Newspaper Clips

December 26, 2010

Times Of India ND 26/12/2010

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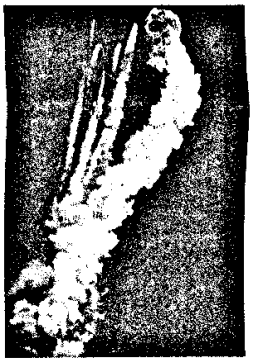
Technical glitch after liftoff, GSLV's gone in 63 seconds

Vivek Narayan | TNN

Sriharikota: India's ambitious space programme suffered a blow when the GSLV-F06 rocket had to be destroyed 63 seconds after lift-off from Sriharikota, 100km from Chennai. This was the second GSLV failure in less than nine months.

The GSLV-F06 had on board the GSAT-5P satellite that would have boosted the country's television broadcast and telemedicine facilities. Saturday's fizzle has cast a shadow over programmes such as Chandrayaan-2 and the manned space mission.

Isro chairman K Radhakrishnan attributed the failure to a glitch in the connection that was to take signals from onboard computers to the strap-on motors.



SPACE DREAMS UP IN SMOKE?

"I'm sorry to say that the GSLV-F06 mission has failed. The craft lifted off normally at 4.04pm. All the strap-on motors generated normal pressure before the solid core was ignited. The performance of the vehicle was normal up to 50 seconds. Soon the vehicle lost control and we had to detonate it at an altitude of 8km," Radhakrishnan told reporters.

As the computer commands ceased to reach the first stage, the range safety officer blew the rocket up, sending the debris plunging into the Bay of Bengal. The scattering white plume from the detonated launch vehicle was visible as far as Marina Beach in Chennai.

▶Scientists' postmortem, P 13

Scientists to study what happened after 47 secs

▶ Continued from P 1

Isro will now conduct a postmortem. "What happened after 47 seconds has to be studied in detail," Radhakrishnan said.

The weather was fine and the lift-off perfect. There was applause and cheer as the majestic GSLV shot into the clear blue sky with a roar. But soon faces fell as mission control sensed trouble. After a minute, the worm on the scientists' monitors started plunging. There was dead silence. "A huge amount of work had gone into the project. Earlier, we spotted a leak in the thermostat wall that helps reduce the temperature of liquid oxygen. The launch was postponed from last Monday because of this. The fault was rectified, but today another problem cropped up," a scientist added.

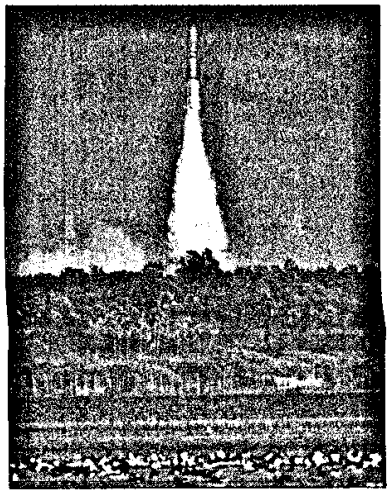
The monetary loss was pegged at Rs 325 crore — Rs 175 crore that went into the making of GSLV and Rs 150 crore for the satellite.

On losing the GSAT-5P satellite, which was carrying 36 transponders to augment communication systems, Radhakrishnan said the agency would need to find an alternative. The Isro chief at one point turned philosophical and said, "We've to learn from failures; such failures lead to success."

Isro has lined up four launches next year, including PSLV 17. "Chandrayaan-2 launch will take place in 2013-2014 in collaboration with Russia," he said, adding that Isro was conducting ground tests on the indigenous cryogenic engine.

GSLV, which can carry up to 2.5 tonnes of payload to a geosynchronus transfer orbit, is the designated vehicle for many future projects, including Chandrayaan and the manned mission. The previous GSLV launch on April 15 was a failure. While the problem during the last launch was with the third stage indigenous cryogenic engine, this time trouble started in the first stage itself. On this launch, Isro used a Russian cryogenic engine.

Isro has had a troubled past with GSLV, with only two of the seven launches so far claiming total success. Though Isro claims that four launches had been successful, independent observers agree only with two, the rest being branded either failures or partial successes.



PERFECT STORM

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For Class of 2009, the downturn continues

Anahita Mukherji & Hemali Chhapia | TNN

Mumbai: The Class of 2009 could well be called capitalism's orphans. For them, the recession isn't over, sandwiched as they are between a boom year (2008) and this year, when the economy bounced back. This batch of B-school students had the misfortune of graduating bang in the midst of the global economic crisis, with low salaries and, in some cases, no jobs at all. Many say they're still not getting the kind of remuneration their peers of other years have obtained.

Take, for instance, IIM-Bangalore graduate Vineet, who earned more in the company he was working at before he joined IIM, than what he earned straight after his MBA in 2009. "Our summer internships, which were in 2008, went off very well. Generally, around 70% of summer internships result in pre-placement offers. But this did not happen for our batch," he said.

According to him, graduating during a financial crisis has become a lifelong setback. "Research in the UK shows that the NPV (net present value) of the entire earnings of a candidate throughout his life is directly proportional to the state of the economy in the year that he graduates," says Vineet.

▶Parents' counselling, P 13

'Had to counsel parents to help overcome salary shock'

▶ Continued from P 1

When a student of IIT-Bombay, who graduated in 2009, got a salary that was a lot less than the average pay scales, her parents were so disturbed that they trooped down to the IIT campus to meet the faculty.

While engineering and MBA graduates earn in crores, they were extremely disappointed that their daughter was earning a few lakhs only. "We had to counsel her parents in order to help them overcome their shock and dismay. We told them that her salary wasn't too bad, especially as she had graduated during an economic downturn. Ironically, her father earned less than she did," said a senior faculty member at IIT.

An alumnus of IIM-Calcutta, who graduated last year, decided against signing up for campus placements as he realized that it was a bad year to enter the job market. He chose to turn entrepreneur instead.

Ram

A year down the line, without a rupee of funding for his start-up, he is all set to head back to his alma mater and seek its help for placements. His situation is worsened by the fact that he now has to start repaying his loan.

"Had I continued at my previous job pre-MBA, I would be earning roughly the same salary that I'm getting right now, and that too, without an education loan to repay," says Varun Shourie, a techie from Bangalore who graduated from the Mudra Institute of Communications, Ahmedabad (MICA) a year ago. "Our batch did not get either the salaries or designations that we expected," he added. His classmate, Rashmi Krishnamurthy, a former software engineer at IBM, took a huge hit in her salary post-MBA.

If the job market was bad for Indian B-school graduates last year, one can only imagine what it was like in the US. Chennai girl Kavitha Venkatraman, who passed out from the University of Pennsylvania's Wharton Business School in 2009, went a year without a job, going from one internship to the next till she finally landed the job of her choice. "Not everyone had the luxury to wait it out till they got a job they liked. Many compromised on the kind of work they wanted to do, and landed up switching jobs within a year of graduation, rare in a good year," she said.

Back-to-back GSLV flops a setback for Isro

Agency May Have To Depend On Foreign Satellite Launchers

Srinivas Laxman | TNN

Mumbai: GSLV's second failure within nine months is likely to be a setback for three crucial Isro programmes.

Before Saturday's mission, which crashed into the sea barely a minute after take-off, another GSLV powered for the first time by an indigenous cryogenic engine failed on April 15.

SHOCK AND AWE: Isro scientists react to the GSLV failure on Saturday

Tata Institute of Fundamental Research (TIFR) space scientist M N Vahia, who has had a long association with Isro, listed three key projects that could be hit following Saturday's GSLV failure.

- The Rs 425-crore second Indian moon mission, Chandrayaan-2, which is expected to be flown by the GSLV in 2013
- The Rs 13,000-crore human space flight mission, for which the government is yet to give the green signal
- Launch of India's communication satellites could be delayed because Isro is running out of cryogenic engines

"Saturday's failure will certainly delay the second lunar programme. If my payload was being flown on this mission using a GSLV, I'd certainly want this rocket to be tested and evaluated more thoroughly," he said.

Besides, Vahia said, with just one Russian engine left and the Indian cryogenic not yet operational, Isro can schedule only one more GSLV flight. Under such circumstances, the space agency may have to depend on foreign launchers, like Ariane, to fly its communication satellites, other experts said.

Some Indian National Satellites (Insats) launched in the 1990s are ageing and must be replaced soon to ensure that communication services in the country remain unaffected. These satellites are mainly used for augmenting telecom and television services as well as the defence department. "What happened this afternoon was unnerving as India's reputation as a reliable space launching country has taken a serious dent," Vahia said.

Secretary of the India chapter of the Moon Society, Pradeep Mohandas, said: "If I were the vehicle director, I would subject all the stages of the GSLV to more exhaustive tests again before launching a flight."

Scientists of Isro's Ahmedabad-based Space Application Centre will be most affected by the two GSLV failures as their payloads flown by the rocket have been flung into the sea. Nehru Planetarium director Piyush Pandey has a solution to offer. He says the next GSLV flight should carry a dud satellite, and not an operational one, that'll allow the rocket to be tested.

Blast In The Sky

GSLV-F06, carrying GSAT-5P satellite, had to be destroyed 63 seconds after it lifted off from Satish Dhawan Space Centre

What actually happened:
4.04pm - lift-off
After 47 seconds | Scientists notice lack of communication between onboard computers and strap-on motors. At 63 seconds, **GSLV- F06** detonated

Intended stages of burnout
First stage: Burnout in **143.8** seconds, at **68.3** km. Velocity **2.7** km/sec
Payload fairing separation: Burnout in **226** seconds, at **115** km. Velocity **3.7** km/ sec
Second stage | Burnout in **289** seconds at **137** km. Velocity **5.0** km/sec.
Third stage | Satellite separation **15** second after burnout in **1131** seconds at **250** km. Velocity **10.2** km/sec.

WE HAVE TO LEARN FROM FAILURES; SUCH FAILURES LEAD US TO SUCCESS
K Radhakrishnan | Isro chairman

Mission Unaccomplished

- GSLV with satellite GSAT-5P fails in launch, **explodes mid-air seconds after take-off**
- Satellite was meant for **communication and weather purposes**
- Production cost of **vehicle and satellite is Rs 325 crore**
- Failure attributed to **stage one of the rocket**
- This is second GSLV failure in 2010; **GSLV D3 failed in launch from Sriharikota on April 15, 2010**
- Of **7** GSLV launches, **3 have been failures**
- GSLV planned to be launch vehicle for **Chandrayaan-2 in 2013 and manned mission to space in 2016**

Blast a tragic incident: Prof Yashpal

New Delhi: Senior space scientist Professor Yashpal described the failure of the GSAT-5P communication satellite launch on Saturday as a very tragic incident. In his first reaction to the failure of the satellite launch, Professor Yashpal said, "It is very tragic. I think something has happened in early stages. I have never heard of such a thing, as we have had several successes before. We did not get up to the liquid stage," he added. IANS

'Failure will not hit manned mission and Chandrayaan-2'

UR RAO, former Isro chairman, advocates a thorough postmortem to understand the GSLV launch fizzle and insists failures such as these won't impact India's ambitious Chandrayaan-2 and manned space mission programmes.

There's always a general worry and unhappiness when a launch fails. But we can't allow that to bog us down. We've to zero in on the problem and work out an appropriate solution. I'm sure Isro will do that. Discussions are already on to find the nature of the problem. Scientists will pour through thousands of pages of data before coming to a conclusion.

The timing and sequence of events are very important to understand why the launch did not succeed. The first stage is primarily powered by a solid propellant. If there's a failure here, we have to look at the data that caused it.

Sometimes, the first stage is also a mix of solid and liquid propellants. The first and second stages of GSLV and PSLV are similar in this regard. The third is the cryogenic stage. In this case, the cryogenic engines were Russian. We need to look at the data generated to understand whether a snag in the first stage caused the launch failure and what its nature was. The GSLV failure won't impact India's Chandrayaan-2 programme in 2013 and manned mission to space in 2016. These two programmes won't be altered. The launch vehicles for the two missions will have different parameters and perhaps be bigger than the one there is now. TNN

Smoke is seen as GSLV-F06 carrying communication satellite GSAT-5P explodes mid-air minutes after lift-off from Sriharikota

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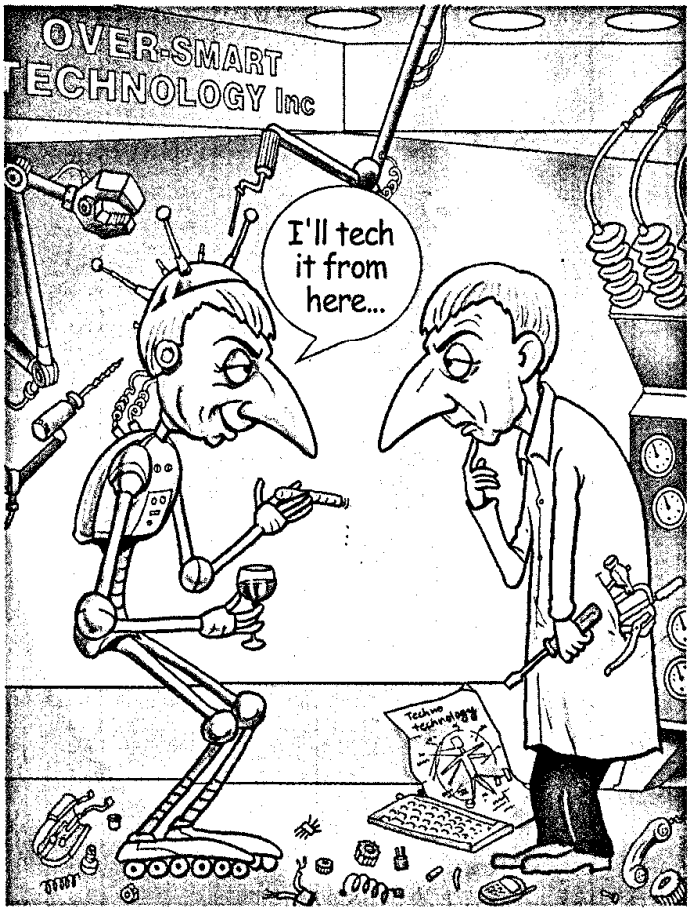
Getting Geeky

WHAT WE NEED IS REALLY TECHNO TECHNOLOGY

Jug Suraiya's futuristic wishlist tries to make life simpler in a brave new world

Illustration: Neelabh



The real trouble with technology is that it's not techno enough. Take Radiagate, and the fuss it's created about tapped telephones, leaked tapes, and the right to privacy. What created the whole mess? Technology. Or rather, insufficient technology, technology that just wasn't techno enough.

Technology devised telephones, first landline and then mobiles. Then it invented devices by which phones, both landline and mobile, could be tapped, ie, the telephonic conversations that people were having could be eavesdropped upon. Having done this, technology came up with gadgets which could record such conversations which could then be leaked.

True, technology didn't invent leaks. Those were left for politics to invent. But technology still remains the main culprit in Radiagate, and in all the many me-too phone-tap gates that are likely to follow.

If we had a really techno technology, Radiagate, and all those other gates to come, would have been obviated. How? A truly techno technology would make it possible, through brain-implanted microchips, for people to communicate with each other through mental telepathy. Presto. No more Radiagate. No more BSNL, Airtel, Vodafone, etc. Too bad. But, as they say, you can't make an omelette without breaking eggs.

What the overweight world needs is a technology that would turn couch potatoes into couch panthers. How? By designing a couch with an inbuilt robot masseur

Or take air travel, one of the fastest growing industries today. Technology, via the Wright brothers, invented the heavier-than-air flying machine enabling humankind to fly like birds. Except birds don't have to worry about getting hijacked, mid-flight, by terrorists or get blown up by suicide bombers. Nor do birds have to suffer airline food. Or rude cabin attendants. Or non-functioning onboard toilets, just when your bladder's bursting. Birds don't have to be frisked at airports, even if they're wearing a sari or a turban. Birds don't have to put up with delayed flights, or missing luggage, or endless announcements that no one can make head or tail of.

No, all these and many other indignities and discomforts are reserved for human air travellers, to whom technology has lent wings. The result is that, more often than not, air travel becomes air travail. And who's to blame? Laggard technology.

When is technology going to get off its sorry butt and invent teleportation, the way we've seen it on Star Trek? You stand — or sit, or lie down, depending on whether you're travelling Economy, Business, or First Class — in a sealed chamber where you are exposed to a beam of radiation which causes the molecules which compose your body to dematerialise at Point A and rematerialize at Point B, your planned destination. Like sending a fax message. Except that you're the fax. No more hijackings, no more air sickness bags, no more jet lag, no more rigged air fares.

Then there's the whole problem of fat and thin. The world is divided between two kinds of human beings: those who are too poor to eat and are thin, and those who have too much to eat, and are often fat. The poor are poor because they don't have access to appropriate technology. The fat are fat because they have too much inappropriate technology at their disposal — automotive transport, labour-saving devices, etc — which precludes them from any kind of physical exertion which would burn off those extra calories and kilos. So those who are overweight — or think that they are — join expensive gyms or adopt bizarre eating habits, or do both.

What the overweight world needs is a technology that would turn couch potatoes into couch panthers. How? By designing a couch with an inbuilt robot masseur who'll give you a thorough workout while you watch TV and munch on snacks which are not snacks at all but remote control-stimulated taste buds which give you all the taste and flavour of your favourite food without you having to eat it at all.

Next thing you know you're a Size Zero. And all the food you've saved has gone to feed the thin and poor. No more Atkins Diet, no more VLCC. No more global hunger either.

But on top of my technology wish list is what might be called techno-think. Techno-think would be the invention of a technology that enables people writing anything — an article, novel, letter, whatever — to have their thoughts directly transferred to the printed page or computer screen. No need to use a writing pad, keyboard or dictaphone. Just think the thought and — bingo! — it's in print or digital format.

Come to think of it, a really techno techno-think would not only translate our thoughts into script for us but would also take over the chore of thinking our thoughts for us.

No more Descartes and his 'I think, therefore I am'. In the brave new world of techno technology it would be 'I don't think, therefore my techno-think is'. The ultimate technological utopia where nothing can go wrong, nothing can go, nothing can, nothing, no...

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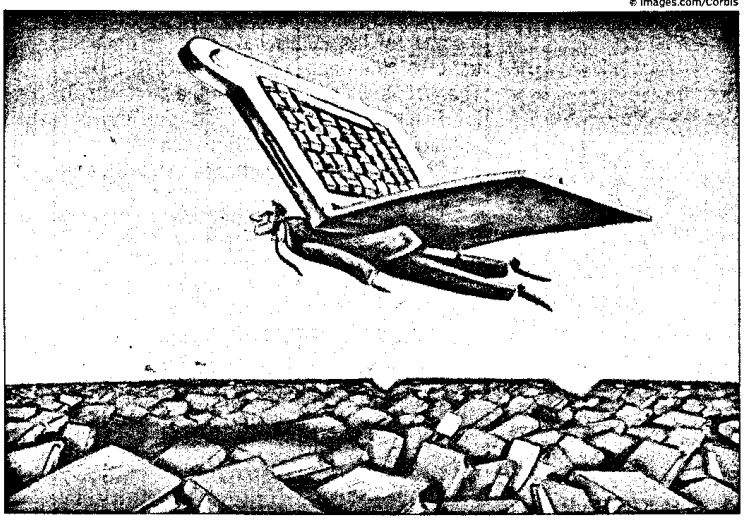
Mass market, compact and digital

That's what books will be like in the future. ***Meenakshi Kumar*** *looks ahead*



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Ten years ago it would have been hard to imagine reading a book on a computer. But it's a reality today and in the next decade, reading a hardcover book may be a rarity. The way we read and what we read has changed so much that change is considered an ongoing process. So what might it all be like in the next decade?

Fiction | Young adult novels will be the driving force in the market, says Karthika V K, publisher and chief editor at HarperCollins Publishers India. Till a decade ago, Indian publishing was totally driven by literary novels, with little space for 'light' reads. But the last few years have seen a spurt in commercial books, targeting the younger generation. The uniquely Indian sub-genre of alumni fiction; chick-lit and paranormal romances fall under this category. "Books for entertainment or commercial fiction will continue to sell even in 2020," says Kapish Mehra, publisher, Rupa & Co. Smaller in size and fast-paced, these books will be the new-age versions of the airport bestsellers. Stories on office and campus romances, live-in relationships, friendship, infidelity and similar everyday subjects will be read the most. So would high-brow literary novels get pushed out by mass market fiction? Karthika doesn't think so. She says there "will always be readers for both, sometimes the same readers at different points in time or inclination." What may even happen, as Thomas Abraham, managing director, Hachette India suggests, "we may no longer have the hard and fast lines that divided literary and commercial a few years ago".

> Imagine a comic that evolves and changes every time you open it, so that different mysteries in a page suddenly appear and disappear. The ultimate goal is to use this technology to create stories that engage the reader to unlock more experiences than they could in a printed page
>
> **Sharad Devarajan** | CO-FOUNDER AND CHIEF EXECUTIVE, LIQUID COMICS

The biggest change, however, would be in the way we read books. Already many readers in the US prefer reading romances on e-readers, as a recent story in the New York Times reported. In India, e-reading may be slow to pick up, given the high costs and low internet availability, but by 2020 it will certainly be much more common. Mehra doesn't see iPads or Kindles replacing the hard copy. Instead, he says, they will "create a new reader". But Karthika would like to think that "at some point in the future it's likely that e-books will get ahead in the race for readers, given the kind of reach and swiftness of delivery they promise."

Non-fiction | Self-help and inspirational books will continue to be the mainstay of this genre. But Abraham believes that it will be the "'book of ideas' that will return the highest yields in terms of hardback sales and backlist conversion (staying on to sell year after year)". Historicals — which sold well in this decade — will go on to dominate the bestseller lists. The others in this list will be biographies, travel and illustrated books.

Comics | The future of comics is in the digital, says Samir Patil, chief executive, ACK Media which publishes the popular Amar Chitra Katha. He sounds the death-knell for print comics, saying they will be available only in the digital format. "Devices like the iPad are best suited for comics. For publishers it makes so much sense to sell their content to a digital service as it will reach out to a wider audience. Also, pads make reading so much more fun," says Patil. He believes that in a decade an iPad would become affordable and a necessity and he wouldn't be surprised if youngsters in 2020 prefer reading only on e-readers.

Early this month, another publisher, Liquid Comics, released the iPad version of their new graphic novel, "Untouchable". Sharad Devarajan, cofounder and chief executive says, "Imagine a comic that continuously evolves and changes every time you open it so that different mysteries in a page suddenly appear and disappear." The ultimate goal, he adds, is to use this technology to create stories that engage the reader to unlock more experiences than they ever could in a printed page. He, however, doesn't believe that the printed form will be finished. "Despite the changes, the need for great stories that go beyond borders and across cultures and speak to the world in the primal language of myth and heroes, will always be there," feels Devarajan.

Coffee-table books | Many wonder whether those beautifully crafted, exorbitantly priced large books would ever make it into the next decade. But Pramod Kapoor, publisher of Roli Books, which prints a large number of these, has no doubts that they will survive. "Those on travel and cuisines will become more interactive and be available on the multimedia but those on photography or art will definitely remain. They will become slimmer, compact and more expensive," he says. And who will buy them? Those who want to give them as gifts or treasure them for their invaluable content and photographs.

Children's literature | Kapish Mehra is positive that children's books will emerge as an important category in the next decade. "There wouldn't be too much tinkering with the stories," says Sayoni Basu, publishing director, Scholastic India. "Children will be reading adventure, fantasy and humour in 2020, though the specific details might change." What may really change for the better, adds Basu, is less didacticism and overt moralization.

Curling up with your favourite novel may take on a whole new meaning in 2020.

'I spend a lot of time with the young'

Chetan Bhagat's first novel "Five Point Someone" introduced young Indians to a new kind of writing and genre of books. Ever since, campus novels are on every publishing list. He has gone on to write more bestsellers, all targeting young readers.

Q&A CHETAN BHAGAT

In 10 years, the people who read your book will be grown up. Are you worried about losing your readership?

I am not worried as such, but it is something to consider. If my stories grow with them, hopefully they will stick with me. And of course, the best case will be if the new generation that comes after them also joins the readership.

Do you think the new generation will be able to relate to your books?

I hope so. I have the ability to empathize with people, irrespective of their age or background. I can comfortably sit in the company of cab drivers or CEOs, and in a small amount of time, can understand their deepest concerns about life. I spend a lot of time with the young generation trying to understand what makes them tick. So hopefully, when I am writing a story about young people, the young reader will feel that this author understands me.

Ten years from now, do you think you'll still be writing the same type of book? Or will you move on to non-fiction or some other genre?

I cannot really say, but I think I would be keen to try some variations over time. I've already started doing columns and film scripts. I am often invited for motivational talks, which is technically in the non-fiction space. Non-fiction is definitely a fascinating space, and I would like to try it sometime, hopefully before 2020.

What could we predict for college romances and mass market fiction generally?

While it is hard to take a call on college romances, I think mass market fiction will be there. Books for pleasure are still consumed by a small percentage of Indians. So, there is a huge scope of growth. The formats may change and technology, such as mass access to e-books, will dictate that in the coming decade. However, human beings have always loved good stories. So, there is no reason why that should change in the next 10 years.

—MK

Hindustan Times ND 26/12/2010 p-8

Common university test to start at PG level

ht SPECIAL

Charu Sudan Kasturi
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NEW DELHI: The proposed common admission test for the central universities, the brainchild of the Human Resources and Development (HRD) Minister Kapil Sibal, will take off at the post graduate level.

It will test students on a combination of general aptitude and subject knowledge.

A panel of senior vice-chancellors (VCs) appointed by Sibal is giving final touches to the blueprint of the test plan, which will borrow strategies used by the Indian Institutes of Technology.

Top panel sources have told HT that their blueprint will recommend the country's 40 central universities use a combination of scores in the common admission test and undergraduate performance in picking students.

Individual universities will have the option of deciding the weightage to give to undergraduate scores, but the panel may recommend a maximum allowed weightage of about 30 per cent, the sources said. The remaining weightage will be accorded to scores in the common admission test.

The idea behind starting with a common test for PG programmes is to test the plan at a smaller scale before expanding it to conduct admissions for the vast numbers of students who apply for undergraduate courses every year, the sources said.

The blueprint is likely to suggest students to indicate in their application preferences among universities - like they do while applying to the IITs. Students can be allotted seats based on their performance in the test and at the UG level, and depending on their indicated preferences. The top central universities can take turns at conducting the common test - like the IITs do.

Earlier this year, Sibal had set up a number of committees of VCs to evolve blueprints on various challenges for central universities. One of these panels was specifically set up to evolve a strategy for a common admission test for central varsities.

A panel consisting of the VCs heading each committee is now finalising the different blueprints.

The panel includes Jamia Millia Islamia VC Najeeb Jung, Hyderabad University VC Syed Hasnain, outgoing Jawaharlal Nehru University BB Bhattacharya and former Delhi University VC Deepak Pental among others. The panel is likely to meet in January to finalise their reports before submitting them to Sibal.

TEST PLAN

- A panel of VCs appointed by Sibal is giving final touches to the blueprint of the test plan, which will borrow strategies used by the IITs
- Individual universities will have the option of deciding the weightage to give to undergraduate scores
- The idea behind starting with a common test at the post graduate level is to test the plan at smaller scale before expanding it to conduct admissions at the under graduate level

Hindustan Times ND 26/12/2010 p-8

Cheers drowned by a loud roar, then silence

COUNTDOWN TO DISASTER Crowd watches at Sriharikota as GSLV tapers off and explodes

KV Lakshmana
klakshmana@hindustantimes.com

SRIHARIKOTA (ANDHRA PRADESH): This was supposed to be the most exciting Christmas of my life. I was going to see a GSLV rocket blast off.

There was a sizeable number of people at the Satish Dhavan Space Centre in Sriharikota. ISRO officials, security personnel, the media and a few invitees had gathered on the rooftop of the centre. Many locals had also gathered on the rooftops of buildings in the area to witness the take off. A couple of people were precariously standing on a high, under-construction water tank nearby.

As the countdown began, the excitement was palpable. All eyes were craned towards the lift-off point, hidden behind a trees, about 4 km away, when, at the count of zero, the tri-coloured rocket, came into sight.

There was a thunderous, ear-splitting rumble as soon as the rocket rose gently into the sky from behind the thick forest, accompanied, almost at once, by loud clapping and cheering.

> It was like a Diwali rocket gone bad.
> M SATISH, class 6 student

The scattered white clouds against the clear blue sky was the perfect backdrop for the zooming rocket.

"It's a success, it's a success," shrieked an ISRO official, with his school-going son in tow.

I could see people atop nearby buildings also waving and cheering. Another proud moment for the country, I thought.

Within seconds, though, the deafening roar began to taper off. The rocket was twisting and turning — like it had lost control. Soon, it was torn to smithereens, and the colour of smoke changed from white to brown and then black. It was all over in 26 seconds. I could see splinters falling in different directions.

The shocked gathering looked on. "The fuel must have leaked from the engine and caught fire," someone said.

"Son, it has failed," I overheard a disappointed invitee telling his son over a mobile phone.

Back at the launch centre, two giant screens at the area, where the post-launch press conference was to be held, showed images of shocked,anxious and nervous scientists peering into computer screens.

Several were seen gesticulating to one another, seemingly agitated as to what could have gone wrong.

M Satish, a Class 6 student in Sriharikota town, whose father works with ISRO, was most disappointed.

"It was like a Diwali rocket gone bad," he told his father.

ISRO'S FAILED MISSIONS

- **December 25, 2010:** GSLV-F06 launch unsuccessful due to snag in stage-1
- **April 15, 2010:** GSLV-D3 developmental flight carrying GSAT4 onboard. Failure. Plunges into sea.
- **July 10, 2006:** Second flight of GSLV-F02 with INSAT-4C onboard. Satellite could not be placed in orbit. Rocket falls into sea.
- **September 20, 1993:** First developmental launch of PSLV with IRS-1E on board. Satellite could not be placed in orbit.
- **July 13, 1988:** Second developmental launch of ASLV with SROSS-2 onboard. Satellite could not be placed in orbit.
- **March 24, 1987:** First launch of ASLV with SROSS-1 satellite on board. Satellite could not be placed in orbit.
- **August 10, 1979:** First launch of SLV-3 with Rohini Technology Payload onboard. Satellite could not be placed in the orbit.

Setback to ISRO's space programme

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NEW DELHI: The failure of the GSLV-F06, meant to launch India's heaviest communications satellite and the failure of a satellite launch earlier this year, could offer serious setbacks to the country's domestic space agenda. The failure could mean more dependence on foreign players.

Both the failed satellites used the Geosynchronous Satellite Launch Vehicle (GLSV), a launch rocket developed by the Indian Space Research Organisation (ISRO), an answer to costly European counterparts.

The current generation GSLV is designed to launch satellites that weigh up to 2,500 kilos, the next generation will be able to take up to 5,000 kilos into space. But these rockets have struggled to lift the heavier satellites for which they were intended.

Despite the two failed launches in the past year, India is still relying on GSLV. There are three GSLV-powered launches planned for the next two years. At least, one of these will carry a domestic satellite, Chandrayaan-II, India's second lunar mission.

Several Indian scientists have downplayed the Christmas Day technical failure as a one-time event, and part of the growing pains of any space program.

UR Rao, a former ISRO Chairman, said, "I do not call it a setback as failures are common in space missions."

India would hardly be the first country to suffer dramatic or even recent failures. Earlier this month, Russia — a major player in the world commercial satellite launch market — decided to put an upcoming launch on hold after the state space agency lost control of a rocket during a launch.

Hindustan
Times ND p-9
26/12/2010

GSLV LAUNCH: GONE IN 63 SECONDS

CONTINUED FROM PAGE 1

Now, India will have to hire transponders on foreign satellites - till it launches a replacement for the doomed GSAT-5P - to ensure that these two vital sectors do not suffer

"Such failures are part and parcel of space launches. The morale of our scientists remain high," Radhakrishnan told reporters soon after the crash.

Though India has established itself as a reliable service provider for the launch of light satellites (up to 2 tonnes), it has not been able to replicate this success with heavy satellites.

And Saturday's failure will further delay ISRO's ambitions of muscling into this $20-billion (Rs 92,000 crore) a year market on the strength of its lower cost profile. The cost of Saturday's failed mission (including both the launch vehicle and the satellite) was Rs 325 crore.

NASA, Arianne or any other major satellite launch service provider charge more than double that for a similar launch.

THE COST OF THE FAILED MISSION, INCLUDING VEHICLE AND SATELLITE, WAS ₹325 CRORE

Hindu ND 26/12/2010 p-14

We will now review GSLV programme: ISRO

"Failure won't affect transponder augmentation for continuance of telecommunication, telecasting services"

ISRO Chairman K. Radhakrishnan addresses the media after the GSLV-F06 mission failure on Saturday. (Right) A section of ISRO scientists at the press meet. – PHOTOS: V. GANESAN, PTI/ R. SENTHIL KUMAR

T.S. Subramanian

SRIHARIKOTA: The disaster that struck the Geo-synchronous Satellite Launch Vehicle (GSLV-F06) on Saturday will not affect the transponder augmentation for the continuance of telecommunication, telecasting and weather forecasting services provided by the Indian National Satellite (INSAT) system, K. Radhakrishnan, Chairman, Indian Space Research Organisation (ISRO), said here.

The GSLV-F06 was to have put in orbit GSAT-5P with 36 transponders that would have boosted India's telecommunication, telecasting, tele-education, telemedicine and banking services. But the vehicle, after 50 seconds of flights, lost control, broke up into pieces and was destroyed in mid-flight.

Dr. Radhakrishnan said a series of communication satellites would be launched in the coming years to boost the country's communication and telecasting services. The GSAT-8, having 24 transponders, would be launched by the European Space Agency's Ariane rocket from French-Guyana in March-April 2011.

These would be followed by the launch of GSAT-10 and GSAT-9. Next to follow would be GSAT-12, a smaller communication satellite that would be put in orbit by the Polar Satellite Launch Vehicle from Sriharikota.

The ISRO Chairman, however, said: "we will now review the GSLV programme" since a GSLV of the same class was needed to put Chandrayaan-2 into orbit in 2013-14. While India would build the Chandrayaan-2 and the rover that would drive about on the Moon's soil, Russia would provide the lander, which would land the rover on the lunar soil. "The Russians are happy with the [Chandrayaan-2] programme so far," he said.

The ISRO would launch a Polar Satellite Launch Vehicle (PSLV-C16) from Sriharikota in the first week of February 2011. The rocket would put in orbit India's Resourcesat-2, Youthsat with payloads from Russia and India, and X-Sat from Singapore.

On the failure of the GSLV-F06, Dr. Radhakrishnan said its performance was normal for 50 seconds after the lift-off. "Soon afterwards, the vehicle's attitude was increasing, leading to heavier structural loads, higher angle of attack and breaking up of the vehicle."

The Range Safety Officer in the Mission Control Centre gave the 'destruct' command to the vehicle 63 seconds after the lift-off from its second launch pad and it was destroyed.

The vehicle lost control because there were indications that four connectors (chords) that take the signal to the first stage for controlling the rocket could have snapped. "What happened and why it happened, we have to find out. We will get into the details," Dr. Radhakrishnan said. He asserted that there was no problem with the GSLV's design. "It was only [due to] some accident that the connector snapped," he said. He was sure the problem would be overcome because "we learn from failures."

Not a major problem

Director of Vikram Sarabhai Space Centre in Thiruvananthapuram P.S. Veeraragahvan asserted that it was "not a major problem because the vehicle's design was not an issue. It was a problem of the connector snapping."

Hindustan ND 26-Dec-10 p-3

तैयारी के लिए मिलेंगे सिर्फ दो माह

यूपीएससी की प्रारंभिक परीक्षा 12 जून को, प्रारंभिक परीक्षा का परिणाम अगस्त के अंत तक, मुख्य परीक्षा 28 अक्तूबर को होगी

अनुराग मिश्र
नई दिल्ली

संघ लोक सेवा आयोग (यूपीएससी) द्वारा आयोजित की जाने वाली सिविल सेवा की परीक्षा में इस बार छात्रों को तैयारी के लिए सिर्फ दो महीने का ही समय मिल पाएगा। इस बार यूपीएससी की प्रारंभिक परीक्षा जहां जून में होगी तो मुख्य परीक्षा अक्तूबर में होगी।

प्रारंभिक परीक्षा के परिणाम आने के बाद ही मुख्य परीक्षा के लिए पुष्ट तौर पर तैयारी कर पाना संभव होता है लेकिन इस बार प्रारंभिक परीक्षा एक महीने देरी से होने के कारण मुख्य परीक्षा की तैयारी के लिए छात्रों को करीब दो महीने का ही वक्त मिल पाएगा।

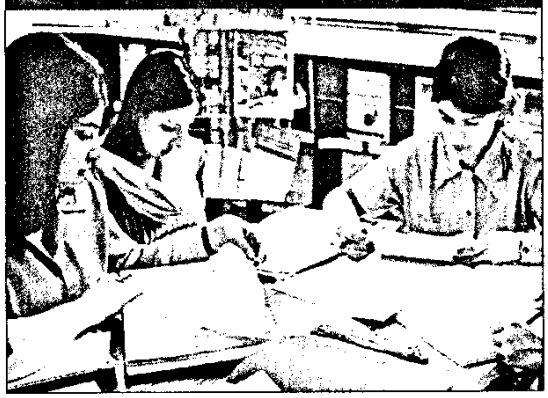
दिसंबर में प्रारंभिक परीक्षा के लिए आने वाला यूपीएससी का नोटिफिकेशन अभी तक नहीं आया है। यूपीएससी की प्रारंभिक परीक्षा का नोटिफिकेशन 19 फरवरी 2011 को आएगा। प्रारंभिक परीक्षा 12 जून को होगी। हर वर्ष यूपीएससी की प्रारंभिक परीक्षा मई मध्य में हुआ करती है और मुख्य परीक्षा अक्तूबर में। इस बार प्रारंभिक परीक्षा तो एक महीने बढ़ गई है लेकिन मुख्य परीक्षा अक्तूबर में ही होगी। जिससे छात्रों की परेशानी बढ़ सकती है।

यूपीएससी के एक अधिकारी ने नाम न लेने की शर्त पर बताया कि कोशिश है कि पूरी परीक्षा को एक साल के भीतर ही करा लिया जाए। मुख्य परीक्षा और प्रारंभिक परीक्षा का परिणाम भी इसके अनुरूप कर दिया जाएगा।

जिससे फरवरी में साक्षात्कार कराया जा सकना संभव हो सकेगा। अधिकारी ने कहा कि अगली बार से प्रक्रिया पूरी तरह व्यवस्थित हो जाएगी और ये छात्रों के लिए ही हितकर होगी।

गौरतलब है कि मुख्य परीक्षा का परिणाम मार्च में आता था और अप्रैल में इंटरव्यू हुआ करते थे। करियर प्लस कोचिंग के निदेशक अनुज अग्रवाल कहते हैं कि मुख्य परीक्षा और प्रारंभिक परीक्षा के लिए कम समय मिलने के कारण छात्रों की तैयारी प्रभावित होगी।

वैसे भी इस बार प्रारूप बदला है और उस पर अगर तैयारी के लिए समय कम मिलता है तो उनकी मुश्किलें बढ़ना लाजिमी है। ऐसे में छात्रों को मुख्य परीक्षा की तैयारी भी साथ ही करनी चाहिए।



क्या होगी परेशानी

- सिलेबस कैसे खत्म होगा दो माह में
- मुख्य परीक्षा की तैयारी साथ-साथ करने से प्रारंभिक परीक्षा की तैयारी पर पड़ सकता है असर

41 सालों बाद बदलाव

- इसने 1979 से परीक्षा में आए पैटर्न में बदलाव कर दिया गया है।
- पहले सिस्टम में एक प्रश्नपत्र तीन सौ अंक का होता है और एक प्रश्नपत्र 150 अंक का होता था।
- नए सिलेबस के अंर्तगत आया पहला पेपर वर्तमान सामान्य अभियोग्यता के प्रश्नपत्र की तरह ही है।

क्या होगा प्रश्नपत्र में

- इस परीक्षा में दो प्रश्नपत्र होंगे। दोनों प्रश्नपत्र 200 अंक के होंगे।
- इन प्रश्नपत्रों को पूरा करने के लिए दो घंटे का समय मिलेगा।
- प्रवेश परीक्षा में वैकल्पिक प्रश्न पत्र नहीं होगा।
- एप्टीट्यूड का दूसरा प्रश्नपत्र इस बार जोड़ा गया है।
- एप्टीट्यूड के पेपर में कॉम्प्रिहेंशन, आंतरिक व्यक्तिक एवं संप्रेषण क्षमता, तार्किक एवं विश्लेषण क्षमता, निर्णय लेने और समस्या सुलझाने की क्षमता, सामान्य मानसिक अभियोग्यता आदि विषयों के आधार पर जांचा जाएगा।