Newspaper Clips

October 9, 2013

Printed from
THE TIMES OF INDIA

IIT-Kharagpur lends cutting edge to the cuppa

Sovon Manna, TNN | Oct 9, 2013, 07.21 AM IST

KOLKATA: Your morning cuppa is set to get a fresh zing, thanks to a new technology for tea production developed after four years' research by the Indian Institute of Technology, Kharagpur. What's more, tea produced through this new low-cost technology will not only bring smiles to the faces of tea drinkers, but growers as well, especially small players who will now have a more level playing field with the big players in the industry.

A team of scientists led by Prof Bijoy Chandra Ghosh of IIT-Kgp's agricultural and food engineering department has designed and developed a mini CTC (crush, tear and curl) manufacturing process. In August this year, the prototype was successfully tested and validated at the North Bengal Regional R&D Centre of Tea Research Association in the presence of Tea Board experts, scientists and big and small tea producers.

"With this series of non-polluting technologies, we have cut down on space requirement, energy consumption and overall production cost in each step of a conventional tea processing—withering, maceration, rolling, fermentation and drying. We have built a circular withering trough that can save 60% space and consumes less energy than the conventional one. Ditto for our new single-cut horizontal macerator prototype. Overall, we will be able to reduce cost, space and energy using the new machines," said Ghosh who, along with colleagues B Maiti, E V Thomas and others had embarked on the project in 2008. The Tea Board of India had approached IIT-Kgp with Rs 3.66 crore funding to develop low-cost next-generation machines that would reduce cost of tea production drastically to save the industry.

"In the new model," revealed Dilip Kumar Kushwaha, project scientist, IIT-Kgp, "the fermentation process has been standardized to control parameters like temperature and relative humidity for producing high quality tea. We are also working on the drying process to get high quality tea with small capacity machine suitable for small tea growers."

The new micro CTC machine can process 200 kg of green leaves per hour. According to Kushwaha, with the help of new machines, small growers can now produce quality CTC tea by controlling the size and shape of the tea grains. "About Rs 5 crore is needed to set up a conventional tea processing unit that requires to be handled by 20 to 25 people. But this same unit will cost Rs 25 lakh and can handle 1000-3000 kg of fresh tea leaves a day. The new model can be set up on 5-6 kottah plots and require just three to four handlers," said Bijoy Gopal Chakraborty, president of Cista, a small tea growers' body. Currently, India has over two lakh small tea growers - those with less than 25 acres of plantation - who account for 35% of the country's total tea output.

ITB to facilitate micro factories under STG's ownership

Debasis Sarkar, ET Bureau Oct 7, 2013, 05.02PM IST

Tags: STG | ITB | IIT Kharagpur | CISTA

SILIGURI: This may be a boon for the small tea growers (STG), almost 100% dependent on other's factories to process their green leaf yield. IIT Kharagpur has developed a small factory prototype suitable for STGs that can be installed at one tenth cost of usual factories. Indian Tea Board(ITB) has decided to provide high subsidy to STG's to set up this factory.

"It is a landmark development and we welcome this," said Bijoy Gopal Chakroborty, President of Confederation of Indian Small Tea Growers Associations (CISTA). Against a proposal of CISTA, the Indian Tea Board has decided in its 224 th board meeting to provide 40% subsidy to the STGs intending to set this tiny factories.

As per ITB estimation, STGs contribute 35% to the total national green leaf production. With holding of maximum 10 ha of land, a STG can produces 1 lakh kg green leaf per annum. This translates to near 22,000kg of made tea per anum. But, this volume cannot justify a usual factory of 2.5 lakh kg annual made tea capacity with a need of minimum Rs 5 crore of investment. Naturally, the STG's remain dependent on other's factories.

In order to make the system friendlier to STGs, ITB funded the Tea Research Centre under the Agricultural and Food Engineering Department in IIT Kharagpur to design and develop a small tea factory. That has finally taken birth after four years of research. With 1/10th processing capacity of usual factories, this factory needs around Rs 40 lakh investment. It has capacity of producing around 20000 to 25000 Kg made tea per anum.

As decided, Indian Tea Board will provide 40% subsidy on actual establishment cost of this factory. In addition, with fast growing nationwide network, Small Growers Directorate under ITB will extend technical support and monitoring to all these mini and micro tea factories under the ownership of STGs.

However, "We want ITB to remain strict on keeping these factories restricted under true ownership of STGs only. Otherwise, purpose of the whole exercise will get lost," said Chakroborty.

Publication: The Times Of India Delhi;Date: Oct 9, 2013;Section: Times Global;Page: 24;

e-paper

Physics Nobel for 'God particle' experts

Peter Higgs And Francois Englert Who Predicted The Existence Of Higgs Boson Honoured

Kounteya Sinha | TNN

Stockholm: British scientist Peter Higgs, who proposed the existence of the Higgs boson or 'God Particle', has won the 2013 Nobel Prize for Physics along with Belgian physicist Francois Englert.

Englert (80) had come up with his theories about how particles acquire mass with his now deceased colleague, Robert Brout, in 1964, weeks before Higgs spoke of the Higgs Particle.

The Royal Swedish Academy of Sciences (RSAS) jury said they got the prize "for the theoretical discovery of a mechanism that contributes to our understanding of the origin of mass of subatomic particles, and which recently was confirmed through the discovery of the predicted fundamental particle."

The announcement was highly anticipated as the discovery of a so called Higgs Particle at Scientists at the European Organization for Nuclear Research (Cern) laboratory outside Geneva in 2012 had confirmed the ideas of Englert and Higgs.

RSAS permanent secretary Staffan Normark said the prize was being given for something very small, but which makes all the difference. The two scientists never met till July 4, 2012 when Cern confirmed their discovery. "When I meet him, I will congratulate him for this brilliant and important work," Englert told TOI.

Normark said they unsuccessfully tried to reach elusive and shy Higgs (84) several times. "We have not been able to reach Higgs. Of all the numbers we tried, he didn't answer any. However, we are informing him he has won the Nobel," he said.

Later, Higgs issued a statement saying he was overwhelmed. "I hope this recognition of fundamental science will help raise awareness of the value of blue-sky research."

Indian scientist Tejinder Virdee, who worked at Cern, said it was wonderful the contribution of the two has been recognized. He said their theoretical work launched a momentous scientific endeavor. "The 2012 discovery of a Higgs Boson at the Large Hadron Collider (LHC) has been a major breakthrough for science and opens an exciting era for particle physics."

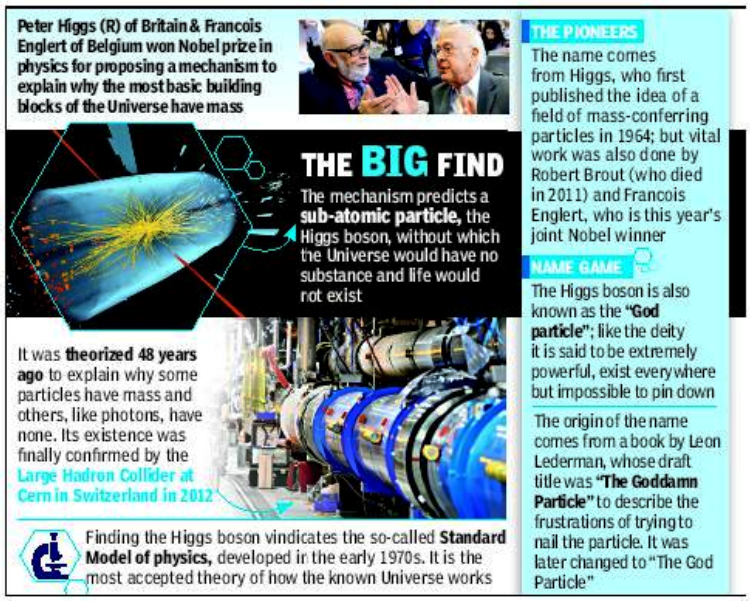
The RSAS said the awarded theory is a central part of the Standard Model of particle physics that describes how the world is constructed.

According to the model, everything, from flowers and people to stars and planets, consists of just a few building blocks: matter particles. These particles are governed by forces mediated by force particles that make sure everything works as it should.

The entire model also rests on the existence of the Higgs Particle. This particle originates from an invisible field that fills up all space. Even when the universe seems empty this field is there. Without it, we would not exist, because it is from contact with the field that particles acquire mass.

The theory proposed by Englert and Higgs describes this entire process. Cern's particle collider, LHC, is probably the largest and the most complex machine ever constructed by humans.

Two research groups of some 3,000 scientists each, ATLAS and CMS, managed to extract the Higgs particle from billions of particle collisions in the LHC.



Publication: The Times Of India Delhi;Date: Oct 9, 2013;Section: International;Page: 23;

e-paper

Today's youth not as digitally native as we think

Globally, Only 30% Of People In The 15-24 Age Group Have Spent At Least 5 Yrs Actively Using Internet: Study

Eric Pfanner

Everyone knows young people these days are born with smartphones in hand and will stay glued to the internet from that time onward. Right? Well, not quite. Actually, fewer than one-third of young people around the world are "digital natives," according to a report published on Monday and billed as the first comprehensive global look at the phenomenon.

The study, conducted by the Georgia Institute of Technology and the International Telecommunication Union, shows that only 30% of people ages 15 to 24 have spent at least five years actively using the internet, the criterion used to define digital nativism.

In many developed countries, more than 90% of young people are considered digital natives, with South Korea leading the way at 99.6%. But many developing countries lag far behind — all the way down to the Pacific island of Timor-Leste, where a mere 0.6% of 15- to-24-year-olds are digital natives.

A digital divide between rich and poor is nothing new, but the new study identifies an interesting twist on the phenomenon. It shows that in the developed world, there is hardly any generational gap anymore between internet users. Most people in wealthy countries are online — more than 84% of the total adult population, both young and old, in South Korea, for example. Yet there is a very real generation gap in many developing countries.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DIGITAL DIVIDE: In South Korea, 99.6% of the young people are 'digital natives', while in the Pacific island of Timor-Leste it is 0.6%

In countries like Burundi, Eritrea and Timor-Leste, young people are nearly three times more likely to be internet users than the overall adult population. In many other African, Asian and Latin American countries, the divide between digital natives and the rest of the population is also far more significant than in the developed world.

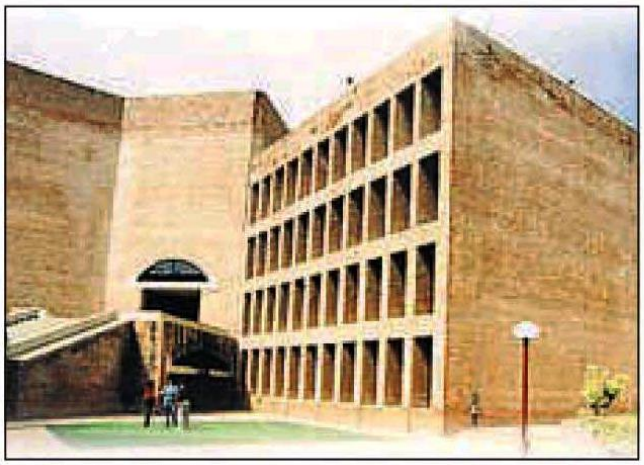
Michael Best, a Georgia Tech professor who coordinated the study, said the findings highlighted a paradox about the concept of digital natives, a term that is often bandied about for marketing purposes. The supposed distinction between always-on members of the millennial generation and their older counterparts is actually much less pronounced in industrial nations than elsewhere in the world.

"Everyone's fascination with digital nativism in the US or, say, Scandinavia is fine, but the places where this phenomenon probably has the most impact is low-income countries in Africa or Asia," Best said. "The places where it is most salient are those where the least amount of attention has been paid to it."

There are also striking differences among developing countries. Malaysia, for example, fares well even against many wealthier countries — 75% of 15- to-24-year-olds are digital natives. As a percentage of the total population, 13.4% of Malaysians are digital natives. Malaysia ranks fourth, behind Iceland, New Zealand and South Korea, on this measure, which the study suggests will be an important determinant of a country's future potential to take advantage of the economic, political and cultural opportunities of net use.

A variety of factors, including demographics, contribute to a higher percentage of digital natives; a country with a booming young population might have more digital natives than a country with older demographics, even if more people overall are online in the "older" country. In Japan, for example, 99.5% of 15- to 24-year-olds are digital natives, but this equates to only 9.6% of the total population, putting Japan in 47th place by this measure. NYT NEWS SERVICE

Talk business with IIM Ahmedabad professors



The IIM-Ahmedabad campus

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You no longer need to crack the CAT and ace intensive interviews to interact in real time with professors from the Indian Institute of Management, Ahmedabad (IIM-A). As part of a new initiative called FacConnect, the institute opens virtual windows to the public, once a month.

Launched in August, FacConnect has had two sessions so far. The first session, on August 3, saw over 500 registrations, of which five entries were selected.

Professors speak personally to the five people selected about a pre-decided management topic, using Google Hangout, a video-conferencing social media application. The interaction lasts about half an hour. During this session, the students ask the professor questions that are related to the topic, and seek expert advice on management and business administration. A video of this session is then uploaded to YouTube, open for all viewers.

To apply, candidates have to write an essay and answer a few questions that are related to the topics chosen for the month.

Past topics include determining success metrics in social media marketing, the effectiveness of social media in B2B marketing, competitive advantages of social media for small businesses, macro-economics and whether price discrimination is ethical.

"This initiative will provide an opportunity for outsiders to interact and discuss issues and relevant topics with (our) reputed faculty for about 35-40minutes," says Sarthak Phadke, media cell secretary, IIM-A.

"I think this is a great initiative," says Shivam Goel, 20, currently pursuing BCom (final year), St Xavier's College, Jaipur, one of the selected students. "It gave me the opportunity to discuss the role of social media in marketing with Dheeraj Sharma, a professor at IIM-A. This interaction gave me important insights into this field."

The entries received have been not only from students, but from working professionals, retired employees and professors from other institutes too.

The next edition of FacConnect will be finalised soon. Details of the same will be posted on its official online channels. For more information, check https://www.facebook.com/pages/IIM-Ahmedabad/110240975666121.

US-bound Indian students top in studies, behind in money

Bhavya Dore
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MUMBAI: Indian students seeking to study in the US are financially not well off when compared to students from China and Saudi Arabia, two other countries that have large number of students going to the US, according to a new report.

This appears to be largely driven by the falling Indian rupee. The rupee touched its lowest ebb against the dollar in August, falling to 68.85, but has since mounted a recovery.

The report, prepared by World Education Services, a New-York based non-profit organisation specialising in international education and research, was released on Tuesday.

GLOBAL STUDY

The report, titled "Student Segmentation for an Effective International Enrollment Strategy", surveyed 2,992 students seeking to study in the US. The online study included 583 respondents from India. Responses were collected between October 2012 and March 2013.

According to the report, 47% Indian students listed loans as one of two primary funding sources for financing their education in the US. In comparison, only 3% Chinese and 2% Saudi students listed loans as a funding source. Also, 32% Indians hoped for financial aid from institutions as against 21% Chinese and 10% Saudis.

"This aligns with middle class aspirations of many Indian students who have to rely on loans to fund their studies abroad as compared to funding from family in the case of Chinese or government in the case of Saudis," said Rahul Choudaha, director, research and strategic development at WES, by email.

However, when it comes to academics, Indian students are stronger, with 74% found to be "high in academic preparedness" compared to China (51%) and Saudi (43%). "Their comparatively robust English language capabilities make them attractive to institutions that do not have the resources or infrastructure to fully support English language learners," the report said.