Newspaper Clips

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PRINCIPLES OF INNOVATION

VIJAY GOVINDARAJAN, FOUNDING DIRECTOR, CENTRE FOR GLOBAL LEADERSHIP, TUCK SCHOOL OF BUSINESS, DARTMOUTH, SPEAKS TO PROYASHI BARUA ON THE EXECUTIVE CHALLENGE OF INNOVATION

Vijay Govindarajan

There is an emphasis on generating 'big ideas' in the corporate and business fraternity the world over. "However, the emphasis in terms of turning these ideas into actual breakthrough products, services and process improvements is clearly not adequate," says Vijay Govindarajan, founding director, Centre for Global Leadership, Tuck School of Business, Dartmouth. This reality of the business world has been extensively and comprehensively examined in *The Other Side of Innovation: Solving the Executive Challenge*, a book co-authored by Govindarajan and Chris Trimble, another faculty member at Tuck School of Business, Dartmouth.

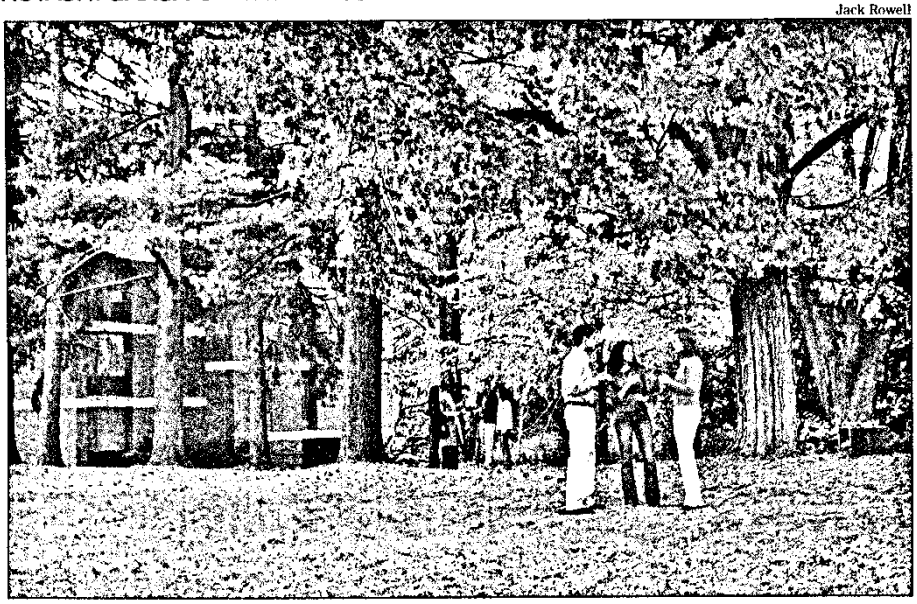
According to Govindarajan, the book addresses a preliminary question at the outset — How can we make innovation happen? "This question deserves a lot of reflection as it has been observed that people in general are not clear about the definition of innovation in the first place," he explains.

"Innovation is confused with creativity and this straitjacketed perception largely explains why many companies stop at the stage of 'ideation' when it comes to generating breakthrough ideas. They find it difficult to translate these ideas into reality or more simply put, they find it difficult to execute these ideas," adds Govindarajan.

"However, there is a simple and clear solution to this challenge. The business world needs to understand that innovation is not just creativity. In fact, creativity or creative insights constitute a minuscule one percent of the process of innovation. The rest is all about effective implementation. This truth cannot be understood better than in the famous words of Thomas Edison who once said that genius is one percent inspiration and 99% perspiration. It is just that in this case the word genius needs to be replaced by the word innovation," he elaborates. He goes on to state that once this basic fact is understood it becomes imperative for the business fraternity to concentrate their attention and energies in terms of finding commercial values for their creative ideas.

"And there are certain principles that ensure effective commercialisation of creative ideas without disruption of business processes," reveals Govindarajan. "To begin with, innovation should not be the onus of the core business unit. This is because the core units are responsible for profits and hence do not have the bandwidth and scope to contend with even the slightest aberrations in terms of processes and systems. Instead, there should be a dedicated team in charge of innovations," he explains.

Jack Rowell



Tuck School of Business at Dartmouth, US

Coming to the subject of actually executing innovative ideas (after they are devised by the innovation team), Govindarajan says, "There should be transparency and integration as far as the core business team and the innovation team is concerned. Innovative ideas are after all meant to garner additional profits and better efficiency. So the management should be able to facilitate an environment where employees of both the teams feel that they are working towards shared interests. At least, initially tensions are bound to arise but the management has to resolve and manage these tensions. Companies should bring both the teams together by providing incentives for collaboration."

Talking about how management education can ingrain the real philosophy and principles of innovation, he said, "There is a broad misnomer that innovation cannot be taught. However, management education needs to show how integral innovation is to key business processes like for instance human resources. It needs to teach how to scientifically link incentives and the business scorecard to innovation. In other words, management schools have to play a pivotal role in terms of educating people on the tools and techniques that can create a broad culture of innovation within businesses."

There is a general concern that in India the culture of executing innovative ideas is fairly abysmal. So how can this be improved? "One clear way is by instituting venture capital cells inside universities (at least the IITs to begin with) that can facilitate easy exchange of ideas between academia, entrepreneurs and industry. This will help in implementing breakthrough ideas in the context of real-world challenges. Needless to say these venture capital cells shall also help the original innovator to access the much needed capital. Moreover, our existing incentive system has to be modified whereby the original innovator can make profits. Further, our copyright and intellectual property rights have to be reviewed in the interests of innovators," sums up Govindarajan.

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A SHARED VISION

MAASTRICHT UNIVERSITY IS CURRENTLY FOCUSSING ON INDIA FOR LONG-TERM STRATEGIC COOPERATION. JO RITZEN, PRESIDENT, MAASTRICHT UNIVERSITY, TALKS TO PROYASHI BARUA

Which are some of the ongoing or proposed initiatives that Maastricht University is undertaking to collaborate with India?

When it comes to India, we want to develop joint research outcomes that translate to mutual benefits for the Indian society and the Maastricht (Dutch/European) society. To realise this objective we are in the process of establishing collaborative frameworks that can facilitate a genuine exchange of ideas and knowledge between the two countries. As part of this mission we get students and researchers from both the countries to study and work together in India and in Maastricht. While there are several partnerships that are in the stages of discussion we have already forged tie-ups with National Institute of Mental Health and Neuro Sciences (NIMHANS), Indian Statistical Institute, Narayana Hrudalaya, St John's Hospital, Aravind Eye Hospital, Manipal University, Acropetal, PES institute of Technology and National Law University, among others.

Our endeavour is to connect the best in Maastricht University with the best in Indian universities and research institutes. There are several areas that we have identified, which include healthcare, medical technology, nutrition, hospital management, artificial intelligence and international intellectual property laws, among others.

Our research collaborations within the domain of healthcare address areas like translational medicine (especially in lifestyle diseases like heart and diabetes), medical technology (including remote body sensing, image processing and telemedicine) and effective neurodisease treatment.

We also want to facilitate the development of international business ties between Europe and India. Hence, some of our research collaborations focus on subjects like international trade law and its redistributive effect on richer and poorer countries and the fast-changing landscape of environment regulations and opportunities for emerging economies.

Maastricht University's recent partnerships have been with the National Law School, National Institute of Mental Health and Neuro Science and the Indian Statistical Institute. Could you elaborate on the exact nature of joint research that will be pursued with each of these institutes?

The partnership between Maastricht University and the National Law University envisages to leverage the expertise of both these institutes in terms of building world class expertise in the emerging areas of law. Joint/dual PhDs, student/faculty exchange programmes, international symposiums and moot court competitions are some of the

Jo Ritzen

numerous ways in which this objective shall be pursued. The broad aim is to build a strong foundation of international exposure for Indian students and an Indian/emerging economy exposure for the students and faculty members of Maastricht University. There will be three to six months' internships for Indian students associated with these joint programmes to the Maastricht University and vice versa.

In the case of Indian Statistical Institute (ISI) we plan to start with a research project on image processing (to influence lowering of costs related to medical care) and at a later stage build on subjects like bioinformatics and biostatistics, among others. This partnership will utilise ISI's strengths in areas like statistics and image processing on one hand and the University of Maastricht's academic capabilities in terms of life sciences and healthcare on the other hand. The aim is to link technology with healthcare for the ease and benefit of both the healthcare providers and patients. Students enroled under this scheme can look forward to quality research in many areas of bioinformatics, biostatistics, image processing and translational medicine.

The partnership with National Institute of Mental Health and Neuro-Science (NIMHANS) will primarily facilitate educational cooperation for curriculum development, innovative methodological approaches, student assessment, cultural exchange and joint research programmes.

As per this partnership Maastricht University is installing one of the world's two nine tesla machines for studying neurodisorders at NIMHANS. This facility and its study results will become available to the students of NIMHANS. Similarly, students from Maastricht University will have access to several select studies that are being pursued at NIMHANS. Moreover, this partnership envisages to give a boost to NIMHANS' recent focus in the area of translational medicine as the Maastricht University has an established forte in this subject.

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IITS TO PLAY A BIGGER ROLE

THE PROPOSED AMENDMENT OF THE INSTITUTE OF TECHNOLOGY ACT WILL MAKE IT MANDATORY FOR THE IITS TO COLLABORATE AND SHARE RESOURCES WITH OTHER TECHNICAL INSTITUTES IN THEIR RESPECTIVE ZONES. NEHA BHATIA REPORTS

The Institutes of Technology (Amendments) Bill, 2010, will make it mandatory for all the 15 IITs in the country to provide training, facilitate study visits, share laboratories and resources with other technical institutions in their respective zones.

The council of IITs has already given a go-ahead to the proposed amendment of the Institute of Technology Act and the HRD ministry is all set to amend the Act. Such a step is being taken to ensure that the growing number of technical institutes produce industry-ready students.

According to MK Surappa, director, IIT Ropar, Punjab, the IITs will, through this amendment, take on an advisory role for other institutes. Surappa adds that the new amendment is sure to bring about an improvement in terms of quality. "We will ensure right dispersion of knowledge so as to build a strong base for students at all levels," he says.

While the IITs are ready to help other institutes that fall within their zones, they want to ensure that their own students do not suffer. SC Saxena, director, IIT Roorkee, shares, "The amendment is still in its nascent stage. Also, we will need to first upgrade our resources and only then figure out how we can adopt other institutes to make the best of the resources that we have. We will sure welcome the amendment, but not at the cost of our students."

Ganesh Chandra

The IITs plan to build a consolidated database and get infrastructural issues in place to ensure smooth dissemination of information. MS Ananth, director, IIT Madras, points out, "We are already helping students of other institutes by sharing our research infrastructure and will be ready to open our doors to more such initiatives in the future."

Amit Patra, professor, department of electrical engineering, Kharagpur, emphasises, "We have already started some programmes in this regard and plans are ripe to carry the collaboration to a higher level. For instance, if we have a subscription of a research journal which is expensive then we plan to share it with the other engineering colleges. We already have a web channel — National Programme on Technology Enhanced Learning (NPTEL) — wherein we upload and share lectures and course materials with other IITs and engineering schools. This is a joint programme conducted by the seven IITs (Delhi, Bombay, Guwahati, Madras, Kanpur, Kharagpur and Roorkee) and IISc-Bangalore. Also, we have plans to set up a virtual laboratory, which will enable students to access and share resources round the clock."

Like NPTEL, IIT Delhi has set up the National Resource Centre for Value Education in Engineering (NRCVEE). Its objective is to function as a national resource centre for imparting value-based education in engineering institutes.

AMENDMENTS PLANNED

(a) To include eight new Indian Institutes of Technology and declare them as institutions of national importance

(b) To declare the Institute of Technology, Banaras Hindu University, as an institution of national importance and integrate it with the Indian Institutes of Technology system

(c) To empower the Central government to notify 'zones' in the country for advising the state government and the Union territory included in its zone in the matter of technical education and any technical issue referred by them to the institute for advice

THE IITS, THROUGH THE PROPOSED AMENDMENT, WILL TAKE ON AN ADVISORY ROLE. SUCH A STEP WILL ENSURE THAT THE GROWING NUMBER OF TECHNICAL INSTITUTES PRODUCE INDUSTRY-READY STUDENTS

STUDENT VOICE

THE proposed amendment will surely help undergraduate students because the IIT curriculum is amongst the best in the world. However, apart from frequent interactions between professors of the institutes, student exchange programmes should also be facilitated.

ARAFAT AHMAD, Rizvi College, Mumbai

AS far as laboratory sharing is concerned, travelling from one college to another between experiments doesn't seem feasible. Further, it is likely that the IITs will give first preference to their own students when it comes to lab timings. Instead of depending on the infrastructure of IITs, other technological institutes should ensure that they have quality infrastructure.

RAJNI AGGARWAL, Roorkee Institute of Technology, Roorkee

APART from sharing resources, administrative processes should also be shared. For instance, while most of the other institutes follow an aggregate percentage system, the IITs follow a GPA system that helps students who want to pursue their studies abroad.

MOHAK BHATIA, Maharaja Surajmal Institute of Technology, Delhi

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Can't blame Ice Age for Neanderthals' ugly looks

London: Scientists have dispelled the theory that Neanderthals were ugly because of the cold arctic conditions of the last Ice Age, raising fresh questions about the habitats they lived in and why they died out. A new study has claimed that the characteristic broad foreheads and large noses of Neanderthals didn't give them any special advantage to live in the freezing conditions that had gripped Europe during the last Ice Age.

Scientists say the Neanderthals' broad foreheads and large noses were not an adaptation to the Ice Age, raising questions about where they lived

For over 150 years, researchers have explained the reason for these facial differences to modern humans as an adaptation which allowed Neanderthals to live in cold arctic conditions of the last Ice Age, and believed they had enlarged sinuses which helped to warm the air as it was inhaled. Now, a team, led by Roehampton University, has used three-dimensional scans and X-ray images of Neanderthal skulls to reveal that their sinuses were no bigger than modern humans — Homo sapiens who evolved in more temperate climates, and so played no role in increasing size of their facial features.

The European team claim the findings clearly suggest Neanderthals, which died out around 30,000 years ago after surviving for over 400,000 years, did not evolve to survive in the harsh frozen tundra of Europe, but instead were better suited for living in warmer climates. Team leader Todd Rae said it was more than likely that Neanderthals lived in temperate refuges. PTI

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Faster, larger, quieter: Nasa unveils face of future jets

London: In what may become the face of modern aviation, Nasa has unveiled three concept designs for quiet, energy efficient aircraft which the agency says could be ready for flight as soon as 2025.

Lockheed Martin, Northrop Grumman and Boeing came up with the designs and all the three companies won a contract from the US space agency to research, develop and test their concepts in 2011, the Daily Mail reported.

The designs came about after Nasa revealed it was aiming to develop a line of "super planes" that are faster, larger, quieter – and burn fuel more efficiently and cleanly than their present counterparts.

Criteria set by NASA meant that each design had to fly up to 85 per cent of the speed of sound, cover a range of about 7,000 miles and carry between 50,000 and 100,000 of payload; either cargo or passengers.

Now, each of the three companies will spend the rest of this year exploring, testing and simulating their designs in the hope that Nasa will choose it for development, the British tabloid reported.

COMING IN 2025

A spokesman from the technology and innovation website 'Fast Company' was quoted by the Daily Mail as telling the 'Huffington Post', "Given how long it usually takes to craft an aircraft from scratch, and bearing in mind how many technical hitches the revolutionary Boeing 787 Dreamliner has suffered, these are the sorts of aircraft that these three firms are probably beginning to design for real right about now." PTI

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With calls routed through PCs, headsets may replace phones

Anee Eisenberg

Headsets are staples for call-center workers, travel agents and many other people who have to talk frequently on the phone. With a headset to listen and speak through, both hands are free to work, and a shoulder needn't stiffen to cradle the phone.

Now, headsets could make many office landline phones unnecessary, as businesses decide to route calls through their office computers. Companies can save money by simply buying employees headsets instead of desktop phones, said Tavis McCourt, a managing director and analyst at Morgan Keegan, who follows the internet telephony market. Software like Lync from Microsoft makes it possible to use the internet and your computer to make calls.

The computers common in most offices aren't ideal for conducting a conversation, said Gregory Burns, a telecommunications analyst at Sidoti & Company, an equity research firm in New York. Desktop computers can have built-in microphones and speakers, but the conversations can distract people in nearby cubicles, just like those on speaker phones.

RINGING THE DEATH KNELL? As businesses route calls through their office computers, they can save money by simply buying employees headsets instead of phones

This has created an opportunity for headset makers, which are now ready to offer sleek models that plug into desktops and laptops for quiet conversations and conference calls. Some of the new headsets switch easily among desk phones, computers and cellphones. "Put on your headset, and it gives you access to whatever device you choose to use," said Bob Hafner, a managing VP at a research firm. NYT NEWS SERVICE

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Smoking harms genes in minutes

Just A Few Cigarette Puffs Lead To Formation Of Cancer-Causing 'Trash DNA'

Washington: Want to have a puff? Think again as cigarette smoke starts damaging one's basic element of life — genes — within 30 minutes of inhaling it, a study has warned. The scientists who studied the way smoking affects humans found one of the carcinogen of tobacco smoke starts causing adverse changes in the genetic structure of the person within 15-30 minutes of taking a puff.

"The results reported here should serve as a stark warning to those who are considering starting to smoke cigarettes," the study notes. The smoke carries a carcinogen which is known as phenanthrene also known as polycyclic aromatic hydrocarbons (PAHs). This forms toxins in the blood – termed as "trash DNA"– after inhaling, which induces adverse genetic structure or mutation, thus exposing the person to the risk of lung cancer.

"It is the first study to investigate human metabolism of a PAH specifically delivered by inhalation in cigarette smoke, without interference by other sources of exposure such as air pollution or the diet," researchers said. Researchers say lung cancer kills an average of 3000 people in the world each day and 90 per cent of this toll is due to cigarette smoking, which also causes at least 18 other types of cancer. PAH is one of the main causes of lung cancer. The study was published in Chemical Research in Toxicology. PTI

DANGEROUSLY FAST: A carcinogen in cigarette smoke induces genetic mutation in 15-30 minutes and raises lung cancer risk, says a new study

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Science and tech to get 50 centres of excellence

Akshaya Mukul | TNN

New Delhi: The government plans to establish 50 centres of excellence in frontier areas of science and technology in the next six years.

"These emerging areas are taught in very few institutions. This is the most comprehensive attempt at creating centres of high learning in science and technology," an official of the human resource ministry said.

These centres will work in biotechnology, bio-informatics, nano-materials and nano-technologies, mechatronics and high performance computing, among others.

An expert committee headed by scientist C N R Rao has shortlisted 35 proposals from 30 institutions and 15 will be added later. They will be located in campuses of existing institutions, both government and private, and will have complete autonomy.

The centres will conduct courses at post-graduate/PhD/post-doctoral levels. They will also run short-term training programmes including summer and winter schools. There will be separate courses to enhance the competence level of teachers and post-graduate students.

Cutting Edge

- Focus areas will include biotech, bio-informatics, nanotech and high performance computing
- Panel headed by C N R Rao has shortlisted 35 proposals; 15 will be added later
- The centres will offer post-graduate/ PhD/post-doctoral courses and also short-term training programmes

▶ ₹150cr earmarked for centres, P 10

₹150cr earmarked for centres of excellence

▶ Continued from page 1

The panel applied rigorous tools and global parameters to identify research potential and past performance of institutions that submitted proposals. The selected proposals are in two categories—A+ and A—based on technical merit. It graded 15 proposals as A+ and 20 as A.

Institutions were selected on the basis of number of PhDs and post-graduate students in the last five years, number of publications in the last five years and profile of the leader of the group that submitted the proposal.

A provision of Rs 150 crore has been made in the 11th Five-Year Plan, which runs till March 31, 2012. Scientists and teachers will be asked to join these centres on contract basis at higher salaries.

Other frontier areas identified include engineering/industrial design, chaos, complexity and self-organising systems, professional/business/technical/engineering ethics, consciousness studies, communication, creativity and innovation.

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RADIOACTIVE SUBSTANCE USE

Atomic board nod must for colleges: UGC

Manash Pratim Gohain | TNN

New Delhi: Universities and colleges would now need to seek Atomic Energy Regulatory Board's (AERB) approval for purchase of radioactive substance, intent of its use, and safety of storage facility.

University Grants Commission (UGC) officials said the commission has issued these guidelines to universities in the wake of the "disposal of Cobalt 60-isotope by Delhi University in a casual manner causing death of one person and illness to many others.

LESSONS LEARNT

Eight months ago the origin of Cobalt-60 at Mayapuri Scrap market was traced to Delhi University's chemistry department. The element lay unused for 25 years in the department. In his letter to all the vice-chancellors and to the human resources ministry, UGC secretary N A Kazmi said that compliance with these guidelines is mandatory without exception and UGC is to be intimated of action taken in this regard at the earliest.

As per the guidelines, educational institutions have to obtain a no-objection certificate from the atomic board, which can also monitor the colleges from where they procure the material. They are also directed to maintain proper disposal mechanism for liquid radioactive substance. UGC officials said even the use of X-ray machine will now require AERB approval.

Its eight-point guidelines on procurement and registration include availability of emergency response plans, trained manpower such as Radiological Safety Officer (RSO) and commitment to return spent sources to original supplier.

The guidelines have been divided into administrative mechanism, procurement and usage of radioisotopes, radiation instrument survey/reporting, disposal of radioisotopes and emergency procedures.

The rules state, "In universities and other institutions of higher education and research, the awareness and adherence to regulations seems to be lacking, as has been observed in the recent incident of disposal of Cobalt-60 isotope in a very casual manner causing one death and grave injuries to common people."

The atomic agency has made it mandatory that all radiation-related activities in laboratories have to be carried out by designated radiation staff under the supervision of an RSO, who can be a faculty with experience in radiation field and get designated as RSO by AERB on the recommendation of the institution.

Business Standard, ND 17-Jan-11
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CAT methodology disclosure unclear

VARUN AGGARWAL

It goes to the credit of Indian Institutes of Management (IIMs) to share information about the scientific process of equating their various test forms.

Test forms (or sets of questions) vary from day to day and candidate to candidate-- even on a single day. It is important for the examination body to ensure that either each test form is of the same difficulty level (which is technically impossible) or that the scores of candidates calculated, are equated.

IIMs and Educational Testing Services (ETS) in their latest disclosure have described the science of assessment, which is commonly known and used in design of assessments.

Though the information is a step in the right direction, it is of limited value without disclosure of hard metrics such as reliability values and standard error. These figures, in layman terms, describe how accurately and consistently does the test measure the true ability of a candidate.

In the west, it is mandatory for institutions to publish their test construction and scoring methodology and evidence that they are following fair and unbiased testing practices. In case IIMs have used classical testing theory for CAT, they should publish the reliability of the test. Reliability could be measured in terms of cronbach alpha or similar other metrics. The claim on their website says that they have also used item response theory. In that case, among multiple metrics the standard error is one of the key metrics.

For example, GMAT publishes standard error. "The standard error of difference for the total GMAT score is about 41, so chances are about two out of three of that difference between the total GMAT scores received by two test takers is within 41 points above or below the difference between the test takers' true scores. The standard error of difference for the Verbal score is 3.9, and for the Quantitative score, it is 4.3." Similarly, GRE reports the reliability coefficient and standard error of its Verbal section at 0.91 and 34 respectively. For quantitative section of GRE it drops to 0.89 and 51 respectively. If the standard error is too high, then we can say with little confidence that a candidate having a higher test score actually has a higher ability.

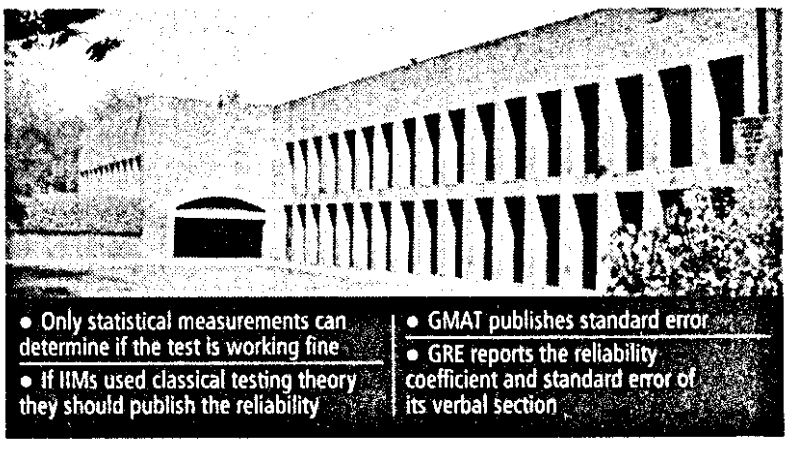
Only these statistical measurements can help determine if the test is really working fine or not. It will determine how accurate the test is. For example how different is the capability of a 96 percentile and a 93 percentile can be determined only based on these parameters.

In case standard error is high, then we cannot say with confidence that 96 scoring candidate is better than the 93 scoring candidate. The standard error is very important for institutions that are using CAT to select candidates as it helps them use the score effectively.

The second metric for assessment quality is its validity. That tells whether even the test parameters used are justified for the purpose of admission. Currently, institutions have been far from talking about it. However, in industry these exercises are done by some high-end corporates on a regular basis.

A science is only as good its implementation. We look forward to the technical results to understand the quality of the implementation.

The author, is co-founder, Aspiring Minds Assessment, an assessment technology company



- Only statistical measurements can determine if the test is working fine
- If IIMs used classical testing theory they should publish the reliability
- GMAT publishes standard error
- GRE reports the reliability coefficient and standard error of its verbal section

Business Standard, ND 17-Jan-11
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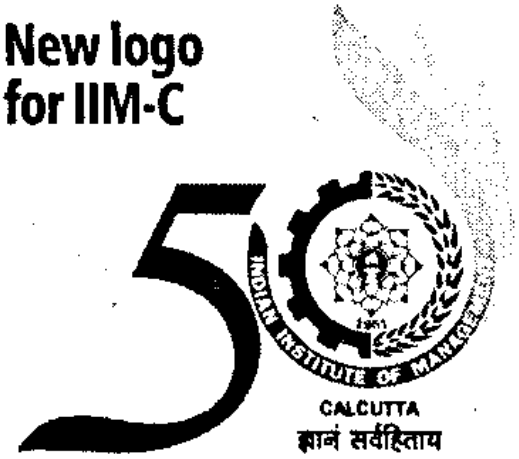
New logo for IIM-C



The oldest Indian Institute of Management— IIM-Calcutta, has gifted itself a new logo as part of its golden jubilee celebrations.

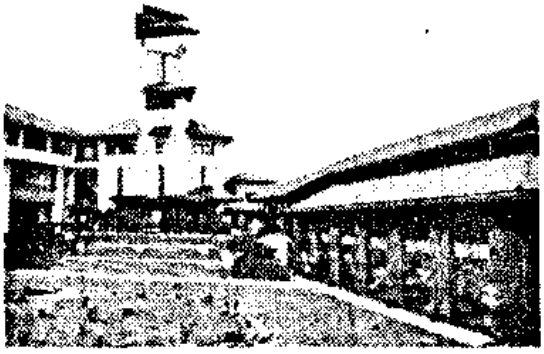
"The new logo signifies progress, education and inclusive growth. While celebrating IIM-C and all that it stands for, the new logo is symbolic also, of the future path that the institute must chart for itself in its quest toward inclusivity", said Saugata Ray, dean, academics, IIM-C.

The logo, with a new motto-'gyana sarva hitaya', means 'Knowledge for the welfare of everybody'.

"We wanted the logo to symbolise not just the excellence of the managers we produce but also the excellence of the IIM culture", Ray explains.

The logo is the first to ensconce colour. There is, also in the logo, a contrast of the black juxtapositioned on the orange, which Ray explains is symbolic of the stimulation of prestige for the institute. Stakeholders including students and teachers were asked to design entries. These would include the themes defining the logo as well. Top five entries were selected and voted upon until the final design was agreed to by all. Final touches to the logo were given by the National Institute of Design. - SWATI GARG

IIM-K harvests rain water



Indian Institute of Management-Kozhikode (IIM-K) has launched rain water harvesting (RWH) on campus. This helps the campus meet its daily water need of 2 lakh litres. "The absence of a sustainable source of water supply, sufficient to meet the requirements of the Institute, led us to adopt the eco-friendly rainwater harvesting initiative as the most viable solution", says IIM-K director Debashish Chatterjee. The process of sustenance at IIM-K has materialized over seven years, and even then there is scope for growth. The institute is in the process of acquiring an additional 15 acres for sustaining campus expansion and water needs. -SWATI GARG

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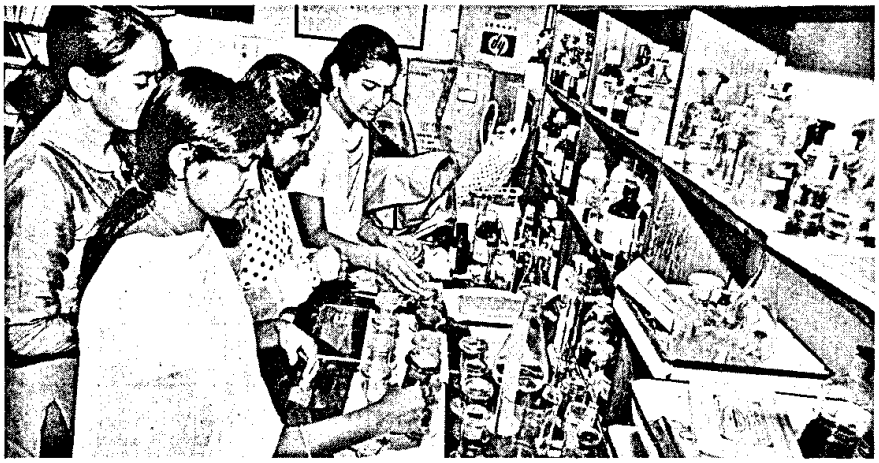
Dismal state of Indian science

ASHOAK UPADHYAY

Pure science and mathematics, once popular departments in universities, have fallen by the wayside, while the IITs foster a narrow skill expansion. The university system, which produced our best scientists, is in terminal decline.



The context in which Indian science can flourish is missing.

In his keynote address to the 20th Science Congress in Chennai early this month, Dr Manmohan Singh exhorted his audience to "think big, think out of the box and think ahead of the times". Once again, the Prime Minister showed his adeptness at handy clichés he has used several times last year to mediate in an increasingly messy political environment; at times righteous ("we will punish the guilty"), at others reassuring ("inflation will fall by December") and at the Science Congress, inspiring.

But in many things that Dr Singh has been saying of late, there is a strange quality to the words, not so much in-authenticity as unreality: Soporific in their effect, and like confetti in durability. All they do is leave a sense of relief at having a Prime Minister who means well.

CHANGED CONTEXT

The idea that scientists should think out of the box and with the future in mind needs a context to acquire meaning: When Pandit Jawaharlal Nehru asked Mr Homi J. Bhabha to plan for India's nuclear energy and Mr P. C. Mahalanobis, a framework for India's economy soon after Independence, he did not have to remind them to think out of the box: He simply gave them the context and more important, the wherewithal to think "ahead of the times".

The context in which Indian science can flourish is missing and the audience listening to the Prime Minister's homily on 'scientific thinking' would have left the gathering in a confused stupor because they were being asked to practice a credo alien to the environment they grew up in (as scientists) and now work within.

What is that environment? In 2006, a working group of the Planning Commission wrote what has long been known: Indian scientists are treated no better than government employees "in service and salary matters". There is no premium on meritorious work: The "present system," it moaned, "tends to put everybody – the outstanding and the mediocre – in the same pay bracket".

DECLINE OF SCIENTIFIC TEMPER

Ironical as it may sound, Pandit Jawaharlal Nehru may have contributed to the decline of science and pure mathematics in post-Independent India, through his concern to build India's technical capabilities and reduce its dependence on Western technology. To this end, in the 10 years to 1964, the five IITs were established; that decade established a template for Indian science increasingly identified by India's new post-Independent generation with engineering and technological skills. Pure science and mathematics, once popular departments in universities, were confined to the ivory towers of specialist centres such as Bangalore's Indian Institute of Science and Mumbai's Tata Institute of Fundamental Research.

The five IITs became the torchbearers of a narrow skill expansion with an increasing emphasis on the production of engineering and from the late eighties, computer specialists.

The universities, such as Allahabad, Calcutta, Benares and Madras that had once been the centres of research in humanities and especially the pure sciences and mathematics declined; they acquired a new identity as degree shops with the premium on the acquisition of a degree rather than the inculcation of knowledge-as-inquiry. State and regional politics mixed with growing aspirations for higher education produced an assembly-line product, more often than not unemployable, as best "techno-clerks."

DECAY OF UNIVERSITIES

The separation of scientific research from the classrooms and laboratories of the university to speciality institutions was a slow but inexorable process. It created its own paradigm that has sunk deep into the policymakers' mind-set as a model for higher education.

The answer to the cry for more science is the creation of new specialist centres; in 2006, three new Indian Institutes of Science Education and Research were proposed in cities that have had a rich tradition of scientific learning and institutions to match. New Delhi's consent (and funds) for more central universities and more IITs is often prompted by regional aspirations for such centres of "excellence". The university has slipped in the public imagination as nothing more than a doorway to a job.

In effect, what the last seven decades have produced is a class-structure of 'intellectual' capital with the university producing the 'proletariat' and the specialist centres, the 'capitalist. In India, public policy since Independence has created the structural basis for the 'class' division by letting the university become what it has. The inequality is not just evident in the outcome of 'knowledge-learning', but in the knowledge environment itself.

THANKLESS DISCIPLINES

Small wonder then that the Planning Commission's Working Group cited above found a distinct reluctance among students and parents for science since it was too demanding, did not carry job prospects and if found, they were "not monetarily rewarding".

The idea that pure science and mathematics are 'thankless' disciplines is India's contribution to the 'dismal' sciences, a category under which only economics seemed to fall. And dismal they will remain till as long as there is no impetus for a return to the early and mid-twentieth century ambience, that created the likes of Meghnad Saha, S. Ramanujam and M. G. Ranade.

At the 2005 Science Congress, Dr Manmohan Singh expressed his concern "that the best minds are not turning to science and those who do, do not remain in science". Both as India's top policymaker and economist-intellectual, he should not wonder why.

Financial Express ND 17-Jan-11 p-1

AICTE mulls single entrance test for all management studies

■ Current entrance exams like Common Admission Test & Management Aptitude Test, conducted by state govts, will be done away with

Kirtika Suneja

New Delhi, Jan 16: Come 2012 and students aspiring for admissions in management institutes approved by the All India Council of Technical Education (AICTE) will be spared from taking multiple exams. For, the council is planning to hold a single entrance exam for all management studies.

This means, current entrance exams like the Common Admission Test (CAT), Management Aptitude Test (MAT) and other entrance exams, conducted by various state governments, will cease to exist. The idea behind the move is to streamline the process and standardise management entrance exams.

At present, there are 3,800 AICTE-approved management institutes that have almost 4 lakh students. Every year, around 60-70 institutes get added to the list.

"Currently, these institutes consider CAT, MAT or exams conducted by state governments but now we are looking at a single exam so that students don't have to take these many exams. Moreover, this will be an enabling mechanism for students to get into AICTE-approved colleges," said SS Mantha, officiating chairman of AICTE.

Almost 1.8 lakh candidates took CAT in 2010 while more than 2 lakh candidates registered for it. On the other hand, 2.5 lakh students wrote MAT in 2010.

ONE FOR ALL

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- At present, there are 3,800 AICTE-approved management institutes with almost 4 lakh students
- A single exam will be an enabling mechanism for students to get into AICTE-approved colleges
- Human resource development min wants admission to all PGDM courses through a common entrance test

In fact, the ministry of human resource development has said that admission to all post-graduate diploma in management (PGDM) courses shall be done through a common entrance test other than minority institutions.

The proposal has faced flak from some associations which feel that it may not exclude the other national level entrance tests such as ATMA (conducted by the Association of Indian Management Schools) or Joint Management Entrance Test or JMET (conducted by Indian Institutes of Technology).

The ministry had also said the admission to PGDM courses will not start before March 31 of the academic year. To this, management associations argue that most of the business schools start the admission process early in the year to avoid clash with the examination schedule or preparation time of BA/BSc/BCom/BTech students.

Experts say there was an anomaly in the proposal as earlier the AICTE norm was that admissions could be through one of the five all-India entrance testes– CAT, JMET, MAT (conducted by All India Management Association), ATMA and XAT (conducted by XLRI). All institutions admitting students on an all-India basis then had to opt for one of these all-India entrance tests.

Financial Express ND 17-Jan-11 p-6

Idiot box? HRD ministry eyes 24x7 education channel

Anubhuti Vishnoi

New Delhi, Jan 16: After a Lok Sabha channel and plans for a Rajya Sabha one, the next government-run television channel may be a 24X7 dedicated school education channel to be called "Gyan Darshan". With the HRD ministry giving its in-principle approval, the National Council for Education Research & Training (NCERT) has been appointed as the nodal agency for the proposed channel.

At present, educational programmes created by the Indira Gandhi National Open University (IGNOU) for Doordarshan are already being run under the head of "Gyan Darshan". The information & broadcasting ministry will soon be approached to make available this dedicated channel on the Direct to Home (DTH) networks.

While the focus will be school education, open learning and adult education segments may also be a part of the programme content. The channel is expected to be highly instrumental in the process of teacher training, which has acquired greater urgency with the Right to Education Act coming into effect last year. The norms outlined by RTE will require massive recruitment of teachers at school level and regular training for them.

Currently, the NCERT has plans to train 50,000 teachers in integrating Information and Communication Technology (ICT) in the teaching-learning process. The 24X7 channel could provide considerable help in achieving this mammoth task.

REMOTE SCHOOLING

- The National Council for Education Research & Training has been appointed as the nodal agency for the proposed channel
- The HRD ministry has given the channel, to be called "Gyan Darshan", in-principle approval
- The I&B ministry will soon be approached to make available this dedicated channel on the Direct to Home networks
- The proposal for the school education channel was first placed before Union HRD Minister Kapil Sibal on Aug 16 last year

The proposal for the school education channel was first placed before Union HRD Minister Kapil Sibal on August 16 last year. It is also on the agenda of the State Education Ministers' meeting scheduled for January 17, to invite collaboration on the project.

Besides the NCERT, the Central Institute of Educational Technology (CIET) and the National Institute of Open Schooling (NIOS) are also working on developing content for the channel.

It has been decided that while the NCERT will be the nodal agency, NIOS will be the collaborating agency. The Electronic Media Production Centre at IGNOU will be responsible for uplinking programmes received from CIET, NCERT and through its Earth station.

Many other agencies like the Films Division, Doordarshan, Vigyan Prasar, SIETs (State Institutes of Educational Technology), Adult Literacy Department and State SSA departments will also be invited to collaborate in content development.

The CIET and NIOS have proposed an estimated expenditure of Rs 6.3 crore and non-recurring expenditure of about Rs 86 lakh for making the channel operational.

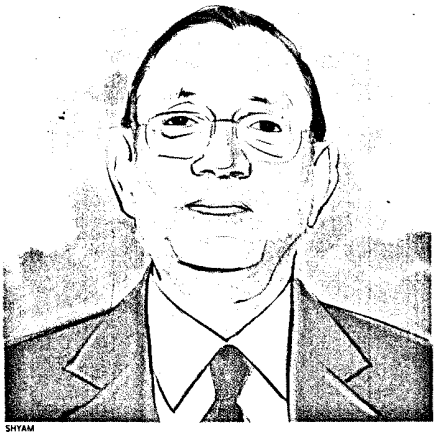
Financial Express ND 17-Jan-11 p-11

INTERVIEW: BN JAIN

VICE-CHANCELLOR, BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE, PILANI

'We aim to match Ivy League standards by 2020'

"At BITS, when we teach entrepreneurship to students, the focus is not so much on wealth creation but more on employment generation," says **Professor BN Jain**, *the vice-chancellor of BITS Pilani, while talking about entrepreneurship and social development an educational institute should focus on. One of the finest private universities in the country, BITS is now aiming to raise its standard to match an Ivy League institute by 2020. Difficult? Well, may be not if you plan and implement seriously. In an interaction with* **FE's Vikram Chaudhary**, *Prof Jain discussed these aspects and more about the institute. Excerpts:*



SHYAM

What are these strategies (Mission 2012 and Vision 2020) to raise the institute's excellence to the next level and what is the meaning of next level? Is it the global standards or the standards of the IITs?

BITS has been recognised as the number one private technical university in the country. But in the changing world scenario, BITS needed to further develop a well defined strategy to realise its dream of being one of the leading universities in the world. The next level, to us, means that we intent to be among the top 3 in the country in the normal evaluation process over the next three years; we plan to get into the top 20 in Asia in the next 10 years; and we plan to get into the top 100 in the world in, say, the next 20-30 years. But here I must add that we don't intend to use hierarchy as the benchmark, but global standards as the benchmark.

You were doing well anyway, so how did these plans come about?

Well, just to go a little into the past, when the BITS's new chancellor, Kumar Mangalam Birla, took over the mantle from his grand uncle KK Birla towards end-2008, as a part of his own vision, the need was felt to take BITS global. And through an intense collaborative process, involving faculty, students, and (non-teaching) staff from all four campuses, a shape was given to a set of clearly articulated goals around six key domains: faculty development, curriculum development and pedagogy, research, infrastructure and facilities, governance and administration, and quality of life. This later became BITS's strategic plan and Mission 2012 and Vision 2020 were born.

But, as is with every plan, implementation was the key. So a formal structure was created to implement the goals. The chancellor and vice-chancellor took the role of project sponsors; the campus directors, deputy directors and the advisor to the chancellor constituted the steering team; a project office to track, review and support the project was constituted; and task forces, each with faculty from each of the four campuses, were formed.

THE FACT THAT PILANI IS LOCATED IN A RURAL AREA OFFERS A UNIQUE CHALLENGE. CREATING START-UPS IN NOIDA OR NAVI MUMBAI IS ONE THING, WHILE CREATING START-UPS THAT PROVIDE FOR SOME KIND EMPLOYMENT FOR PEOPLE IN RURAL AREAS IS ANOTHER

So it is actually being implemented?

Implementation is well under way with some path breaking wins. Just a few of the more high-impact initiatives under implementation are: a comprehensive faculty development programme (a new performance management process that will be comparable with some of the best universities in the world); over 30 programmes offered by BITS at all its campuses have been benchmarked, each with three of the best global universities in the programme; modernisation of the Pilani campus is under review and a master plan will be prepared in 2011; a comprehensive enterprise resource planning system, covering the entire student lifecycle is under implementation; to name a few.

And what is your investment in the initiative?

As we recently announced in the BITS Global Meet at Gurgaon, we will invest Rs100 crore primarily for four initiatives, namely 1) chairing professorships, 2) undergraduate freeships, 3) towards improvement of 'life on campus' for students, including sports facilities, and 4) signature building at Pilani to house research labs and centres for excellence.

How is BITS emphasising on the need for research, entrepreneurship and social development?

Our faculty is engaged in PhD-driven research, which is funded in large parts by government agencies whose mandate is to fund research. And our PhD programmes are significantly supported by these research centres that we have established.

As far as entrepreneurship is concerned, we take steps to sensitise the graduate classes that entrepreneurship is an option that they should consider at the time when they look for placement. Also, we have a centre whose focus is entrepreneurship development and they also support the launch of, what you might call, start-ups, but by way of funds by way of knowledge and expertise required to start a company. And they also support to work with young entrepreneurs to find some financial resources from outside BITS. The fact that Pilani is located in a rural area offers a challenge of a different kind. Because creating start-ups in Noida or Navi Mumbai is one thing, and creating start-ups that provide for some kind of gainful employment for people in these rural areas is another. There is a BPO that operates out of the town of Pilani and it has some 50-odd people. But then you may say that BPOs are dime a dozen, but then how many BPOs operate out a rural area such as Pilani. So the focus is not so much on wealth creation but more on employment generation. And this is just one example of people in rural areas involved with such start-ups.

Financial Express ND 17-Jan-11 p-12

Doctor – anytime, anywhere

Healthcare providers are increasingly making use of teleradiology, which includes interpretation of patient images such as X-rays, CTs and MRIs by trained radiologists to improve their operational efficiency

BV Mahalakshmi

HEALTHCARE providers face many challenges in the delivery of medical services in India, particularly to suburban and rural areas. Teleradiology—the transmission of radiological patient images, such as X-rays, CTs and MRIs, from one location to another for the purposes of interpretation and consultation—promises to improve patient care by allowing radiologists to provide services without actually having to be at the location of the patient. Companies such as GE, Cisco, Teleradiology and many more smaller companies are increasing their focus towards low-cost models for better imaging techniques. Imaging procedures are growing approximately 15% annually against an increase of only 2% in the radiologist population. This opens a major opportunity for the teleradiology service providers in the domestic market.

Teleradiology Solutions CEO Arjun Kalyanpur says, "With the rising healthcare costs, the demand for newer technologies is increasing in emerging markets. Technological advances and the pressure to lower healthcare costs have encouraged the healthcare services providers to outsource the diagnosis of radiology images to the developing and low-cost countries. Healthcare organisations are looking to make use of teleradiology to improve their operational efficiency." Teleradiology Solutions is a unique company working night shifts, covering over 100 US hospitals and other parts of the world from Bangalore providing diagnostic reports to over three million patients, using teleradiology.

Teleradiology improves patient care by allowing radiologists to provide services without actually having to be at the location of the patient. This is particularly important when a paramedic such as a MRI radiologist, neuroradiologist, pediatric radiologist, or musculoskeletal radiologist is needed. Since these professionals are generally only located in large metropolitan areas working during day time hours, teleradiology allows for trained specialists to be available round the clock.

Teleradiology utilises standard network technologies such as the internet, telephone lines, wide area network (WAN), or over a local area network (LAN). Specialised software is used to transmit the images and enable the radiologist to effectively analyse what can be hundreds of images for a given study.

Infiniti Research, a London-based research and consulting firm, says that the global market for teleradiology was around $6 billion in 2008, and is expected to grow at double digit rates in the next five years.

An increasing number of patients and healthcare providers are requesting for radiology images and reports to be examined and prepared by radiologists with expertise in sub-specialties, thus, driving the need for teleradiology. However, the concept of teleradiology is yet to evolve in the Indian market though it has the potential. "India can become a hub for radiology services. The growth drivers for this segment include the geographical positioning of the country, strong R&D and the abundance of medical graduates who can be channeled into the field of radiology," Kalyanpur points out.

Healthcare analysts inform that the shortage of medical experts as well as advances in telecommunication is fueling the demand for teleradiology. Going by the number of private hospitals and diagnostic centres coming up across the country, the unprecedented number of scanners and X-ray machines being sold and the large number of people going for preventive health checks, the shortage of radiologists has started showing up. That is the reason for the teleradiology fast picking up in some cities.

The market for teleradiology evolved sensing the need for night shift services, especially emergency services which needed overnight reporting in the US market. While daytime reporting was more towards niche areas, night shift reporting became very essential. In emerging markets such as India, till last year, connectivity and broadband were major constraints. These issues can be overlooked now with more players in the market, but the awareness with the government bodies is yet to be established in its full form. "Teleradiology can play a vital role with the health department to take mass health programmes to the rural areas in government hospitals. There are less than 10,000 radiologists in the country and there is a huge demand for manpower in this sector," Kalyanpur says.

Teleradiology utilises standard network technologies besides advanced graphics processing, voice recognition, and image compression. It is also used in clinical trials as well. In fact, Biocon has entered into an agreement with Teleradiology Solutions to provide teleradiology reporting services to Clinigene, Biocon's clinical research arm. The agreement is to shorten the development cycles by using its clinical trials radiology reporting service. Delays in the drug development cycle can be an issue of concern for pharmaceutical and biotechnology firms involved in drug development. These are related in part to delays in reporting of radiologic scans performed to confirm that the patient has responded positively to the drug being evaluated in the clinical trial.

Aravind Sitaraman, president (inclusive growth), Cisco Systems, says that while the government has ambitious plans for healthcare in rural areas, the lack of locally available doctors is severely affecting rural healthcare and even basic health services are difficult to get. He explains the success of using technology to bridge this gap for five villages in Raichur district in Karnataka as part of Cisco's project Samudaya.

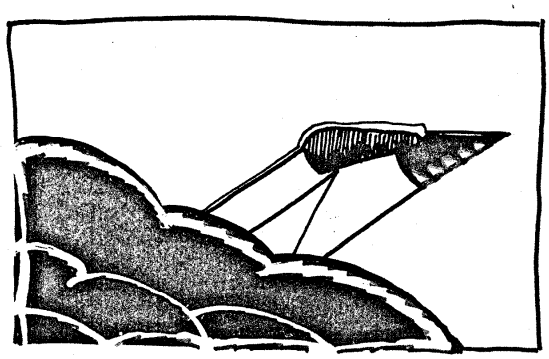
Doctors from big hospitals in cities were able to offer healthcare services to rural areas. This model is already operational in Raichur district since August 2010. This technology opens follow-up specialist care something that has been denied for decades. Specialists in the fields of gynaecology, pediatrics, orthopaedics, attend to patients over 500 km away and help improve the health parameters.

Indian Express ND 17/01/2011 p-11

A beam of light

The induction of Tejas is a grand strategic step forward, but there are enough lessons to be learnt from its long, 27-year journey

ARUN PRAKASH



UNNI RAJEN SHANKER

THE FORMAL induction of the light combat aircraft (LCA) Tejas into the Indian Air Force on January 10 is not just a historic landmark for our aerospace industry, but also a significant step forward in India's quest for the status of a great power. Not more than a handful of countries can claim the ability and competence to successfully bring a project of such complexity to fruition. It would therefore be churlish not to acknowledge the achievement of our aircraft designers, scientists, production engineers and the flight-test team for having delivered — albeit belatedly — a state-of-the art combat aircraft to the IAF.

With the accord of initial operational clearance (IOC), the Tejas is, today, at the same stage where India's first nuclear submarine, Arihant, was, on its launch, last year. Both these strategic and prestigious platforms are on the threshold of entering service, but with a fairly arduous road to traverse before attaining fully operational status.

The LCA project attracted maximum criticism because of the time it took and the cost overruns it had. Obviously, the DRDO over-estimated its own competence. This led to the ambitious claim that they had the capability to develop, in-house, not just the airframe and engine, but also the radar as well as a complex fly-by-wire (FBW) flight control system required for an "agile" (or aerodynamically unstable) fighter. This blunder was compounded by trotting out hopelessly optimistic cost and time estimates, on the incorrect premise that since India had earlier designed and built the HF-24 Marut, we possessed the design skills and manufacturing expertise.

The Marut, putatively India's first indigenous fighter aircraft, was, in fact, designed by a contracted German team led by Kurt Tank, designer of the famed World War II fighter, Focke-Wulf FW 190. Inducted into the IAF in 1965, the Marut was only a qualified success, since its advanced airframe was a mismatch to the under-powered Orpheus engine. The assumption that the advanced LCA would benefit from the expertise acquired from the 30-year-old Marut project was, therefore, largely fallacious.

The second contributory cause was the decision of the DRDO, typically, to pursue this strategic project without ensuring adequate involvement of the end users: the armed forces. The IAF, understandably, more concerned with extant problems of meeting its operational roles and missions took a detached view of the LCA and remained focused on looking abroad for its needs. This, arguably, deprived the project of impetus, moral support and funding.

The last and most crippling impediment for the project was posed by the denial of crucial technologies by the West. Post-liberalisation advice and consultancy in certain key areas of the LCA design, notably the FBW system, was obtained from aerospace firms in the US and Britain. Unfortunately, the sanctions imposed after Pokhran II brought this crucial cooperation to an abrupt halt. This is where our scientists showed their true mettle and went on to develop and qualify the incredibly complex flight control algorithms, almost entirely on their own.

Apart from this, the electro-hydraulic actuators for the controls, the pumps, motors, instruments and many of the major systems have all been developed by scientists working in dozens of DRDO laboratories, and produced by industrial units across the country. The seeds of an aerospace ancillary industry have been planted, and will, hopefully, be nurtured by a long production run of the Tejas.

For all its good work and achievements, there remain two critical areas in which the DRDO has sadly disappointed the nation, and contributed to delays in the LCA project. One is, of course, its failure to deliver the fighter's primary sensor; a multi-mode radar, which, eventually, had to be imported. The other is the long-awaited Kaveri aero-engine, which has remained, for 40 years, in limbo, nowhere close to attaining its promised performance parameters and yet, inexplicably, being kept alive to justify the existence of its parent R&D establishment. Having missed all deadlines and targets, the DRDO has now sought foreign collaboration to assist in its development. The US-origin F-414 engine now contracted for the Tejas barely meets its thrust requirements, and the heavier LCA Navy will need an even more powerful engine for carrier operations. It can only be hoped that the Kaveri will eventually emerge in time for Tejas Mark II.

Twenty-seven years and Rs 17,000 crore down the line, the LCA experience has generated a number of important lessons for India. Firstly, DRDO should not be permitted to undertake any major project whose staff targets have not originated from the Defence Acquisition Council or Chiefs of Staff Committee. Once the project is approved, the sponsoring service must associate intimately with the DRDO to refine the staff requirements, and contribute uniformed personnel as well as funding during development. It is, perhaps, time for the IAF to create an establishment along the lines of the navy's Directorate of Naval Design to conceptualise future aircraft.

With globalisation, the quest for attaining autarchy in every aspect of technology has become a counter-productive activity. A conscious and early decision must be taken in every project regarding the technologies we need to develop in-country and those that we can acquire from abroad. Developmental projects undertaken by the DRDO should have fairly rigid time-frames, after which they should become candidates for review and abortion. The DRDO practice of in-house "peer reviews" of projects by scientists must be replaced by hard-nosed audits and progress-checks by independent experts, as well as end users.

Six decades after independence, 80-90 per cent of our military hardware remains of foreign origin, and India has the dubious distinction of being among the top arms importers in the world. The comprehensive capability to design and undertake serial production of major weapon systems and ordnance is an imperative that has, so far, eluded us. Our claims to big-power status will ring hollow as long as we remain dependent on imports for major weapon systems.

For all the scorn and criticism that we often (justly) heap on the DRDO and our PSUs, the fact remains that, properly restructured and synergised with India's innovative private sector, both these national institutions have the capability to rescue India from the unending arms-dependency trap. First Arihant and now Tejas have provided tangible proof of this.

The writer, a former Chief of the Naval Staff, is currently chairman of the National Maritime Foundation

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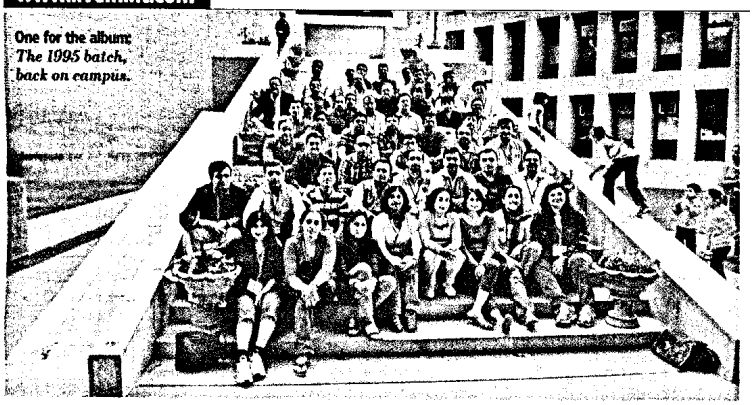

One for the album: *The 1995 batch, back on campus.*

A New Year that ignited memories

For the IIM-A batch of 1995, a 15th year reunion was full of surprises, quizzes, Bollywood numbers, and something familiar—CEOs responding to dorm names

By Vandana Vasudevan

The first surprise was the knowledge that there were two campuses. The cab dropped us at the new campus which had come up in 2003, eight years after our convocation. The concrete here was a bit disorienting, because campus for us could only have meant the old one, bearing the signature architecture of IIM Ahmedabad—ramparts of bare bricks strewn with arches and circles through which shafts of light catch you at odd turns as you walk past the dorms. The second surprise was how naturally batchmates who hadn't exchanged a word with each other in more than a decade, and those who had barely spoken even on campus, fell into the sort of raucous banter and teasing that can only come with those who shared a slice of your youth.

Fifty-five alumni turned up from all corners of the world for the 15th year reunion of the IIM-A batch of 1995—some came with spouses and kids, taking the number to 105—to spend the New Year weekend in the place that had given them a vital part of their identity. Rahul Phondke, who heads MSG Global Solutions (Asia) in Singapore and conceived this plan, says he persisted despite a frustrating lack of response initially because of pride and a passion to keep the batch connected. "Doing this was a labour of love for me," he says.

A core group of organizers hired an event management company to gently direct us to some sort of structure over the two days. Photos of our time at the institute were plastered on a "Memory Lane" wall and provided for hilarious "then" and "now" comparisons. A bunch of us went on a campus tour, stopping at all the key landmarks. Past the Harvard steps and up the Stanford ramp to the landing which was a favourite party venue. Someone recalled lying there in Bacchanalian stupor on one occasion. Another pointed to where the ICP—Ice Cream Parlour—used to be. A "campus couple" showed their kids their erstwhile rooms. A lot had changed.

Dorm 11 was now a boys dorm. Brick walls in the rooms had been plastered white. There were intercoms and air conditioners in every room and easy access to the Internet—all improvements since our days, done to cater to 21st century students. We ambled along on the leafy path past Dorms 5 , 6 and 7 to the porch outside Dorm 3, recalling "dunking" incidents and Wet DJ nights. It was a walk thick with memories, some grainy and others too layered to unravel.

In the introduction session post lunch, each of us thought hard about the single most interesting thing we had done in the intervening years. Someone had developed a six-pack, a few had run marathons, many had opened and shut companies. The phrase "got bored and quit" emerged with amazing frequency. The odd quests for the meaning of life were the only stray evidence of our impending middle age.

An informal interaction with some faculty members of our times followed. The last day of the year was also the last working day for professor Abhinandan Jain, the legendary marketing stalwart, and professor S. Manikutty of strategy formulation and implementation.

Their address to us displayed their characteristic wry humour and humility. Prof. Madhavan was there too, his frail figure and wide smile belying the terror that his Quanti 3 course causes among students.

All academic pretensions were, however, rapidly abandoned as the evening's New Year party drew near and none of the corporate luminaries had anything on their minds other than a certain Sheela and Munni. The presence of several mood-altering substances, such as *jalebis*, unshackled aspects of our personalities that had perhaps become dormant. Limbs loosened and hips swayed on the dance floor, stirring up even the most reticent among us. Tongues loosened too and the incorrigible among us teased and gossiped about old flames and whether any were still flickering.

In an unabashedly sentimental reliving of the past, we welcomed the morning of 1 January by eating breakfast in the students mess. At noon, there was an inter-dorm quiz set by our batchmate and veteran quizmaster, Rajiv Rai, whose day job is with Deutsche Bank, Mumbai. The excesses of the previous night had not exactly left us in a quizzing state of mind, but Rajiv's sharp questions shook us into wakefulness. We marvelled at the fact that a matinee idol shares his name with the son of Timur the Lame, who was so fond of chess that he chose the name Shah Rukh, the Persian term for "castling" in chess. Soon, with characteristic competitiveness, people were thumping their tables for knowing that Sidewinder is both a rattlesnake and a missile and nearly choking a teammate for passing an easy question.

The bonfire at the Louis Kahn Plaza on the night of 1 January was an evening that will turn into a memory and nestle itself into a warm corner of our hearts for the rest of our lives. Wistful Kishore Kumar songs wafted across the nippy night as we sat together on the lawns, surrounded by the places where we had learnt, loved, laughed and lived so many years ago.

And then it ended on Sunday. Like a beautiful morning dream that is rudely broken. Where else but in an alternate reality would vice-presidents and CXOs respond to dorm names such as Tamatar, Kaddu, Kela and even Chaddhi most naturally, as though that's what they've been called all these years in meetings and conferences. Someone suggested a 25th year reunion and was quickly shot down. That was too far. We can just about wait for five more years.

Vandana Vasudevan writes the fortnightly column, Tough Customer, in Mint. *She is a graduate from the Indian Institute of Management, Ahmedabad, and currently works with* HT Media Ltd.

Write to us at businessoflife@livemint.com

Indian Express ND 17/01/2011 p-1

Coming soon: Gyan Darshan, a 24X7 school education channel

NCERT to be nodal agency; CIET, NIOS to collaborate on content

ANUBHUTI VISHNOI
NEW DELHI, JANUARY 16

AFTER a Lok Sabha channel and plans for a Rajya Sabha one, the next government-run television channel may be a 24X7 dedicated school education channel to be called "Gyan Darshan". With the HRD Ministry giving its in-principle approval, the National Council for Education Research & Training (NCERT) has been appointed as the nodal agency for the proposed channel.

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Currently, the NCERT has plans to train 50,000 teachers in integrating Information and Communication Technology (ICT) in the teaching-learning process. The 24X7 channel could provide considerable help in achieving this mammoth task.

The proposal for the school education channel was first placed before Union HRD Minister Kapil Sibal on August 16 last year. It is also on the agenda of the State Education Ministers' meeting scheduled for January 17, to invite collaboration on the project.

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Soon a 24X7 education channel

Besides the NCERT, the Central Institute of Educational Technology (CIET) and the National Institute of Open Schooling (NIOS) are also working on developing content for the channel.

It has been decided that while the NCERT will be the nodal agency, NIOS will be the collaborating agency. The Electronic Media Production Centre at IGNOU will be responsible for uplinking programmes received from CIET, NCERT and through its Earth station.

Many other agencies like the Films Division, Doordarshan, Vigyan Prasar, SIETs (State Institutes of Educational Technology), Adult Literacy Department and State SSA departments will also be invited to collaborate in content development.

The CIET and NIOS have proposed an estimated expenditure of Rs 6.3 crore and non-recurring expenditure of about Rs 86 lakh for making the channel operational.

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आईआईटी हो सकती है महंगी

विशेष संवाददाता

नई दिल्ली

भारतीय प्रौद्योगिकी संस्थानों (आईआईटी) में भविष्य में पढ़ाई महंगी हो सकती है। इन्हें आईआईएम की तर्ज पर आर्थिक रूप से आत्मनिर्भर बनाने की दिशा में हो रहे प्रयासों के तहत इनमें फीस बढ़ाए जाने के आसार हैं। परमाणु ऊर्जा आयोग के पूर्व अध्यक्ष डॉ. अनिल काकोडकर की अध्यक्षता वाली विशेषज्ञ समिति ने इन संस्थानों को आर्थिक रूप से आत्मनिर्भर बनाने के लिए कई और उपायों के साथ-साथ फीस बढ़ाने का विकल्प भी दिया है।

समिति द्वारा संस्थानों के लिए तैयार किए गए विजन पर मानव संसाधन विकास मंत्रालय ने 21 जनवरी को आईआईटी काउंसिल की बैठक बुलाई है। मंत्रालय के सूत्रों के अनुसार इस बैठक का मुख्य एजेंडा है कि कैसे आईआईटी अपने लिए आर्थिक संसाधन जुटाएं। इस दिशा में काकोडकर समिति की सिफारिशों पर चर्चा की जाएगी।

सूत्रों के मुताबिक इन सिफारिशों में कई सुझाव हैं। धन जुटाने के लिए आईआईटी उद्योग जगत के साथ मिलकर कार्य करें। पूर्व छात्रों से चंदा हासिल करें तथा फीस में तर्कसंगत इजाफा करें। दरअसल, आईआईटी में अभी सालाना फीस करीब 50 हजार रुपये है। एक दशक से इसमें कोई बदलाव नहीं किया गया है। समिति का तर्क है कि जब आर्थिक रूप से कमजोर छात्रों के लिए सरकार ने सब्सिडीयुक्त शिक्षा ऋण का प्रावधान किया है तो इसमें थोड़ी बढ़ोतरी की जा सकती है।

कवायद

- आईआईटी काउंसिल में 21 जनवरी को होगी फीस वृद्धि पर चर्चा
- प्रवेश परीक्षा में बदलाव को लेकर भी हो सकता है अहम फैसला

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आईआईटी से भी महंगा नर्सरी दाखिला

संवाददाता

नई दिल्ली । दिल्ली-एनसीआर में स्कूलों में नर्सरी की फीस वर्तमान में आईआईटी से भी अधिक है। दाखिले में एक बड़ी राशि के तनाव के लिए भी अभिभावकों को तैयार रहना है। नर्सरी में दाखिलों के लिए अभिभावक एड़ी चोटी का जोर लगा रहे हैं। वहीं तमाम औपचारिकताओं को पूरा करने के बाद भी दाखिले की गारंटी नहीं है। निदेशालय ने चुप्पी साधी हुई है।

राजधानी में चल रहे नर्सरी स्कूल दाखिलों की कुछ सीटों के लिए हजारों अभिभावक जुटे हुए हैं। बच्चों के दाखिलों के लिए अभिभावकों को आईआईटी की वार्षिक फीस से भी अधिक पैसे भरने पड़ेंगे। अगर आईआईटी की फीस राशि को देखा जाए तो वह 50 हजार रुपए प्रति वर्ष आएगी। इसके साथ ही छात्रों को अलग-अलग खर्चों के लिए सालाना 20000 रुपए देने पड़ते हैं।

वहीं जब दिल्ली एनसीआर में नर्सरी स्कूल दाखिलों की बात होती है तो अभिभावकों को कम से कम 75 हजार रुपए से अधिकद जेब ढीली करनी पड़ती है। प्रिसीडियम स्कूल का एडमिशन फीस एक लाख रुपए है, जीडी गोयंका स्कूल की कुल फीस 80 हजार रुपए है, अभिभावकों को मासिक फीस 11 हजार रुपए भरना पड़ेगा। रोहिणी के लांसर पब्लिक स्कूल का एडमिशन फीस

- 75 हजार तक वसूले जा रहे हैं
- निदेशालय ने चुप्पी साध रखी है

भी 75 हजार रुपए हैं। वो भी कठिन दाखिला प्रक्रिया और इंटरव्यू के बाद। ले देकर निजी स्कूल अभिभावकों से एक लाख रुपए वसूल लेती है।

दूसरी ओर शिक्षा मंत्री अरविंदर सिंह लवली कहते हैं कि नियमों का उल्लंघन उनके संज्ञान में है। विभाग अभिभावकों की शिकायत के बाद ही कार्रवाई कर सकता है। अगर लिखित शिकायत और स्कूल की पर्ची लेकर पहुंचता है तो कार्रवाई होगी। नर्सरी एडमिशन की जानकारी देने वाली वेबसाइट के वेबमास्टर सुमित वोहरा कहते हैं कि दिल्ली-एनसीआर में दाखिलों के लिए औसतन फीस 75000 रुपए है। आईआईटी में इससे कम फीस सालाना लगती है।

निजी स्कूल बेहतर शिक्षा, बेहतर सुविधा, बच्चों की देखरेख की दलील देते हैं। उन्होंने कहा कि सबकुछ सामने होते हुए भी शिक्षा निदेशालय चुप है। सोशल ज्यूरिस्ट अशोक अग्रवाल कहना है कि स्कूलों पर लगाम कसने की जरूरत है। स्कूल बिना सलाह लिए मन मुताबिक फीस बढ़ाते हैं। निजी स्कूलों में फीसवृद्धि का मामला विचाराधीन है।