

Newspaper Clips

March 23, 2011

Dainik Bhaskar ND 23/03/2011 P-7

आईआईटी में कब बदलेगी अनुसंधान की तस्वीर

प्रदीप कुमार

लेखक प्रकट है।

आ आईआईटी की गिनती देश के सर्वोच्च शिक्षण संस्थानों में होती है। सरकार ने आईआईटी सेंटर्स की संख्या भी 5 से 15 कर दी है, लेकिन बतौर शिक्षण संस्थान इसकी विश्वसनीयता अब भी कायम है। लेकिन एक मुद्दे पर इसे कुछ आलोचनाएं भी झेलनी पड़ रही हैं, वह है विज्ञान विषयक अनुसंधान में कमी।

बीते एक दशक के दौरान किसी भी आईआईटी केंद्र से कोई महत्वपूर्ण पेटेंट वाले खोज का मामला सामने नहीं आया है। पिछले दिनों देश के उपराष्ट्रपति हमिद अंसारी ने भी चिंता जताते हुए कहा था कि यहां के छात्र संस्थान की ख्याति के अनुरूप काम नहीं कर पा रहे हैं, यहां मौलिक अनुसंधान की कमी देखने को मिल रही है।

अब इस समस्या को लेकर आईआईटी सेंटर्स में भी बेचैनी देखने को मिली है। आईआईटी मद्रास ने अपने यहां रिसर्च पार्क बनाया है तो आईआईटी मुंबई ने भी अपने यहां शोध को बढ़ावा देने की योजना बनाई है। लेकिन इन सबसे बढ़कर, सबसे अहम बात यह है कि सभी आईआईटी सेंटर्स

आम घरों में बच्चों को रिसर्चर बनाने पर जोर नहीं दिया जाता और ना ही शिक्षक बनाने पर। कोई नहीं चाहता है कि उसके घर के युवा बीटेक की डिग्री हासिल करने के बाद लंबे समय तक पढ़ाई करें।

ने आपस में मिलकर अनुसंधान को बढ़ावा देने के लिए एक विशेष कोष बनाए जाने की मांग केंद्र सरकार से की है। इस संदर्भ में आईआईटी कानपुर के निदेशक एस जी धाडे की अध्यक्षता वाली समिति ने मानव संसाधन विकास मंत्रालय के पास एक प्रस्ताव रखा है। इस प्रस्ताव के मुताबिक आईआईटी में तकनीकी स्टाफों को नियुक्त होगा, जो अनुसंधान करने वाले छात्रों का मार्गदर्शन करेंगे।

मौजूदा समय में आईआईटी में ज्यादातर अनुसंधान प्रायोजित कार्यक्रम का हिस्सा होते हैं, जिसे बायोटेक्नोलॉजी विभाग, एयरोनॉटिक्स रिसर्च एंड डेवलपमेंट बोर्ड और कार्गिल ऑफ साइंटिफिक एंड इंडस्ट्रियल रिसर्च और बोर्ड ऑफ रिसर्च इन न्यूक्लियर साइंस जैसे अनुसंधान विभाग प्रायोजित करते हैं।

इस समिति ने पाया है कि ऐसे प्रायोजित अनुसंधानों की सबसे बड़ी मुश्किल यह है कि ये लंबे समय तक के लिए प्रायोजित नहीं किए जाते हैं। ये ज्यादा से ज्यादा पांच साल

तक के होते हैं। ऐसे में अनुसंधान करने वाले छात्रों को अपने भविष्य के प्रति अनिश्चितता का भाव सताने लगता है।

इस कमेटी का मानना है कि आईआईटी में अनुसंधान कार्य को तभी बढ़ावा दिया जा सकता है, जब आईआईटी सिस्टम में अनुसंधान को फंडिंग की कोई ठोस व्यवस्था हो जाए। हकीकत यही है कि मौजूदा समय में आईआईटी को अलग से अनुसंधान के लिए पैसा नहीं मिलता है। सेंटर अपने बजट से ही अनुसंधान के लिए पैसे निकालता है जो अमूमन पर्याप्त नहीं होता है।

इसीलिए कमेटी ने अलग से रिसर्च फैकल्टी के गठन का सुझाव भी रखा है। अब मानव संसाधन मंत्रालय इस प्रस्ताव पर विचार कर रहा है, लेकिन अहम सवाल यही है कि क्या इस कदम से हालात एकदम से सुधर जाएंगे। इस पर विचार करने से पहले कुछ और तथ्यों को देखना होगा। आईआईटी के तमाम केंद्रों में 40 प्रतिशत से ज्यादा

शिक्षकों के पद खाली हैं।

आईआईटी में नौ छात्रों पर एक शिक्षक का जो मानक आजादी के बाद के सालों में बनाया गया था, वो कायम नहीं रह पाया है। विदेशी फैकल्टी की स्थायी नियुक्ति को भी सरकार ने मंजूर नहीं किया है। एक ओर शिक्षक कम हैं तो दूसरी ओर आईआईटी में पढ़ने वाले छात्रों में दस फीसदी भी उच्च तकनीकी शिक्षा क्षेत्र में जाना नहीं चाहते। बाजार में उतरने के लिए बीटेक की डिग्री काफी होती है, लिहाजा ज्यादातर छात्र बीटेक के बाद मस्टीनेशनल कंपनियों में चले जाते हैं। जबकि रिसर्च करने के लिए उन्हें लंबे समय तक पढ़ना होता है और उच्च शिक्षा के बाद अवसर भी सीमित होते जाते हैं।

दरअसल इस समस्या की असली वजह हमारा सामाजिक नजरिया है, आम घरों में बच्चों को रिसर्चर बनाने पर जोर नहीं दिया जाता और ना ही शिक्षक बनाने पर। कोई नहीं चाहता है कि उसके घर के युवा बीटेक की डिग्री हासिल करने के बाद लंबे समय तक पढ़ाई करें। साफ है कि सुविधाओं को बेहतर करने के साथ-साथ सामाजिक नजरिए में बदलाव से ही आईआईटी में अनुसंधान की तस्वीर चमकदार होगी।

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COMMON DATABASE

Cabinet approves education repository, increase in DA

BY PRASHANT K. NANDA
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NEW DELHI

The Union cabinet on Tuesday approved a proposal to create a repository of academic qualifications to enable school boards onward to go digital, curb forgery and allow companies to verify the education credentials of prospective employees.

The cabinet also approved an increase in dearness allowance (DA) by 6 percentage points to 51% of the basic salary, under a formula prescribed by the Sixth Pay Commission for Central government employees. At least five million such employees and 3.8 million pensioners are expected to benefit from the move—seen as a bid to provide relief from a relentless inflation.

“The decision to hike DA was taken by the Union cabinet at its meeting here,” PTI reported citing an anonymous minister.

The impact of the hike in DA on the exchequer will be ₹5,715.9 crore a year, said the news agency. But in the 2011-12 financial year, the burden would be ₹6,668.52 crore, factoring in an additional DA payout from 1 January to 31 March.

As for the education repository, the cabinet approval will now allow the human resource development (HRD) ministry to move the National Academic Depository Bill, 2011 in Parliament.

The database will be established in an electronic format in collaboration with established repositories such as the Central Depository Services (India) Ltd and the National Securities Depository Ltd, said HRD ministry officials, requesting anonymity.

All school boards, including Union government-controlled Central Board of Secondary Education (CBSE), all universities and premium schools such as the Indian Institutes of Technology and the Indian Institutes of Management will be linked to the depository.

At least 1.7 million students appear every year for class 10 and 12 examinations under CBSE and a few more millions under state school boards. At least three million students annually graduate from universities, according to data available with the Central government.

“Fake degrees and certificates is a concern. Any effort to provide authentic, real-time data in electronic format will prove to be a boon for employers,” said Nipa Modi, chief executive of CRP HR Services, a Mumbai-based background screening firm. In sectors such as information technology and business process outsourcing, the number of malpractices related to credentials, including academic qualifications, is in the range of 25%, said Modi.

“I think it should have been done earlier. Nevertheless, this will help in curbing forgery,” said Debasish Das, global head of human resources at Spanco BPO Ventures Ltd.

Data from the repository can be used even when a student applies for higher education. The HRD ministry has asked CBSE to start a pilot on this; the country’s top education regulator, the University Grants Commission, earlier in March provided e-certificates to candidates who qualified the National Eligibility Test to be hired as a college teacher.

The cabinet has also approved an amendment in the National Council of Teachers Education Act to align it with the Right to Education Act. It approved an amendment aimed at including the five Indian Institutes of Science Education and Research and the 10 new National Institutes of Technology (NIT) within the ambit of the NIT Act, to empower them to award degrees.

The cabinet also cleared the Bureau of Indian Standards (Amendment) Bill, 2011, paving the way for mandatory hallmarking of more products including gold. At present, 77 items including cement and mineral water are certified with mandatory hallmarking under the Act to conform to defined quality levels of goods and services.

PTI contributed to this story.

Business Line ND 23/03/2011 p-9

India equipped to protect over 2 lakh formulations under Traditional Knowledge Digital Library

Our Bureau

New Delhi, March 22

The Union Minister of Science, Technology and Earth Sciences, Mr P.K Bansal, said on Tuesday that India is equipped to protect over 2 lakh formulations under the Traditional Knowledge Digital Library (TKDL).

Traditional knowledge is the information that people in a given community have developed over generations, on the basis of their experience and which is adapted to local culture and environment.

Many countries are struggling to protect their traditional knowledge, against wrongful exploitation, primarily in the pharmaceutical sector. This knowledge is used to sustain the community and its culture, as well as biological resources necessary for the continued survival of the community.

Speaking at an international conference on utilisation of the TKDL as a model for the protection of traditional knowledge, Mr Bansal said,



Preventing bio-piracy: The Union Minister of Science & Technology and Earth Sciences, Mr Pawan Kumar Bansal, with Prof. Samir K Bramachari, Director General, CSIR, at the International Conference on Utilisation of the Traditional Knowledge Digital Library in New Delhi on Tuesday. - Kamal Narang

"Today, India is well equipped to protect 2.26 lakh formulations within a time range of 'days and weeks' and

without any cost." The idea is not to restrict the use of traditional knowledge, but to ensure that wrong patents

are not granted due to lack of access to the prior art for Patent examiners, he said.

India developed this much

needed tool (TKDL) for protection of Traditional knowledge. Over 150 experts in traditional medicine, Information Technology, Intellectual Property Rights and scientists spent almost ten years for this task.

This process began in 2000, when wrong patents granted on the wound healing properties of turmeric by US Patent Office and another on the antifungal property of Neem by the European Patent Office (EPO), came to notice and were later fought and got revoked, Mr Bansal said.

"In the cases of 'Neem' and 'Turmeric', India had to incur huge cost and it took over 10 years to get the 'Neem' patent revoked at EPO," he said.

GLOBALLY ACCEPTED

"TKDL has been embraced by the World Intellectual Property Organisation, the EPO, the US-Patent and Trademark Office and other patent offices worldwide who have found in it a pow-

erful weapon to fight bio-piracy," the Minister said.

The Minister explained that Traditional Knowledge is also the basis of the livelihood of a very large population in the world, in particular, in developing countries. He added that the World Health Organisation has estimated that over 70 per cent of the population is dependent on traditional medicines for their primary health care needs."

Mr Bansal said, "To ensure that that no wrong patent is granted on India's traditional knowledge, the TKDL database converts India's traditional knowledge of Ayurveda, Unani, Siddha and Yoga - originally written in Sanskrit, Arabic, Persian and Tamil - into five international languages makes information understandable to the International Patent Examiners."

"Access to TKDL has been given to several international Patent Offices under a non-disclosure agreement," he added.

Business Line

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Space suit trial

Mars space suit tried in Antarctica

Reuters

Buenos Aires, March 22

A NASA team has tested a space suit in a setting with extreme conditions akin to some of those found on Mars - an Argentine base in Antarctica - for possible use on a visit to the Red Planet.

The NDX-1 space suit, designed by Argentine aerospace engineer Pablo de Leon, endured frigid temperatures and winds of more than 75 kph as researchers tried out techniques for collecting soil samples on Mars.

"This was the first time we took the suit to such an extreme, isolated environment so that if something went wrong we couldn't just go to the store" and buy a repair kit, De Leon told *Reuters* recently after returning from the one week expedition.

The \$100,000-prototype suit, created with NASA funds, is made out of more than 350 materials, including tough honeycomb Kevlar and carbon fibres to reduce its weight without losing resistance.

During the "Mars in Marambio" mission, named after the Argentine air force base, a team of NASA scientists went on simulated spacewalks, operated drills and collected samples while wearing the gear.

Business Standard ND

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Anurag Behar appointed V-C of Azim Premji University

BS REPORTER

Bangalore, 22 March

Azim Premji University, India's first private university set up by Wipro's billionaire chairman to cater exclusively to the education and development sectors, has appointed Anurag Behar as its vice-chancellor.

The university, set up under the aegis of the Azim Premji Foundation which has an outreach of over 22,000 schools and over 2.5 million children in the country, has already announced three courses which will begin from July.

Behar is currently co-CEO of the Foundation. He also leads

the sustainability initiatives of Wipro, including its social initiatives and ecological sustainability initiative. He would continue to hold these positions.

Behar has an MBA in marketing and finance from XLRI, Jamshedpur, and has a degree in electrical engineering from REC, Trichy, now NIT Trichy. He was also recognised by the World Economic Forum as a 'Young Global Leader'.

The university will start functioning from a rented premises near Electronic City on the outskirts of Bangalore. Its own campus, being built near Sarjapur Road, is expected to be ready in the next 18 months.

Times Of India ND

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Now, robots that spy on humans:

In what seems straight out of a science fiction movie, scientists claim to have created a robot which can hide from humans while spying on them. A team at the Lockheed Martin's Advanced Technology Laboratories in the US has developed the "spy robot" which can approach the target building under cover of darkness, taking a zigzag path to avoid well-lit areas and sentries. The robot is fitted with a laser scanner to allow it to map its environment in 3D. It has acoustic sensors which it uses to distinguish nearby footsteps and their direction.

Times Of India ND

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Volcanoes kick-started life on Earth?

Volcanoes and lightning may have provided the vital spark that kick-started life on Earth, a new study has suggested. To come to the conclusion, researchers used modern techniques to re-analyse results from a 1950s experiment – they studied "primordial soup" gas samples created by US prof Stanley Miller in 1958. The researchers discovered a multitude of amino acids, the basic building blocks of life, which can be assembled together to form proteins. In 1953, Miller conducted the famous experiment in which he attempted to recreate the atmospheric conditions present just before life appeared on Earth four billion years ago.

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Genes tweaked, cows will now give 'human milk'

Beijing: Chinese scientists claim to have created a herd of more than 200 cows that is capable of producing milk similar to that of humans.

Genetically modified (GM) dairy products that are similar to human milk will appear on the Chinese market in two years, according to a report in the state-run China Daily.

"The scientists have successfully created a herd of more than 200 cows that is capable of producing milk that contains the characteristics of human milk," Li Ning, director of the State Key Laboratories for AgroBiotechnology at China Agricultural University, told the Daily.

The technology is at the "cutting edge" worldwide and will ensure "healthy protein contained in human milk is affordable for ordinary consumers", he said.

Human milk contains two kinds of nutrition that can help improve the immune and central nervous systems of children. The



e Martin Harvey/Corbis

COWZZAT! The milk, which will be available in two years, will ensure that proteins found in human milk is affordable to ordinary consumers, Chinese scientists say

components are not available in milk produced by goats or cows, he said. "The milk tastes stronger than normal milk. Within 10 years, people will be able to pick up these human-milk-like products at the supermarket." ❧

Publication: The Times Of India Delhi; Date: Mar 23, 2011; Section: International; Page: 21;

Maths model shows religion set for extinction

London: A study using a mathematical model has shown that religion is set to become extinct, as there is a steady rise in those claiming no religious affiliation.

The research team's mathematical model attempts to account for the interplay between the number of religious respondents and the social motives behind being one. The result showed that religion will all but die out in those countries.

Nonlinear dynamics is invoked to explain a wide range of physical phenomena in which a number of factors play a part. One member of the team, Daniel Abrams of Northwestern University, put forth a similar model in 2003 to put a numerical basis behind the decline of lesser-spoken world languages.

At its heart is the competition between speakers of different languages, and the "utility" of speak-



FAITH NO MORE: A new study has found a steady rise in those claiming no religious affiliation

ing one instead of another. "The idea is pretty simple," the

BBC quoted Richard Wiener of the Research Corporation for Science Advancement, as saying.

"It posits that social groups that have more members are going to be more attractive to join, and it posits that social groups have a social status or utility."

"For example, in languages, there can be greater utility or status in speaking Spanish instead of the dying Quechuan in Peru, and similarly there's some kind of status or utility in being a member of a religion or not," he said.

The team took census data stretching back as far as a century from countries in which the census queried religious affiliation: Australia, Canada, the Czech Republic, Finland, Ireland, the Netherlands, New Zealand and Switzerland.

"In a large number of modern secular democracies, there's been a trend that folk are identifying

themselves as non-affiliated with religion," Wiener said.

"In the Netherlands the number was 40%, and the highest we saw was in the Czech Republic, where the number was 60%," Wiener stated. The team then applied their nonlinear dynamics model, adjusting parameters for the relative social and utilitarian merits of membership of the "non-religious" category.

They found that those parameters were similar across all the countries studied, suggesting that similar behaviour drives the mathematics in all of them.

And in all the countries, the indications were that religion was headed toward extinction. "It's a suggestive result. It's interesting that a fairly simple model captures the data, and if those simple ideas are correct, it suggests where this might be going," Wiener said. **ANI**

Publication: The Times Of India Delhi; Date: Mar 23, 2011; Section: Times Business; Page: 25;

GMR boss pledges \$340m for edu

TIMES NEWS NETWORK

Mumbai: GMR Group chairman Grandhi Mallikarjuna Rao, a first-generation entrepreneur hailing from Srikakulam in Andhra Pradesh, on Tuesday pledged \$340 million (Rs 1,540 crore), which is equivalent to his personal share in the infrastructure conglomerate, to improve education among the underserved sections of the society.

The move comes on a day when Warren Buffet, the billionaire chairman of Berkshire Hathaway, arrived on his maiden trip to India to promote philanthropy among the country's richest.

Rao has committed his funds to the group's charitable wing GMR Varalakshmi Foundation, which has a pres-

ence in India and abroad, focuses on education and vocational training for the underprivileged.

The 60-year-old GM Rao, who started as a jute trader three decades ago, went on to create a Rs 5,000-crore enterprise spread across energy, airports and roads. Rao joins the growing list of Indian industrialists who are creating en-

JOY OF GIVING

dowments to support social causes. "I have always believed that we have a responsibility to give back to the society in which we thrive and we owe our success to," Rao said.

Last year, tech czar Azim Premji donated over Rs 8,000 crore by transferring a small part of his stake in Wipro to his foundation focused on improving primary education. Reliance Industries

created a foundation to provide affordable healthcare and meaningful rural development in 2009. India's largest private sector firm set aside Rs 500 crore for this initiative.

Indian billionaires have ramped up their philanthropic work in recent past but still lag their western counterparts. A 2010 Bain & Co report said that India's contribution to charity was just 0.6% of its GDP, while it was 2.2% in the US and 1.3% in the UK.

HCL founder Shiv Nadar gifted Rs 580 crore to his foundation that works to strengthen the country's education framework. While these new-generation entrepreneurs are ploughing back a part of their wealth for the society, traditional conglomerates such as Tatas and Godrejs have gifted some of their holdings to charitable trusts engaged with learning institutes and hospitals.



G M Rao