DTU students choose own ventures over lucrative offers

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NEW DELHI: He had a job offer of Rs10 lakhs per annum, but Anand Meena, now in the final year of B Tech opted out of the cushy corporate job to start his own venture with two of his classmates.

With the recession blues fading, the job offers in Delhi Technological University (DTU), have gone up 30% this year, compared to last year.

What's more, with the markets looking up, more and more students like Meena are looking to start their own venture.

"I always wanted to do something on my own instead of working under some one and this was only possible by opening own venture," said Meena who along with Anweshha Bose and Abhishek Bindal of the same batch have started Acube Solutions.

The venture deals with providing web solutions ranging from basic website designing and management, domain and web hosting to live webcasting of events.

Another final year student of Electronics & Communication Engineering, Ashish Mittal in collaboration with Ankita Aggarwal, alumni of DTU has started — Innovatiview — a venture that helps design and develop cost-effective solutions in the field of Robotics & Automation.

"So far, we have developed mobile jammers and our main clients are corporate offices and universities," said Mittal who too gave up the job offered to him.

"We encourage students to start their own ventures especially in the area of cutting-edge technologies like Robotics and Advanced Communication Technologies. There is a rise in techno-entrepreneurship spirit at the varsity because of which a good number of students this year have opted to set up their own techno-enterprise start-ups," said Vice-Chancellor PB Sharma.

The varsity has also seen a considerable increase in the number of jobs being offered this year.

A total of 482 job offers have been made by 77 companies so far, which includes 68 double or multiple job offers. Last year, 44 companies had visited DTU during the same time period and made 280 offers.

The prominent companies, which have visited DTU this year, include Microsoft, Maruti, IOCL, GAIL, Sony, Yahoo, C-Dot, Nestle, JP Morgan, L&T, Tata Motors, Google, TCS and NTPC, among many others.

The highest pay package offered so far for this year is ₹10.49 lakh per annum (LPA) from Microsoft, which has made 4 job offers.

The average pay package so far is also slightly better than last year at over ₹6 LPA. With recession blues getting over, it is expected that the overall pay package will increase by 20% from last year.

"The focus on industry relevant education and innovations at DTU is being widely appreciated by the industry. The highly impressive placements this year speaks volumes about industry's faith in DTU," said Sharma.
Isro sticks with GSLV

CHANDRAYAAN-2 Launch vehicle’s Saturday failure no deterrent

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NEW DELHI: The Indian Space Research Organisation (Isro) plans to persist with the GSLV to propel the country’s 2013 Chandrayaan-2 moon mission despite the launch vehicle’s spectacular failure on Saturday – its fourth in seven attempts – space officials said on Sunday.

Isro chairman K Radhakrishnan said on Saturday that the Chandrayaan-2 mission project would be reviewed after the GSLV-F06 failed 47 seconds after take-off, fuelling suggestions that the space agency may be looking for alternate launch vehicles.

But officials of the space agency told HT on Sunday that Isro was continuing with its plan to use the GSLV as the launch vehicle for the 2013 moon mission. “We are not dumping the GSLV as the launch vehicle for Chandrayaan-2. We have three years to fine-tune the launch vehicle,” a senior Isro scientist told HT.

Isro spokesperson S Satish also confirmed that the space agency was not mulling shifting to the tried and tested PSLV for Chandrayaan-2. “As of now, our plan is to use the GSLV,” he said.

The choice of launch vehicle is critical for the 2013 moon mission because the PSLV – the Indian space programme’s reliable workhorse – cannot carry the payload planned for the Chandrayaan-2 mission.

Chandrayaan-2 would have to significantly shed its current planned payload weight of 2,650 kg at lift off in order for the PSLV to serve as its launch vehicle. The GSLV is the sole Indian launch vehicle that can carry 2,650 kg.

The Chandrayaan-2 project – a tie up between Isro and the Russian Federal Space Agency – involves an orbiter and a rover, together carrying seven payloads. The payloads consist of scientific equipment meant to collect samples of rock and soil, conduct chemical analysis and transmit the data to the orbiter.

Reducing the weight of Chandrayaan-2 would mean offloading payloads and reducing the scientific potential of the project. The only option other than using the GSLV, without compromising on the payloads, would involve depending on a foreign launch vehicle like the European Ariane. But that would mean giving up a part of the pride associated with the project.

Focus on new avatar of Civil Services examination

Shail REPORTER

NEW DELHI: A number of queries related to the new avatar of the Civil Services examination conducted by the Union Public Service Commission were addressed at a seminar on ‘Civil Services Aptitude Test: Changes and Challenges’ organised by the Hindi and Triumphant Institute of Management Education here in the Capital on Sunday.

T.I.M.E. faculty acquainted students with the changes in the Civil Services preliminary examination which consists of two papers. The well-attended seminar saw students voice their concerns about the CSAT and also pose questions on the manner of preparation. Many aspirants expressed the apprehension that the CSAT is along the lines of a management examination similar to the Common Aptitude Test.

Allaying their apprehensions, T.I.M.E. chief knowledge expert Dhrubajyoti Banik said: “The CSAT is extremely different from the CAT and while a few management students may write the examination, it is the serious Civil Services aspirants who will manage to crack the exam. The main weightage of marks lies in the general studies section. The changes have been introduced to test the candidate’s aptitude and decision-making skills.”

In place of the optional paper in which students could exercise their choice and answer questions in a favoured subject, aspirants will now be quizzed on comprehension, interpersonal skills including communication skills, logical reasoning and analytical ability, decision making and problem solving, general mental ability, basic numeracy and English language comprehension skills of the Class X level. The first paper will test students on their knowledge of history, geography, current events, polity and governance, economic and social development, environmental ecology and general science.

Doubts were also raised regarding the English component of the examination. Students wondered if those who had studied in Hindi medium schools would stand a fair chance in the examination.

Gurgaon Assistant Police Commissioner Sumit Jangraj urged the students to be consistent in their preparations. “It is expected that an average of 100 students per hour should be enough if studying is done with consistency. It is also better to begin preparations for the Civil Services as soon as possible and follow reliable newspapers and magazines. Team work while studying can also help as students can enhance each other’s learning outcomes.”

Speaking about the challenges encountered as a civil servant, he said: “Trying to get everyone on board for decisions, dealing with politicians and the dynamic environment are some of the challenges we have to deal with.”

The focus of the seminar was on easing the worries of the students with regard to the difficulty levels of questions in mathematics and English. They were also given a sense of various other sections in the preliminary examination. Sample questions were discussed with students and presentations and interactions were also done.

Seminar participants had the opportunity of appearing for a mock CSAT examination. Those who appeared were invited for an analysis of the paper which will take place in the coming days. Similar seminars have been planned in Hyderabad and Kochi.
The disposable academic

DOCTORAL DEGREES

Why doing a PhD is often a waste of time

ON TUE evening before All Saints’ Day in 1317, Martin Luther nailed 95 theses to the door of a church in Wittenberg. In those days, there was simply a perception one wanted to argue. Luther, an Augustinian friar, asserted that Christians could not be bound by human traditions. Today a doctoral thesis is both an idea and an important form of identity. Writing one is the aim of the hundreds of thousands of students who embark on a doctorate of philosophy (PhD) every year.

In most countries a PhD is a basic requirement for a career in academia. It is an introduction to the world of independent research—a kind of intellectual masterpiece, created by an apprentice in close collaboration with a supervisor. The requirements to complete one vary enormously between countries, universities and even subjects. Some students will first have to spend two years working on a master’s degree. Some will receive a stipend; others will pay their own way. Some PhDs involve only research, some require classes and examinations and some require the student to teach under-graduates. A thesis can be dozens of pages in mathematics, or many hundreds in history. As a result, newly minted PhDs can be as young as their early 20s or well over 40 somethings.

One thing all PhD students have in common is disillusionment. Some describe their work as “a horror show”. But most of the time, the weeks, ten-hour days, low pay and uncertain prospects are widespread. You know you are a graduate student, once you quit, when your offer is better than your rent and you have a favourite flavour of instant noodles. “It is no use. I am going to be a university professor.” says one student, who confesses to rather enjoy ignoring the rent for five years. “What is discouraging is realising the end point has been reached and you’re just doing your time. It is no use. I am going to be a university professor.”

Whining PhDs are nothing new, but there seem to be genuine problems with the system that produces research students (the practical “professional” or technical degree system) of which business and medicine have a more obvious value. There is an oversupply of PhDs. Although many are trained as PhDs in a number of subjects, of these PhDs on average only 10% of PhDs get into the number of job openings. Meanwhile, business leaders complain about shortages of high-level workers, suggesting PhDs are not touching the right things. The careers advice sector roasts research students on Ponds or pyramid schemes.

Richard pickings

For most of history even a first degree at university was the privilege of a rich few, and many academic subjects did not hold much more. But as higher education expanded and the second world war, we did the expectation better endowed students advanced degrees. But interest and advanced degrees. These areas of low-paid PhD researchers and postdoc host university, and countries’ research capacity, it is not that and a good point. Some recent figures suggest that PhDs go to waste when fashion changes. The same trend also had the rapid growth in PhD physicists that came to an abrupt halt as the Vietnam war drained the science budget. Brian Schwarz, a professor of physics at the City University of New York, says that in the 1970s as many as 2,000 physicists had to find jobs in other areas.

In America the rise of PhD teachers’ unions reflects the breakdown of an implicit contract between universities and PhD students: curricular pay now pays for a good academic job. After an average of five years, the teachers are office workers at most universities. Foreign students tend to tolerate ponderous workloads and the supply of cheap, bright, foreign labour also keeps wages down.

Proponents of the PhD argue that it is worthwhile even if it does not lead to permanent academic employment. In times of plenty every PhD was a useful tool for any student on a PhD wage, a university career and many move successfully into private-sector jobs; in fact, industrial research. That is just true, but drop-out rates suggest that many students become disillusioned. In America only 57% of doctorate students will have a PhD ten years after their first degree. Even those who complete their PhDs are often unemployed. In 2002 New York University was the first private university to recognise its PhD teachers union, but stopped negotiating after three years.

In some countries, such as Britain, America, and many poor and rich countries are interested in the number of foreign-born PhD students. Dr Dite estimates that in 1966 only 23% of students were of non-European origin. By 2000 that proportion had increased to 46%. Foreign students tend to tolerate ponderous workloads and the supply of cheap, bright, foreign labour also keeps wages down.
Let a thousand heretics bloom

Brinda Bose and Prasanta Chakravarty

You can construct a cutting-edge archaeological demolition of the latest Ramjanmahabumi controversy in a radical leftist blog. You can be an acknowledged scholar in Renaissance Humanism and erate in the classroom on the complexities of non-articulated communication. But since Prudence is the new name of the game in racing to re-build India Shining, you can wear at least two hats. You can, when the snakely smiling Human Resource Development Minister lays out his blueprint for New India — toward which you are lured by the possibility of a role in its fashioning — graciously convince yourself and others that maturity means taking cognisance of an age that "demands an image of its accelerated genius." And so you can pull caution and far-sight out of your front pocket, while you keep your conscience appeased by nursing your intellectual and political predilections in your hip one. You, we fear, are the dangerous face of the Humanities academic in today's minefield of higher education in India for, you are neither the unreasonable table-thumping banner-brandishing revolutionaries nor the merely acquiescent yes-person with no mind to call his or her own. You occupy, you believe, a useful liminal space — but your liminality is devoid of fertility, and it signals the grave for the future of the University in India.

And why would that be so? Consider the scenario of Indian Higher Education, circa 2000. The MHRD is lazily exercised about the shamefully low number of graduates in our country of trebling billions. Our Harvard-educated Minister Kapil Sibal has devised a sagacious plan to alleviate this handicap in 10 years flat: a multipronged attack by which the number of graduates in Liberal education is a sustained and controlled matter, where practicality is directly related to searching analyses and the fecundity of thought processes. Sadly, the flag-bearers of a new India have no clue about such a pedigree of liberalism.

Liberal education is a sustained and controlled matter, where practicality is directly related to searching analyses and the fecundity of thought processes. Sadly, the flag-bearers of a new India have no clue about such a pedigree of liberalism. India will leap from 14 million to 44 million by 2020. As Mr. Sibal outlined in his address to the automobile industry on December 6, he will increase avenues for vocational training that will make a substantially larger number of youth suitably employable. Then he will revitalise the university education system in order, apparently, to rescue it from falling into mediocrity. Most of us should have no quarrel with a governmental desire to produce a variety and range of eligible workforce to contribute to the national exchequer and the national contentment — quotient in equal measure. So what is it that makes us so suspicious of these avowed measures of prudent ambition being framed by the MHRD now?

We would need to re-examine the blueprint that dispenses degrees from the bachelor's to post-doctoral levels to probe this sense of the sinister in the MHRD's machinations for now re-creating a utilitarian profile for it. Of the 44 million graduates who will be sent from the best to worst universities in India by 2020, a significant number will presumably still be streaming out of the Humanities: significant not so much in actual numerals, perhaps, as in — as we perceive it — their projected, imagined contribution to the New India apparently still "wandering between two worlds, one dead, the other powerless to be born." Mr. Sibal and his team seem to be of the belief that a birthing needs to be forced which trims the emergent graduate baby of any of the flab of the imaginative, the ruminative, the philosophic, the archaeological. Cleverly, however, the suggestion is not to throw the baby out with the birthwater, but to muddy the habitation and re-route the pathway: so, energise (a dead) History as Tourism Studies, revivify (a moribund) Political Science as a Policy Programmes, resurrect (an obsolete) English Literature as Communicative Global Language Skills.

To this worthy end, a new governmental body that will map and mould this brand new (or branded) Indian graduate is in process of being set up — the National Commission for Higher Education and Research (NCHER) — that will replace the University Grants Commission (UGC) and function under the direct control of the MHRD, even while the Bill proposing this new commission sanctioniously professes to promote autonomy for universities: as G. Krishnakumar has commented in the NCEIR in The Hindu of March 1, 2010, "One discernible tendency in the Bill is to centralise the powers to shape the nature of education. Education was a State subject; it is now being turned into the concurrent list. The present Bill raises the apprehension whether it would finally become a Central subject. ... It would be nothing short of "disastrous" to so impair the federal nature of crucial structures in the country, amongst which higher education is key.

And let us not harbour any illusions about the behemoth's capability to innovate, morph, and engulf critical voices within its belly. The juggernaut believes in efficiency, and will brook no contrary viewpoint. But this augurs well for people who can and do think in terms of finesse and criticality in Humanities studies: because such enormous hybrids is likely to avert, in spite of its acute confidence and savviness. The point is, can the opposition come together, strategise and queer the pitch for this bulldozing machine?

However, just valiantly standing up to this multipronged re-hauling of higher education is an option which has ethical punch on its side but little long-term effect in tangible idiom. Another university group is notoriously pacific, hoping that the scenario will improve magically: they will have to eventually capitulate and integrate. Otherwise, by the time the 18th century-pieces scholar is forced to write grant applications for doctoral projects funded by the Ambanis and the Tata's for improving cognitive skills in their workforce, the script will be lost.

The first station involves consciousness raising. It is a completely ruthless argument that liberal reform of the Humanities in India means sacrificing nuanced, reflective reading and writing skills for a new breed of a cheap, malleable workforce with communicative dexterity to emerge. This is precisely what Mr. Sibal means when he says that we are seeing the rusting of the West and the shining of the East; that the West has human resource but no jobs, while India has jobs but no trained personnel. This is a short-sighted libertarian dogma which has nothing to do with liberalism. Human wealth is not created in serious liberal societies by lowering the benchmark of higher education in this manner. Liberal education is a sustained and controlled matter, where practicality is directly related to searching analyses and the fecundity of thought processes. The real leaders of the market know this, and often get their best recruits from the Classics and Rhetoric departments. It is a pity that the flag-bearers of liberal India have no clue about such a pedigree of liberalism which would actually raise the stakes of a poor and uneducated nation.

Most importantly, those in the Humanities need to develop a long-term strategy that must be deeply critical, but executed with the acumen of deft chess players, flummoxing this vision of New India with crafty manoeuvres. No one can take away the classroom spaces. Nor can the MHRD eep around corridors where contrarians and heretics blossom. A subterranean culture of the questioning spirit should fester in these spaces; a new generation of students must be steadily nurtured who will take on the authorities in their laziness of thought and crassness of aesthetics. Alongside, serious research by teachers will provide both moral fibre and scholarly relevance to undermine the seemingly open-and-shut case of the reformers. This is the real democratic tradition of the Humanities that must be salvaged and asserted.

(Chakravarty teaches at the Department of English, University of Delhi.)
Can ISRO meet its schedule of Chandrayaan-2 and human space flight programmes?

T.S. Subramanian

CHENNAI: While disappointment haunts the Indian Space Research Organisation (ISRO) about the two successive failures of the Geo-synchronous Satellite Launch Vehicle (GSLV) missions, there is fear whether the failures will affect the schedule of ISRO’s Chandrayaan-2 and the human space flight programmes.

The fear is fuelled by the fact that it is GSLV-Mark II with an indigenous cryogenic engine that will put Chandrayaan-2 in orbit in 2013-14. The upgraded GSLV-Mark III, which is under development, will carry two Indians into space in low earth orbit around 2016.


**GSLV mission on December 25 failed because of “a very, very trivial issue”.**

**ISRO handicapped for transponders to cater to India’s telecom, television requirements**

There is disappointment among ISRO’s rocket technologists that the GSLV mission on December 25 failed because of “a very, very trivial issue.” They said it failed because the signal from the ground station, which houses the electronic brain of the vehicle and is housed atop the rocket, to control the vehicle, did not reach the first stage.

A bunch of wires, running to more than 40 metres, convey these signals from the equipment bay and the wires terminate in the three stages of the vehicle. Since these wires are long, they are connected by devices called connectors which are akin to plugs and sockets. It is these connectors that hold these wires in place.

An authoritative ISRO rocket technologist said four such connectors came loose or were pressed open because “some disturbance” in the flight and so the wires, which convey the signal for controlling the rocket, lost their continuity. “If some connectors open up, the wires will not have continuity. It is a very trivial issue. So the command for controlling the rocket from the equipment bay did not reach the first stage. An uncontrolled rocket is a hooligan. That is not acceptable. We are in the investigation mode,” he said.

“Simple problem”

Another top rocket engineer also said the connectors coming loose was “a simple problem that did the mission in” and that the rocket’s design was basically sound.

The previous GSLV mission in April 2010 failed because of the malfunctioning of the fuel booster turbopump in the indigenous cryogenic stage.

While the Polar Satellite Launch Vehicle (PSLV-XL), which is much smaller than the GSLV-Mark II, put Chandrayaan-1 in orbit in 2008, ISRO has planned to put Chandrayaan-2 into orbit by 2013. This means that the GSLV to put Chandrayaan-2 into orbit must be much heavier. It will have a lighter and a more powerful rocket.

The GSLV-Mark III, which will put two Indian astronauts in space, should be man-rated vehicles. That is, they should be reliable enough to carry humans into space. If the mission of putting the humans to fail, the prestige of the nation would be lost, said ISRO engineers.

**THINGS LOOKING UP**

PROFESSOR Narendra Jadhav, Planning Commission member in charge of education, put things in perspective when talking of India’s higher education sector. “The average age of 255 new universities and 40,000 new colleges if we are to achieve 30 per cent GER by 2020. The government also can’t do this."

So the government has invited the private sector in partnership and aid for more private institutions.

But things are not going the smoothly as they should. The reforms Bills, for instance, are still pending, and the land Bill is stuck. Jadhav, is, nonetheless, optimistic.

**UP FOR HIGHER EDUCATION**

India needs more educational institutions if it has to increase its gross enrolment ratio in higher education.

In higher education stands at 24 per cent. India’s is a piddly 1.24 per cent. It is a matter of the first ten years has to increase this to 29 per cent, but for that India will need more educational institutions.

Sibal often says “we need 400 new universities and 40,000 new colleges if we are to achieve 30 per cent GER by 2020. The government also can’t do this.”

So the government has invited the private sector in partnership and aid for more private institutions.

But things are not going as smoothly as they should. The reforms Bills, for instance, are still pending, and the land Bill is stuck. Jadhav, is, nonetheless, optimistic.

**“In 18 months, these Bills will be shot up and the education system will become unrecognizable.”**

He, however, said the system’s expansion must be inclusive. Though India’s average GER is 12.4 per cent, for poor ST women in rural areas, it is just 1.7 per cent. And this is where the proposed NCIHE comes in — it must ensure the reforms are inclusive and has a provision for a government institution to find deserving students’ education.

Not only this, the task force on the 10+2 for setting up the NCIHE has, after consultation, brought the focus to “quality education” and “research” in the area and the area.

But here too, the going is not smooth. Landmark provisions in the draft, such as the names for selecting V-Cs to central and state universities, have been opposed by state governments.

The NCIHE is also facing opposition for trying to include medical and legal education in its purview. The HRD ministry, however, hopeful of bringing this in this landmark Bill by the next session of Parliament.

The good news is that since the UPA II came to power, the number of central universities has shot up to 39, with 15 being set up in 2009. Another Bill has the government proposing to have 14 world-class universities called “Innovation Universities”.

The number of technical education institutions is also rising, with more and more ITIs in the offing. And in these top institutions too, the education ministry is pushing for reforms.
Glitches may mar prospects at the top end of launch market

Experts say no major impact on India's cost advantage, but add ISRO not yet ready to take on top competitors

By Bhargav Kirubakaran & Jacob P. Koshy

India needs to move quickly to address technology glitches that have resulted in back-to-back failures of the GSLV rocket if it is to realize its ambition of competing in the international market for the commercial launch of heavy satellites, experts say.

But the second failure of the Geosynchronous Satellite Launch Vehicle (GSLV) on Saturday is unlikely to mar the country's reputation as an emerging centre for launch of smaller satellites, they said. India had been hoping to use the GSLV for its second lunar mission, Chandrayaan II, to be followed by a manned mission.

The 417-tonne rocket, carrying a 2.3-tonne communication satellite, lifted off from Sriharikota, Andhra Pradesh, at around 2pm Saturday in a mission that was aborted 63 seconds later by space agency officials, who concluded that the rocket had veered considerably off its designated flight path. The wreckage fell into the Bay of Bengal.

The geosynchronous satellite (GSAT-24) it was carrying was built at the satellite centre of the Indian Space Research Organisation (isro) in Bangalore at a cost of ₹125 crore. The advanced communication satellite, carrying 36 transponders, was crucial for India's telecommunications sector and the weather department. It was meant to replace the workhorse INSAT-3E satellite launched in 1999.

Although the reasons for the failure are being probed, isro chairman K. Radhakrishnan told a press conference on Saturday that the boosters strapped to the GSLV did not receive command signals to propel the rocket further. The original launch date had been postponed by five days as a valve of the Russian cryogenic engine fitted on the rocket developed a leakage of liquid hydrogen.

It was the second abortive attempt this year to launch the GSLV. The previous rocket, which crashed into the sea on 15 April, had been fitted with an indigenously developed cryogenic engine, and billed as a vital first step towards India carrying out a manned lunar mission in the 2020s.

"You should have a few successful launches to demonstrate its reliability and consistency and then only we can get into the market (for launch of heavy satellites)," said K. Sriram,

Arianne, former managing director of Arianne Corp. Ltd, the commercial arm of ISRO. "There are many boundaries and conditions to apply to demonstrate the capability in international market and the two recent failures are a setback in that direction."

Over the last decade, India has launched nearly 25 satellites—its own as well as foreign ones—using the Polar Satellite Launch Vehicle (PSLV) developed in the 1990s. Experts say that the PSLV technology is well understood and will continue to help India commercially launch small satellites that weigh less than 2.5 tonnes. India has a significant cost advantage over other established entities in the space launch market.

"Several of the communication satellites, and those used for mapping, weather services are small-sized, and these are the ones that Argentina, Brazil and others are using. This failure might just dent that image, but I don't think this will significantly impact India's cost effectiveness," said Ajay Lele, an expert on strategic affairs and space studies at the Institute for Defence Studies and Analyses in New Delhi.

Lele did, however, emphasise that this only meant that ISRO wasn't yet ready to take on the major competitors in the satellite launch market—the US, the European Space Agency, Russia and France—if it wanted to launch satellites that weighed three to five tonnes. India could also still develop its technology for making satellites.

India has wound up six of the seven cryogenic engines it procured from Russia.

"We'll need one for the Chandrayaan II mission," said Lele. "Therefore, any programmes after that will require our own indigenous engine and we're a long way from perfecting that. We can still concentrate on developing satellites, which is big business in itself."

Scientific experts say that because the recent failures of the GSLV involved components that were common to the PSLV, the snags were likely to be more "engineering-related" and less about a fundamental lack of understanding about the technology.

"The stage at which failure took place is well understood, as it's common to the PSLV rockets too. It must have been some engineering-related—and here even small errors are hugely magnified and may slip through even the most thorough checks—and unlikely a serious, conceptual worry. By comparison, the April failure was much bigger when the engine itself failed to ignite," said P.S. Goel, a former isro scientist.

U.R. Rao, a former isro chairman, concurred and added that the Chandrayaan II mission planned for 2013 wasn't likely to be compromised.

"We will have to wait and watch if the other programmes are going to be affected or not. The review is going on at the moment... I don't see any concern for the Chandrayaan II launch at the moment," he said.

ISRO launched six GSLV rockets with satellites, of which only two missions were successful and one failed a partial success. The remaining three failed to put the satellites in the intended geosynchronous transfer orbit. The two successful launches were in 2003 and 2004, when an experimental communication satellite GSAT-2 and another for educational purposes, EduSat, were placed in a geosynchronous orbit.

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Launch failure: Pressure now on ISRO’s cryogenic project

Madhumathi D.S.
Bangalore, Dec. 26

Scientists and administrators of the nation’s space establishment are still trying to come to terms with the Christmas Day shocker, when a presumably tried and tested GSLV satellite launcher went bust soon after take-off. There is apparently now a greater urgency than before for them to perfect and push the indigenous cryogenic stage within the next 15 months.

While Saturday’s GSLV-F06 used the penultimate of the seven Russian cryo stages, the other failed GSLV (called D3) of April this year was testing the ISRO-built cryo stage for the first time.

“This (the December 25 loss) is a setback. We had not expected this to fail,” admitted Mr S. Satish, ISRO’s Director for Public Relations and spokesman.

Asked if the Indian cryogenic stage that is being fine-tuned after the initial failure was being put on the fast track, he said it would be known in the coming days.

The GSLV is ISRO’s vehicle to lift 2000-kg spacecraft into equatorial, Earth-facing orbits that are 36,000 km away. The PSLV is its lighter lift for carrying satellites to 900 km and mainly pole-pole orbits.

“There is no issue for the next one-and-a-half years,” Mr Satish told Business Line. “We should be comfortable with what we have. Thereafter, hopefully we should have our own [cryogenic stage] by then.”

NEXT LAUNCH

According to him, the next GSLV was not due for at least 12-15 months. The last Russian stage would be used for the communication satellite that will come up for flight towards the end of 2011-12.

The Indian cryo stage is being ground-tested at its centres in Thiruvananthapuram.

“We have identified the problem with the first flight” that failed in April, he said.

ISRO had done the due for the calendar of April 2010-March 2011, and flown two GSLV launches as planned. It had also planned two PSLV launches and one of them is due around February.

DOUBLE WHAMMY

For now, the space agency, Mr Satish said, was equally concerned on two counts: the loss of GSat-5P carrying 36 transponders for continuing broadcast and communication services; as well as the failure of the rocket, which sets back the GSLV programme. However, the existing fleet of satellites would suffice.

In a worst case, the loss of GSat-5P could warrant leasing of capacity on a foreign satellite, he conceded.

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IIM-A case studies just a click away

Other B-schools can access IIM-A’s over 3,500 cases

RUTAM VORA
Ahmedabad

It’s philanthropy of a different kind. The Ahmedabad-based Indian Institute of Management will soon allow B-schools across the country to access its vast pool of case studies, online.

IIM-A is in the process of taking its 3,500-odd case studies online giving easy access to the global management arena. The institute envisages this project to be useful to the smaller B-schools making their academic structure richer.

“Projects will benefit smaller management institutes and researchers to get access to IIM-A’s high quality case studies. This will be done at a nominal cost for the institutes and corporate, while academics and researchers will get free access to the cases,” said a source from IIM-A.

Sale of such case studies is not new to the IMs. Case studies by these premier management institutes have been in huge demand by other B-schools. “We have been selling the case studies to various interested parties. Of these, over 60 per cent are institutes, some are academic individuals and researchers. We however, get less corporate inquiries for the same,” stated another IIM-A source.

The online availability of case study will fasten the process of delivery as well as will provide huge options to access from.

At present, there is a lot of manual effort involved in providing a case study.

“This is a time consuming process, sometimes even a term is over by the time the required case study reaches the person,” added the source.

The digitisation work of the 3,500-odd case studies is over and the editing work is underway at present. However, considering the complexity of the work, the institute declined to give a time-line for completion of the work.

While IIM-A has put up the bibliographic details and synopsis of the case studies on its portal, uploading of the cases will take place only after the completion of editing work.

A panel of editors have been assigned the job of editing these case studies to make it comparable with international standards.

IIM-A conducts an average of 50-60 case studies every year.

The case studies, which have been prepared over the past 50 years that varies in content, gives a closer look to the corporate and management happenings of the business circles in India. “The case studies are prepared with international standards and touches variety of subjects. Some of the cases are very interesting and give insights into the corporate happenings in the country,” said an official handling case studies at the IIM-A.

IIM-A, which gets case studies from Harvard Business School, says it is eager to spread this rich resource of case studies to smaller B-schools.

The cost involved is merely administrative and operational cost that the institute intends to recover. As an academic institute we cannot have an objective of profit-making by selling our knowledge resource,” said a source at the IIM-A.

The institute has also developed the gateway for financial transactions, which will enable payments via credit cards on these case studies.
Disaster leaves Isro with 1 cryo engine

Arun Ram | TNN

Chennai: Isro is staring at a crisis: it is left with just one Russia-made cryogenic engine and its indigenous version is far from ready. The launch of communication satellites weighing more than 2 tonnes into a geosynchronous transfer orbit, besides India’s ambitious space programmes such as Chandrayaan-2 and the manned mission, need Geosynchronous Satellite Launch Vehicles (GSLV) powered partly by cryogenic engines.

The cryogenic engine that went up in flames with GSLV-F06 on Saturday was the sixth of the seven such engines the country had procured from Russia. Post-Pokhran-II, the US had arm-twisted Russia to deny the engine to India. Isro tried the indigenous cryogenic engine for the GSLV-D3 launch on April 15, 2010, which was a failure. The engine has gone back to Isro’s workshops for ground tests and there is no definite word on when the improved version would be ready.

“Our stockpile of cryogenic engine has been reduced to one and there are five heavy satellites to be launched in 2011 to augment our telecommunications and broadcasting constellation in space,” said a space scientist.
Dad’s app lets disabled son ‘speak’ with iPad

Application Turns Touchscreen Into Communication Tool

Raleigh: Victor Pauca will have plenty of presents to unwrap on Christmas, but the 5-year-old boy has already received the best gift he’ll get this year: the ability to communicate.

Victor has a rare genetic disorder that delays development of a number of skills, including speech. To help him and others with disabilities, his father, Paul, and some of his students at Wake Forest University in Winston-Salem have created an application for the iPhone and iPad that turns their touch screens into communications tools.

The VerbalVictor app allows parents and caregivers to take pictures and record phrases to go with them. These become “buttons” on the screen that Victor touches when he wants to communicate. A picture of the backyard, for example, can be accompanied by a recording of a sentence like “I want to go outside and play”. When Victor touches it, his parents or teachers know what he wants to do.

“The user records the voice, so it’s something the child’s familiar with. It’s not robotic,” Paul Pauca said.

The app, which should be for sale by early next week, is one of dozens of new software products designed to make life easier for people with a range of disabilities.

The category is expanding so fast that Apple now has a separate listing for it. More apps are added every week, ranging from SignMe, a sign language tutor that uses an animated avatar to ArtikPix, a flashcard-like app that helps teachers and speech therapists improve their students’ articulation of words.

“It opens up his mind to us, because he can show us what he’s thinking,” said Victor’s mother, Theresa. Victor has a rare genetic disorder called Pitt Hopkins Syndrome, a diagnosis he shares with about 50 other people in the US. The ailment causes delays in cognitive abilities, motor skills, social development and language skills. Victor’s progress, in many ways, has been good — he could walk at age 2, whereas some children with the condition can’t walk until they’re 10 or older.

The Paucas tried a number of therapeutic devices designed to help people with similar disabilities communicate. These stand-alone devices are often low-tech — the one the Paucas first tried required paper printouts. Or they are expensive: a top-of-the-line model similar to the one used by famed physicist Stephen Hawking can cost about $8,200.

Paul Pauca, a computer science professor, decided that he and some of his students could do better. Starting in January, they worked to create an app that would use the versatility of the Apple devices to make communication easier. Because the hardware already existed, and the work was done as part of a class, there were essentially no direct costs of development. The prototype was done by late spring.

“We’re not a big-budget operation, and that allows us to sell it for $10,” said Tommy Guy, who is one of Pauca’s students.

Jim Tobias, president of consulting firm Inclusive Technologies and an expert on disability-accessible technology, points out that VerbalVictor takes advantage of general-purpose, mass-market gadgets that cost hundreds of dollars rather than thousands.

People who already own an iPhone or iPad need to pay only $10 more for the app, “instead of taking a risk with $1,000” with specialized machines, said Tobias, who is not involved with the project. AP
Hunt for dark matter under the South Pole

Wellington: An extraordinary underground observatory for subatomic particles has been completed in a huge cube of ice one kilometre on each side deep under the South Pole, researchers said.

Building the IceCube, the world's largest neutrino observatory, has taken a decade of work in the Antarctic tundra and will help scientists study space particles in the search for dark matter, invisible material that makes up most of the universe's mass.

The observatory, 1,400 metres underground near the US Amundsen-Scott South Pole Station, cost more than $270 million. The cube is a network of 5,160 optical sensors, each the size of a basketball, suspended on cables in 86 holes bored into the ice. The point of the exercise is to study neutrinos, subatomic particles that travel at close to the speed of light but are so small they can pass through solid matter without colliding with any molecules. Scientists believe neutrinos were first created during the Big Bang and are still generated by nuclear reactions. AFP
2010-20 has been declared as the decade of innovation and, hence, it is the best time for upcoming professionals to prioritise on innovation. In fact, 2010 saw students and the youth from across the country showcasing several innovations. While a Delhi-based engineering student innovated a ‘personal mover’ that can be especially used by differently-abled people, Mandar Ramesh Thite from Pune has engineered a photo clipping machine that can preserve newspapers and printed material. That’s not all. Subrata Dutta from Kolkata and Kondamudi Swarna Rekha from Andhra Pradesh are working on interesting innovations. While Dutta has made an affordable virtual inverter that can restrict power usage, Rekha is developing a network through which farmers will get an SMS if the water level in their fields dip below a certain level.

According to Pravin Rajpal, innovation thought leader, FICCI, “Innovation starts with the inception of an idea. The European Union and the World Economic Forum have stressed on the critical role that innovation needs to play in the near future. Consequently, the challenge for India is to take leadership position in this domain.”

Rajpal has come up with a three-dimensional idea generator: Cubical in shape, it comes with a random shuffle option to prevent inadvertent biased shuffling.

Bhairav Jani, national chairman, Confederation of Indian Industry’s Young Indians, said that it is important for Indians to be future oriented in their thought process, “Success involves innovation and it is the youth who need to fuel this innovation. It is not enough to ideate. Implementing as well as making it profitable is the real challenge. In fact, an idea does not become an innovation until it is deployed and implemented,” she explained.

Rajpal and Jani were speaking at the recently-held annual convention of the Faculty of Management Studies (FMS), which saw the participation of thought leaders from across sectors.

Jani stressed on the need for people to protect their innovative ideas through patents. Admitting that arranging requisite finances to implement an idea is a challenging job, she agreed to finance any relevant innovative idea that is presented to her body. She also pointed out that critical factors that can determine success for any innovation include pricing, global scalability, sustainability and the overall intention behind the idea.

The need for rural inclusion in India was also stressed upon. Mehmood Khan, global leader of Innovation at Unilever, emphasised that management graduates should take the lead in providing solutions to the problems of rural people. “The largely untapped rural market provides an opportunity for companies to expand their business. However, in order to make the most of the rural market, there is a need to empower the rural population,” he observed. Khan suggested that innovation must be directed towards upliftment of rural people so that they can play a larger role in the economic scenario of the country.
2010: An academic calendar

EDUCATION TIMES PRESENTS A SNAPSHOT OF THE YEAR THAT WAS

JANUARY: CCE Introduced

The year 2010 started with the introduction and implementation of the Continuous Comprehensive Evaluation (CCE) system by the Central Board of Secondary Education (CBSE) for class IX students.

MARCH: Rise of Liberal Arts

An increasing number of students opted for liberal arts courses in 2010. This trend can be attributed to the fact that the global work environment needs a workforce that has the ability to think critically and take decisions that are pragmatic in reference to a macro social framework.

APRIL: Right to Education Act

The introduction of the Right to Education Act in April 2010 provided an impetus to children from economically marginalised families, especially girls, to enrol into the formal school system. This Act ensures that children between the age group of six and 14 years get free and compulsory education in their neighbourhood schools.

JUNE: Global View to Learning

Countries across the world realigned their academic goals in sync with new demands of higher education. The Bologna process came to the forefront attempting to make academic degrees and quality assurance standards more comparable and compatible.

JUNE: Education Loans Made Easy

Students belonging to the economically weaker sections were given full interest subsidy on education loans during the period of moratorium.

JULY: Civil Engineers in Demand

Overall demand for improved infrastructure in the country translated to an increased demand for civil engineers.

AUGUST: Resurgence of Traditional Medicine

Plans for modernising hospitals specialising in Indian systems of medicine were on a roll this year. In fact, the increasing interest in this area is in keeping with the government’s announcement of a separate national policy for the Indian Systems of Medicine and Homeopathy (ISM&H), a few years ago.

SEPTEMBER: World Rankings

Three ranking agencies — Times Higher

Education World University Rankings, QS World University and Academic Ranking of World Universities (ARWU) compiled by Jiao Tong University did not figure Indian universities in the top 100. While IIT Bombay was ranked at 157 in the QS rankings, no other Indian university figured in the top 200.

International Honour

The flagship programme of Indian Institute of Management-Ahmedabad (IIM-A) was rated among the top 10 in the world. The B-school ranked at number eight among 85 institutes for its two-year postgraduate programme in the Financial Times (FT) Business School rankings for its Master’s in Management programme 2010.

Education for the Displaced
Education of students, who are victims of regional conflicts, displacements and natural calamities became a focus area. It was realised that in these situations the concept of education needs redefinition and the teachers need to undergo specialised training.

**New CAT Tutorials**

A new feature called the CAT tutorial with 12 questions (a demo version of the actual test) was uploaded on the CAT website. This allows candidates to take the test many times in order to be comfortable with the format.

**OCTOBER: Employment Avenues**

Commonwealth Games 2010 benefited a range of sectors in India. Job opportunities in sectors such as aviation, hospitality, civil engineering, medical tourism have increased.

**OCTOBER: Single Regulatory Body**

The HRD ministry proposed several reforms in the area of higher education but the Indian education system being over-regulated delayed the introduction of fresh ideas and innovations in the universities. Hence, the HRD ministry introduced the draft bill on the creation of the National Commission for Higher Education and Research (NCHR), a body that would replace statutory bodies like University Grants Commission (UGC), All India Council of Technical Education (AICTE) and National Council of Teachers Education (NCTE).

--- Compiled by Aaditi Isaac ---