI
NEW DELHI

WITH an increase of 27% in the average salary being offered to students this year, Indian Institute of Management Indore is the first among all IIMs to have successfully concluded its final placements for 2011. The institute recorded an average salary of ₹14.06 lakh this year, as compared to about ₹ 11.07 lakh in the previous year. The highest domestic package at the campus stood at ₹32 lakh per annum by a Mumbai-based investment bank compared with ₹28 lakh in 2010. The international highest salary at the campus this year was offered by a multinational for an operations role in Singapore, again, at ₹32 lakh.

According to the institute's placement committee, the top 12% of the class of 2011, have secured offers with more than ₹20 lakh, while more than half of the batch secured offers in the range of ₹14-18 lakh. The institute has a batch size of 240 students. Investment banks and consulting firms remained the favourites among recruiters. While 28% of the students accepted finance roles, 25% accepted consulting roles. "This is a marked change from previous years when finance roles dominated more than 40% of the placements," said Prof Prashant Salwan, chairman-placements at IIM-I.

The major recruiters offering investment banking and jobs in financial services were Goldman Sachs, Edelweiss, Standard Chartered, JP Morgan Chase, Deutsche Bank, HSBC-GR, Bank of America-Merrill Lynch and Nomura, to name a few.

Consulting firms such as McKinsey & Co, Boston Consulting Group, E&Y, Deloitte, PwC, Aon Hewitt, Cognizant, TCS, Wipro Consulting Services hired in more numbers than last year.

HERE COMES THE FUTURE

ONE FINE morning, we decided we had had enough. Enough speculation about what the next iPhone will be like, enough arguments about when the next version of the iPad will be released and enough discussions about how *Fruit Ninja* totally kicks *Angry Birds*' feathered butt. What we really wanted to do was hop, skip and jump past the next few months and find out what the future, or at least the next few years, holds for us as far as technology goes. So we sat back in our chairs, got out the crystal ball and found ourselves in a world where cars drove themselves, computers folded over and brains automatically backed themselves up. Don't believe us? See for yourself! pranav.dixit@hindustantimes.com brunchletters@hindustantimes.com

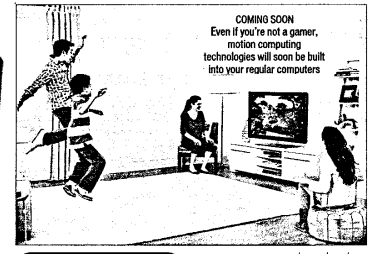
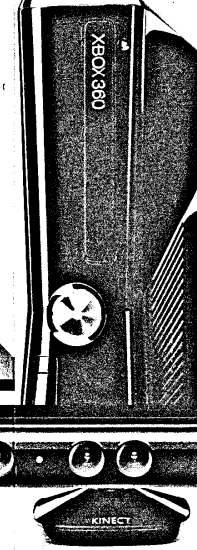
MORE ON THE WEB
hindustantimes.com/futuretech



Self-driving cars, flexible screens, laptop computers that heal themselves and brains that back up memories. Sounds like magic? Well, they're coming to you!
 by Rajiv Makhni and Pranav Dixit

Just round the corner

IT'S MAGIC
Near Field Communication 2011
 IMAGINE THIS: after a hearty meal at your favourite restaurant, you simply tap your phone over a scanner - voila, the bill amount is instantly debited from your bank account (you might still have to tip the waiters in cash though - unless they've gone robotic by this time!) You walk into a movie hall and go up to a movie poster with Katrina Kaif beaming down at you. Tap the poster and your phone immediately receives the movie trailer video and reviews. If you've made up your mind, tap the Katrina again and the poster will dispense e-tickets right into your phone. No standing in line at the counter, no bad movies to watch anymore. NFC can make all this and more real by means of a chip buried inside your phone. Goodye walk, goodbye credit card!



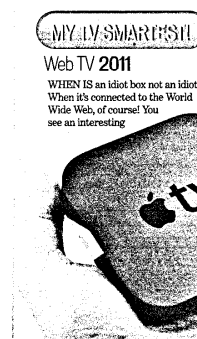
COMING SOON
 Even if you're not a gamer, motion computing technologies will soon be built into your regular computers

SHAKE IT BABY!
Motion Computing 2011
 FLAP THOSE arms, swing them legs, jump, hop and skip, because the future is all about groovin'! Microsoft, the company that chained you to your desks by putting a computer on each

CONTROL FREAK
 The Kinect for the Xbox 360 allows you to take control using only your body

ONE SIZE FITS ALL

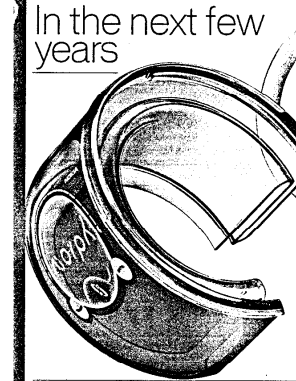
Modular gadgets 2011
 DUAL CORE processor, 24 GB memory, separate graphics processor - sounds like a state of the art laptop? Nope, it's your next phone. The innards of your phone now sound more like a full-fledged computer, in fact far more powerful. If you've had your office computer for more than two years then you will notice that it's a slow, clunky brick. Your phone, meanwhile, packs the punch of a small supercomputer. Only if only, you could harness your phone to power your computer! Well, Motorola and many other companies now tell us that's possible. And the Motorola Atrix 4G is a good showcase of that. A phone so powerful that it can actually run not only your laptop but also your multimedia system by means of various docks. Also on the market are hybrid Notebooks that fold over to become Tablets, dual-screen Notebooks and small computers with built-in displays that double up as e-readers. This is convergence, baby!



MY TV SMARTS!
Web TV 2011
 WHEN IS an idiot box not an idiot? When it's connected to the World Wide Web, of course! You see an interesting location on TV. Perfect place to plan your next vacation, you think. With Web TV, all you need to do is press a button on your remote control and you'll see all the information you need right there alongside the show. You can look at pictures of the place, book your flight tickets, reserve hotel rooms and read or listen to what other people have to say about their experience! App stores, Twitter and Facebook integration. YouTube streaming and games, all delivered via the Internet, promise to change the way you watch TV - forever. Google, Apple, Boxee, Roku, the biggies are already fighting for a slice of the pie. Will the domination of the large TV networks scuttle their plan? Only time will tell.



GOODBYE, GLASSES!
Glassless 3D 2011
 AFTER BEING shoved down our collective throats post *Avatar*, it looks like 3D is here to stay, like it or not. The good news? Those ill-fitting, battery-operated, impossible-to-find, headache-inducing glasses are finally going away! Pioneered by the Nintendo 3DS and now about a half a dozen phones at the Mobile World Congress 2011, the first portable glassless 3D displays are here. This is, however, still a nascent technology. It will be some time before you can watch *World Cup* on that 50-inch in your living room. The problem with large screen sizes is that you need to stand at a certain place at a certain distance and it still looks artificial. But hey, it's a start!

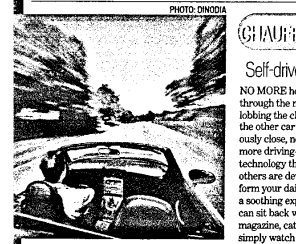


In the next few years

INVISIBLHARD
Flexible screens 2017
 TECHIES DREAM, scientists drool and users crave - and with good reason. When your screen finally goes all bendy-twisty, the entire dimension changes - phones don't need to be rectangular, laptop sizes don't need to be dictated by the screens and a Tablet doesn't have to be, well, a Tablet-like slate. What happens then? A single, God-like device emerges - one small enough to fit in your pocket when you need a phone, fan out to a 21-inch display when you want to catch that movie in-flight and open out to a 40-inch widescreen when you want to make a professional presentation. Giants like Sony, LG and Samsung all have various forms of rollable and bendable displays, all vying to become the hottest ticket to our converged, single-device future.

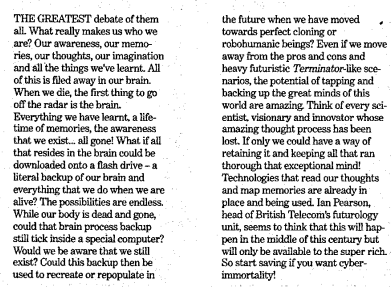
ZIP ZAP ZOOM
Electric cars 2015
 ELECTRIC CARS seemed to be making as much progress as flying cars and jet packs. Until now that is. Efficient, great-looking, fast performance electric cars are starting to look good. Better battery technology, fuel cells and fast recharging could make sure that all our cars are silent, efficient and totally green. Even recharging could be dispersed with. Drive up to a battery pump station, unplug your battery, plug in a charged one and zoom away in less time than it would take you to tank up today.

NO MORE SCRATCHES!
Self-healing materials 2015
 THERE'S NOTHING more likely to drive you into spasms of hysteria than the sight of a dent on your swanky new car. Don't worry, there's a billion dollar industry to help you cover up, protect, insure and repair all that you own. From the laptop that fell off the table self heal at night and be perfect when you wake up in the morning? Can the scratches on your car and phone be self-aware and vanish overnight? Yes, they can and most of it is happening right now. These smart materials have the ability to repair damage without human intervention. Just like the human body has the ability to heal after being wounded, various polymers, plastics, ceramics and paints now have self-repair abilities. Lots of different approaches exist: microcapsules that burst when paint gets scratched and coat over the scratch. Or polymers with bond and repair all that they touch. But don't give your driver the pink slip just yet. While the technology is promising, it will be a few years before you can pop into your nearest showroom and pick up one of these beauties.



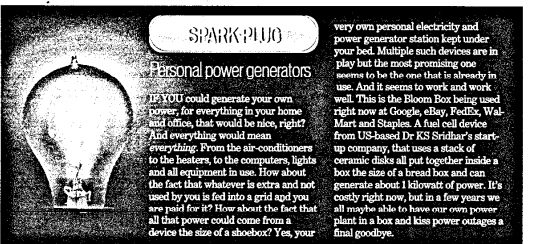
CHAUFFEUR BEWARE!
Self-driven cars 2017
 NO MORE honking your way through the morning jam, no more lobbying the choicest expletives to the other car that came dangerously close, no more red lights, no more driving-to-office blues! New technology that Google and some others are developing can transform your daily ride from hell into a soothing experience in which you can sit back with your favourite magazine, catch up on the news or simply watch the world whiz by as your car literally drives itself to your workplace. These automated cars use video cameras, radar sensors and a laser range finder to 'see' other traffic and detailed maps that are available from Google's vast data centres. No more accidents (let's face it, clips are smarter than your good old flesh-and-bone driver), reduced fuel consumption and a hassle-free ride - what more could we possibly want? But don't give your driver the pink slip just yet. While the technology is promising, it will be a few years before you can pop into your nearest showroom and pick up one of these beauties.

BACKUP INITIATED
Downloading memories
 THE GREATEST debate of them all: What really makes us who we are? Our awareness, our memories, our thoughts, our imagination and all the things we've learnt. All of this is filed away in our brain. When we die, the first thing to go off the radar is the brain. Everything we've learnt, a lifetime of memories, the awareness that we exist... all gone! What if all that resides in the brain could be downloaded onto a flash drive - a literal backup of our brain and everything that we do when we are alive? The possibilities are endless. While our body is dead and gone, could that brain process backup still tick inside a special computer? Would we be aware that we still exist? Could this backup then be used to recreate or repopulate in the future when we have moved through perfect cloning or robohumanic beings? Even if we move away from the pros and cons and heavy futuristic Terminator-like scenarios, the potential of tapping and backing up the great minds of this era is amazing. Think of every scientist, visionary and innovator whose amazing thought process has been lost. If only we could have a way of retaining it and keeping all that ran through that exceptional mind! Technologies that read our thoughts and map memories are already in place and being used. Ian Pearson, head of British Telecom's futurology unit, seems to think that this will happen in the middle of this century but will only be available to the super rich. So start saving if you want cyber-immortality!



INFO HUNGRY
Full dimension displays
 WE ALL loved it when Tom Cruise made display technology look like an art form in the movie *Minority Report*. Yet, of all movie scenarios, this is the one most likely to become real. In the future, our large home entertainment and office displays may not be screens at all. They will be full scale, all-dimension and holographic and won't need any glasses or clunky access to a function. Today's 3D will look like a joke in front of it. Scientists are moving towards creating devices that project 3D images in the air by means of all nanomaterials that bend light around objects. How it works is not important, what matters is that it does.

BEAM ME UP, SCOTTY!
Human teleportation
 WE ALL saw Captain Kirk on *Star Trek*, we were all fascinated by the very thought of it and we are all still waiting for it to happen. To travel from one place to another with no physical transportation object being used - no car, no aircraft, no ship - is truly the holy grail that technology must overcome. And enough signs of it coming about one day are in place. Scientists have managed quantum teleportation with photons where an object is dematerialised at one point and the details of that object's atomic configuration are sent to another location where it is precisely reconstructed. (All hell breaks loose if it's not, though. Imagine being beamed from home to office and arriving as a globular green mess because something went wrong!) Right now, a photon, a laser beam and a laser beam carrying information have been successfully transported. However, a human being is a million times more complex. The catch is that for teleportation to happen, the original must be destroyed. So when you are beamed on a trip to Paris, your original will be zapped to nothing and you must hope and pray that the one that they recreate will have the exact same body, face, thoughts, memories and mind. Otherwise, the person enjoying the sights of the Eiffel Tower may just be a totally different person - and you may not exist, all because you were in a hurry and didn't want to take the flight.



SPARK PLUG
Personal power generators
 IF YOU could generate your own power, for everything in your home and office, that would be nice, right? And everything would mean everything. From the air-conditioners to the heaters, to the computers, lights and all equipment in use. How about the fact that wherever you are, you are paid for it? How about the fact that all that power could come from a device the size of a shoebox? Yes, your very own personal electricity and power generator station kept under your bed. Multiple such devices are in play but the most promising one seems to be the one that is already in use. And it seems to work and work well. This is the Bloom Box being sold right now at Google, eBay, FedEx, Walmart and Staples. A full fledged 100-watt DC power generator. It's coolly right now, but in a few years we all may have to have our own power plant in a box and kiss power outages a final goodbye.

VIRTUAL EVERYTHING
 ...even people!
 IT'S ONE of the most abused terms in technology and yet the time has come for it to make a serious mark. And with that, real life as we know it will be over. Virtual newscasters will take over and almost anyone with a camera can generate professional news bulletins by choosing age, gender, voice, expressions and level of authority required. Thus most TV show and news anchors will be cut off their jobs. Virtual actors will be employed at multiple levels and it will be impossible to sort out the real from the virtual actors in the latest blockbusters. Thus, a shoe in the tuff garden is not a shoe. If Ashwaj studios will cost practically nothing (bonus: no more tantrums). Doctors and lawyers will be available 24 hours as their virtual avatars will always be at hand to take as many calls as their 3D conference call facilities can handle. Even an SMS from your phone will be delivered by a 3D holographic miniature version of you popping out of the recipient's phone. Virtual will be virtually everywhere.

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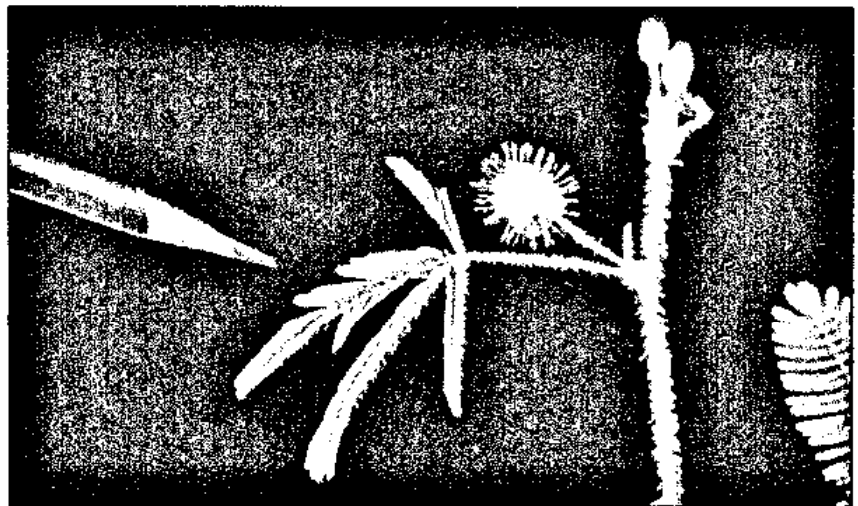
Touchy-feely plant to inspire 'flexible' machines of future?

Washington: Airplanes might soon have flexible wings like birds and robots could change shape as they please thanks to research under way on mimosa plants, according to researchers.

The shrub's leaves, which can retract at the slightest of touches, could inspire a new class of structures that can twist, bend, harden and even repair themselves, explains University of Michigan professor of mechanical engineering Kon-Well Wang.

"This and several other characteristics of plant cells and cell walls have inspired us to initiate ideas that could concurrently realize many of the features that we want to achieve for adaptive structures," he said Saturday at an annual meeting of the American Association for the Advancement of Science.

"The phenomenon is made possible by osmosis, the flow of water in and out of plants'



© David Sieren/Visuals Unlimited/Corbis

SENSITIVE DESIGN: Mimosa's leaves, which can retract at the slightest of touches, could be the model of structures that can twist, bend, harden and even repair themselves

cells. Triggers such as touch cause water to leave certain plant cells, collapsing them. Water enters other cells, expanding them. These microscopic shifts allow the plants to move and change shape on a larger scale," he said.

The mimosa is a type of plant able to move itself in a way that is visible to the naked

eye in real time. The plant's "hydraulic system" makes that "nastic motion" possible. "Triggers such as touch cause water to leave certain plant cells, collapsing them. Water enters other cells, expanding them. These microscopic shifts allow plants to move and change shape on a larger scale," the researcher explained. AFP

Times of India ND
21/02/2011 P-17

50bn planets in Milky Way, finds cosmic census

Washington: Scientists have estimated the first cosmic census of planets in our galaxy and the numbers are astronomical: at least 50 billion planets in the Milky Way.

At least 500 million of those planets are in the not-too-hot, not-too-cold zone where life could exist. The numbers were extrapolated from the early results of Nasa's planet-hunting Kepler telescope.

Kepler science chief William Borucki says scientists took the number of planets they found in the first year of searching a small part of the night sky and then made an estimate on how likely stars are to have planets. Kepler spots planets as they pass between Earth and the star it orbits.

So far Kepler has found 1,235 candidate planets, with 54 in the Goldilocks zone, where life could possibly exist. Kepler's main mission is not to examine individual worlds, but give astronomers a sense of how many planets, especially potentially habitable ones, there are likely to be in our galaxy. AP

**Times of India ND P-17
21/02/2011**

Elderly women on bone drugs may live longer

New York: While bone drugs have gotten a bad rap in the media recently, experts hope mounting evidence of benefits may convince patients not to shun the medicines.

This month, Australian researchers published the latest report to hint that elderly women who take bisphosphonates — as the bone drugs are known — live longer than those who don't get treatment.

Out of every hundred women in their study, three who were not taking bone drugs died every year, compared to less than one of those who were on the drugs.

Although the findings don't prove the bone drugs actually boost longevity — it's possible that women on treatment are generally healthier, for instance — they fit with earlier studies.

"To me, this was good

Out of every hundred women included in a study, three who were not taking bone drugs died every year, compared to less than one of those who were on the drugs

news," said Dr. Ethel S. Siris, who heads the Toni Stabile Osteoporosis Center at Columbia University in New York and was not involved in the study.

Examples of bone drugs are Merck's Fosamax, Roche's Boniva, Novartis's Reclast, and Warner Chilcott's Actonel. They are usually prescribed for the bone-thinning disease osteoporosis, which affects about 10 million Americans, the majority of them postmenopausal women. REUTERS

Times of India ND 21/02/2011 P-17

Soon, sat to predict when, where quakes will strike

In what may help save thousands of lives worldwide, scientists have launched a project which they claim could predict exactly when and where earthquakes will happen. A team of British and Russian scientists has signed an agreement to work together on the project in Moscow. The TwinSat project involves the launch of two satellites which will orbit the Earth a few hundred miles apart. The two linked satellites will monitor zones with high seismic and volcanic activity.

Times of India ND 21/02/2011
EDUCATION TIMES P-1

WHAT ARE THE PRIORITIES FOR EDUCATION IN THIS YEAR'S BUDGET?
EDUCATION TIMES TALKS TO A CROSS-SECTION OF PEOPLE TO FIND OUT

BUDGET 2011

G RAVINDRA
Director, National Council of Educational
Research and Training (NCERT)

In the coming budget, substantial funds should be allocated for primary and secondary education. Also, elementary education and Early Childhood Care and Education (ECCE) deserve immediate attention. However, Right to Education Act (RTE) should be one of the major priorities in the coming budget. For effective execution of RTE, the focus should be on teacher recruitment and other functionalities, estimating budget needs and phasing out the implementation plan, enhancing teacher-training facilities and quality training, establishing monthly income scheme (MIS) by states and ensuring a monitoring system to assess the present status of the various provisions of RTE.

JANDHYALA BG TILAK
Head, Department of Educational Finance,
National University of Educational
Planning and Administration (NUEPA)

The government has promised to allocate six percent of national income to education. This has been long overdue. No one expects that we will reach this target at once, but budget allocations should indicate a steady progress. Also, I expect the current year's budget allocations to reveal a firm commitment of the government to the implementation of the Right to Education Act in both letter and spirit. While there are several components, I feel two to three components require special attention. First, schools in almost every state are severely short of qualified and trained teachers. Substantial resources need to be allocated for (a) recruit-

ment of qualified and trained teachers in large numbers; and (b) for strengthening of teacher education/training programmes. Second, I feel a large number of schools, particularly in rural areas, are badly in need of good infrastructure facilities. Perhaps instead of opening more new schools, big allocations are needed to improve the state of the existing schools. Third, there is still a need to improve the mid-day meal scheme, which has positive effects both on education and nutritional status of children.

With respect to secondary education, Rashtriya Madhyamik Shiksha Abhiyan (RMSA) has been launched only recently. It aims at universalising secondary education. This again requires large-scale expansion of the school system that needs more schools, more teachers and more money. As far as higher education is concerned, we need to raise the gross enrolment ratio to 15% within a year, as resolved in the 11th Five-Year Plan, and then to 30% in about 7-8 years. This does require more universities and colleges, but it is

important that the recently opened institutions and even other existing institutions are strengthened with sufficient resources. Many new ones are working at a 'below subsistence level.' The budget allocations should clearly recognise this.

PRADEEP NAGARAJ
Joint Placement Secretary,
Faculty of Management Studies (FMS),
Delhi University

With global markets showing signs of recovery, the prospect of India achieving a double digit GDP growth rate will depend largely on this year's Union budget. While the 16% increase in the government spending in elementary and primary education in last year's budget (from Rs 26,800 crore to 31,036 crore) was commendable, students and academicians would be hoping that this budget will have an increased focus on higher education and research compared to last year. Along with the interest subsidy on student loans for higher education, provisions should be made to incentivise corporates to train fresh graduates and also collaborate with graduate and postgraduate institutions to improve employability of students.

Also, encouraging foreign direct investments, promoting higher exports and making India more industry-friendly would go a long way in creating employment, making industries more efficient and fostering the spirit of entrepreneurship in India. All this will make India a significant player in the globalised world.

VN RAJASEKHARAN PILLAI
Vice-chancellor, Iguon

There is a challenge in the sphere of India's higher education system, which includes interlinking vocational education with mainstream education. As of now, there is no formal link between vocational education and the university education system. Further, there is a clear need to have a mechanism through which students of vocational education can shift to mainstream courses and vice-versa. This was suggested by the Planning Commission and National Knowledge Commission by way of setting up the Vocational Qualifications Framework (VQF). It has been observed that several lakh of our college graduates lack in basic skills and for our country to have a functional workforce every graduate needs to incorporate at least one vocational skill. In fact, by 2020 India has a mandate of producing 500 million skilled and employable graduates. Given this backdrop, the vocational education sector expects the Union budget to make allocations that can facilitate a structured growth in this sector.

Graphic: Vinay Narvani

continued on page 2

LAW TEST

IIT-Kharagpur has decided to accept LSAT-India as one of the admission criteria for its three-year LLB programme in intellectual property rights. LSAT-India is a standardised test designed for Indian law school admissions by the Law School Admission Council (LSAC), US, which also administers the LSAT used by leading law schools worldwide.

Business Standard, ND 21-Feb-11

p-13

Off course

Over regulation by AICTE can hurt B-schools

One way of looking at the notification on admission and fees of business management institutions put out by the All India Council for Technical Education (AICTE) last December is to view the sector regulator doing its job of protecting consumers' interests (i.e. prospective students) from venal institutions that are cashing in on the growing demand for a B-school education. But, in addressing a problem that it has been responsible for, in no small measure, AICTE has overreached itself. So, it is not surprising that the issue now finds itself in court. Of the eight rules that AICTE has set out, two can be considered somewhat logical. The first stipulates that the admission for all management education courses cannot start before March 31. Most mainline B-schools begin the admission process in January, two months after the Common Entrance Test (CAT), one of the widely-used admission tests, in October, but others start later, depending on the timing of other entrance tests. Such staggered admissions allow students to make multiple applications and then get transferred to their preferred institution, if they can. A vacant seat cannot be filled once the term begins, so the upshot is that a large number of seats go abegging each year.

AICTE is also probably correct in attempting to limit B-school fees. B-schools may argue, as they have done, that this amounts to unwarranted interference in their autonomy. But it is also true that soaring demand is putting a B-school education outside the purview of many less affluent stu-

dents, and has promoted such frankly unethical practices as capitation fee. This has the effect of creating an uneven playing field for talent that is unlikely to help India Inc. But, in stipulating that fees be subject to a state government-led fee fixation committee, AICTE has come up with a sub-optimal solution. Experience has shown that state government interference in education tends to become so politicised as to verge on the destructive. It would probably make more sense for a centralised fee-fixation committee, comprising representatives of the regulator, B-schools, industry and educational professionals, with a clearer idea of balancing costs and quality.

But these are only two issues that irk the over 2,000 B-schools that seek AICTE approval. The most contentious one is the stipulation that their admission tests be limited to CAT, MAT or an equivalent state-level test. This amounts to gross over-regulation. More so, since only the state-founded IIMs and about 150 privately-run B-schools actually use CAT; the remaining 1,900-odd institutions use a variety of tests, including those designed by XLRI and AIMA, all of which will have to be scrapped. Even assuming that this is done, with CAT now a computer-based test delivered by a private sector player, the danger of monopolisation cannot be an overstatement. sync with B-school functioning. For an institution that has played such a *laissez faire* role in approving B-schools of dubious quality, its guidelines appear to be designed to irk rather than enable institutions to focus on quality.

B-SCHOOLS MAKE HAY WHILE THE SUN SHINES

Growing job opportunities ensure good placements for even second- and third-rung business schools

KALPANA PATHAK & LAKSHMI AJAY
Mumbai/Ahmedabad

For Panvel-based Pillai's Institute of Management Studies and Research (PIMSR), 2011 has seen remarkable placements.

Domestic salary in the institute has gone up from ₹6.59 lakh in 2010 to 10 lakh this year — an increase of 49 per cent.

And average salary in the institute is up from ₹2.5 lakh in 2010 to ₹3.5 lakh this year.

It's not just the premier B-schools that are witnessing buoyancy in placements. Even mid-rung and three-tier B-schools in the country are having a field day, nearing a 100 per cent placement target.

For instance, Ahmedabad University's (AU) Amrut Mody School of Management (AMSM) has recorded the highest salary at ₹8 lakh offered by Futures First.

"We started the process of inviting companies in mid-October and 60-65 companies have so far made it to the placements this year. Last year we had approached around 100 companies out of which 92 had turned up," says Rima Gupta, assistant placement officer at AMSM.

TCS, Torrent pharmaceutical, Prakash Chemicals, Futures First, Doshion, Reliance, L&T Finance, and ICI-CI were some of the top companies that have been part of the recruitment process. Out of 120 students there were 109 who went in for the placements process. Around 50-55 offers have already been given to students while the process will go on till May.

At Nirma University, Ahmedabad, out of a batch of 170 students, 160 students have opted for the placement process. Nirma had invited more than 500 companies for placement and there were around 40 companies that participated.



According to Neeraj Amarnani, placement chairperson at the Institute of Management, Nirma University, top recruiters from regular sectors like IT, banking, consumer durables, manufacturing and infrastructure participated in the placement process. The institute did not divulge salary package details.

At the Institute of Rural Management, Anand (IRMA), annual average salary offered to the participants is around ₹8.03 lakhs, which is a 34 per cent increase from last year's average. "Organisations like Gujarat Co-operative Milk Marketing Federation, (GCMMF), the newly set up NDDB dairy Services (NDS), ITT Corporation, ITC,

ment coordinator, Professor Preeti Priya. Domains on offer included finance, research and advisory, agri-business, ICT, renewable energy, livelihood promotion, watershed development, education and health.

This year, IRMA has also introduced a policy for deferred placements, so as to provide placement services in the coming years to the participants who choose to opt out of this year's placements.

Among the Indian Institutes of Management (IIM), IIM Ahmedabad's (IIM-A) cluster based placement process began on February 12 with companies from across four cohorts—international investment banks, global strategy consulting, global niche consulting and private equity/venture capital. Boston Consulting Group and McKinsey recruited more students than last year.

At IIM Indore, final placements for the 2009-11 batch were concluded in a window of five days. The highest domestic compensation offered was ₹32 lakh per annum which was made by an investment bank. Around 12 per cent of the class secured offers in excess of ₹20 lakh per annum. The placement process witnessed a participation from almost 100 companies offering a wide array of profiles across functions of finance, marketing, HR and operations, among others.

At Bhubaneswar-based Xavier Institute of Management (XIM-B), the highest international package offered was \$32,650 per annum. The highest domestic salary was ₹15 lakh per annum. A total of 86 companies participated in the placement process of which over 70 companies made final offers. Of these, 21 were the first time recruiters at XIM-B. At XLRI Jamshedpur, average salary offered was ₹16.5 lakh, an increase of 9.27 per cent over last year's ₹15.1 lakh. A total of 370 offers were made to a batch of 240 students, making 1.32 offers per student.

Many B-schools are yet to begin the final placement process on their campuses.

B-school	Salary (lakh)	% Increase
PIMSR	10	49
XLRI	23	20
IIFT	15.51	18.57
IIM-Indore	32	14
IRMA	10.47	10.8
XIM-B	15	(-)16.6

Source: Institute websites

and ICICI, have been some of the top recruiters while the highest salary offered till now has been ₹10.47 lakhs per annum by consulting firm Ernst & Young. The highest compensation package has also increased to 10.79 per cent from last year's ₹9.45 lakhs," said place-

'India centre will make our ties stronger'

This year, University of Chicago will join the ranks of a dozen international universities which have firmed up plans to set up centres in India. Sunil Kumar, who took over as the dean of Chicago Booth School of Business last month, tells Kalpana Pathak how the school plans to leverage the India centre and the school's alumni base in India. Excerpts:

What is your agenda for this trip? Does the school have any India plans?

This is a get-to-know-each-other-trip. I am meeting a lot of alumni as part of the trip. Also, the University of Chicago is evaluating a plan to open an India centre in New Delhi. There is a faculty committee which studied various locations in India and decided on New Delhi. Right now we are evaluating a location for the centre. It would be a broad based centre which will serve various aspects of the university. The centre would facilitate research, student exchange programmes, teaching facility and conducting of executive education, among others. As of now we do not plan to offer degree programmes in India. However, as and when India allows the same, we may re-evaluate our strategy.



PHOTO : MATTHEW GILSON, CHICAGO BOOTH

Over a dozen international universities have already firmed up their India plans. Aren't you late in the Indian market?

We have not come to India now. We have always been strong here. The fact is we had not established a presence here. I don't think we are behind anyone in this aspect. Of all our foreign students on campus, India forms the largest group. Our admissions and career services officials travel to India regularly to forge tie-ups. They meet alumni and prospective students here and explore employment and internship opportunities in India.

Does your school plan to impart executive education in India?

We are talking to Indian companies regarding executive education programmes but have not firmed up anything yet. However, as a strategy we do not run

Q&A

SUNIL KUMAR
Dean, Chicago Booth School of Business

such programmes in partnership with other B-schools. We believe in flying down our own faculty members to the location where we offer the programmes. It's an easy way for us to ensure that everybody gets high quality education and the unique Chicago flavour.

Your school has been slipping in the FT rankings. Is that a concern?

FT uses salary credentials as one of the key criterias. But for us, the more important question is how to do we use these rankings as they provide external and subjective evaluation of our

programmes. What matters to us is a student choosing our institute when he has offers from other B-schools as well. We care about how well our students do in placements. What matters to us is, if students get the job they want(ed).

Recession made American and European B-schools look at India. Do you think this could change as these economies begin to recover?

I am speculating here. I do not know what they would do but I can tell you what we would do. Our strategy is about creating and disseminating knowledge. So if a programme allows us to have an impact on a market segment, where the school thinks it can benefit from, we would think of it. The economics matter, but they are secondary. Short economic condition would not be sufficient to re-evaluate our strategy.

India Inc floods IIM students with offers as biz sentiments rise

Kirtika Suneja

New Delhi, Feb 20: In what reflects a bounce-back in economic sentiments, India Inc is going all-out to recruit from Indian Institutes of Management (IIMs) this season.

Consider this. At IIM Calcutta (IIM-C), multiple companies have given offers in the last few days which has swelled the number of offers received so far to around 225, an increase of 75% from last year. At IIM Kozhikode (IIM-K), the number of offers per company has gone up by close to 30% from 2.66 in 2010 to 3.43 this year.

At IIM-C, more than 200 offers have been made till now, a 60% increase over last year's number of offers at the end of the lateral process. More than 50 firms are participating in the lateral hiring process. The lateral placement process is for students with considerable work experience, where candidates are offered roles depending upon the nature and duration of their work-ex.

Significantly, there is also a big increase in the number of new recruiters this season. The lateral process at IIM-C began more than a month ago and will continue till end of this month following which the final placement process will be conducted in the first week of March.

"The diversity in the students work experience is highlighted by the highest number of offers made by



JOBS APLENTY

- At IIM-C, number of offers received so far swelled to around 225, an increase of 75% from last year
- At IIM-K, number of offers per company has gone up by close to 30%, from 2.66 in 2010 to 3.43 this year
- At IIM-A, about 35% of participating firms are new recruiters and 21% of them offered roles in finance

Amazon across all IIMs as part of the lateral placements for operations profiles," said IIM-C in a statement.

Same is the case with IIM-K where the number of offers have visibly increased.

"We have seen 35% of the companies that didn't participate last year giving more than 80 offers. Around 29% of these companies offered roles in marketing and 21% in finance," said Dharmveer Choudhary, member - placement committee, IIM-K.

IIM Ahmedabad (IIM-A), where the placement process began a week ago, till now has seen its first cluster—comprising companies across four cohorts of international investment banks, global strategy consulting, global niche consulting and private equity/venture capital—place students.

■ Continued on Page 2

India Inc ...

"Consulting firms BCG and McKinsey gave the highest number of offers. BCG has given 11 offers and McKinsey has given 10 offers, including pre-placement offers. Both have recruited in higher numbers than the previous year," said a statement from the institute. Around 317 students are participating in the placement process this year at the institute.

Last year at IIM-A, more than 40 firms participated in the laterals process and extended more than 100 offers, an increase of four times over 2009. This year, about 35% of the participating companies are new recruiters like ADAG, Airtel, EXL, Fujitsu, Glenmark, HP, Idea, Lenovo, MMTTC, Mphasis, Videocon, Wipro Consulting and 21% of the new recruiters offered roles in the finance vertical while 29% offered jobs in the sales and marketing vertical.

IIM-A finished the second cluster of the final placement process on Saturday and saw cohorts such as Indian investment banks, corporate leadership programmes and international FMCG firms. EXL Service gave the highest number of offers and international marketing firms gave more offers to students than last year. The prestigious institutes explain that the increase in the number of offers at all campuses could be because the batch size has gone up. "Hence, the percentage increase in number of offers would go up automatically," added Choudhary. Last year at IIM-K, the batch size was 250 and it was 185 the year before that. For IIM-C, the 87.5% conversion rate refers to the Big Four consulting firms McKinsey & Co, The Boston Consulting Group, Bain & Co, AT Kearney. Interestingly, the strength of batch at IIM-C stands at 388, largest batch size in the history of all IIMs.

Satellites 'to predict quakes'

Press Trust of India

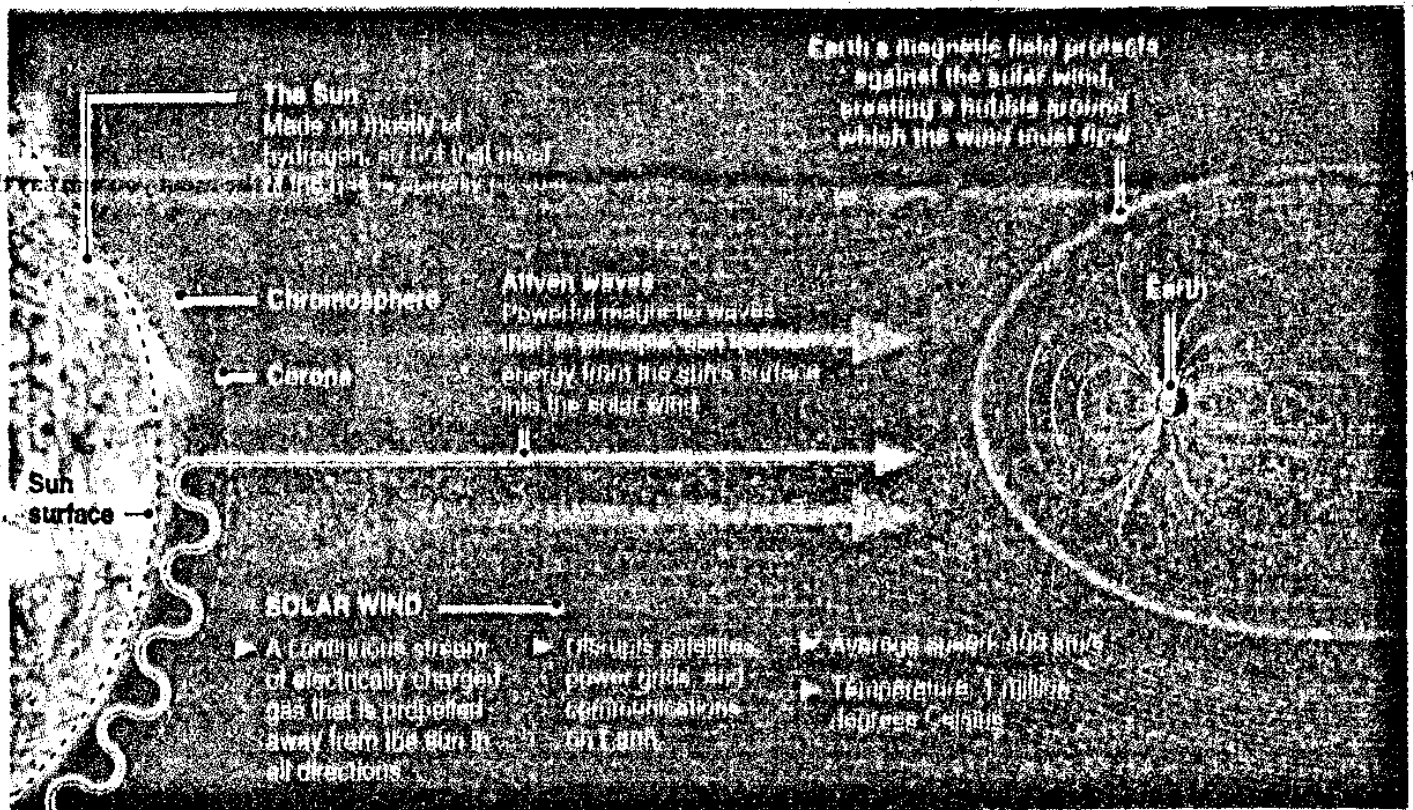
London, Feb. 20

In what may help save thousands of lives worldwide, scientists have launched a project which they claim could predict exactly when and where earthquakes will happen. A team of British and Russian scientists has signed an agreement to work together on the project in Moscow.

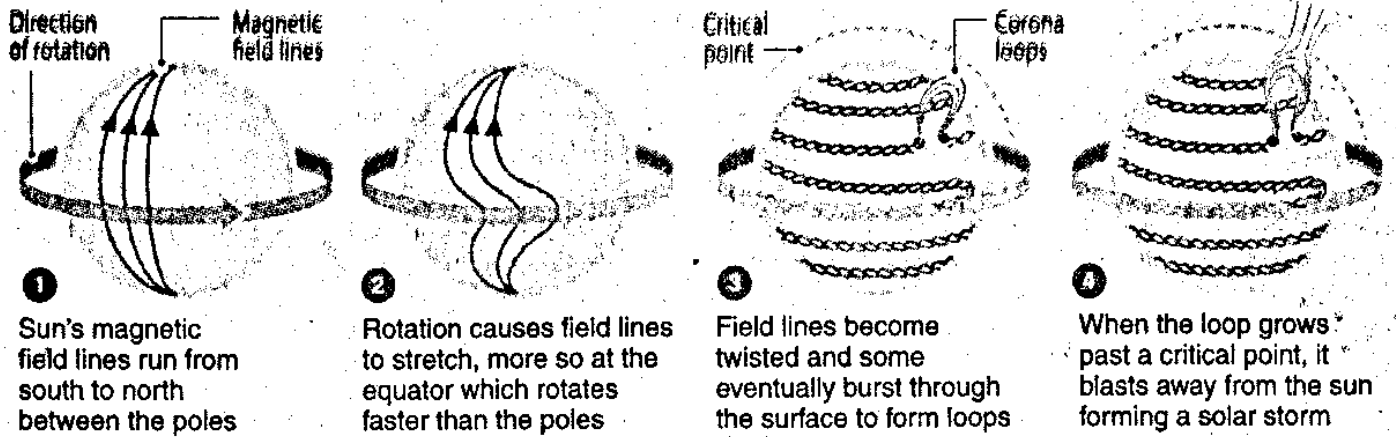
The TwinSat project involves the launch of two satellites — one of which the scientists say is about the size of an old TV set and the other smaller than a shoebox — which will orbit the Earth a few hundred miles apart, *The Independent* reported.

The two linked satellites will monitor zones with high seismic and volcanic activity, such as Iceland and the Kamchatka Peninsula in the far east of Russia. Data from the satellites will be collated with data from the ground as the scientists try to understand what natural warnings are given prior to earthquakes.

SOLAR FLARES



HOW SOLAR FLARE IS FORMED



Source: NASA

Drawings are not to scale

Graphic: K. Pong/G. Cabrera/RNGS

REUTERS

आईआईआईटी के लिए नया कानून!

पियाली मंडल

देश के सूचना प्रौद्योगिकी (आईटी) क्षेत्र में कुशल कर्मियों की बढ़ती मांग को देखते हुए सरकार ने आने वाले समय में और ज्यादा आईटी पेशेवर लोगों को तैयार करने की योजना बनाई है।

इसके लिए मानव संसाधन विकास मंत्रालय (एचआरडी) एक विधेयक लाने की तैयारी कर चुका है। संसद में प्रस्तावित विधेयक पारित हो जाने पर निजी और सार्वजनिक क्षेत्र की भागीदारी (पीपीपी मॉडल) के तहत देश में कम से कम 20 नए भारतीय सूचना प्रौद्योगिकी संस्थान (आईआईआईटी) खोले जाने का रास्ता साफ हो जाएगा।

'इंडियन इंस्टीट्यूट ऑफ इनफॉर्मेशन टेक्नोलॉजी बिल-2010' नाम के इस विधेयक के मसौदे में यह भी उल्लिखित है कि देश में सरकारी क्षेत्र के चार महत्वपूर्ण सूचना प्रौद्योगिकी संस्थान- भारतीय सूचना प्रौद्योगिकी संस्थान- इलाहाबाद, अटल बिहारी वाजपेयी भारतीय सूचना प्रौद्योगिकी एवं प्रबंधन संस्थान- ग्वालियर, पंडित द्वारका प्रसाद मिश्र भारतीय सूचना प्रौद्योगिकी संस्थान- जबलपुर और भारतीय सूचना प्रौद्योगिकी डिजाइन एवं विनिर्माण संस्थान कांचीपुरम का राष्ट्रीय महत्व और बढ़ाया जाएगा। यानी प्रस्तावित विधेयक के मसौदे के मुताबिक इन संस्थानों को स्वायत्त दर्जा दिया जाएगा और डिग्री, डिप्लोमा और अन्य शैक्षणिक अनुदानों का भी पूरा अधिकार मिलेगा।

संसद के अगले सत्र में इस विधेयक के पेश होने के संभावना है लेकिन इसके पहले सरकार

मौजूदा स्थिति

■ देश में सरकारी क्षेत्र के सूचना प्रौद्योगिकी संस्थानों की संख्या: 4

■ नए आईआईआईटी संस्थान खोले जाने का प्रस्ताव: 20

■ आईटी क्षेत्र में प्रत्यक्ष रोजगार प्राप्त लोगों की संख्या: 25.4 लाख

विधेयक के मसौदे पर लोगों की राय जान लेना चाहती है। इस साल की शुरुआत में ही मानव संसाधन विकास मंत्रालय के वरिष्ठ अधिकारियों और सभी चार आईआईआईटी के निदेशकों ने मिलकर विधेयक के प्रस्तावों को अंतिम रूप दिया है।

नया विधेयक लाने का मूल उद्देश्य सूचना प्रौद्योगिकी और संबंधित क्षेत्र की बढ़ती जरूरतों के अनुरूप देश में आईटी पेशेवर, विशेषज्ञ और कुशल मानव श्रम तैयार करना है।

आईआईआईटी अब तक सोसाइटी पंजीकरण अधिनियम के तहत पंजीकृत हैं। इसलिए नियम के तहत केंद्र सरकार इन संस्थानों पर अपना नियंत्रण रखती है।

संसद में यदि विधेयक पारित हो जाता है तो आईआईआईटी को संसद द्वारा अनुमोदित संस्थान का दर्जा हासिल हो जाएगा। परिणामस्वरूप इस संस्थानों को अपनी उत्कृष्टता बढ़ाने और स्वयं के लिए नियम तय करने का भी अधिकार मिल जाएगा।

अपने एक बयान में मानव संसाधन विकास मंत्रालय ने कहा,

'हमारा यह प्रस्ताव है कि कानून बनाकर दो प्रमुख उद्देश्यों की पूर्ति की जाए। पहला तो यह कि देश में पहले से स्थापित सरकारी क्षेत्र के चार प्रमुख आईआईआईटी संस्थानों को स्वायत्त अधिकार मिले और दूसरा, निजी और सार्वजनिक क्षेत्र की भागीदारी के तहत देश में नए आईआईआईटी संस्थान खोले जाने का रास्ता साफ हो।'

इसके अतिरिक्त विधेयक के प्रस्ताव में यह भी कहा गया है सरकार और सूचना प्रौद्योगिकी संस्थानों के बीच बेहतर समन्वय स्थापित करने के लिए एक परिषद गठित की जाएगी।

11वीं पंचवर्षीय योजना के तहत पिछले साल भी मंत्रालय ने 20 आईआईआईटी संस्थान खोले जाने का प्रस्ताव रखा था। हालांकि पिछले साल वित्त मंत्रालय ने इस प्रस्ताव को मंजूरी नहीं दी थी और यह सुझाव दिया था कि इस प्रस्ताव पर 12वीं पंचवर्षीय योजना में विचार किया जा सकता है।

मंत्रालय पहले ही पीपीपी मॉडल तैयार कर चुका है। इसके तहत देश में 20 आईआईआईटी संस्थान खोलने के लिए निजी क्षेत्रों के साथ भागीदारी करने की योजना तैयार गई है। इसमें सरकार और निजी क्षेत्र के बीच खर्चों का अनुपात 85 और 15 का है।

हालांकि प्रस्तावित विधेयक में एन-पीपीपी मॉडल की कोई खास चर्चा नहीं की गई है। अटल बिहारी वाजपेयी भारतीय सूचना प्रौद्योगिकी एवं प्रबंधन संस्थान, ग्वालियर के निदेशक एस जी देशमुख ने बिजनेस स्टैंडर्ड को बताया, 'यह विधेयक पारित हो जाने से सूचना प्रौद्योगिकी संस्थानों को काफी स्वायत्तता मिल जाएगी।'