

Newspaper Clips

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30 तारीख को होगी 'इफेक्टिव स्कूल पेरेंट्स पार्टनरशिप' वर्कशॉप अभिभावकों की दिक्कतें दूर करेगा आईआईटी

नई दिल्ली | कार्यालय संवाददाता

इंडियन इंस्टीट्यूट ऑफ टेक्नोलॉजी (आईआईटी) अभिभावकों को बच्चों की बेहतर शिक्षा और उनके विकास के लिए सार्थक शिक्षा के गुर सिखाएगा। आईआईटी द्वारा अभिभावकों के स्तर पर यह इस तरह का पहला प्रयास है। 30 दिसंबर को होने वाली इस वर्कशॉप में दिल्ली सहित पूरे भारत के स्कूलों को आमंत्रित किया गया है। ज्ञात हो यह वर्कशॉप मुख्य तौर पर आईआईटी की वार्षिक कॉन्फ्रेंस 'एक्सीलेस इन स्कूल एजुकेशन' का एक अहम हिस्सा होगी।

आईआईटी के प्रबंधन अध्ययन विभाग द्वारा आयोजित वर्कशॉप 'इफेक्टिव स्कूल पेरेंट्स पार्टनरशिप' में मुख्य तौर पर छात्रों की बेहतर शिक्षा में अभिभावकों और स्कूल की भागीदारी पर जोर दिया जाएगा। 30 दिसंबर को होने वाली यह वर्कशॉप दोपहर 3 बजे से शाम 6 बजे तक चलेगी। वर्कशॉप के आयोजक हिमांशु ने बताया कि आमतौर पर अभिभावक अपने बच्चों को अच्छे स्कूल में डालने के बाद उसकी पूरी जिम्मेवारी स्कूल की ही मानते हैं। उन्हें

वर्कशॉप के हिस्से

- स्कूल की जिम्मेदारियां
- छात्रों का संपूर्ण विकास
- पाठ्यक्रम से संबंधित उपलब्धियों को प्राप्त करने के लिए जरूरी ससाधन

निःशुल्क होगा रजिस्ट्रेशन

वर्कशॉप में भाग लेने के लिए किसी तरह का कोई रजिस्ट्रेशन शुल्क नहीं देना होगा। इसके लिए इच्छुक अभिभावक www.eduexcellence.org पर जाकर ऑनलाइन रजिस्ट्रेशन करवा सकते हैं।

किसके लिए फायदेमंद

यह वर्कशॉप मुख्य तौर पर चौथी से दसवीं के छात्रों के अभिभावकों के लिए फायदेमंद रहेगी।

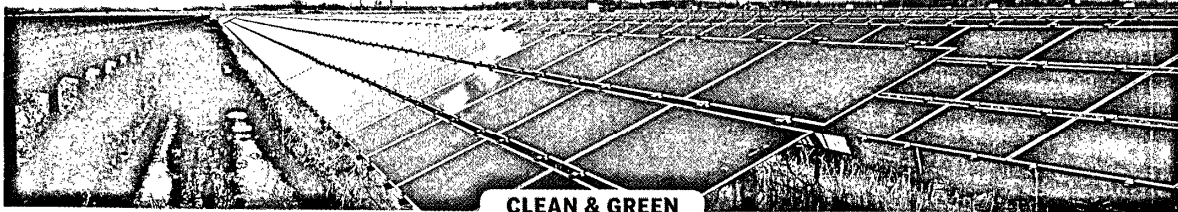
अभी तक स्कूल शिक्षा के क्षेत्र में किसी तरह की औपचारिक ट्रेनिंग नहीं मिल सकी है, लेकिन इस साल यह कॉन्फ्रेंस शिक्षा के क्षेत्र को नए आयाम देने में मददगार रहेगी।

डा. हरीश, प्रोफेसर, प्रबंधन अध्ययन विभाग

लगता है कि स्कूल द्वारा दी जा रही शिक्षा, प्रशिक्षण उनके बच्चे के शैक्षिक विकास के लिए पर्याप्त है, लेकिन वास्तविकता में बच्चे के शैक्षिक विकास के लिए स्कूल के साथ-साथ अभिभावकों का योगदान भी अहम है।

इसके लिए सबसे पहले उन्हें यह समझना जरूरी है कि शिक्षित होने का क्या मतलब है। शिक्षित होने के लिए सिर्फ

स्कूलों में पढ़ाया सिलेबस या परीक्षा की नहीं, बल्कि अभिभावकों द्वारा दी गई सार्थक शिक्षा अहम है। हिमांशु ने बताया कि अक्सर अभिभावकों और बच्चों में संवाद न के बराबर होता है। कोशिश के बावजूद अभिभावक बच्चे की मानसिक स्थिति को नहीं समझ पाते। ऐसे में वर्कशॉप का 'पेरेंटिंग-बाय डिजाइन' सत्र अभिभावकों के लिए फायदेमंद रहेगा।



CLEAN & GREEN

Sudhir Chowdhary

INDIA'S innovations in science and technology are no longer confined to the classrooms of its leading technical and research institutes—Indian Institutes of Technology (IIT), Indian Institute of Science (IISc), among others. Their business incubator programmes are facilitating the conversion of research activity into entrepreneurial ventures. Although entrepreneurial ventures are expanding in a mix of industries, "Going Green" seems to have moved to the top of the agenda, and for good reasons.

While the causes, scope and impact of global climate change remain open to debate, businesses are taking some concrete steps toward operating greener environment. There is now an urgent need—as well as a strong business case—for implementing more environmentally sound systems and processes. Indeed, the youthful and smart computer scientists at these knowledge institutes are perfectly positioned to lead sustainability projects: they understand technology and have outstanding intellect to manage businesses. And with assistance from the incubators—resources, services and counseling for little cost—they are able to give wings to their ideas and strike the right business chord.

These clean-tech start-ups are also ideal for what investors are always yearning for as the next "big idea". The clean technology umbrella extends to any energy, water, transportation, manufacturing or agricultural technology that minimises pollution by making emissions less toxic or cuts down on waste. "Investors are always looking for opportunities that offer promising returns regardless of sector. Of late, very large investors are coming into India's clean technologies sector," says Inderpreet Wadhwa, founder & CEO of Azure Power. He is the first entrepreneur to sell solar power commercially in India and his venture designs, finances, owns, and operates solar power plants (see interview).

Sidhartha Kumar Bhimania, CEO & co-founder of a clean materials company called EnNatura from IIT Delhi, says, "There are quite some good Indian start-

ups with main markets in rural areas. Apart from financial support from the government and seed stage venture capital funds, there has to be market mechanism for taking technologies from labs/start-ups to their relevant markets. It can be match making with large MNCs which can deploy the technology internationally or helping the start-ups with market access in developed markets of the US, European Union and Japan."

EnNatura has developed a resin platform for application in the printing ink industry, allowing for eco-friendly printing along with high-efficiency recycling of printed paper. Offset printing caters to the media, publishing, advertising and packaging industries worldwide. In 2007, offset printing consumed 250 million tonnes of paper and 3 million tonnes of hydrocarbon-based printing inks and chemicals, and worldwide volatile organic compound (VOC) emissions from offset printing totaled nearly 500,000 tonnes. VOC emission are responsible for health problems among workers in the printing industry (bronchitis, asthma, even cancer). They are also highly polluting to the environment, as they cause smog formation and ozone depletion.

THE NEXT BIG WAVE

India's leading technical and research institutes are encouraging entrepreneurship and business innovation in clean-tech by providing the foundation on which creativity can flourish and individuals can succeed



An Initiative by The Financial Express & Emergent Ventures

EnNatura's inks emit zero VOCs, besides enabling high-efficiency recycling of paper printed with its ink. Bhimania says, "We are current selling to close to 10 printing companies and doing trials with 40 others in the national capital region (NCR). We are receiving lots of interest from larger printers and distributors in Mumbai, Bangalore and Hyderabad. We are also going overseas to the US market in next two quarters, where the market is significantly bigger and our value proposition of 'eco-friendly printing inks with lower operating costs' is very favourable."

Another R&D based company set up under Technology Business Incubation Plan of IIT Delhi is INRM Consultants. The company provides innovative cus-

tomised solutions in the area of natural resource management, GIS, remote sensing and integrated database management. "The solutions are made highly user-friendly and interactive using GIS interface," says Sandhya Rao, director, INRM Consultants. It has undertaken a German Development Corp project and the mandate is to prepare a State Action Plan on climate change for Uttar Pradesh, Arunachal Pradesh and Haryana. INRM has also successfully executed a World Bank project—to develop a water balance model of the Ganga basin and its use to better understand hydrologic implications of various current and future scenarios.

IIT Bombay, known as one of the best sources of technology innovation and research excellence in India, was an early adopter of the concept of business incubation in India. The Society for Innovation and Entrepreneurship (SINE) administers a business incubator which provides support for technology based entrepreneurship. Here again, "going green" has moved to the top of entrepreneurship agenda.

A quick snapshot: Sedemac Mechatronics builds control solutions to help internal combustion engines go green.

The company's products are aimed at enhancing the fuel efficiency and power delivery quality, while reducing the exhaust emission from engines in the automotive industry. Bhugol GIS, a geospatial technology company provides a wide range of products and services in the fields of GIS and image processing. Geosyndicate Power aims at promoting the use of non conventional energy mechanisms like geothermal to deliver high efficiency and low cost electricity to the Indian rural and power sectors, thereby containing the pollution levels and giving clean air for millions.

Vision Earthcare (VEC) is a provider of water and waste treatment solutions. Its patented technology is soil biotechnology, developed at IIT Bombay after nearly two decades of research. This uses the ecology of soil media and biological reactions within a constructed bio reactor to treat waste water. This is a giant technological leap forward from the current technologies which rely on the aquatic ecology for treatment. This advance allows VEC to offer an energy efficient, low maintenance, aesthetic water treatment solution.

Down south at the Indian Institute of Science (IISc), the Society for Innovation and Development (SID) is enabling innovations in clean technology. Under the aegis of Sustainable Transformation of Rural Area (SuTRA) programme, a path breaking concept of using non-edible seed oils from Indigenous trees (like Karanj and Neem) as substitute fuel for energy generation has been proved extensively in field condition. The development of a 2.7 megawatt (MW) thermal gasifier system towards commercialisation of bio-mass decentralised energy plants has also been undertaken.

Many venture capital firms are interested in making clean energy investments in India. But one of the problems is that some of these firms face is that they are not able to find enough innovative firms to invest in. Probably, it's time for them to literally go back to the classrooms of India's technical and research institutes, teaming with smart and youthful computer scientists, and awaiting their moment of glory.

CLEAN-TECH GALLERY

INRM Consultants

■ Set up by the faculty and alumnus of IIT Delhi, this R&D based company provides innovative customised solutions in natural resource management, GIS, remote sensing and integrated database management. The solutions are made user-friendly and interactive using GIS interface

EnNatura Technology

■ Spun out of IIT Delhi in 2006, this clean materials company has developed a resin platform for application in the printing ink industry, allowing for eco-friendly printing along with high-efficiency recycling of printed paper

Sunurja

■ A one-stop solar company, it synergises its expertise in energy systems, power electronics, embedded control and monitoring to develop solar panels, solar LED street lights and charge controllers

Advantage Organic Naturals Technologies

■ Incubated at IIT Delhi, the company is a manufacturer of organic garments and skin and body care products. It promotes the use of Green Life Style products and clean technologies with low-carbon footprint

Geosyndicate Power

■ Aims at promoting the use of non conventional energy mechanisms like geothermal to deliver high efficiency and low cost electricity to the Indian rural and power sectors, thereby containing the pollution levels and giving clean air for millions

Sedemac Mechatronics

■ A technology company from IIT Bombay that builds control solutions to help internal combustion engines go green. The company's products enhance the fuel efficiency while reducing the exhaust emission from automotive engines

Vision Earthcare

■ Incubated at IIT Bombay, Vision Earthcare provides water and waste treatment solutions based on its patented soil biotechnology



No Word from Centre on IIM-A Autonomy

PARAG DAVE
AHMEDABAD

The Centre's indecision in approving a new memorandum of association (MoA) of the Indian Institute of Management, Ahmedabad, threatens to push the IIM autonomy issue to the backburner.

IIM-A was the first among four IIMs — Bangalore, Indore and Kozhikode — to prepare a revised MoA and submit it to the human resource development ministry in May. A formal nod is believed to pave way for the institute's functional and financial autonomy and silence on the issue raises a question mark on the much-sought freedom to the IIMs.

IIM-A has been knocking on the ministry doors, but is yet to get a stamp of approval. Its board will now meet on December 23 to decide on disbanding a search committee formed under the MoA in August.

The committee headed by Arvind chairman Sanjay Lalbhai with members like Rama Bijapurkar, Hasit Joshipura, Prafull Anubhai and Kartikeya Sarabhai was formed as per the new MoA to find a successor to Raymond chairman emeritus Vijaypath Singhan

The IIM-A board will now meet on December 23 to decide on disbanding a search committee formed under the MoA in August

nia who completes his five-year as IIM-A chairman in March 2012. The new MoA allows the institute to shortlist three candidates each for the posts of chairman and director, who are currently appointed by the ministry.

"The revised MoA was approved in-principle and we were expecting an approval. We started the process by forming a committee to shortlist candidates for the post of chairman as per the new MoA. Without approval, we are unsure if we should continue with the committee," Samir Barua, IIM-A director, told ET. Last reminder to the ministry was sent a week ago. The IIMs, set up as centres of excellence, have been seeking freedom to appoint own chairmen and directors, decide faculty salary and student fees, sale & purchase of assets, and set up campuses abroad. Set up by the government for imparting management education, the institutes now argue that they have come of age and need minimal government intervention to maintain high standards and compete with global B-schools that may be allowed to set up India campuses.

"We started the process of shortlisting names for the post of chairman. However, the MoA has not been approved till date and therefore, the process is stalled. We can start the process again only if the revised MoA gets approval by the ministry," said a committee member. He added that a government representative demanded that the committee should have representation from central and state government. Gujarat government has already approved the revised MoA of the institute.

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IIT-Kharagpur fest in January

NEW DELHI: IIT-Kharagpur will host its annual four-day techno-management fest, "Kshitij 2012", beginning January 27.

The fest comprises lectures, workshops and fun events. Lectures by co-founder of Wikipedia Larry Wall and Nobel Laureate Sir Anthony James Legget are in the pipeline.

Workshops range from technology to management themes. A magic show by Nigel Mead and acrobatic dunking by the group Dunk Kings have been scheduled. The fest aims to provide a platform to the young to showcase their scientific and technical finesse.

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The Greatest Mystery

The scientific method has its uses, but it's a mistake to apply it to human behaviour

Sunil Khilnani

On a big news week like the last one – US out of Iraq, Britain out of Europe, Europe out of money – one could be forgiven for missing the fact that scientists may just have discovered the secret of what allows the universe to exist. As a leading American cosmologist put it, the identification of the Higgs boson, if borne out, is "perhaps one of the greatest triumphs of the human intellect in recent memory".

After a series of experiments conducted in the world's largest laboratory for subatomic physical research – an underground concrete donut known as the Large Hadron Collider – researchers at CERN in Geneva let it be known that they might be closing in on the nature of the universe. The scientists' formulation was tentative, and their evidence had been gathered by two separate teams of physicists whose experiments were independent of one another. These two distinctions are entirely in keeping with the scientific method and spirit that suffuses the CERN project.

Scientists have pursued the Higgs boson because it taps the root of a fundamental paradox. The more one breaks the material world down into its constituent elements, the more elusive it becomes to pinpoint what it's actually made of. Modern physics tells us that matter consists of infinitesimal particles structured in space. That is, it is empty space as much as particles that create matter. And, when we add up the individual weights of these particles, their collective weight is less than

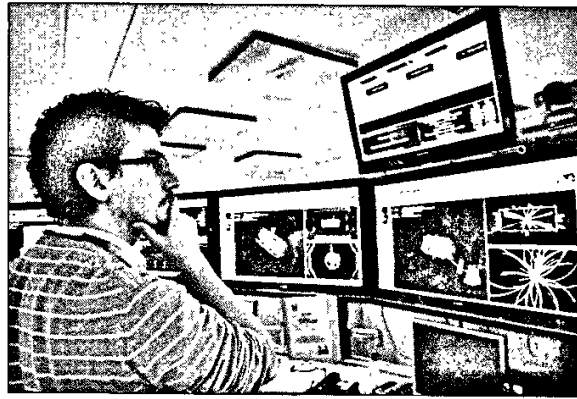
the weight of the atom they comprise. Where, then, does the mass of an object come from? What gives the universe its quiddity?

The Higgs boson takes its name in part from the Indian scientist S N Bose, whose work on quantum physics identified the existence of particles that were, ambiguously, both force and matter in their status. Later, British physicist Peter Higgs postulated that even what we would consider empty space is in fact permeated by a mysterious something – a field always ready to 'resist' the presence of any particles it may encounter, and thus endows them with mass by effectively condensing momentarily around the particles it

One impulse of those who apply the scientific method to human activity is to reduce action, intellection and belief to instrumental functions. Religion and ethics are viewed as serving evolutionary aims

encounters. Without this mass-giving effect, nothing would exist.

The experimental pursuit of the Higgs boson is a vindication of how positive science is supposed to work: through identification of a problem and formulation of a testable theory, repeated experiment and amassing of independently gathered data, and interpretation in light of the theory. This is the scientific method at its modest best, intellectual inquiry as it should be.



A scientist at CERN: Living by the uncertainty principle

Unfortunately, the power of the scientific method – its satisfying promise of certain knowledge – has emboldened many to see it as a universal method, as applicable to humans as the physical world. Some of the most fundamental forms of human creativity and activity – how we use language, our religious beliefs, economic exchange, morality itself – are increasingly studied by means of statistical

models borrowed from a partial understanding of science. Sometimes, significant patterns and shapes are revealed, while other times what's discovered may be more akin to the face a child detects in a cloud formation than a basic causal connection.

One impulse of those who apply the scientific method to human activity is to reduce action, intellection and belief to instru-

mental functions. Religion and ethics, for instance, are viewed as serving evolutionary aims, the mind is seen as essentially a biological system, and ideas become neurological emanations.

The historical irony is rich. From its origins, human civilisation has been driven by an urge to escape the constraints of nature. The scientific method was a human invention designed to understand nature better, precisely so humans could escape its exigencies and expand the realm of their free action. Yet now, the method's intellectual rampage seeks to imprison us within nature – by telling us that any action we believe to be freely chosen is in fact determined and necessitated by nature's purposes.

Thus generalised, scientific method is transformed into scientism: less a predetermined

biological reflex than a superstitious, ideological choice about how to see the world.

Consider the discipline of economics – perhaps the most spectacular example of scientism's imperiousness. An obsession with modelling, market efficiency, individual rational expectations, and with pure technical prowess, has populated financial institutions with experts focussed on narrow imperatives. Certain of their ability to master uncertainty, they have in fact massively proliferated it – and as such bear a large responsibility for the crisis of the global economy.

Admittedly, policy economists are today deeply divided over how to get out of the crisis – some advocate severe austerity, others expansionist spending. But very few indeed have felt any need to examine the recent evidence and seriously question the foundations of their discipline.

Those economists, and all aspirants to scientism, would do well to reflect on the physicists in pursuit of their fundamental particle. If firmly established, the Higgs boson will confirm extant theories of the nature of the physical universe. If the CERN experiment disproves its existence, our view of the universe will be thrown into crisis. Physicists don't seem to shy away from that prospect, and some seem to be almost hoping for evidence that may upend the certainties of our world-picture. That openness to new uncertainty is the part of the scientific method that needs to rampage a little wider.

The writer is director of the India Institute, King's College, London.

OVERSIGHT

Apple logs in to school labs

Schools and institutes switch to tablets to make learning fun for students

M SARASWATHY
Mumbai, 18 December

Wishesh Dokania, grade 1 student of Universal High Malad, loves his Apple iPod. His reasons, "I can play lots of games. It even talks back to me." His father affirms that his son has become more excited about going to school after it went digital. The Universal Education Group (UEG), an educational enterprise based in Mumbai, uses Apple devices in several of its institutes in Maharashtra. UEG schools use iPod Touch and the Apple iPad in primary and lower secondary classes. Approximately 3,000 students across 7 UEG institutions are currently using Apple devices, including iPads that were introduced in June 2010.

Across UEG institutes, every child is handed out an individual iPod or an iPad for a specified time interval in a scheduled manner. Though there is no specific plan to include a wider range of Apple devices, the management clarifies that as number of students grow, additional devices would be added.

For Pragnya Sanghvi, a grade 4 student of Universal School Tardeo, studying now has become a fun activity. "There are lots of interesting games, quizzes that I get to play on my iPad," she says. Her mother quickly adds that she has not become addicted to the iPad. "For her it is just like another learning aid, but a very effective one," says the mother.

Both parents claimed that they were happy to invest in a premium device like iPad that helped their children learn than an affordable solution like Aakash tablet which was introduced by government. Datawind, in collaboration with the students of IIT Rajasthan developed the Aakash tablet, keeping in mind the students' needs. But most private schools are not ready to invest in a subsidised tablet that costs just Rs 1,700 for students.

Students like Sanghvi and Dokania are happy to play and learn from wood-puzzle-style apps on their Apple devices that develop motor skills or ABC PocketPhonics that help

them trace letters, and even Math Bingo app that helps them with basic maths.

Jesus Lall, chairman & CEO of UEG lists, "Our initiative may appear very 'high tech' but the key principle behind it is rather simple — learning outcomes are best achieved when learning is experiential and fun. The idea is to use technology to deliver a fun, engaging & interactive educational experience. If tomorrow some other company came up with a better "means" to reach our "end", we would not hesitate to shift to that company — even if it has a lower perceived premiumness." Lall insists that UEG institutions have seen improvements in communication skills development and fine motor skills development since they began their digital drive.

Most private school opt for a tie up with Apple for educational discounts for other Apple products like the Macbook Pro laptops and iPads which students and parents can avail of.

In Bangalore, 40 teachers of Canadian International School have begun receiving training in the use of instructional technology in the classroom to enhance learning. In this academic year, an iPad-based learning environment will be explored and by August 2012 all students will have iPads. Shweta Sastri, executive director of the school explains,

"Apple products are very conducive to education per say. iTunes U is a powerful distribution system for everything from lectures to language lessons, films to labs, it is an innovative way to get educational content into the hands of students." iTunes U stands for iTunes University which is a platform where some of the leading universities like Stanford, Yale, Oxford have their lectures available for anyone to access.

Even middle and high school education at Mumbai's Podar International School are

ready to move to iPads. In a recent circular dated December 9, the school management informed parents that it has decided to introduce iPad2 in classrooms from the next academic year. iPad2, which starts at about Rs 30,000, will be introduced to students between Standard VI and XII of Podar International School.

Delhi Public School, Surat, is yet another institution that stands by the Apple devices. Principal G R Sivakumar says, "I have personally used an Apple iPhone, iPad and can vouch for their usefulness. Nearly 100 teachers of the school use iPad 2 as a self-improvement device. There is a primary tech centre on our campus where 40 iPads are used by our students of primary and pre-primary classes. We also have iMacs for senior students at our Apple Creation

Centre (school lab). We plan to add more devices by next year."

While schools are using Apple devices to generate interest among their young students, smaller post graduate colleges too have realised the benefits of doling out premium tablet PCs to their students. At the Acharya Institute of Management Studies, while professors discuss management theories, students do not scribble notes. To revise the lessons learnt, students can just access recorded lectures on their iPads.

Debayan Chakraborty from the institutes' MBA course says, "The iPad gives me a lot of advantages in my studies. The iBooks (Apple's free online digital library) app allows us to group study with my friends through FaceTime (video chat facility on iPads). The smoothness and sophistication of the device is awesome."

Priyanandan Reddy, Chief Operating Officer of Acharya Institute of Management Studies, says, "Apple products are expensive, but in the long term we tend to save costs with respect to electricity consumption, licences. Apple products are a part of our digital initiative, as we would be looking also to deploying a Learning Management System (LMS) soon." The institute has given iPads to 1st year students of MBA, PGDM, and BBM on pilot basis, apart from investing in 20 Apple iMacs.

With inputs from Priyanka Joshi



HI-TECH LEARNING Schools have seen improvements in communication skill development and fine motor skill development of their students since they began their digital drive. BS PHOTO